

Heatcraft Worldwide Refrigeration (HWR) is the worldwide specialist for refrigeration and heat transfer solutions and a member of the Lennox International Inc (LII) group. Quoted on the New York stock exchange, LII, through its subsidiaries, is a leading provider of climate control solutions for the heating, air conditioning, refrigeration, cogeneration and power technology markets around the world. Friga-Bohn is one of the leading brands of Heatcraft Worldwide Refrigeration.

The Friga-Bohn brand, well-known also on Polish market for many years, is valued by customers and installers. Friga-Bohn units are produced in three factories and are supported by five technical departments located in Europe. The brand is owned by HEATCRAFT Refrigeration, so its distributive net covers most continents.

Due to number of solutions for low and medium temperature refrigeration, as well as for commercial and industrial air conditioning, it has wide range of possibilities and practical application, specifically:

- **Shops:** offering split systems and heat exchangers used in refrigerators, as well as in small cold rooms
- **Hotels and bars:** producing small-sized refrigerating systems, which allow quick installation and featured by low noise operation
- **Production rooms:** holding solutions which allow to maintain appropriate hygiene level and required comfort of working groups,
- **Food preservation and storage:** developing heat exchangers which enable to maintain specific climate conditions for stored products
- **Technological lines:** designing solutions for the processes of cooling and freezing in continuous production lines

The efforts for high quality of offered products are crowned with a number of certificates and technical approvals (EUROVENT, ISO 9001-V2000, GOST, RoSH-WEE, PED, CE).

[HTTP://WWW.FRIGA-BOHN.COM](http://www.friga-bohn.com)
[HTTP://WWW.ASTECH-VN.COM](http://www.astech-vn.com)

Model Capacity

SKB 06 R	¹⁾ 7.62 kW
SKB 10 R	¹⁾ 13.17 kW
SKB 12 R	¹⁾ 15.77 kW
SKB 16 R	¹⁾ 19.87 kW
SKB 19 R	¹⁾ 23.51 kW
SKB 24 R	¹⁾ 30.48 kW
SKB 06 L	¹⁾ 6.56 kW
SKB 09 L	¹⁾ 10.42 kW
SKB 11 L	¹⁾ 13.43 kW
SKB 14 L	¹⁾ 15.54 kW
SKB 18 L	¹⁾ 20.14 kW
SKB 22 L	¹⁾ 25.92 kW
SKB 06 E	²⁾ 6.15 kW
SKB 09 E	²⁾ 10.11 kW
SKB 11 E	²⁾ 12.56 kW
SKB 13 E	²⁾ 15.29 kW
SKB 16 E	²⁾ 18.95 kW
SKB 21 E	²⁾ 23.47 kW
SKB 05 C	²⁾ 5.24 kW
SKB 08 C	²⁾ 8.05 kW
SKB 10 C	²⁾ 10.65 kW
SKB 12 C	²⁾ 12.38 kW
SKB 15 C	²⁾ 16.09 kW
SKB 19 C	²⁾ 20.17 kW

Friga-Bohn SKB



Series features

- 24 models with cooling capacity:
 - ¹⁾ from 6,56 kW to 30,48 kW (in $t_a=0^{\circ}\text{C}$, $\text{TD}=8\text{K}$ for R404A)
 - ²⁾ from 5,24 kW to 23,47 kW (in $t_a=-18^{\circ}\text{C}$, $\text{TD}=7\text{K}$ for R404A)

Coil

- corrugated aluminum fins
- fin spacing - (R, E) 4,23 mm or (L, C) 6,35 mm
- grooved copper tubes

Fans

- fan speed - 1500 min^{-1}
- from 1 to 4 fans of diameter 450 mm
- fan power supply- (400V/3/50Hz)

Defrost

- electrical heaters ELK - 2,1 kW to 7,2 kW
- electrical heaters E1K - 1,05 kW to 3,6 kW
- for SKB..R/L - ELK (optional) and E1K (optional)
- for SKB..E/C - ELK (standard) and E1K (optional)

