



**Installation Manual
Plate Heat Exchangers
as Evaporators and
Condensers**

**用作冷凝器和
蒸发器时热
交换器安装指南**

Installation

Figures A1 and A2 show the installation of an evaporator, B1 and B2 that of a condenser.

Connect the refrigerant to the side with the soldered connections (Q3, Q4) and make it enter the unit at the bottom for evaporators.

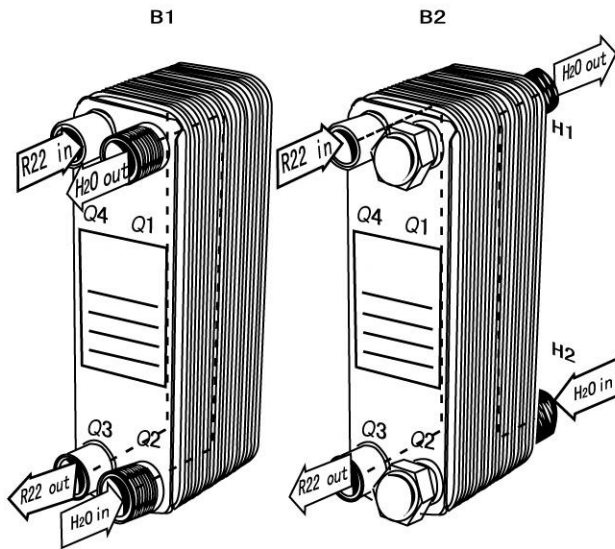
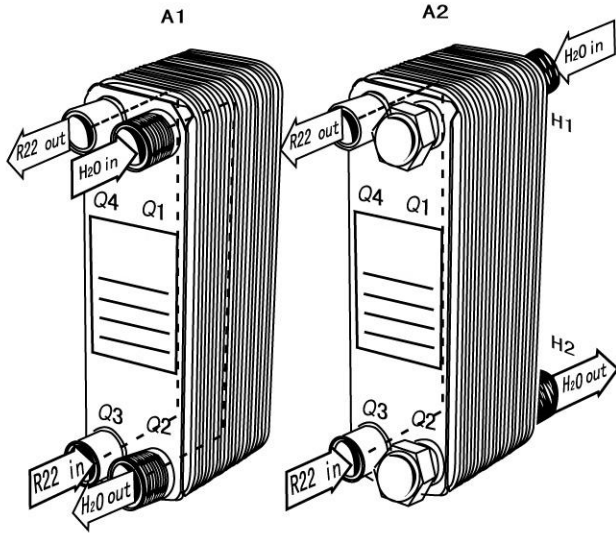
Connect the liquid to that side of the BHE that suits your installation (Q1, Q2) or (H1, H2).

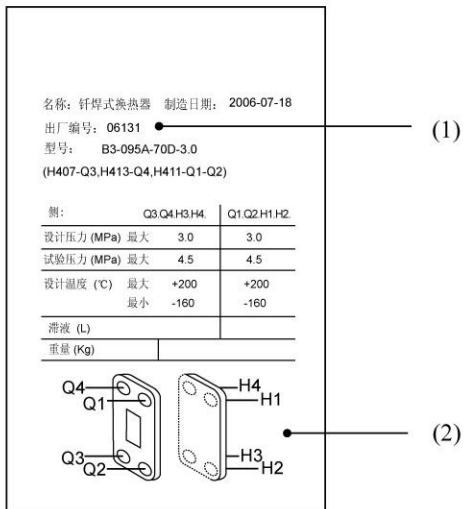
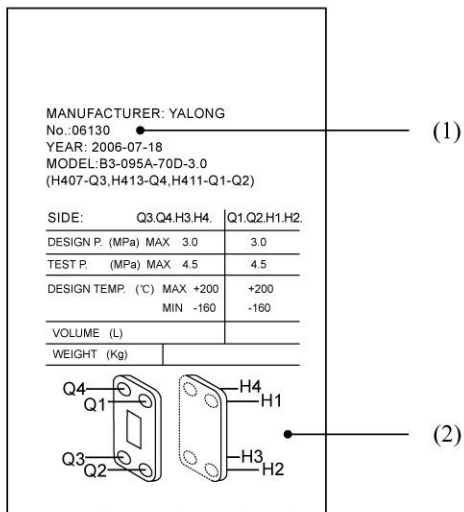
安装

