GREEN BOX

FREE - COOLERS FCE-90
GLYCOL FREE

The new range is also available as GLYCOL-FREE version, corresponding to self-draining models FCE-90, ranging from 480 to 1400 kW

FCE-90 free-coolers provide a reliable and efficient operation without any necessity for glycol use.
The special design of pipes and manifolds guarantees quick and complete water drain in case of pump failure or black out, thus preventing damages due to water freezing. They are specially intended for use in all the systems where water is in contact with the products (plastic extrusion for example) or with industrial fluids such as metal hardening water emulsions.
Standard installation requires an open water tank to work as a thermal baffle and to collect water draining from the free-cooler.

- The tank is divided in two sections: a hot section where water returns from the user system, and a cold section where water is collected from the free-cooler.
- Two pumps circulate water: one from the hot section to the free-cooler and back to the cold section, the other circulating cold water from the tank to the user(s) and back to the hot section.

NEW

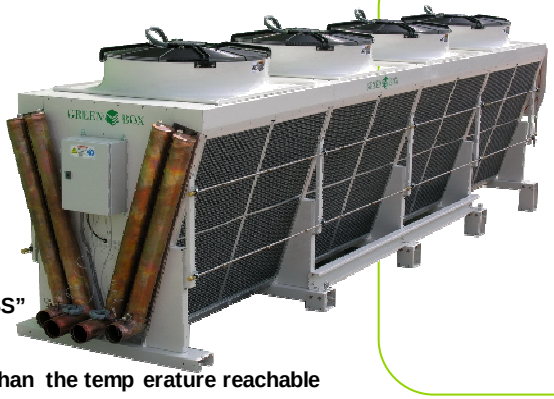
ADVANTAGES OF A FREE-COOLER INSTALLATION:

- Low energy consumption;
- No water consumption;
- No contamination of process water;
- No deposits: the closed circuit system keeps quantity of salts unchanged and avoids deposit growth;
- Easy installation;
- Easy integration to existing cooling systems;
- Quick return of investment.

MAIN FEATURES

- Frame is made of galvanised steel coated with polyester paint RAL 9002;
- High efficiency finned coil heat exchangers; the peculiar “V” shape optimizes air circulation through coils with consequent high efficiency;
- “V” shaped heat exchangers minimize footprint;
- Low noise axial fans with external motor;
- Closed loop circuit allows installation in parallel with other units whenever requested and makes combination with any existing chilling system possible;
- Control panel with display of set/operating temperature and automatic rotation of fan sequence;
- Individual overload protection on each fan.

FCE 41/90



OPTIONS

EXTREMELY HIGH EFFICIENCY “SSS”
MISTING SYSTEM
Allows performance improvement :
- water temperature 5°C to 8°C lower than the temp erature reachable with traditional free - cooler
- water temperature lower than 30°C even in Summe r
- free-cooler coil is dry - no incrustation due to dirties or limestone

ADDITIONAL OPTIONS:

- Softwater device to reduce limestone deposits;
- Water pump with control box;
- Automatic glycol filling system

