

INSTRUCTIONS



How to Measure Coils

Email complete drawings to: sales@usacoil.com or Fax to: (610) 296-9763

The * asterisk items are required to adequately provide pricing. All other items are needed to fabricate the coil(s). Choose the field drawing for the coil type you are measuring: Standard Water Coil (Hot or Chilled Water); Standard Steam; Steam Distributing; DX Evaporator; Condenser Coil

Model Numbers

OEM Unit Model # and OEM Coil Model # are very helpful if available. Fill in the box provided at the top of field drawing form.

Header Arrangement

Circle the diagram that matches the coil you are trying to replace – if your coil does not match the diagrams shown on field drawing, use the “notes” area to sketch your header arrangement.

Rows

Rows are measured horizontally across the fin pack in the direction of airflow. Attached is a form that shows different arrangements to help you count rows.

Range per coil type:

Chilled Water Coils – 3 to 12 rows

Hot Water Coils – 1 to 2 rows (typically)

Steam Coils – 1 to 2 rows

DX Evap Coils – 3 to 12 rows

Condenser Coils – 1 to 8 rows

FPI

Fins per inch are the number of fins within 1 inch – Place a ruler on the fins and count the # of fins in one inch

FH x FL

Finned area where air passes through the coil – this is the “open” area that air passes across

CH x CL x CD

Most coils have some kind of casing around the finned area. This is the “envelope” dimensions of the coil. “CH” is the overall casing height, “CL” is the overall casing length, “CD” is the overall casing depth

OLH

The “OLH” is the overall length including the headers / manifolds & return bends (the return bends often stick out beyond the casing. DO NOT include the length of the connection stubs in this measurement.

A

Dimension “A” is the stub length or connection length from header out to end of connection, including the thread. It can vary from 1” to 8” long. This is NOT diameter.

B1 / B2

This is the width of the casing on both the top and bottom of the coil. They are usually the same dimension.

C / D

This is the width of the casing (flange) on each end of the coil.

E / F

These measurements are taken from the centerline of the connection to the sides of the casing.

HD

This is the measurement from the inside of the casing (D) to the outside edge of the header. This does NOT include the connections.

RB

This is the measurement from the outside of the “tube sheet” or “end plate” to the end of the return bend.

INSTRUCTIONS



How to Measure Coils – continued

X / Y

These measurements position the connections properly for direction replacement, so you don't have to change the piping. Both "X" and "Y" are measured from the top and/or bottom of the casing to the centerline of the connection. DO NOT measure from the top or bottom of the header, because there's no guarantee the header runs to the top or bottom of the coil.

Z

This is the horizontal centerline between the (2) headers, if the coils is same end connected. Measure from the centerline of one header to the centerline of the other header.

Header Material

The majority of our coils are built with Copper Headers. Please specify if you require a different material.

Of Feeds to Header / # Of Tubes from Distributor

Count the # of tubes feeding one header
Count the # of tubes coming out from the distributor on DX coils

Flange Type

Standard flanges are typically 1 ½" and stackable – minimum stackable flange is 5/8"

Casing Material

Choose casing material – 16 ga. galvanized steel is our base material – Stainless Steel is available at additional cost. Contact Sales for other casing material requests

Tube O.D. / Tube Thickness / Fin Thickness

Standard sizing is listed – all tubes are copper
Optional material thickness available at additional cost – contact sales for more info

Fin Material

Aluminum Fin is standard – Copper available at additional cost

Connection Material

Typically connections will be copper – materials available will vary depending on coil type, available connection materials are listed on individual field drawings

Connection Size

Measure the O.D. of the coil connections – note: the supply size and return size can be the same or different

Connection Type

Connection type varies depending on coil type – available connections types will be listed on each individual field drawing

