

# Coil Selection Table

Coil Type	Application	Fin Type	Fin Material	Header	Connection Side	Standard Tubing	Tube OD	Max Temp
SP	Fluid	Flat	Al, Cu, Stl, or Stn Stl	Carbon or Stn Stl	Same End	Copper	5/8"	600°F
SPD	Fluid	Flat	Al, Cu, Stl, or Stn Stl	Carbon or Stn Stl	Same End	Copper	5/8"	600°F
WP	Fluid	Wavy	Al or Cu	Carbon or Stn Stl	Same End	Copper	5/8"	600°F
WPD	Fluid	Wavy	Al or Cu	Carbon or Stn Stl	Same End	Copper	5/8"	600°F
K	Fluid	Wavy	Al or Cu	Cast Iron	Same End	90-10 CuNi	5/8"	220°F
KWF	Fluid	Wavy	Al or Cu	Cast Iron	Same End	Red Brass	5/8"	220°F
HTHW	Fluid	Wavy	Al or Cu	Carbon or Stn Stl	Same End	Red Brass	5/8"	400°F
W	Fluid	Wavy	Al or Cu	Cast Iron	Same End	90-10 CuNi	5/8"	220°F
WTP	Fluid	Wavy	Al or Cu	Carbon or Stn Stl	Same End	Copper	5/8"	220°F
WTS	Fluid	Wavy	Al or Cu	Carbon or Stn Stl	Same End	Copper	5/8"	220°F
N	Steam	Wavy	Al or Cu	Cast Iron	Same End	90-10 CuNi	1"	400°F
NS	Steam	Wavy	Al or Cu	Cast Iron	Same End	90-10 CuNi	1"	400°F
HPSD-O	Steam	Wavy	Al or Cu	Carbon or Stn Stl	Opposite Ends	90-10 CuNi	1"	600°F
HPSD-S	Steam	Wavy	Al or Cu	Carbon or Stn Stl	Same End	90-10 CuNi	1"	600°F
E	Steam	Flat	Al, Cu, Stl, or Stn Stl	Cast Iron	Same or Opposite Ends	Red Brass	5/8"	400°F
EB	Steam	Flat	Al, Cu, Stl, or Stn Stl	Fabricated Steel	Same or Opposite Ends	Red Brass	5/8"	400°F
HPS	Steam	Wavy	Al or Cu	Carbon or Stn Stl	Same or Opposite Ends	90-10 CuNi	5/8"	600°F
WH	Steam	Flat	Al, Cu, Stl, or Stn Stl	Carbon or Stn Stl	Same End	Red Brass	5/8"	425°F
A	Steam	Wavy	Al or Cu	Cast Iron	Same End	Red Brass	5/8"	400°F
AW	Steam	Wavy	Al or Cu	Cast Iron	Same End	Red Brass	5/8"	400°F

Any coil design outside of these conditions can easily be done with one of IHT's custom designed coils. Custom designs can be very high temperature and pressure, and almost any material and design.