Application

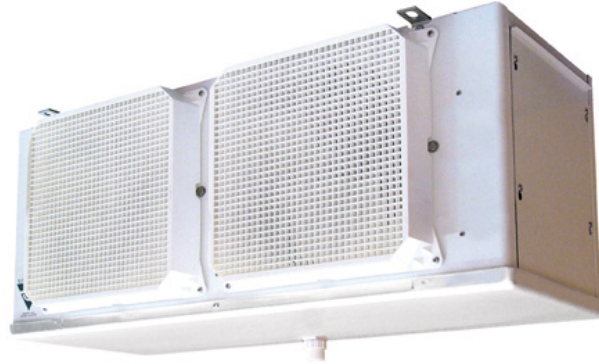
- freezing and low temperature storage rooms
- SKB .. R/L medium temperatures (from $+10^{\circ}\text{C}$ to $+2^{\circ}\text{C}$)

Model Capacity

MUC 145 R	¹⁾ 1.85 kW
MUC 200 R	¹⁾ 2.31 kW
MUC 285 R	¹⁾ 3.48 kW
MUC 320 R	¹⁾ 3.83 kW
MUC 420 R	¹⁾ 4.94 kW
MUC 520 R	¹⁾ 5.89 kW
MUC 620 R	¹⁾ 7.17 kW
MUC 640 R	¹⁾ 8.23 kW
MUC 660 R	¹⁾ 9.56 kW
MUC 670 R	¹⁾ 10.89 kW
MUC 780 R	¹⁾ 12.01 kW
MUC 960 R	¹⁾ 13.67 kW
MUC 140 L	¹⁾ 1.70 kW
MUC 195 L	¹⁾ 2.07 kW
MUC 280 L	¹⁾ 3.17 kW
MUC 315 L	¹⁾ 3.46 kW
MUC 415 L	¹⁾ 4.52 kW
MUC 515 L	¹⁾ 5.49 kW
MUC 615 L	¹⁾ 6.42 kW
MUC 635 L	¹⁾ 6.89 kW
MUC 655 L	¹⁾ 7.41 kW
MUC 665 L	¹⁾ 9.00 kW
MUC 775 L	¹⁾ 10.61 kW

Friga-Bohn MUC

Series features



- ceiling evaporators
- 24 models with cooling capacity from 1,70 kW to 13,67 kW
¹⁾(in $t_a = 0\text{ }^\circ\text{C}$, $TD=8\text{K}$ for R404A)

Coil

- corrugated aluminum fins
- fin spacing - (R) 4,23 mm or (L) 6,35 mm
- grooved copper tubes

Fans

- fan speed - 1500 min^{-1}
- from 1 to 4 fans of diameter 300, 400 and 450 mm
- fan power supply- 230V/1/50Hz (350 mm)
and 400V/3/50Hz (400 mm and 450 mm)

Defrost (optional)

- heater power from 420 W to 1,86 kW (230V/1/50Hz) and from 1,74 kW to 3,48 kW (400/3/50Hz)
- electric defrost (E1K) or gas (HG1)

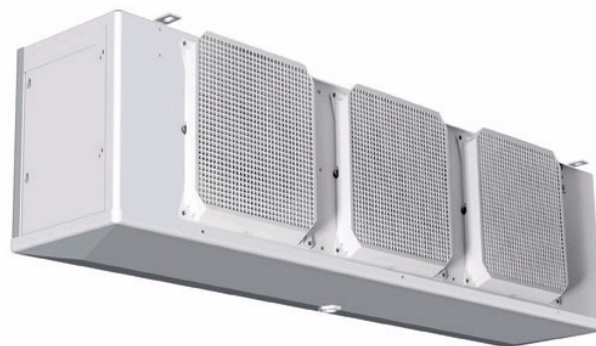
Application

- medium temperature storage rooms in range $+2\text{ }^\circ\text{C}$ to $-5\text{ }^\circ\text{C}$