Notes

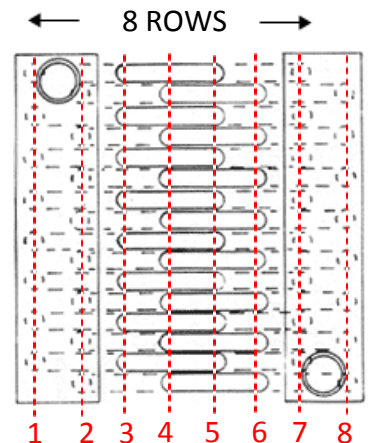
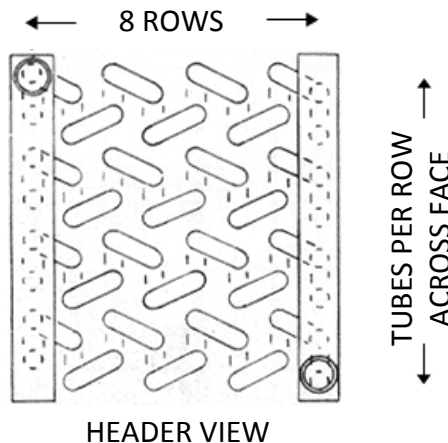
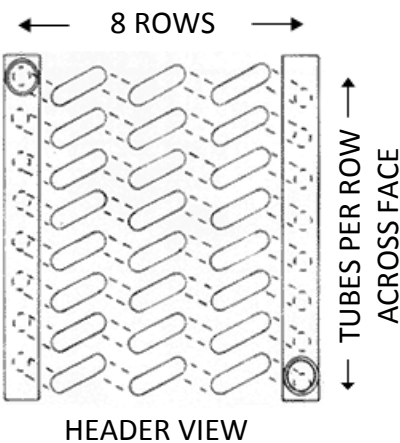
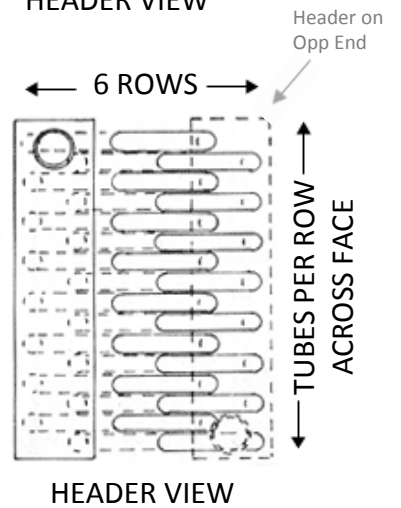
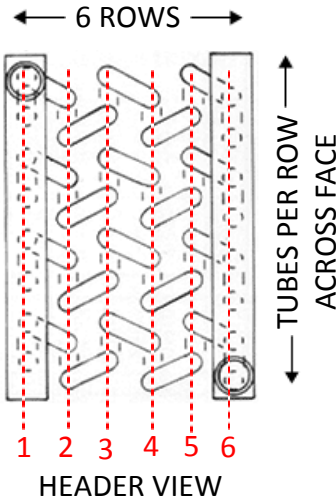
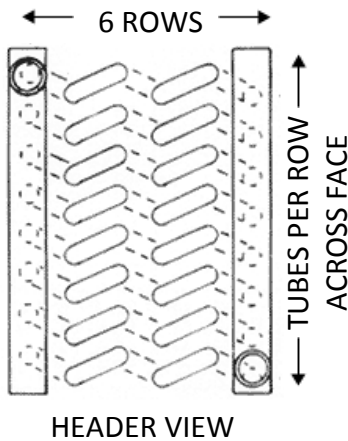
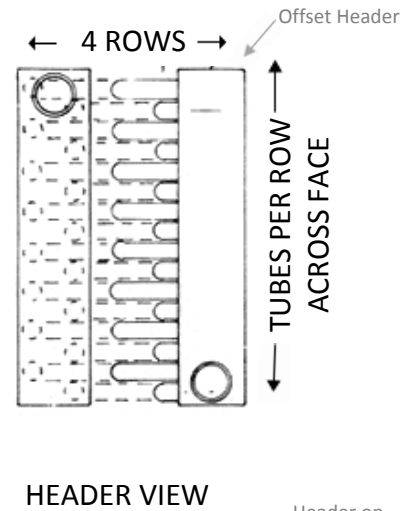
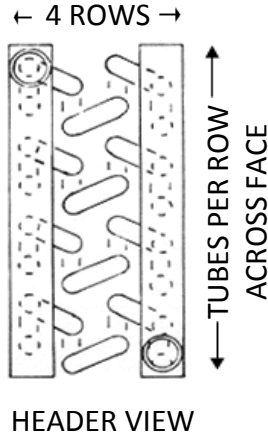
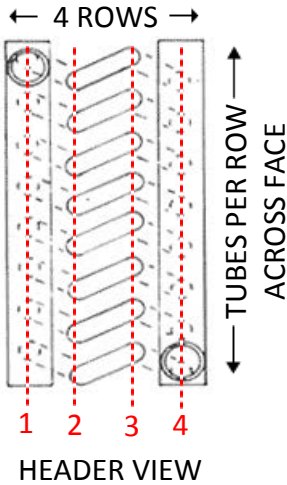
Please use this area to sketch header arrangement if it does not match shown diagrams