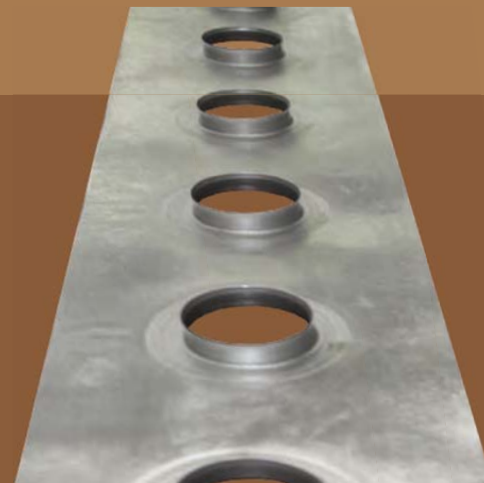
Industrial Heat Transfer

STANDARD COILS

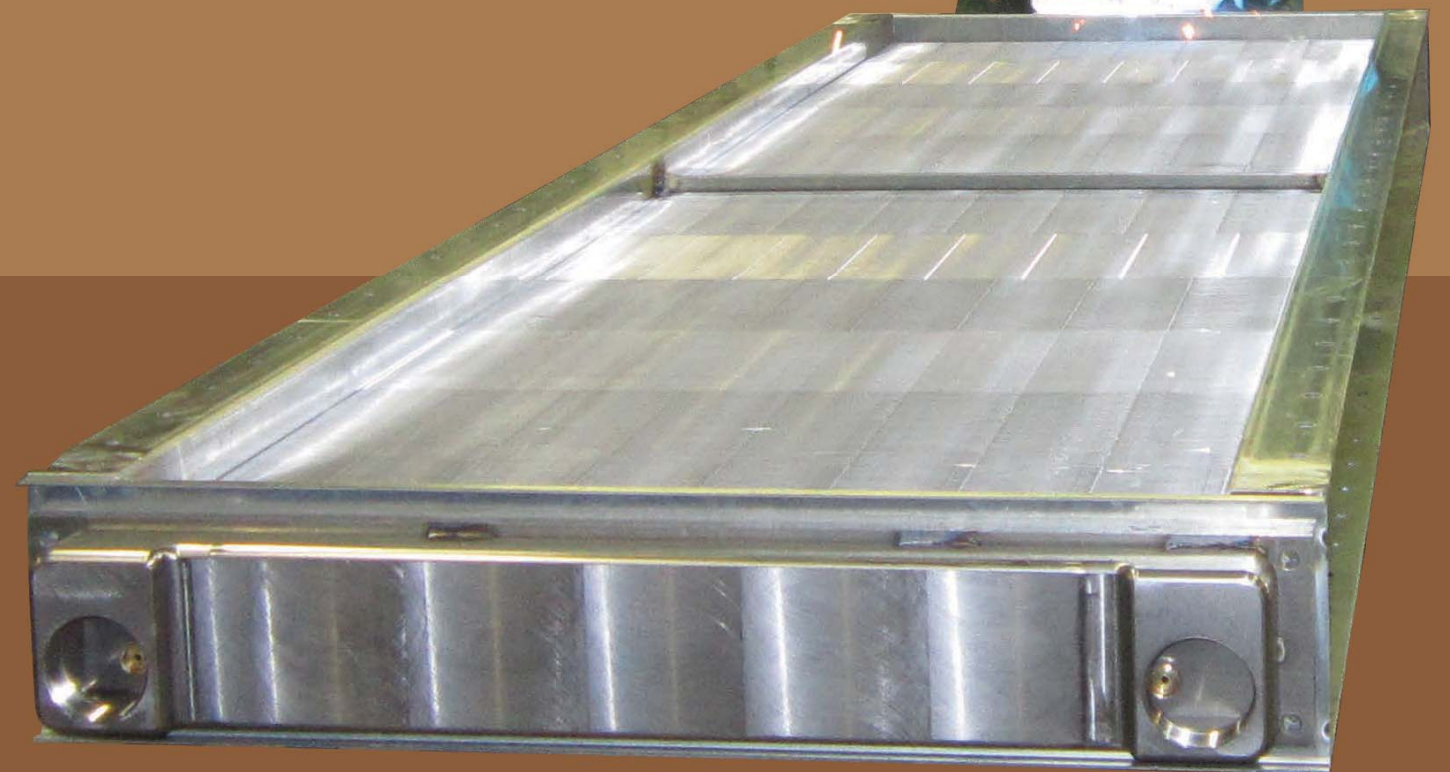
Technical Catalog



Wavy fins for high heat transfer



Flat fins for low pressure drop



**INDUSTRIAL HEAT TRANSFER, INC.**

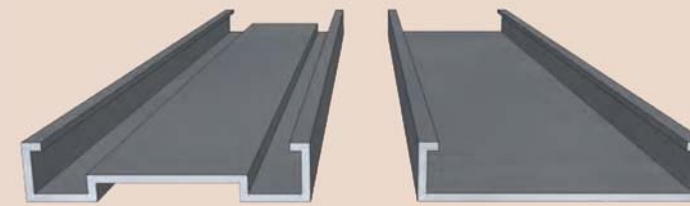
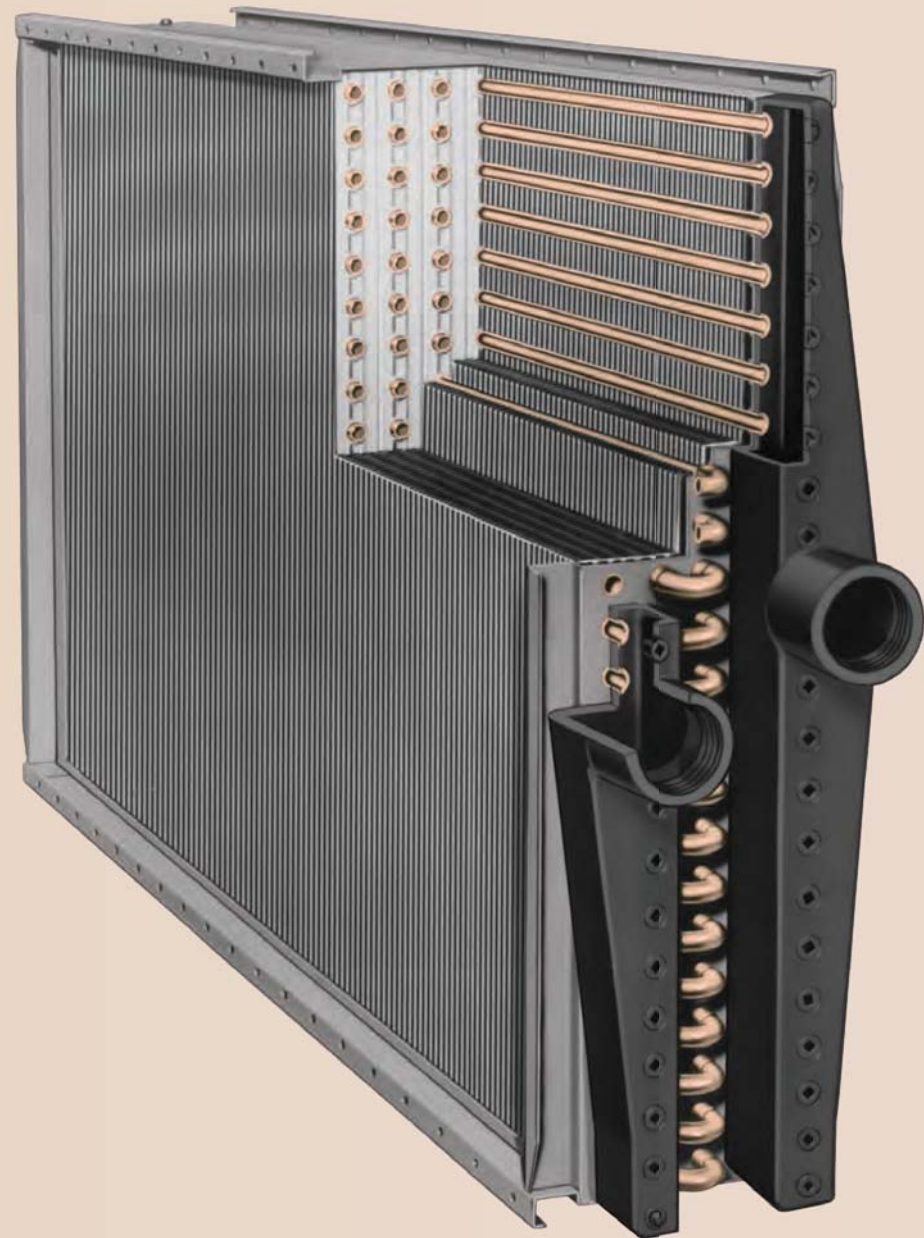
608-452-3103 300 Old Mill Road  
www.iht-inc.com Coon Valley WI 54623

**INDUSTRIAL HEAT TRANSFER, INC.**

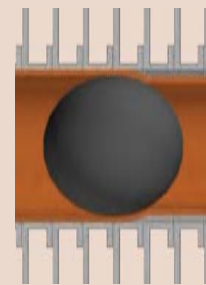
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# IHT Advantages



**Durable Formed Casings**  
Coil casing are de formed for high structural strength and rigidity. Carbon steel, galvanized steel, and stainless steel are standard casing materials of construction. Other alloys are available to meet customer specifications. Industrial wide flange casings for full perimeter bolting are standard on IHT flat-fin coils.



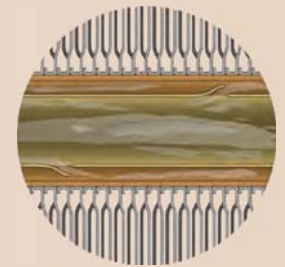
**Permanent Mechanical Fin Tube Bonds**  
A permanent fin tube bond and high heat transfer efficiency is ensured by hydrostatically driving an oversized metal ball through the coil tubes. The ball expands the tubes to the exact fin collar diameter providing a mechanical bond designed to last the life of the coil.



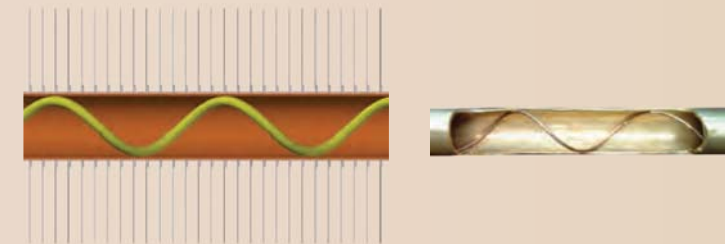
**Rugged Headers**  
Tough close-grained cast iron headers on coils up to 33" wide provide maximum strength, compactness, and superior resistance to corrosion. Threaded plugs in each header allow access to the tube ends for field inspection. Extra heavy steel pipe headers are used on coils with higher operating pressures and temperatures.



**Permanent Tube-Header Joints and High Pressure U-Bends**  
Work hardened tubes are rolled or bushed into the header or tube sheet. All coils with pipe headers have silver brazed joints or full welds. U-bends are designed for a permanent union and are die formed to provide a generous brazing collar. A special high temperature brazing alloy is used to withstanding high pressures.



**Directional Kinetic Orifices Extend Coil Life**  
IHT's steam distributing (non-freeze) coils are manufactured with a unique Directional Kinetic Orifice in the distributing tubes. This feature creates a directional flow that meters steam evenly and equally throughout the length of the tube to assure maximum heat transfer efficiency with uniform leaving air temperature over the entire face of the coil. These orifices are oriented to enhance condensate removal which reduces the problems of steam impingement, condensate holdup, and tube erosion failure caused by pierced holes with no directional flow. Directional Kinetic Orifices also help resist condensate freezing by eliminating cold spots.



**Turbulators**  
IHT's fluid coils can be provided with optional bronze spring or twisted ribbon turbulators inside the tubes. These heat transfer enhancement devices provide an alternative to multi passing the fluid in order to produce a suitable liquid velocity in the tubes. Turbulators trigger increased heat transfer at low velocities by increasing fluid turbulence and mixing.