more than answers

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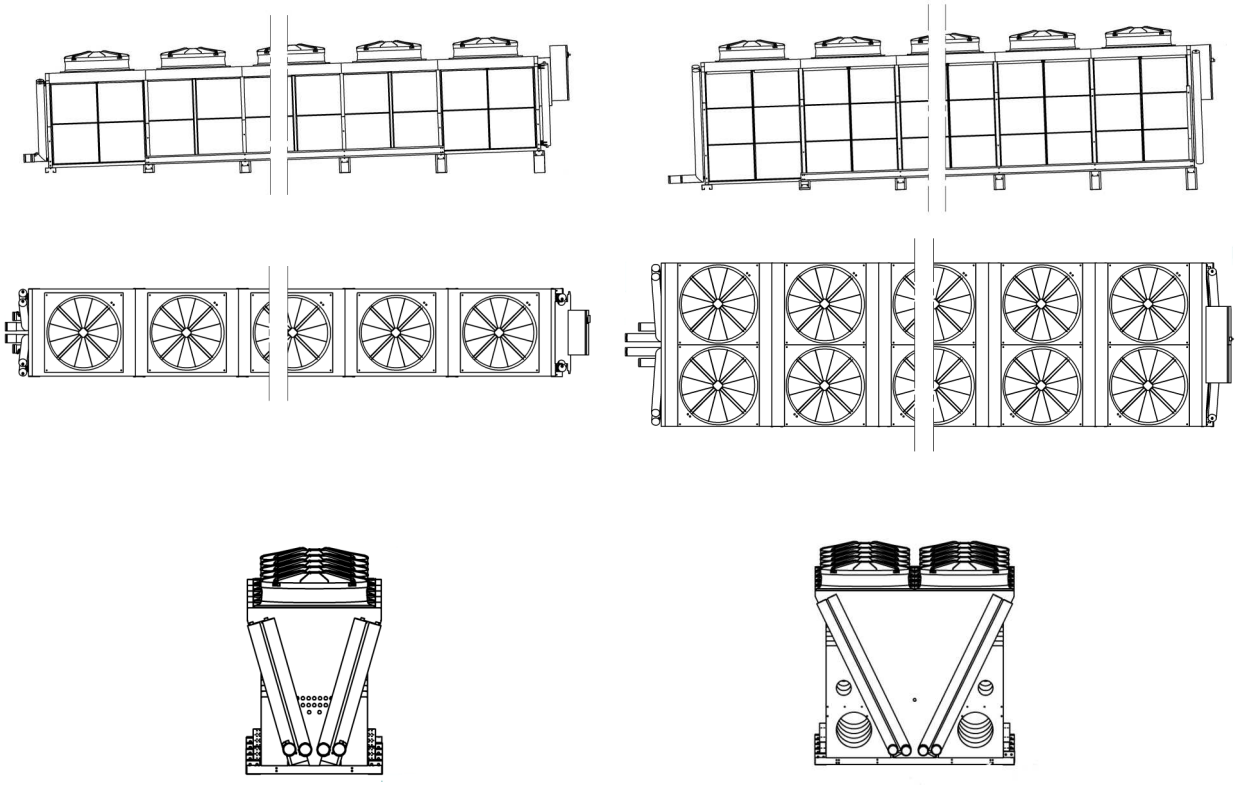
TECHNICAL DATA

MOD.	FCE 41/90	FCE 51/90	FCE 61/90	FCE 71/90	FCE 82/90	FCE 102/90	FCE 122/90	FCE 142/90
Cooling capacity (*)								
kW (*)	480	600	720	860	800	1000	1200	1400
kcal/h	412.800	516.000	619.200	739.600	688.000	860.000	1.032.000	1.204.000
Axial fans								
n°	4	5	6	7	8	10	12	14
input power kW	14,4	18,0	21,6	25,2	28,8	36,0	43,2	50,4
m3/h	129600	162000	194400	226800	243200	304000	364800	425600
EC Fans								
n°	4	5	6	7	8	10	12	14
input power kW	11,2	14,0	16,8	19,6	22,4	28,0	33,6	39,2
Water content								
L	165	206	247	288	236	294	353	412
Pipe connections								
BSP	4"	4"	4"	4"	4"	4"	4"	4"
Dimensions								
Length (mm)	6300	7700	9100	10550	6350	7750	9150	10550
Width (mm)	1180	1180	1180	1180	2140	2140	2140	2140
Height (mm)	1780	1780	1780	1780	2160	2160	2160	2160
Net weight								
kg	1183	1420	1690	1960	2310	2806	3342	3900

(*) referred to temperature difference of 10°C betw een water outlet temperature and ambient air



Green Box Srl reserves the right to change the specification of these machines without previous notice. Rel 3 08/2010

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