Please use this area to specify any required coatings

Please use this are for info specific to application that might help us

How To Count # Rows

Rows are always counted across the coil casing depth NOT from bottom to top of coil. Below diagrams are some examples you'll see in the field.



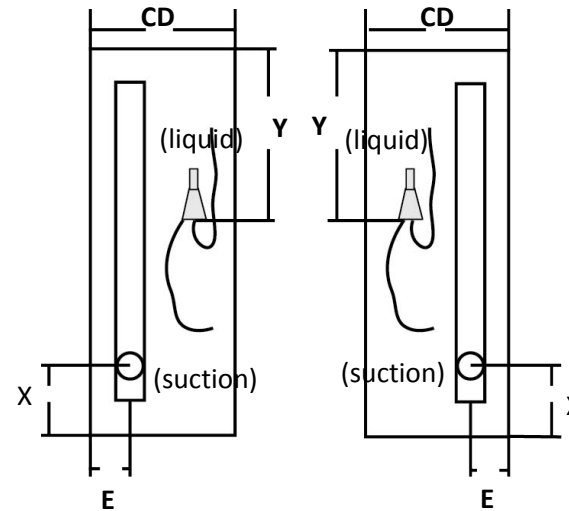
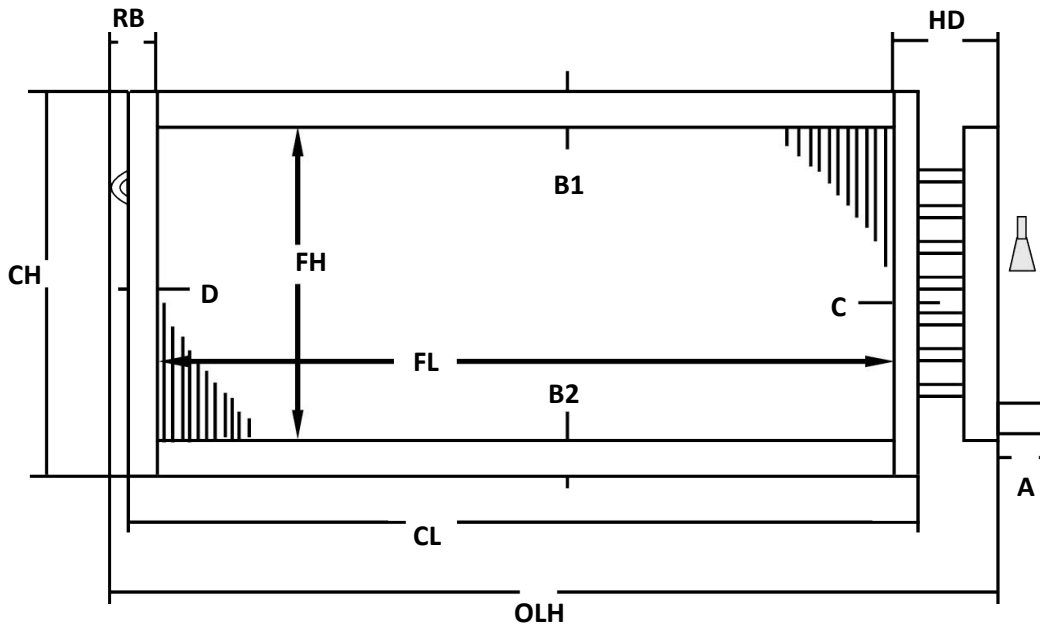