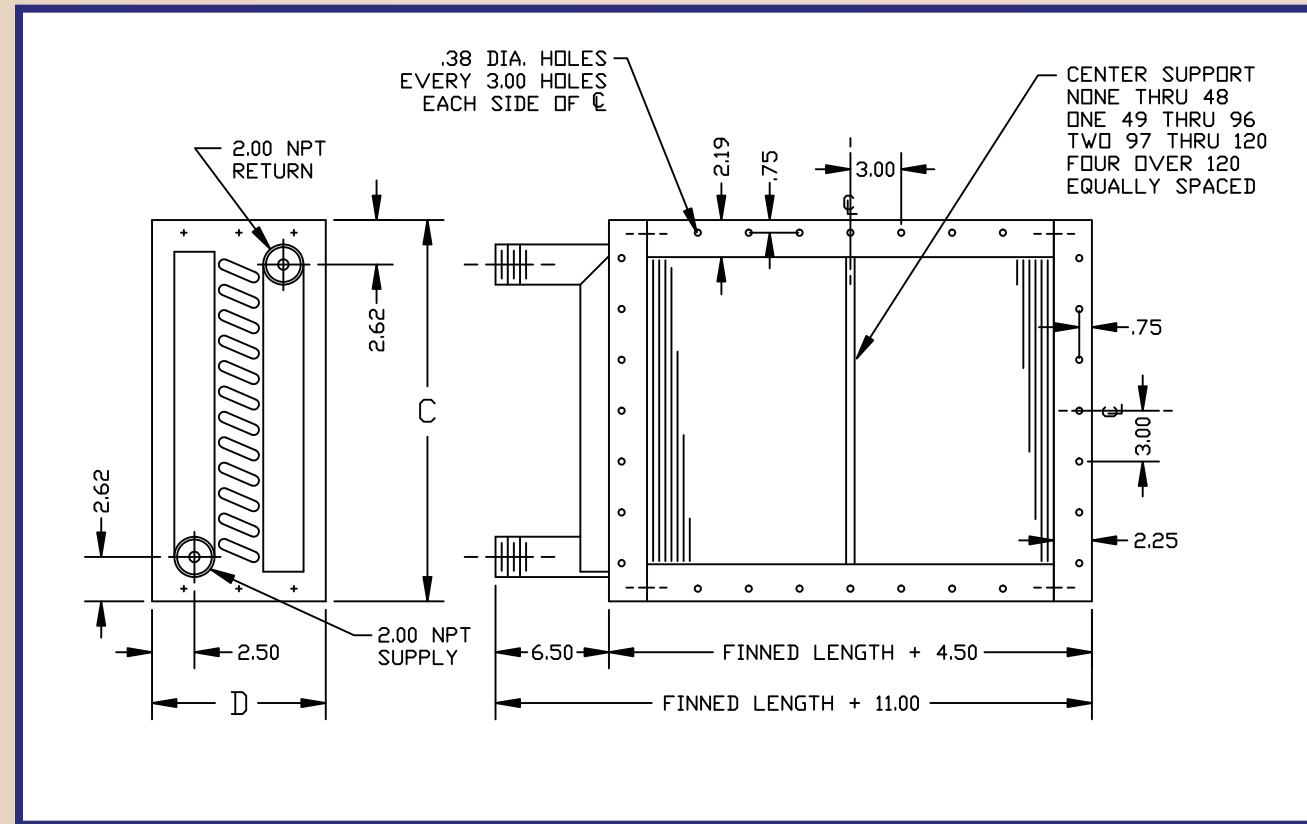
**Removable Air Tight Casing**  
Removable air tight casing for up to 15 psig can be used to keep fin side gases safely inside a fully contained area. Construction allows the coil to expand and contract without additional aids. The airtight casing housing permits the coil removal without disconnecting duct work.

**For Demanding Industrial Environments**  
IHT's heavy duty industrial cooling and heating coils offer the reliability, performance, durability, and quality construction necessary to meet demanding industrial environments. Properly specified IHT industrial coils provide many years of dependable operation at original performance levels.

**State of the Art Design for Industrial Conditions**  
IHT's selection, design, and manufacturing experience includes pioneering specifications for the toughest industrial conditions. Additional benefits include single source engineering responsibility as well as full service back-up.

**Quality Control**  
IHT's engineering design and factory production standards assure rigorous quality control in meeting dimensional tolerances and material specifications. Our manufacturing capabilities provide the highest degree of standards compliance. CNC machines assure exacting adherence to design requirements.

## SP Fluid Coils



### Applications

Water coil for high performance using medium to high temperature water.

### Tubes (5/8") O.D.

Copper with 0.024" wall - Standard  
90-10 Cupro-Nickel with 0.049" wall - Optional  
304 Stainless Steel with 0.049" wall - Optional

### U-Bends

When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

### Fins

Low pressure drop, flat plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Schedule 80 carbon steel pipe headers with 1.25" NPT (EXT) supply and return connections for single row coils. Multi-row coils use 2.00" NPT (EXT) return connections. Headering provides for same end connections.

### Tube-Header Joints

Silver brazed joints with copper tubes. TIG welded joints with carbon or stainless steel tubes.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Turbulators (Optional)

Bronze, spring type turbulators wound tightly in tubes.

### Rating

Tubing	Rating
0.024" Copper	250 psig @ 425°F
0.049" 90-10 CuNi	400 psig @ 450°F
0.049" Stainless Steel	400 psig @ 600°F

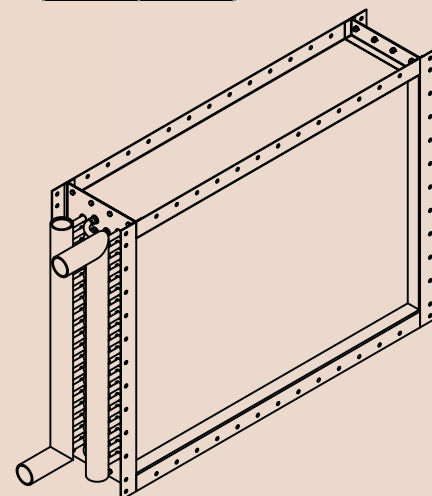
\*Maximum of 200°F water temperature change through the coil.

