

INSTALLATION AND SERVICE INSTRUCTIONS

These instructions are for the installation and service of Direct Expansion coils with R-410A of 2C family manufactured by Tecam.

MODEL NUMBER NOMENCLATURE

To enable us to quickly identify the relevant design details of our coils they have been provided with a MODEL NUMBER.

EXAMPLE:

2	C	D	X	3	7	5	-	0	6	-	2	0	.	0	-	1	2	-	1	0	-	0	2	5	.	0
1a			1b			1c			2			3			4			5			6					
1																										

1	COIL LINE DESIGNATION 1a : 2C = Trade Name 1b : DX = Direct Expansion Coils (R-410A) 1c : 375 = 3/8" OD Coils 500 = 1/2" OD Coils
2	NUMBER OF ROWS
3	COIL HEIGHT (Inch)
4	FIN PER INCH (FPI)
5	NUMBER OF CIRCUITS
6	COIL LENGTH (Inch)

The number of Tubes Face will be the Coil Height (3) divided by the tube pitch. The tube pitch for 3/8" is 1" and for 1/2" the tube pitch is 1.25".

The Number of Circuits (5) is the number of Nipples in each Header (See Fig.1).

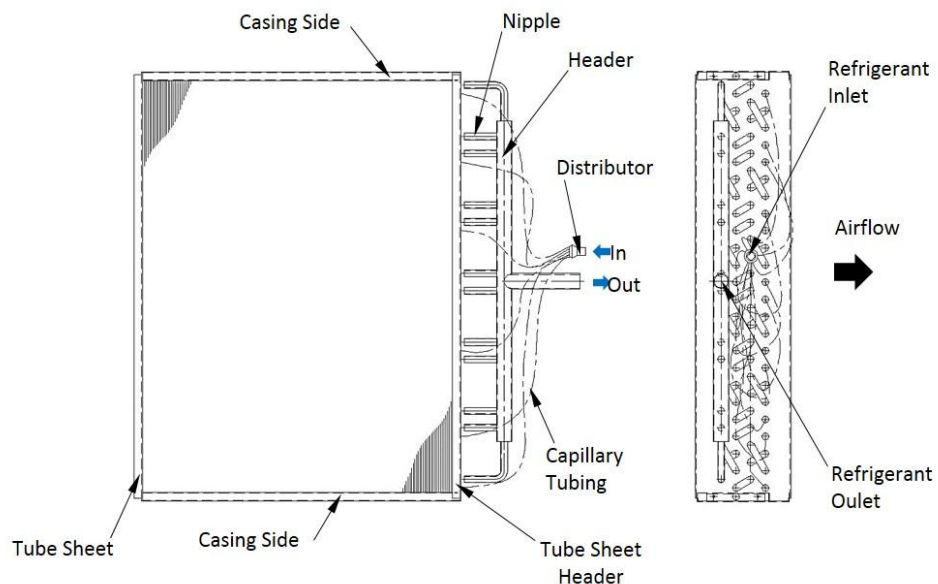


Fig. 1

INSTALLATION

- Unpack the coil using suitable tool and security devices to protect life and the coil integrity.
- The coil leaves the factory without any fluid inside.

⚠ WARNING ⚠
The coil leaves the factory without any fluid inside.

- Remove the packing material and place the coil near the site of operation.
- Check that the coil fins are not damaged, if necessary use a suitable comb to restore them.
- Check that the handing of the coil is correct for your application. The handing is determined while looking in the direction of airflow and relates to the position of the connections.

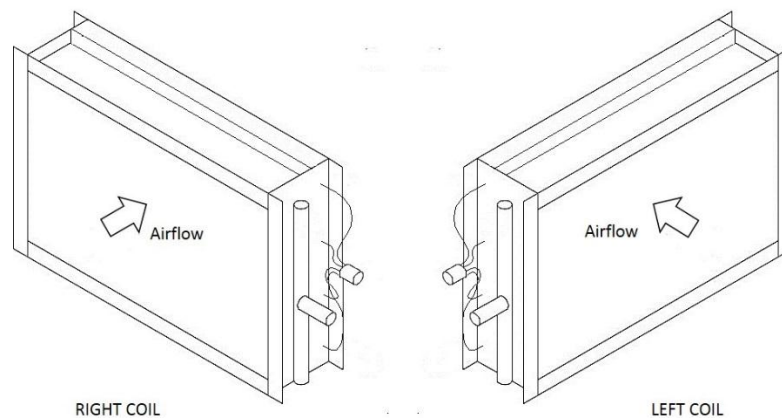


Fig.2

- Install the coil with the horizontal tubes and level to ensure proper drainage and more effective ventilation.
- Install condensate pan drip tray below coil (sold separately) (Fig. 3)
- On the lines of the drip tray drain condensate should incorporate appropriate size traps.