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Replacement Engineering Made Easy

DX Evaporator Coil

Coil Dimensions and Specifications: (Please include detail photos of the coils and header sections - if available)



****Circle Header End Matching Your Coil****

Header Material:

Copper

Tubes out from distributor: _____

Flange Type:

- ☐ Standard ☐
- ☐ Stacking ☐
- ☐ Inverted Flange

*Casing Material: (circle one)

Galv Steel 16 ga
Stainless Steel 16 ga

| *Rows | *FPI | *FH | *FL | CH | CL | CD | OLH | A | B1 | B2 | C | D | E | HD | RB | X | Y | | |
|-------|------|-----|-----|----|----|----|-----|---|----|----|---|---|---|----|----|---|---|--|--|
| | | | | | | | | | | | | | | | | | | | |

* Asterisk items are minimum required for price

Notes:

| COPPER | | | |
|-------------------------------|-------|-------|--|
| * TUBE | TUBE | FIN | |
| O.D. | Thick | Thick | |
| <input type="checkbox"/> 3/8" | .014 | .005 | |
| <input type="checkbox"/> 1/2" | .016 | .006 | |
| <input type="checkbox"/> 5/8" | .020 | .006 | |
| Other _____ | | | |

*Fin Material:

Aluminum (std)
Copper

Connection Material:

Copper

Refrigerant Type: (choose one)

R-22
R-410A
Other: _____

Tonnage & CFM:

Liquid O.D.

Suction O.D.

☐ H.G.B.P

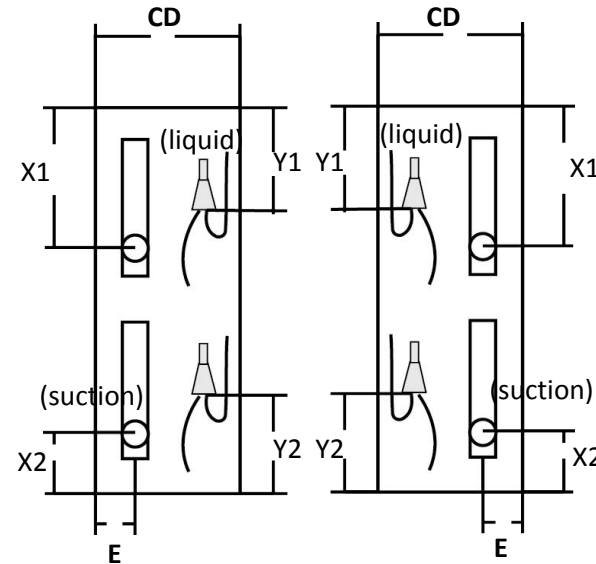
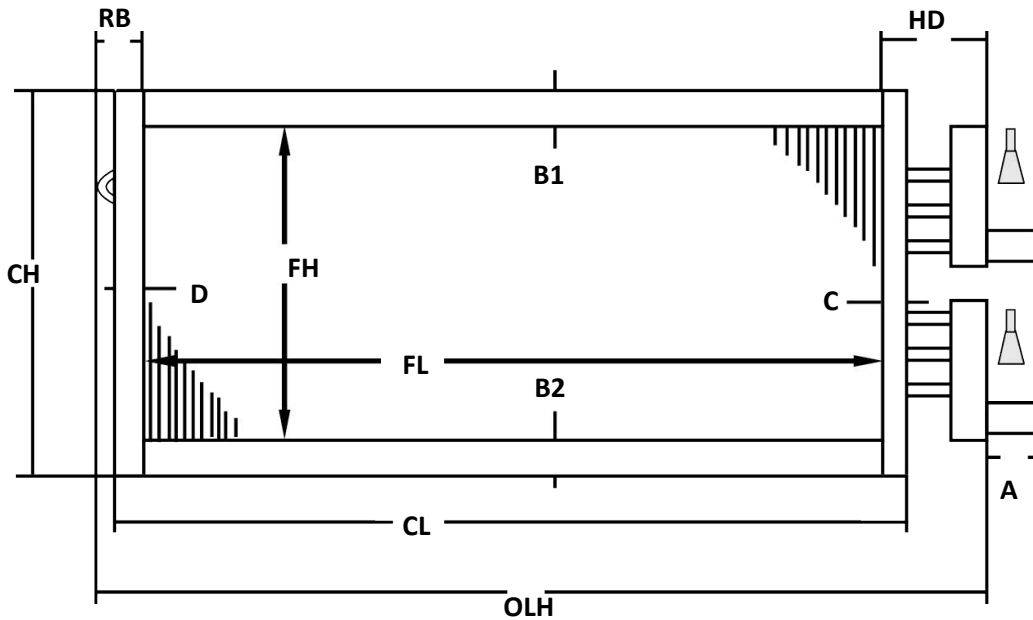