Model Capacity

LUC 155 E	¹⁾ 1.42 kW
LUC 210 E	¹⁾ 1.84 kW
LUC 295 E	¹⁾ 2.69 kW
LUC 350 E	¹⁾ 3.03 kW
LUC 440 E	¹⁾ 3.96 kW
LUC 550 E	¹⁾ 4.86 kW
LUC 650 E	¹⁾ 5.68 kW
LUC 700 E	¹⁾ 6.92 kW
LUC 710 E	¹⁾ 7.51 kW
LUC 720 E	¹⁾ 8.47 kW
LUC 840 E	¹⁾ 9.24 kW
LUC 1030 E	¹⁾ 10.60 kW
LUC 150 C	¹⁾ 1.30 kW
LUC 205 C	¹⁾ 1.67 kW
LUC 290 C	¹⁾ 2.48 kW
LUC 345 C	¹⁾ 2.78 kW
LUC 435 C	¹⁾ 3.58 kW
LUC 545 C	¹⁾ 4.39 kW
LUC 645 C	¹⁾ 5.17 kW
LUC 695 C	¹⁾ 5.68 kW
LUC 705 C	¹⁾ 6.21 kW
LUC 715 C	¹⁾ 7.08 kW
LUC 835 C	¹⁾ 8.38 kW
LUC 1025 C	¹⁾ 9.64 kW

Friga-Bohn LUC



Series features

- ceiling evaporators
- 24 models with cooling capacity from 1,3 kW to 10,6 kW
¹⁾(in $t_a = -18\text{ }^\circ\text{C}$, $TD=7\text{K}$ for R404A)

Coil

- corrugated aluminum fins
- fin spacing - (E) 4,23 mm or (C) 6,35 mm
- grooved copper tubes

Fans

- fan speed - 1500 min^{-1}
- from 1 to 4 fans of diameter 300, 400 and 450 mm
- fan power supply- 230V/1/50Hz (350 mm)
and 400V/3/50Hz (400 mm and 450 mm)

Defrost

- heater power from 1,3 kW to 2,15 kW (230V/1/50Hz) and from 3 kW to 8,46 kW (400/3/50Hz)
- power supply 230V/1/50Hz or 400V/3/50Hz
- gas defrost (HG1) (optional)

Application

- freezing and low temperature storage rooms
- low temperatures (from $-10\text{ }^\circ\text{C}$ to $-25\text{ }^\circ\text{C}$)

Model Capacity

TA 1 R 4P	¹⁾ 5.20 kW
TA 2 R 4P	¹⁾ 7.97 kW
TA 3 R 4P	¹⁾ 9.87 kW
TA 4 R 4P	¹⁾ 10.78 kW
TA 5 R 4P	¹⁾ 14.97 kW
TA 6 R 4P	¹⁾ 18.34 kW
TA 7 R 4P	¹⁾ 21.86 kW
TA 1 L 4P	¹⁾ 4.48 kW
TA 2 L 4P	¹⁾ 7.30 kW
TA 3 L 4P	¹⁾ 8.53 kW
TA 4 L 4P	¹⁾ 9.27 kW
TA 5 L 4P	¹⁾ 10.26 kW
TA 6 L 4P	¹⁾ 14.92 kW
TA 7 L 4P	¹⁾ 18.84 kW
TA 1 R 6P	¹⁾ 3.93 kW
TA 2 R 6P	¹⁾ 6.09 kW
TA 3 R 6P	¹⁾ 7.46 kW
TA 4 R 6P	¹⁾ 8.06 kW
TA 5 R 6P	¹⁾ 11.26 kW
TA 6 R 6P	¹⁾ 13.21 kW
TA 7 R 6P	¹⁾ 16.32 kW
TA 1 L 6P	¹⁾ 3.65 kW
TA 2 L 6P	¹⁾ 5.72 kW

Friga-Bohn TA



features

- dual discharge ceiling evaporators
- 40 models with cooling capacity from 2 kW to 12,81 kW
¹⁾(in $t_a = 0\text{ }^\circ\text{C}$, $TD=8\text{K}$ for R404A)