### Testing

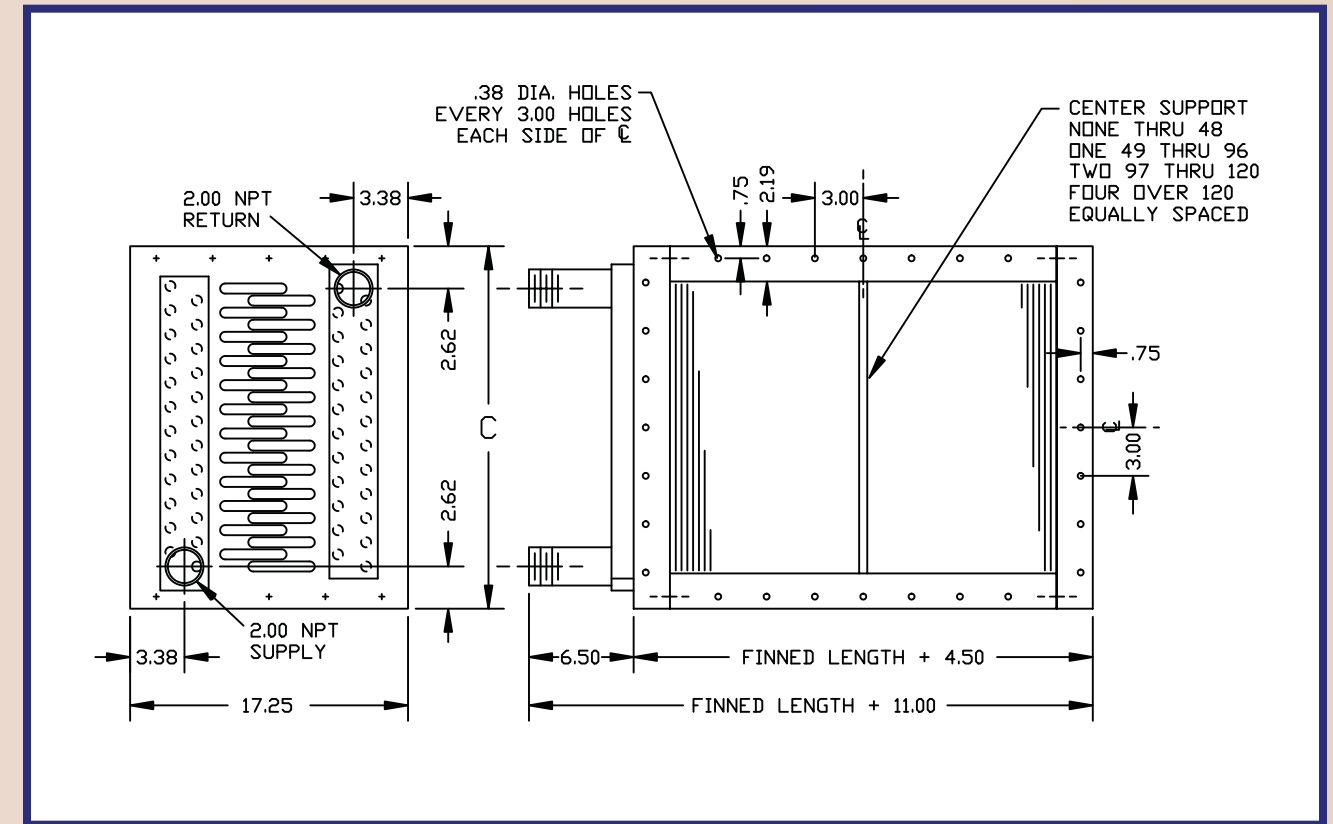
All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. Coil testing process is water-submerged air bubble leak testing.

Finned Width	C
12	16.50
15	19.50
18	22.50
21	25.50
24	28.50
27	31.50
30	34.50
33	37.50
36	40.50

# of Rows	D
4	10.25
6	13.75
8	17.25
10	20.75
12	24.25



## SPD Fluid Coils



### Applications

Water coil for high performance using medium to high temperature water. Drainable when installed level.

### Tubes (5/8") O.D.

Copper with 0.024" wall - Standard  
90-10 Cupro-Nickel with 0.049" wall - Optional  
304 Stainless Steel with 0.049" wall - Optional

### U-Bends

When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

### Fins

Low pressure drop, flat plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Fabricated headers allow for dual row feed and constructed to match tube material. Connections are 3.00" NPT (EXT) for supply and return. Headering provides for same end connections.

### Tube-Header Joints

TIG welded stainless or aluminum.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Turbulators (Optional)

Bronze, spring type turbulators wound tightly in tubes.

### Rating

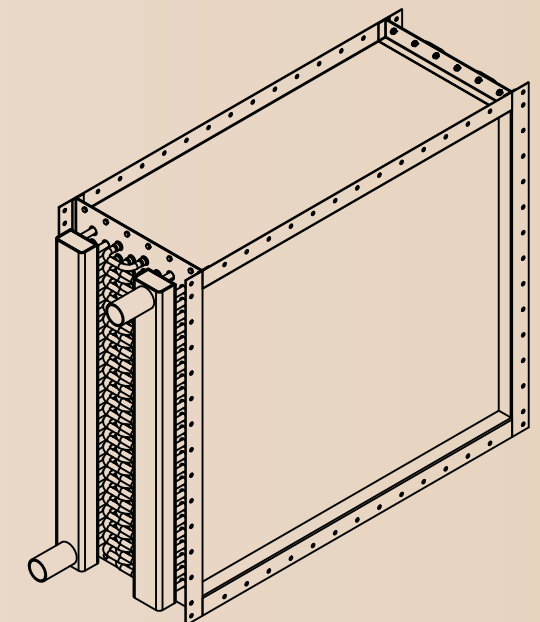
Tubing	Rating
0.024" Copper	100 psig @ 425°F
0.049" 90-10 CuNi	100 psig @ 425°F
0.049" Stainless Steel	100 psig @ 600°F

\*Maximum of 200°F water temperature change through the coil.