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DX Evaporator Coil - Face Split

Coil Dimensions and Specifications: (Please include detail photos of the coils and header sections - if available)



****Circle Header End Matching Your Coil****

Header Material:

Copper

Tubes out from distributor:

Flange Type:

- ☐ Standard ☐
- ☐ Stacking ☐
- ☐ Inverted Flange

***Casing Material: (circle one)**

Galv Steel 16 ga

Stainless Steel 16 ga

| *Rows | *FPI | *FH | *FL | CH | CL | CD | OLH | A | B1 | B2 | C | D | E | HD | RB | X1 | X2 | Y1 | Y2 |
|-------|------|-----|-----|----|----|----|-----|---|----|----|---|---|---|----|----|----|----|----|----|
| | | | | | | | | | | | | | | | | | | | |

* Asterisk items are minimum required for price

Notes:

| COPPER | | | |
|-------------------------------|-------|-------|--|
| * TUBE | TUBE | FIN | |
| O.D. | Thick | Thick | |
| <input type="checkbox"/> 3/8" | .014 | .005 | |
| <input type="checkbox"/> 1/2" | .016 | .006 | |
| <input type="checkbox"/> 5/8" | .020 | .006 | |
| Other _____ | | | |

***Fin Material:**

Aluminum (std)

Copper

Connection Material:

Copper

Refrigerant Type: (choose one)

R-22

R-410A

Other: _____

Liquid O.D.

Suction O.D.

☐ H.G.B.P

Tonnage & CFM:



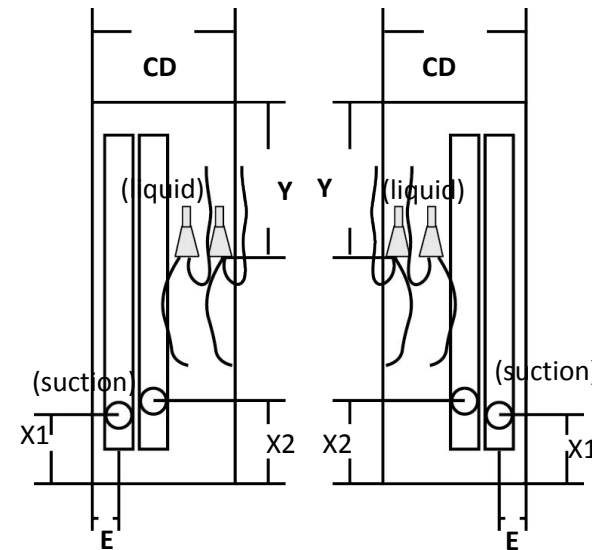
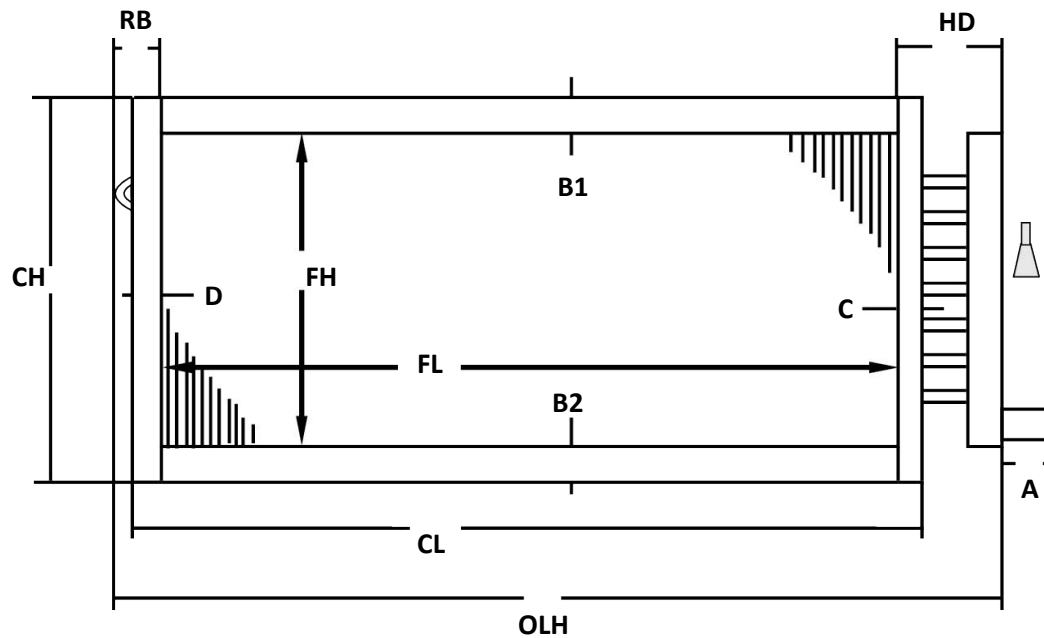
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| | |
|----------|------------------|
| Name: | OEM Unit Model # |
| Company: | OEM Coil Model # |
| Phone: | Project: |
| Email | Tag: |

Replacement Engineering Made Easy

DX Evaporator Coil - Intertwined

Coil Dimensions and Specifications: (Please include detail photos of the coils and header sections - if available)



****Circle Header End Matching Your Coil****

Header Material:

Copper

**# Tubes out
from distributor:**

Flange Type:

- ☐ Standard ☐
- ☐ Stacking ☐
- ☐ Inverted Flange

***Casing Material:
(circle one)**

Galv Steel 16 ga

Stainless Steel 16 ga

| *Rows | *FPI | *FH | *FL | CH | CL | CD | OLH | A | B1 | B2 | C | D | E | HD | RB | X1 | X2 | Y | |
|-------|------|-----|-----|----|----|----|-----|---|----|----|---|---|---|----|----|----|----|---|--|
| | | | | | | | | | | | | | | | | | | | |

* Asterisk items are minimum required for price

Notes:

| | | | |
|--|--|---|---|
| * COPPER TUBE TUBE FIN O.D. Thick Thick <input type="checkbox"/> 3/8" .014 .005 <input type="checkbox"/> 1/2" .016 .006 <input type="checkbox"/> 5/8" .020 .006 Other _____ | *Fin Material: Aluminum (std) Copper Connection Material: Copper | Refrigerant Type: (choose one) R-22 R-410A Other: _____ | Liquid O.D. _____ Suction O.D. _____ <input type="checkbox"/> H.G.B.P |
| | | | |
| | Tonnage & CFM: _____ | | |