Coil

- corrugated aluminum fins
- fin spacing - (R) 3,63 mm or (L) 6,35 mm
- grooved copper tubes

Fans

- fan speeds:
4 pools - 1500 min^{-1} ; 6 pools - 1000 min^{-1} , 8 pools - 750 min^{-1}
- from 1 to 4 fans of diameter 350 mm;
- fan power supply- 230V/1/50Hz

Defrost (optional)

- heater power from 800 W to 3,2 kW (230V/1/50Hz)
- electric defrost (E1K) or gas (HG1)

Application

- small cold rooms, meat processing rooms, laboratories etc.
- high temperatures (from $+15\text{ }^\circ\text{C}$ to $+10\text{ }^\circ\text{C}$)
- medium temp.(from $+10\text{ }^\circ\text{C}$ to $-1\text{ }^\circ\text{C}$) (with defrost)

Model Capacity

NFT 280	¹⁾ 43.50 kW
NFT 401	¹⁾ 64.30 kW
NFT 507	¹⁾ 82.90 kW
NFT 676	¹⁾ 109.30 kW
NFT 802	¹⁾ 129.60 kW

Friga-Bohn NF



Series features

- Evaporators designed for freezeng tunnels and blast chilling
- 5 models with cooling capacity from 43,5 kW to 129,6 kW
¹⁾ (in $t_a=-18^{\circ}\text{C}$, $\text{TD}=7\text{K}$ for R404A)

Coil

- aluminium fins
- fin spacing - 9 mm

Fans

- from 2 to 6 fans of diameter 710 mm
- Fan RPM 1500 min^{-1}
- fan power supply - 400V/3/50Hz

Defrost

- electric, water or hot-gas defrost
- Heater power supply - 400V/3/50Hz

Application

- Freezeng tunnels
- Blast chilling tunnels

Model Capacity

SPLIT SYSTEM MAXICLIMA H	(Chiller) R404A, Room=2oC, DT1=8
P23A/ M315L	3750W – 35m3
P26A/ M415L	4560W – 40m3
P33A/ M515L	5960W – 55m3
P41A/ M615L	7860W – 70m3
P53A/ M775L	9500W – 85m3
P66A/ M775L	12410W – 120m3
P83A/ M955L	13960W – 140m3
	(freezer)
SPLIT SYSTEM MAXICLIMA H	R404A, Room=-20oC, DT1=8
N24A/L290C	1970W – 25m3
N34A/ L345C	2930W – 40m3
N42A/ L545	4260W – 65m3
N73A/ L835	6110W – 120m3
N84A/ L835C	8280W – 200m3
	(freezer)
SPLIT SYSTEM MAXICLIMA SH	R404A, Room=-20oC, DT1=8
N34A/ L345C	3470W – 40m3
N42A/ L545	4420W – 65m3
N73A/ L835	6500W – 120m3

Friga-Bohn MAXICLIMA

Series features

- The **MAXICLIMMA** split system line covers the 5 most common commercial refrigeration applications from cutting and preparation halls to positive and negative cold rooms up to 400m3

Chiller : R404A, Room=2oC, DT1=8

Freezer : R404A, Room=-20oC, DT1=7

: Ambients temp: 32oC

Regulation

- Electronic regulation
- Defrost contro
- Light control
- Display and transfer of alarms
- thermal protections

Application

Cover all type Commercial Refrigeration/ Cold room refrigerants R22, R134a, R404A/R507, R407C



Model Capacity

MEGA SH P	(Chiller) Room=20C,
80A	11.55kw
85A	15.69kw
100A	19.03kw
170A	24.42kw
200A	30.29kw
250A	36.40kw
300A	47.49kw
350A	56.02kw
400A	62.85kw
500A	71.79kw
MEGA H P	(Chiller) Room=20C,
80A	12.76kw
85A	16.66kw
100A	20.85kw
MEGA SH N	(freezer) Room=-20C,
55A	4.32kw
85A	5.01kw
105A	7.55kw
155A	10.47kw
205A	12.25kw
255A	14.56kw
305A	19.12kw

Friga-Bohn MEGA

Series features

single-compressors, condensing units offers the user the possibility to select from three different types of compressors technology, as well as an oversizer condenser model for hot countries.

