



DCH

Gen-set radiator units

General information & application

Industrial DCH radiator units are designed for cooling of water or other process fluids for Diesel and Gas Power Generation. This heat exchanger configuration offers a compact solution with dimensions and capacity range as typically required for Gen-set containers in the Power Generation industry.

A typical Gen-set container includes the engine, electric generator, radiator, control panel, silencer, etc. DCH radiator units are designed to be installed inside the container. DCH radiator units can also be used for other cooling applications in process and general industries.

Heat exchanger coil

The innovative heat exchanger coil gives excellent heat transfer thanks to new corrugated aluminium fins combined with copper tubing. Tubes and fins are available in different diameters and thicknesses.

DCH radiators are designed with two vertically positioned, independent heat exchanger coils. Thanks to the two separated coils or the use of split coil circuits it is possible to cool different fluids. This configuration, dedicated to the Power Generation, allows to cool two different circuits (i.e. LT and HT engine circuit) in a unique, compact radiator unit.

Copper manifolds are provided with aluminium flanged connections, draining and venting nozzles. DCH can have one or two modules, depending on the required performance. Each heat exchanger undergoes a pressure and leak test with dry air at 15 bar (design pressure 10 bar).

Fan motors

3-Phase 400V-50Hz squirrel cage induction motors (IEC) are used, on demand 460V-60Hz or other power supply. Protection Class IP55, temperature class F or H, depending to the working conditions. On demand greasers can be included. Each electric fan motor is wired to a terminal box or a safety switch close to the fan cowl.



DCH Gen-set radiator unit

Fan blades

DCH can be supplied with different fan diameters (1250 up to 1440 mm) fitted with fan blades in aluminium (wind profile), fiber glass or galvanized steel. Fans can have either fixed or adjustable blades. Fans are protected by a epoxy coated or hot deep galvanized metal protection grid.

Frame and Casing

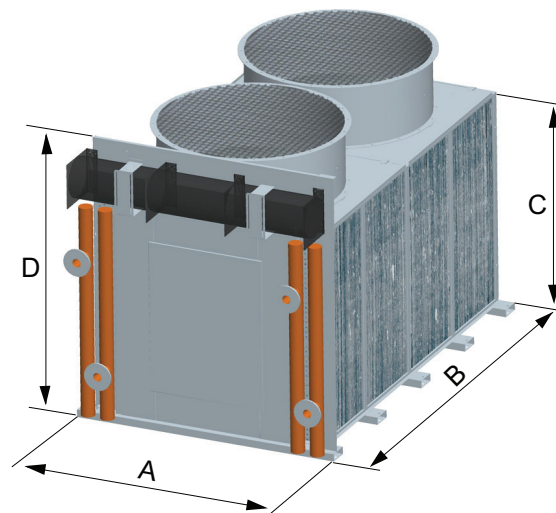
Casing is made of pre-galvanized sheetsteel. New frame design provides high rigidity, also for heavy applications. Maintenance can be easily done from outside or by entering inside the unit using special inspection doors.

Support Feet

Heavy duty, hot-dip galvanized steel profiles permit easy transportation of the unit and can be used at the same time to fix the DCH inside the container.

Options

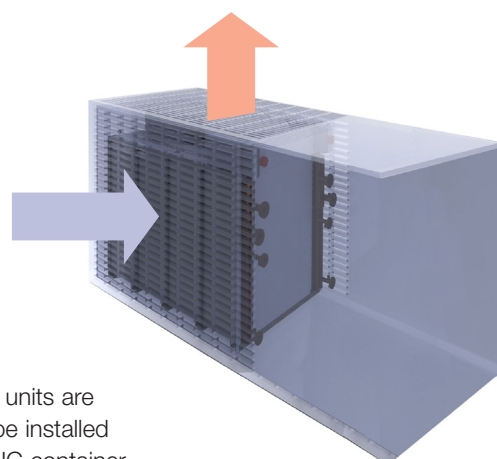
- Combined version and double circuit (LT/HT)
- Several fin spacings
- Coil treatment for aggressive environments
- Stainless steel tubes
- Counter-flanges
- Vent and drain ball valves
- Extra static pressure drop from 50 to 200 Pa
- Noise absorption
- Expansion tank delivered installed and completely connected to the manifold:
 - Basic or with level indicator
 - Automatic venting (optional)
 - Over-pressure valve (0.5 Bar)
 - High temperature piping,
- High Temperature Electric Motors,
- Electric motor Space Heaters,
- Special components for application in hazardous environments (max zone II)
- Electrical parts:
 - Isolating switch (one switch for each fan motor)
 - Terminal box (all fans wired for easy electrical connection switchboard)



Main dimensions (m)

A	Max 2.1
B	1.5, 1.65, 3, 3.3 (without manifolds; in case of two fans)*
C	2.0
D	2.5

* Other dimensions on request



Code description

DCH	-	2	E	38	E	50	-	K	8	A	-	3	-	200	H	-	95	*	5	-	125	*	S
1		2	3	4	5	6		7	8	9		10		11	12		13	14	15		16	17	18

- 1 DCH Gen-set radiator unit (DCH=standard Cu tube, DCH6= 5/8" Cu tube)
- 2 Number of fans (1, 2)
- 3 Coil size LT circuit
- 4 Tube rows LT circuit
- 5 Coil size HT circuit
- 6 Tube rows HT circuit
- 7 Fan diameter (X=1.2 m, K=1.4 m)
- 8 No. of motor poles (6, 8, 10)
- 9 Power supply (A=3/380-420V/50Hz, B=3/440-480V/60Hz, C=3/380V/30Hz, D=other)
- 10 Coil length (1.5, 1.65, 3, 3.3 m)
- 11 Motor size (160, 180, 200, 220, 225)
- 12 Motor insulation class (F, H)
- 13 No. of LT circuits
- 14 LT connection size
- 15 LT connections (S=same end, O=opposite end)
- 16 No. of HT circuits
- 17 HT connection size
- 18 HT connections (S=same end, O=opposite end)

DCH radiator units are designed to be installed inside a 40' HC container.

Benefits

- Heavy duty construction for a long product life
- Compact solution for installation inside container
- Dry cooling system: no water consumption, no bacteriological problems
- Low corrosion risk
- Easy maintenance
- Plug-and-play solution
- Easy access to additional on-line product information (QR code)