A1和A2图所示为蒸发器的安装；B1和B2图所示为冷凝器的安装。

冷冻液一侧的联接为焊接式，见(Q3, Q4)。如作为蒸发器使用应使冷冻液从底部进入热交换器。

液体的联接可视您要求而定，即Q1, Q2或H1, H2。





B3-095A-70D-3.0(H407-Q3, H413-Q4, H411-Q1-Q2)

(3)

(4)

(5)

4

Data place

The label gives the manufacturing number(1) and indicates the position of the connections(2).

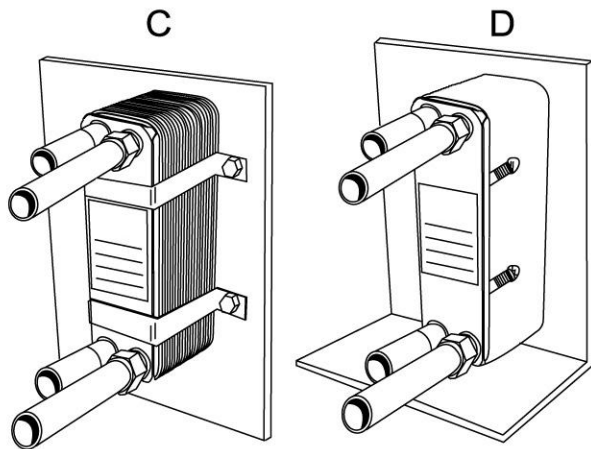
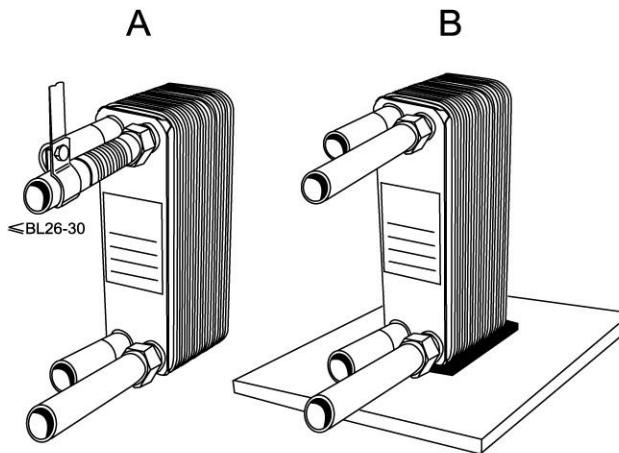
The model number gives the quantity of the plates(3) and connection type on the refrigerant side(4) and liquid side (5).