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

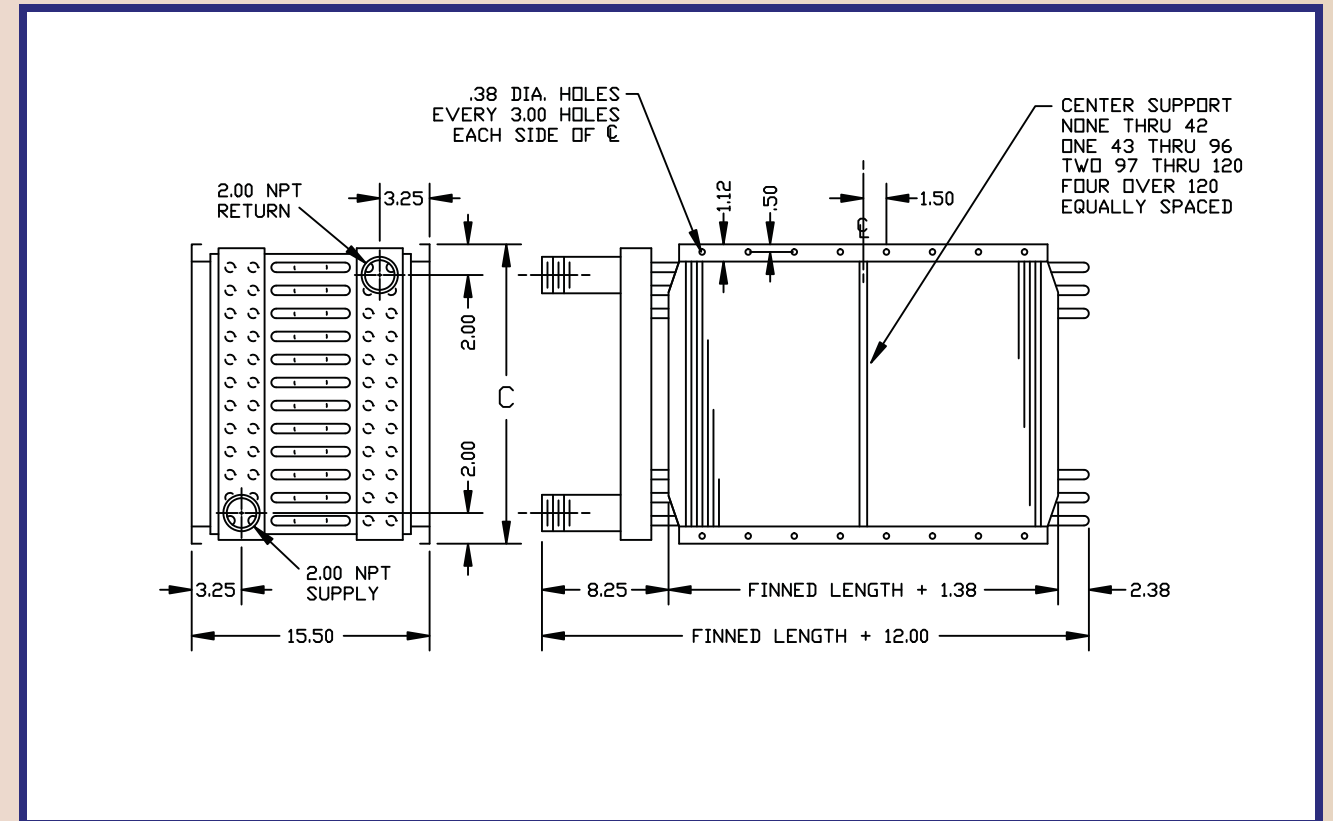
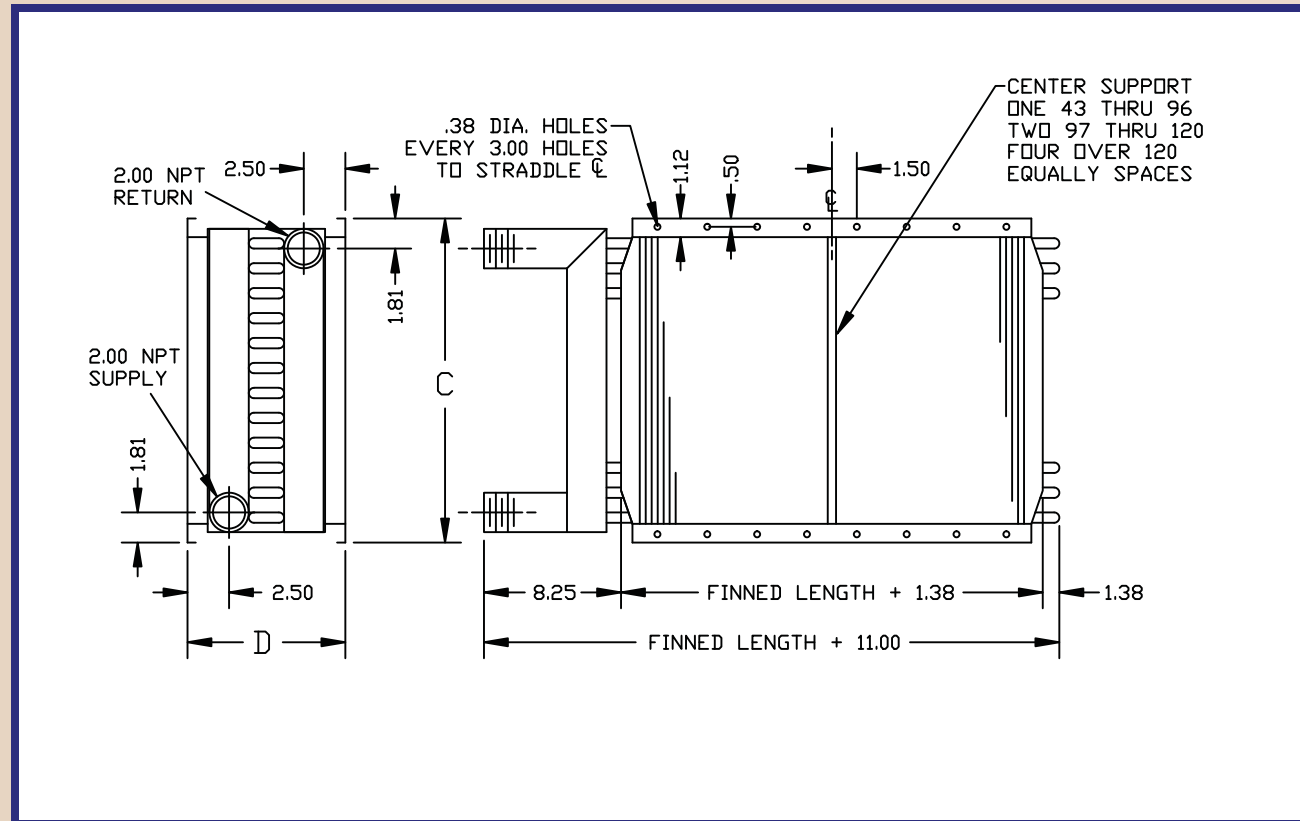
Finned Width	C
12	16.50
15	19.50
18	22.50
21	25.50
24	28.50
27	31.50
30	34.50
33	37.50
36	40.50





# WP Fluid Coils

# WPD Fluid Coils



**Applications**  
Water coil for high performance using medium to high temperature water. Drainable when installed level.

**Tubes (5/8" O.D.)**  
Copper with 0.024" wall - Standard  
90-10 Cupro-Nickel with 0.049" wall - Optional  
304 Stainless Steel with 0.049" wall - Optional

**U-Bends**  
When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

**Fins**  
High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

**Headers**  
Schedule 80 carbon steel pipe headers with 1.25" NPT (EXT) supply and return connections for single row coils. Multi-row coils use 2.00" NPT (EXT) return connections. Headering provides for same end connections.

**Tube-Header Joints**  
Silver brazed joints with copper tubes. TIG welded joints with carbon or stainless steel tubes.

**Casing**  
16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

**Turbulators (Optional)**  
Bronze, spring type turbulators wound tightly in tubes.

**Rating**

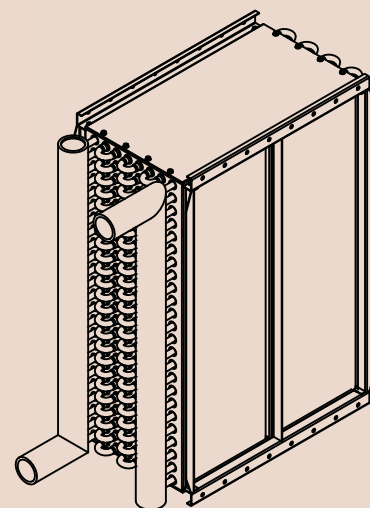
Tubing	Rating
0.024" Copper	350 psig @ 400°F
0.049" Red Brass	350 psig @ 400°F
0.049" Stainless Steel	450 psig @ 450°F

\*Maximum of 200°F water temperature change through the coil.

**Testing**  
All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C
12	13.50
15	16.50
18	19.50
21	22.50
24	25.50
27	28.50
30	31.50
33	34.50
36	37.50

# of Rows	D
2	6.50
4	9.50
6	12.50
8	15.50



**Applications**  
Water coil for high performance using medium to high temperature water. Drainable when installed level.

**Tubes (5/8" O.D.)**  
Copper with 0.024" wall - Standard  
90-10 Cupro-Nickel with 0.049" wall - Optional  
304 Stainless Steel with 0.049" wall - Optional

**U-Bends**  
When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

**Fins**  
High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

**Headers**  
Fabricated headers allow for dual row feed and constructed to match tube material. Connections are 2.00" NPT (EXT) for supply and return. Headering provides for same end connections.

