

TYPE DX • 5/8 INCH DIRECT EXPANSION COILS

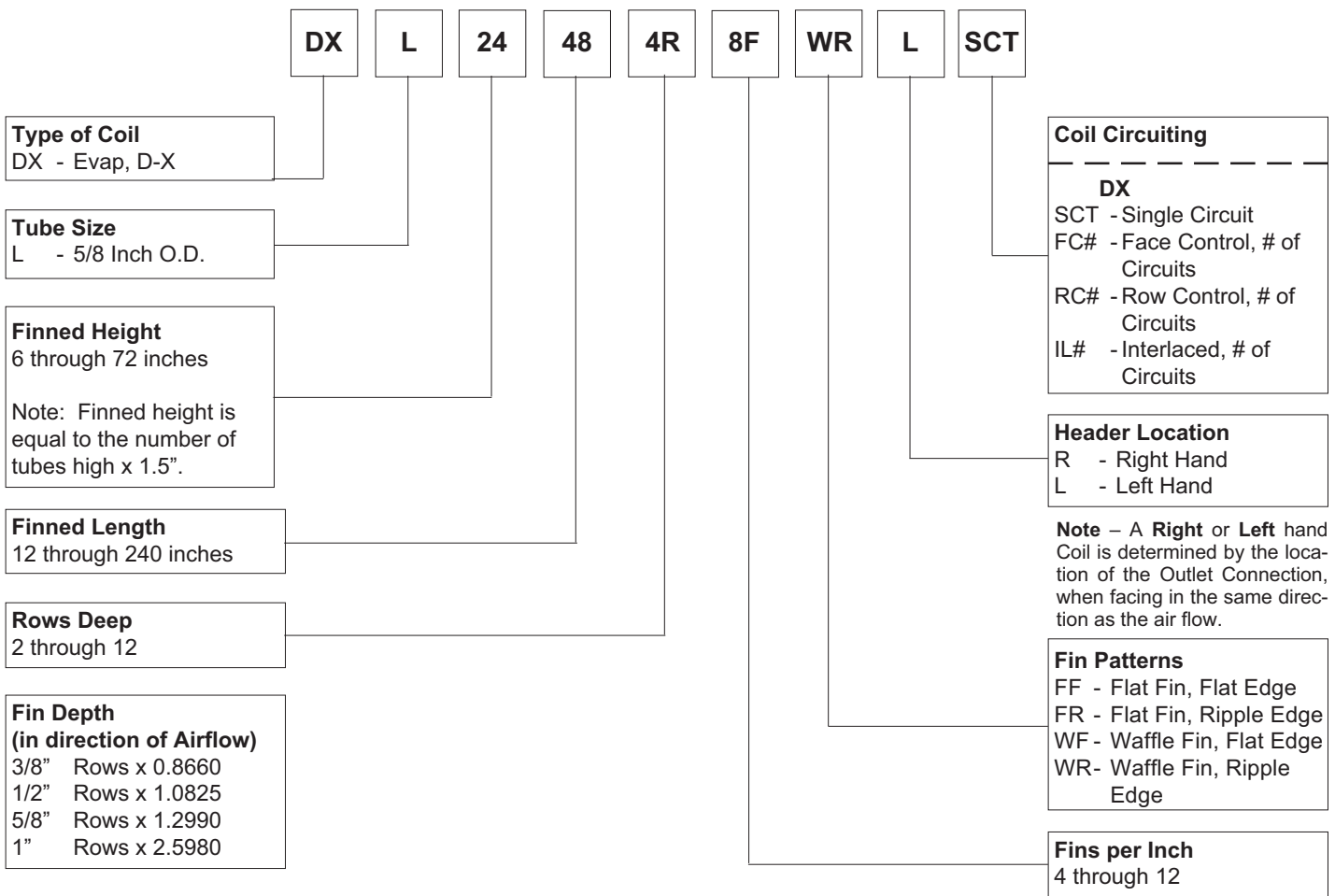


EVAPORATOR COILS

Colmac Coil evaporator coils are designed to meet a wide range of temperatures, from HVAC to subzero freezing applications. Circuiting is matched to compressor requirements, and coil face can be split to meet your specific needs.

“The Heat Transfer Experts”

COIL NOMENCLATURE



Tubes

- 5/8 O.D. seamless copper in a 1.50 equilateral staggered pattern.
- Mechanically or hydraulically expanded into full length fin collars.
- Copper return bends and stub connections silver soldered into expanded tube ends.