铭 牌

该牌列出制造流水号(1)并示出联接位置(2)。

型号一栏列出板片数(3), 冷冻液一侧的联接方式(4)及液体一侧的连接方式(5)。

5



Mounting

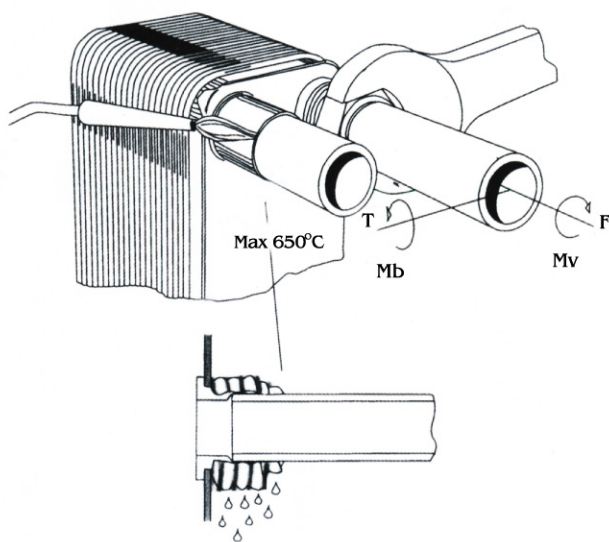
Always mount the unit vertically. Units \leq BL26-30 can be mounted directly in the pipes (fig. A.).Mount larger units on anti-vibration plates (fig. B) or fastened with steelclamps (fig. C) or bolts, (fig. D). If risk of vibrations use anti-vibration connection as in fig. A. Never expose the unit to pulsations or excessive cyclic pressure or temperature changes.

架设

本机必须垂直式架设。B3-026-30或以下可直接装在管道上，如图A示。较大型号应如图B示装在防振板上或可用钢夹固定在板上如图C示，或用螺栓固定(如内含有螺栓)如图D示。如有可能产生振动则应使用图A所示的防振动式联接，严禁使本机受到脉冲式颤动或过大的周期性压力和温度变化

Fig.A

BHE SIDE	T(kN)	F(kN)	Mb(Nm)	Mv(Nm)
B3-026, B3-050	24.7	9.6(-7.4)	61	385
B3-095	111	27(-21)	740	1007



Connection Process side(water)

Connect the pipe using a dynamometric wrench respecting the indicated limits (fig.A).

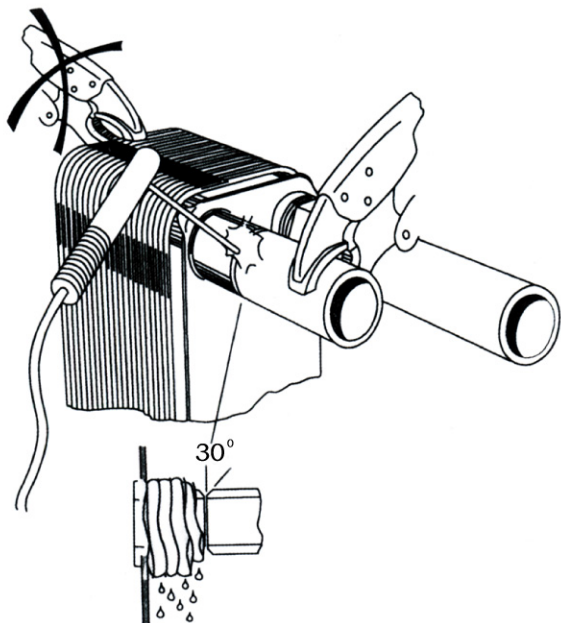
Brazing: polish the contact surface and degrease them. Apply chlorid flux by a brush. Insert the copper tube into the connection and braze with 40 -55% silver solder. Point the flame towards the piping and braze at max. 650°C. To avoid internal oxidation, protect the inside of the refrigerant side with N₂-gas.

液体一侧（水）的联接

使用计力扳手进行管子联接，要注意表中所列的限度。

钎焊式联接—首先擦净接触面，除去油脂，用刷子刷上氯酸盐钎焊剂，将铜管插入接口内，以含银40—55%的银焊进行焊接。焊接时，使火焰朝着管子，最高温度为650℃。为了防止内部产生氧化，冷冻液一侧的内部需以氮气保护。

Fig.A



Welding

(only for B3-095)

Protect the unit from excessive heating by a wet cloth around the connection (Fig.A).

To limit the heated area make an angle between the tube and connection edges as shown. Use TIG or MIC welding.

Internal oxidation can be reduced by filling nitrogen flow.