**Tube-Header Joints**  
Silver brazed joints with copper tubes. TIG welded joints with carbon or stainless steel tubes.

**Casing**  
16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

**Turbulators (Optional)**  
Bronze, spring type turbulators wound tightly in tubes.

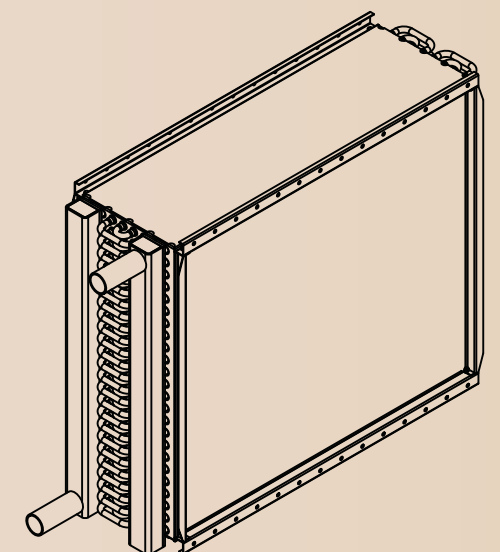
**Rating**

Tubing	Rating
0.049" Copper	100 psig @ 425°F
0.049" Red Brass	100 psig @ 425°F
0.049" Stainless Steel	100 psig @ 600°F

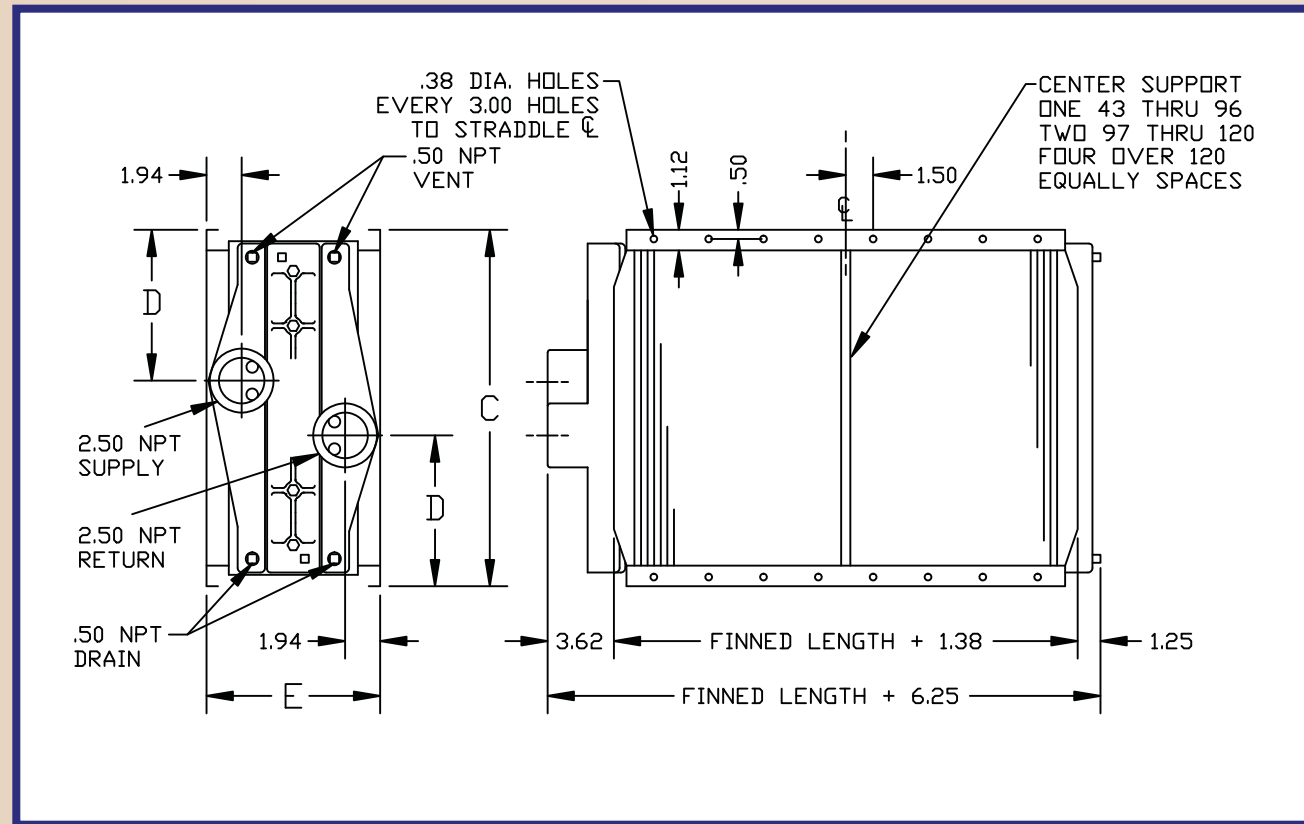
\*Maximum of 200°F water temperature change through the coil.

**Testing**  
All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C
12	13.50
15	16.50
18	19.50
21	22.50
24	25.50
27	28.50
30	31.50
33	34.50
36	37.50



## K Fluid Coils



### Applications

Water coil for high performance using low to medium temperature water. Cleanable and drainable. Every tube is readily accessible without piping disconnect. Extended casing flanges allow for ease of installation and durable construction.

### Tubes (5/8") O.D.

90-10 Cupro-Nickel with 0.049" wall

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Gray cast iron supply, return, and intermediate headers with 1.25" NPT (INT) supply and return connections on 12" coil finned widths. 2.50" NPT (INT) supply and return connections on 18", 24", 30", and 33" coil finned widths. Removable intermediate headers gasketed and bolted to tubesheets at both ends of the coil for periodic cleaning of the tubes and drainability. Headering provides for same end connections.

### Tubesheets

Tubesheets are flat steel plates.

### Tube-Header and Tubesheet Joints

Each tube is rolled into the headers and tubesheets, and then work hardened to provide a strong, permanent joint.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Turbulators (Optional)

Bronze, spring type turbulators wound tightly in tubes.

### Rating

Tubing	Rating
0.049" 90-10 CuNi	200 psig @ 220°F

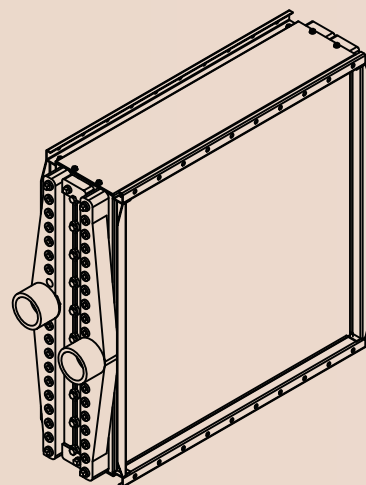
\*Maximum of 60°F water temperature change through the coil.

