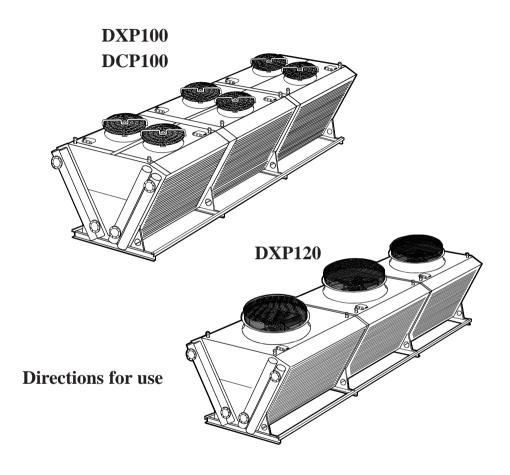


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## Declaration by the Manufacturer, Annex II B

As defined by the EC Machinery Directive (MD) 98/37/EC, the Low Voltage Directive (LVD) 2006/95/EC and the EMC Directive 2004/108/EC.

Type of machinery Heat Exchangers supplied with direct cranking fans

Productdescription Unit Coolers Antarctic, EVFI, EVDL, DDX

> Air cooled Condensers CPS, CPM, DCP

Antarctic, CBFI, CBDL, DDB Air Coolers Dry Coolers XPS, XPM, XP, DXP

developed and designed in accordance with the MD 98/37/EC, LVD 2006/95/EC and EMC Directive 2004/108/EC on the own responsibility of:

Company Asarums Industri AB

> S. Industrivägen 2-4 SE 374 50 ASARUM

Sweden

Harmonized Standards:

EN ISO 12100-1:2003 EN 61000-6-1 EN ISO 12100-2:2003 EN 61000-6-2 EN ISO 13857:2008 EN 61000-6-3 EN 60204-1:2006 EN 61000-6-4

EN ISO 4871

The product is not allowed to put in operation until the machine or system, which it is to be incorporated or which it is to be a part of, is in accordance with the Machinery Directive 98/37/EC. The compliance with EMC Directive 2004/95/EC is valid if the product is connected directly to the main supply. If the product is integrated in a system or combined with other products (e.g. other controllers) the system manufacturer is responsible for compliance with EMC Directive 2004/95/EC for the complete system.

Date: 2008-12-04

Signed by: Tord Engberg

Title: R&D Manager

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INDEX	P
General description	4
System of designations	5
Receiving and fitting	6
Installation	7
Preventive maintenance	8
Lifting instruction	11



## **General description**

#### General

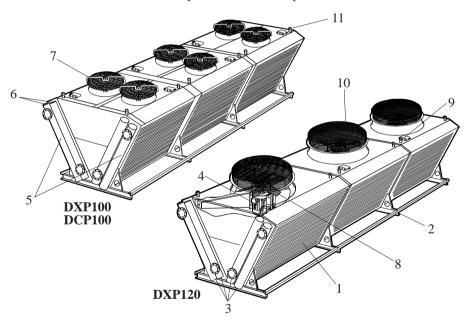
This dry cooler is designed for outdoor location and is intended for refrigerants that are not aggressive in contact with copper.

The cooler conforms to environment class 3.

The cooler is provided with axial fans and the casing is made of aluminium sheeting as standard.

#### **Important**

Do not allow the product to be covered by foreign objects when in operation. Unobstructed circulation of air is necessary to achieve the highest cooling efficiency. The laminar surfaces of the battery must be free of deposits.



Item	Designation	Item	Designation	Item	Designation
1	Cooler element	5	Connecting tube	9	Safety switch
2	Frame beam	6	Air vent	10	Protective griller
3	Drain	7	Fan unit	11	Eyebolt
4	Motor	8	Fan blade		

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#### Installation

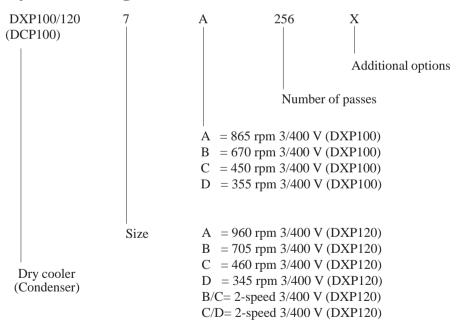
The following instructions for installation should be read together with the technical leaflet.

#### Location

Place the cooler so that air can pass freely over the entire battery surface and if possible so that the wind direction does not affect the evacuation air because re-circulation could otherwise occur. This applies particularly to models that have low revs.

The cooler is to be mounted on a firm base and secured with foundation bolts. The cooler frame is provided with pre-drilled holes.

## System of designations



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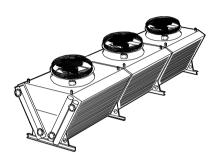


## Receiving and fitting

The product is subjected to thorough inspection of quality and function before leaving the factory. If faults or damage due to transportation are detected on the product, the point of sale is to be contacted without delay.

## **Assembly**

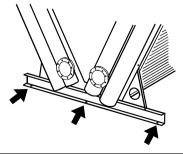
1. Move the product to the place of installation before removing the packing.