Chiller : Te=-10oC
Low temp : Te=-35oC

H: compressors Hermetic; SH: compressors Hermetic; P: Chiller range;
N: Low temperature range

- 53 models in series
- cooling capacity from 3 kW to 32 kW
- based on semi-hermetic/hermetic compressors
- one phase fans of diameter 300, 350 or 400 mm or three phase of diameter 450 or 500 mm
- air flow from 1700 m³/h to 20800 m³/h

Optional equipment

- compressor crankcase heater
- electronic oil pressure switch for compressors with oil pump
- NC/WC pressure switch
- electrical box (IP 55)
- thermal protections

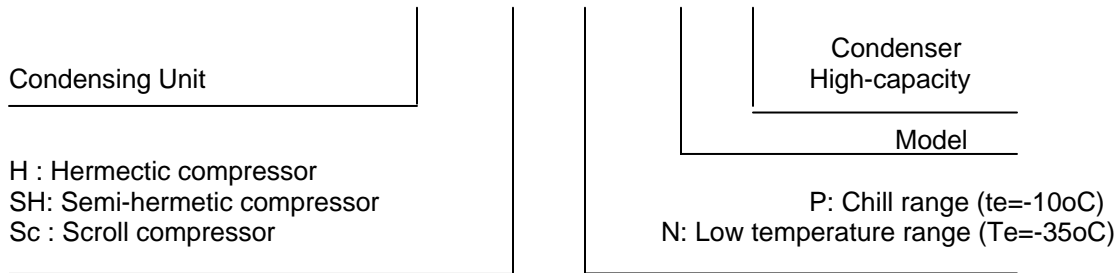
Application

Cover all type Commercial Refrigeration: refrigerants R22, R134a, R404A/R507, R407C



The new generation of MEGA single-compressor,condensing units offers the user the possibility to select from three different types of compressor technology, as well as an oversize condenser model for hot countries. The power range from 3 to 72 Kw covers all types of commercial refrigeration applications.

MEGA SH P 85A S



DESCRIPTION TYPOLOGY OF MODELS

Select for each model:

- The Compressor technology
 - H (Hermetic pistons)
 - or SH (Semi-Hermetic pistins)
 - or Sc (Scroll)
- The condenser unit,
 - standard
 - or S (oversize), for ambient temperatures up to 43oC.

CASING

- The rigid, thick sheet metal casing helps limit transmisson of vibrations
- The casing option (CAR) enables outdoor installation.

CONDENSER

- 1 to 4 fans depending on the modes.

COMPRESSOR

- A choice between the hermetic piston compressor, semi-hermetic piston compressor or Scrol compressor
- In all cases, the following are supplied:suction and discharge valves, crankcase heater and oil level indicator.

RECEIVER

- The receiver is supplied with a discharge valve, as well as a safety valve (receiver > or = 11.1)
- The plant and the unit cooler may be up to 25 meters apart.

REGULATION AND SAFETY

- LP regulation and HP safety are provided with factory-set pressure switches.
- The semi-hermetic piston compressor models are equipped with an oil differential pressyre switch.

WIRING

- Wiring connections are made in a junction box

MISCELLANEOUS

MAN	HP and LP manometers	ARM	Electrical switching cabinet with a main circuit breaker
VFA	Suction valve + filter		(compressor and condenser protection)
BAC	Suction accumulator	RIS	Oversized receiver.
SHU	Oil separator	RPC	Condensation pressure regulation.
CAR	Pre-painted galvanised sheet metal casing.	LIQ	Liquid line with dryer filter, hygroscopic indicator and shut-off valve.
CAC	Additional casing strap: models H and Sc only		
EVL	Solenoid valve (not fitted)		