Fins

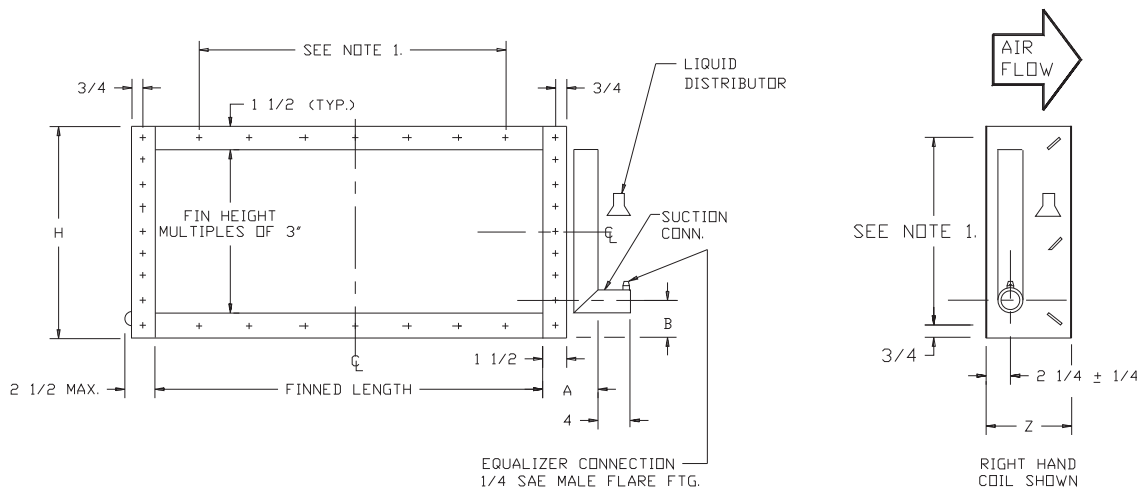
- Aluminum alloy configured plate type fins (copper fin and flat plate fin available).

Headers

- Type L seamless copper tube in accordance with ASTM B88.
- Headers individually sized to coils to minimize coil pressure drop.

Coil Casing

- Galvanized sheet metal with full slotted flanges for convenient mounting.
- Finned heights from 6 to 72 inches.
- Finned lengths from 12 to 240 inches.



ROWS DEEP	Z
1	4 1/2
2	6
3	7
4	8 1/2
5	10
6	11
8	13 1/2
10	16

REFRIGERANT	R - 22					
DISTRIBUTOR CIRCUITS	2 - 3	4 - 5	6 - 8	9 - 15	16-22	22-30
LIQUID LINE CONN.	7/8	7/8	1 1/8	1 3/8	1 5/8	1 5/8
SUCTION CONN.	7/8	1 1/8	1 3/8	2 1/8	2 1/8	2 5/8

SUCTION CONN. DIA.	7/8	1 1/8	1 3/8	1 5/8	2 1/8	2 5/8
A (NOTE 5)	2 7/8	3 1/8	3 3/8	3 5/8	4 1/8	4 5/8
B	1 1/2" + (O.D. size) x 1/2					

NOTES:

1. 5/16 HOLES ON 3" CENTERS FROM CENTERLINE OF CASING.
2. PURGE ALL TUBES WITH NITROGEN JUST PRIOR TO BRAZING.
3. BRAZE 6" LONG COPPER TUBE EXTENSION WITH CAP TO DISTRIBUTOR O.D. TO KEEP DISTRIBUTOR ORIFICE AND I.D. FREE OF SOLDER.
4. LEAVE CAPS BRAZED ON DISTRIBUTOR AND SUCTION CONNECTIONS FOR SHIPPING.
5. ADD 1" MIN. FOR INTERLACED CIRCUITS.

Direct Expansion Cooling General Information

The cooling process should be plotted on a psychrometric chart to be sure that the desired psychrometric changes will be accomplished. When selecting a coil it should be remembered that if the required leaving wet bulb temperature is met, the total load is satisfied and vice versa. Also, that when the required leaving Dry Bulb temperature is met, the sensible load requirement is satisfied.

A coil must meet both the load and the sensible load requirement in order to achieve the conditions desired in the space to be cooled. Normally the total capacity load is checked first, however, the leaving dry bulb should always be checked. When the sensible heat ratio is low, the coil selection is normally controlled by the total load even though the sensible cooling may exceed the requirement. In some cases if the leaving dry bulb temperature is too low, reheat may be required.

When the sensible heat ratio (SHR) is high the coil selection is normally controlled by the sensible cooling even though the total load may exceed that required by an appreciable amount. If the total capacity far exceeds the requirement, a recheck on the refrigeration system balance should be made to be sure sufficient system capacity is available.

The face velocity of air through the coil should range from 400 to 600 feet per minute. A face velocity of 500 feet per minute is generally accepted as the most desirable.

The number of fins per inch is determined by the allowable air friction loss. Within limits, the more fins per inch the greater the heat transfer. Generally, on DX coils for air conditioning application, use 8 - 10 Fins per inch.

To calculate coil capacity, use Coilpro software. Contact Colmac Coil or one of its authorized representatives for further assistance.



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Air Cooled Condensers

CE(PED) Certification, ASME Sec. VIII, Canadian Registration Number, UL508, Canadian Standards Association



CRN



CSA

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