焊接

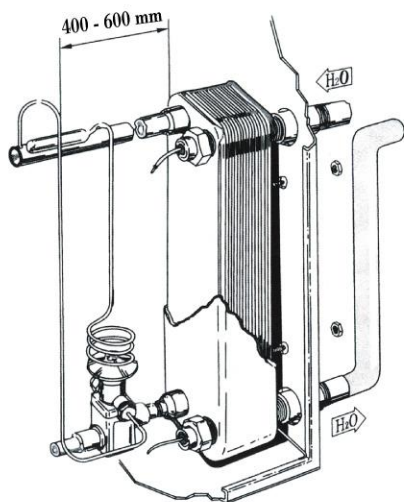
(仅用于B3-095型)

将湿布裹在接口上以避免本机受到过高温。

为了限止受热区域，需要在管道和接口边缘造成一个角度(如图所示)，使用TIG或MIG焊接。

少量充入氮气可减少本机内部产生的氧化现象。

Fig.A



Freeze prevention

(see also page 14)

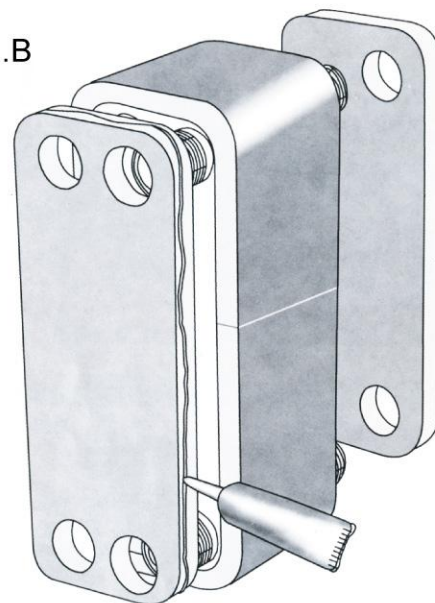
For freeze protection use thermostats and/or temperature controls in the spare connections if any. Connect water side pipes as Fig.A make sure the unit filled with water during working.

防 冻

(同时参看14页)

请在备用联接口(如果有)中放入恒温器或温度控制。进水一侧,(如果水从本机上部进入)联接如图中示,以确保本机运行时呈注满水的状态。

Fig.B



Insulation

Insulation is recommended and can be made using extruded insulation sheets (Armaflex or similar) cut into appropriate sizes and glued together as shown Fig.B.

隔 热

本机在使用中应予隔热。可使用挤压的隔热片(ARMAFLEX绝热料或类似产品)将其剪成适当大小并如图所示将它们粘接。

Cleaning

Clean with detergents for fatty deposits. For heavier fouling use chemicals compatible with copper like formic, citric, vinegar or other organic acids.

清洗

一般油性积垢用清洗剂清洗。积污严重时应使用不损伤铜金属的化学药品诸如甲蚊酸、枸橼酸、醋或其他有机酸类。

Freezing protection

To avoid freezing :

- use a filter <1 mm mesh.
- use antifreeze when the evaporation temperature is close to liquid side freezing.
- use a freeze protection thermostat and a flow switch to ensure a constant water flow before, during and after compressor operation.
- avoid pump stopping.

防冻

为了避免冻结，必须：

- 使用孔目小于1毫米的过滤网。
- 蒸发温度接近液体一侧冰点时应使用防冻剂。

- 使用防冻恒温器和一个流量开关保证在压缩机运行之前、之中和之后有一个稳定的水流量。
- 避免水泵停车。

Trouble shooting

To assure correct performance of the unit, please check that:

- Connect correctly follow the guide as page 2 shown.
- Make sure it's absolutely clean and formdeposits free. Increased pressure indicates fouling.
- Adjust the equipment correctly and make sure freezing free.

故障排除

为了本机正常运行请确保下列各条：

- 联接方式正确如本手册第2页所示。
- 绝对清洁无积垢。压力降增大就意味着有积垢。
- 控制设备要求调节正确，不能出现冻结。