2. The cooler is provided with eyebolts and shall only be lifted using these according to instructions on the cooler.



3. Bolt the product direct onto a firm base, or with vibration dampers, through the pre-drilled mounting holes.



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#### Installation

Installations may only be made by **authorised persons** and in conformance with national standards.

The cooler may not be connected to other voltage or frequency than its rated data.

The wiring diagram is attached to the fan grille together with these instructions. The safety switch may not be used for starting and stopping. Do not fit cable supports where they could damage the battery and thus cause leakage.

The cooler is to be connected to the safety switch as follows:

Unscrew the screws (1) with a screwdriver and remove the cover (2). Connect the cable through the screw fitting (3) on the side of the cover.

**N.B.** Ensure that the fan rotates in the direction indicated by the arrow.

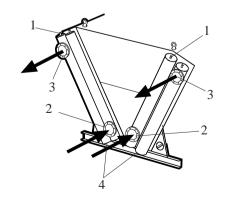
# 3

## **Tubing installation**

The product is to be filled with the amount and type of heat transfer medium stated by the installation engineer. The connecting tubes are located on one end of the unit. The air vent is at the highest point of the manifold tube (1).

The incoming lead is connected to tube (2). The return lead is connected to tube (3). The drain (4) is located at the bottom of the manifold tube.

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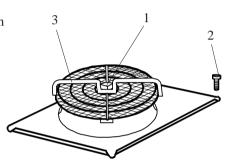


#### Preventive maintenance

Warning. Make certain that the power supply is disconnected

## Changing the fan unit (DXP100, DCP100)

- 1. Switch OFF the safety switch and lock it.
- 2. Disconnect the electric cable from the fan units terminal box (1). The fan unit weighs 45 to 55 kg. Lifting tackle is recommended.
- 3. Unscrew the screws (2) that hold the plate. Lift out the fan unit by using strops under the arms (3).



#### Assemble the fan unit (DXP100, DCP100)

- 1. Lift the fan unit back and fit the screws (2).
- 2. Connect the electric cable in the fan units terminal box. (1).
- 3. Unlock the safety switch and switch ON.

#### Standstill

During long periods when the unit is not in operation the fans should be run at least four times a month. They are to be run until the motor reaches normal working temperature, i.e., for about 15 minutes.

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#### Preventive maintenance

Warning. Make certain that the power supply is disconnected Changing the fan / motor (DXP120)

- 1. Switch OFF the safety switch and lock it.
- 2. Unscrew the fastening screws of the protective cover (1) and remove it.
- 3. Loosen the screw (2) and washer in the f an hub and pull off the fan blade (3). A puller must be used to do this.
- 4. Fit an eyebolt (4) in the top of the motor axle.
- 5. Disconnect the electric cable from the motor terminal box (5). The motor weighs 25 to 120 kg. Lifting tackle is recommended.
- 6. Unscrew the screws (6) that hold the motor (7) to the motor shelf (8). Lift out the motor.

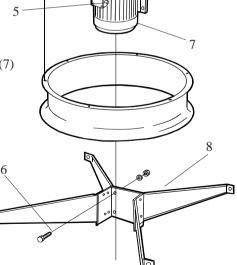
## Assemble the fan / motor (DXP120)

Assembling in reversed sequence.

**N.B.** After mounting the fan blade, check centring of the fan taper and adjust as required.

#### Standstill

During long periods when the unit is not in operation the fans should be run at least four times a month. They are to be run until the motor reaches normal working temperature, i.e., for about 15 minutes.



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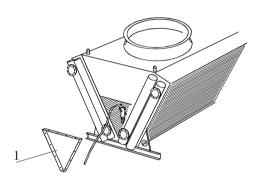


#### Preventive maintenance

Warning. Make certain that the power supply is disconnected

## Cleaning the cooling battery

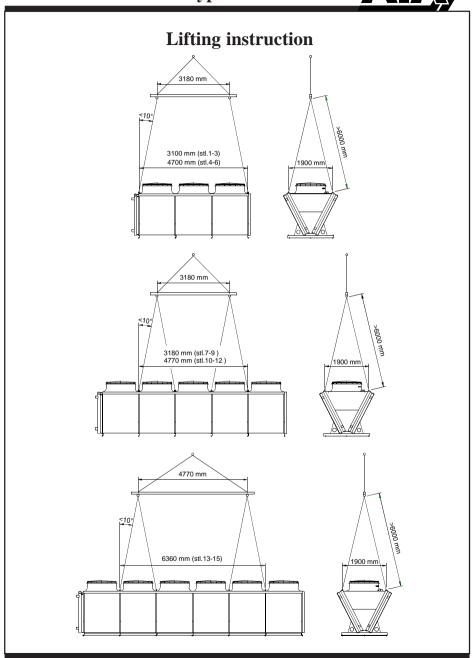
- 1. Remove the service cover (1).
- 2. Cooling batteries that are lightly soiled can be cleaned by brushing and blowing with compressed air.
- 3. Then wash the cooling battery with water and environment-friendly detergent that does not corrode aluminium or copper. Ammoniac may not be used.
- 4. Rinse and allow to dry.



#### Caution

Always wear protective gloves when cleaning or when in contact with the batteries.





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