### Testing

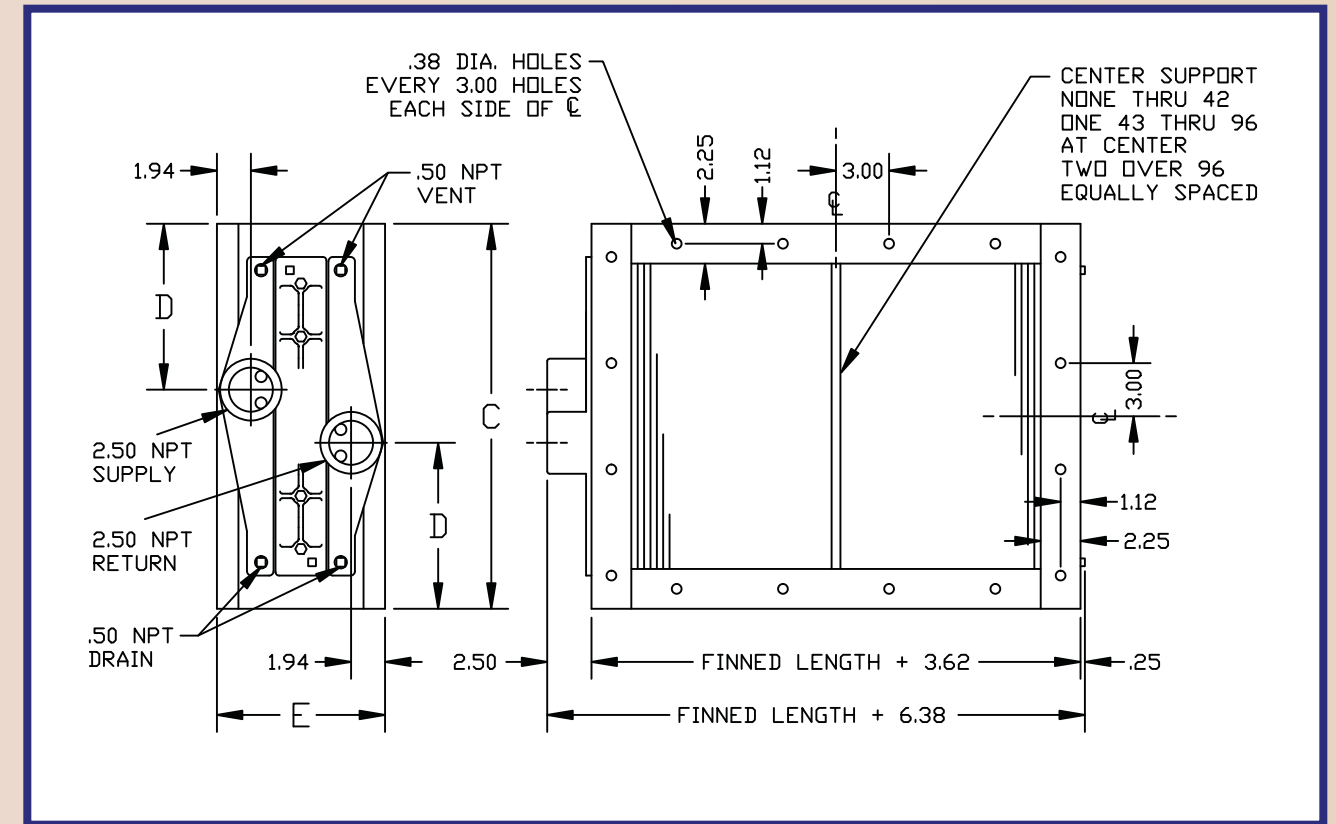
All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D
18	19.50	8.25
24	25.50	11.25
30	31.50	14.25
33	34.50	15.75

# of Rows	E
4	9.50
6	12.50
8	15.50
10	18.50
12	21.50



## KWF Fluid Coils



### Applications

Water coil for high performance using low to medium temperature water. Cleanable and drainable. Every tube is readily accessible without piping disconnect. Extended casing flanges allow for ease of installation and durable construction.

### Tubes (5/8") O.D.

Red Brass with 0.035" wall - Standard  
 Red Brass with 0.049" wall - Optional  
 90-10 Cupro-Nickel with 0.049" wall - Optional

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Gray cast iron supply, return, and intermediate headers with 1.25" NPT (INT) supply and return connections on 12" coil finned widths. 2.50" NPT (INT) supply and return connections on 18", 24", 30", and 33" coil finned widths. Removable intermediate headers gasketed and bolted to tubesheets at both ends of the coil for periodic cleaning of the tubes and drainability. Headering provides for same end connections.

### Tubesheets

Tubesheets are flat steel plates.

### Tube-Header and Tubesheet Joints

Each tube is rolled into the headers and tubesheets, and then work hardened to provide a strong, permanent joint.

### Casing

12-gauge galvanized steel wide flange casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Turbulators (Optional)

Bronze, spring type turbulators wound tightly in tubes.

### Rating

Tubing	Rating
0.035" Red Brass	200 psig @ 220°F
0.049" Red Brass	200 psig @ 220°F
0.049" 90-10 CuNi	200 psig @ 220°F

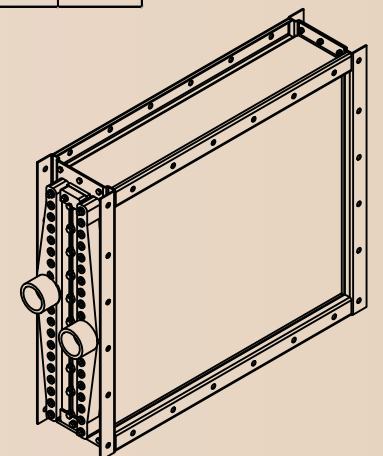
\*Maximum of 60°F water temperature change through the coil.

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D
18	21.75	9.38
24	27.75	12.38
30	33.75	15.38
33	36.75	16.88