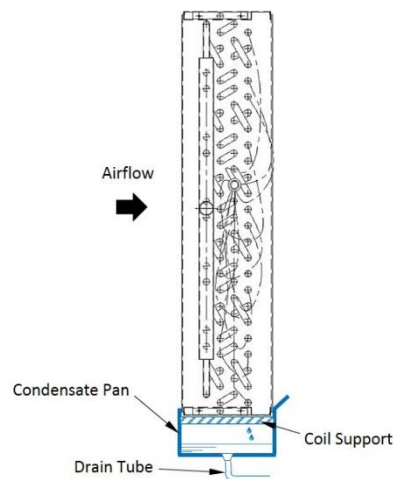


Fig.3

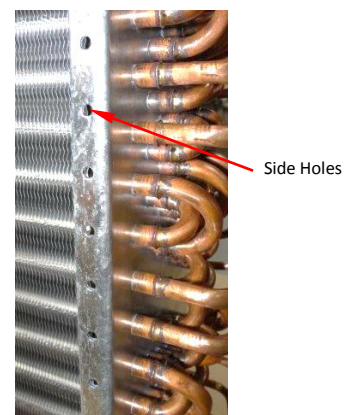


Fig.4

- Care should be taken when drilling or cutting near the coil so that the tubes and headers are not damaged.
- Where coils are incorporated into ducting, it is important that they are properly installed. Suitable sealing methods should be employed to prevent air bypassing the finned area of the coil.
- The ducting must be fitted to the coil, drilling and screwing through the coil casing using the side holes (Fig. 4). Care should be taken to protect the Headers and Return bends by using a piece of wood or metal sheet behind the casing being drilled so that the tips of the screws do not touch the tubes. A suitable sealant must be used to seal joints.
- Access should be provided to both ends of the coil, without the need to remove any of the external pipework, for the purpose of inspection, cleaning and maintenance.

PIPING

- Hot up and remove the caps of distributor end and header end. We recommend passing nitrogen (or equivalent gas) through inside of the coil pipe during the brazing process to keep hydro-carbon accumulation to a minimum.
- The expansion valve and the liquid line should be connected to refrigerant inlet of the coil which is on the same side where the air comes out of the coil (Fig.5). This will give counterflow and the greatest heat transfer.

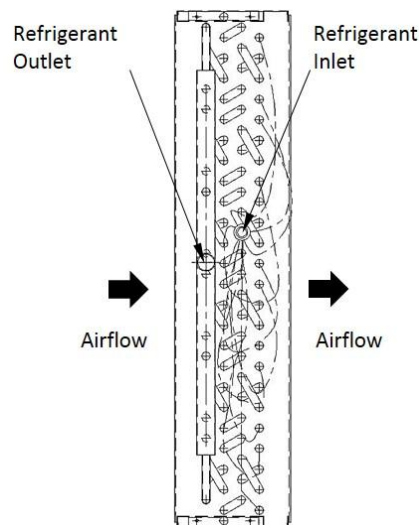


Fig.5

- The expansion valve should be connected to the coil, following the manufacturer's instructions and recommendations
- The expansion valve must be installed directly on the inlet of the liquid distributor or as near as possible.
- We recommend using filters in the airflow on entering coil and filters in the liquid refrigerant line.
- The Suction line should be sized to ensure oil return to compressor.
- The diagram below only intended to guide the location of some connection components, no intended on provide details for a specific installation.

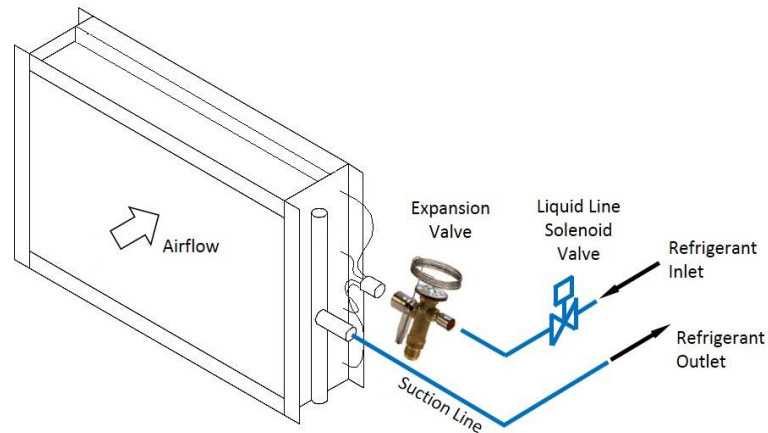


Fig.6 – Location of the Expansion Valve in a coil with horizontal airflow.

SERVICE

- Finned surfaces should be inspected and cleaned regularly
- The coils should be kept clean and free of obstacles. It is recommended to wash frequently with fresh water at a pressure less than 120 psi.
- Air filters should be changed regularly to maintain constant airflow.
- The coil should be inspected frequently for any signs of corrosion.
- The drain pan should be inspected and cleaned regularly.
- The coils have no moving parts or electrical, or other parts that can be replaced in the field. If the coil is damaged beyond repair must be replaced completely.
- If the coil is leaking and is under warranty, you must obtain permission from the Commercial Area Tecam before returning or starting repairs.