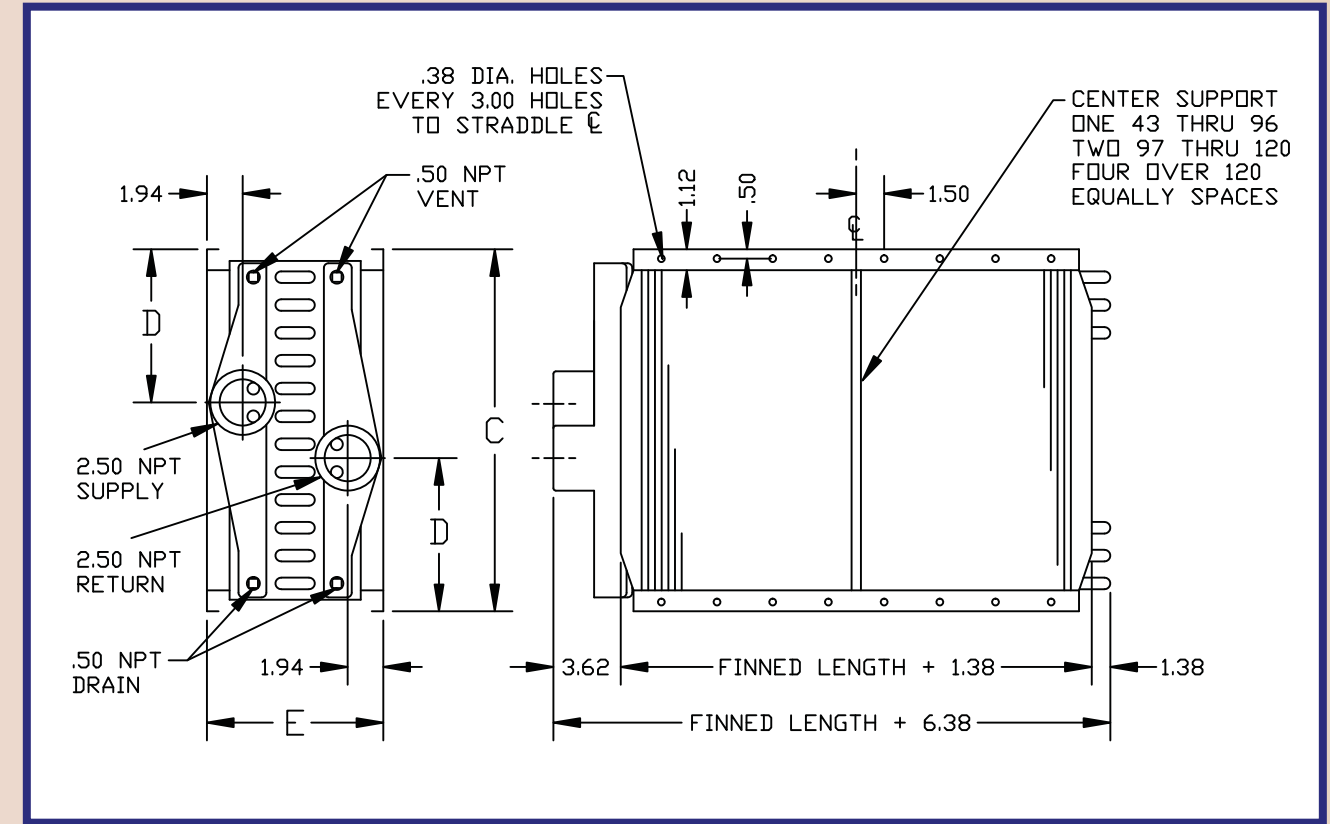
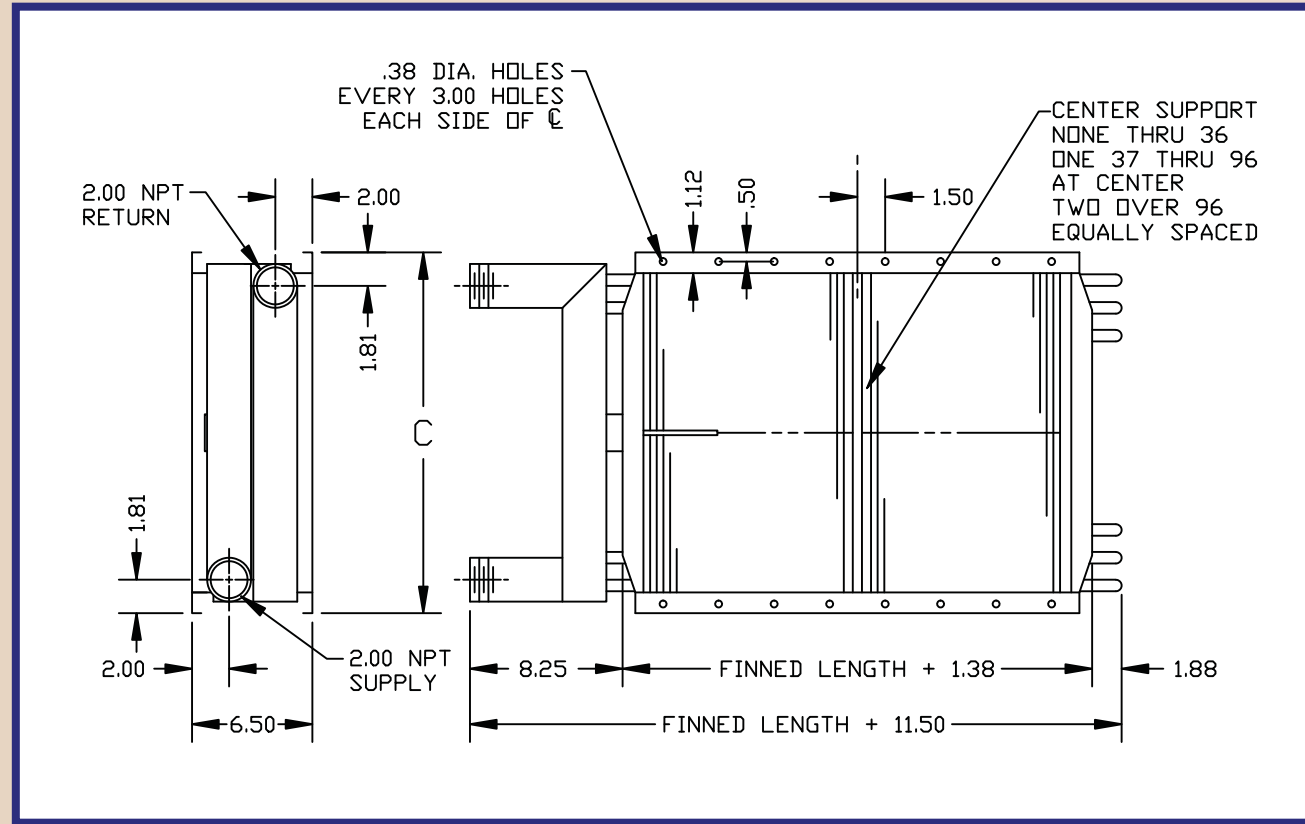
# of Rows	E
4	9.50
6	12.50
8	15.50





# HTHW Fluid Coils

# W Fluid Coils



**Applications**

Water coil for high performance using medium to high temperature water. Drainable when installed level.

**Tubes (5/8" O.D.)**

Red Brass with 0.035" wall - Standard  
Red Brass with 0.049" wall - Optional

**U-Bends**

When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

**Fins**

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

**Headers**

Schedule 80 carbon steel pipe headers with 1.25" NPT (EXT) supply and return connections for single row coils. Multi-row coils use 2.00" NPT (EXT) return connections. Headering provides for same end connections.

**Tube-Header Joints**

Silver brazed joints with red brass tubes.

**Casing**

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

**Turbulators (Optional)**

Bronze, spring type turbulators wound tightly in tubes.

**Air Tight Casing (Optional)**

Designed for air pressures up to and including 15 psig. Construction allows the coil to expand and contract without additional aids. The airtight casing housing permits the coil removal without disconnecting duct work. The 10-gauge painted steel casing is die-formed for strength.

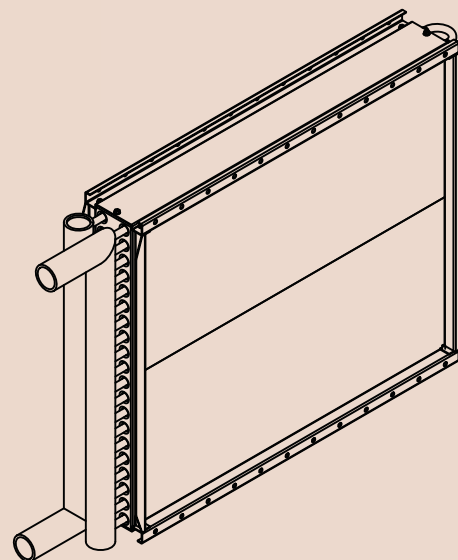
**Rating**

Tubing	Rating
0.035" Red Brass	350 psig @ 400°F
0.049" Red Brass	350 psig @ 400°F
*Maximum of 200°F water temperature change through the coil.	

**Testing**

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C
12	13.50
15	16.50
18	19.50
21	22.50
24	25.50
27	28.50
30	31.50
33	34.50
36	37.50



**Applications**

Water coil for high performance using low to medium temperature water.

**Tubes (5/8" O.D.)**

90-10 Cupro-Nickel with 0.049" wall

**U-Bends**

When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

**Fins**

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

**Headers**

Gray cast iron supply, return, and intermediate headers with 1.25" NPT (INT) supply and return connections on 12" coil finned widths. 2.50" NPT (INT) supply and return connections on 18", 24", 30", and 33" coil finned widths. Headering provides for same end connections.

**Tube-Header Joints**

Each tube is rolled into the headers, and then work hardened to provide a strong, permanent joint.

**Casing**

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

**Turbulators (Optional)**

Bronze, spring type turbulators wound tightly in tubes.

**Rating**

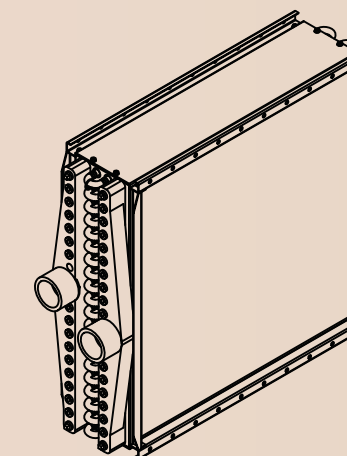
Tubing	Rating
0.049" 90-10 CuNi	200 psig @ 220°F
*Maximum of 60°F water temperature change through the coil.	

**Testing**

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D
18	19.50	8.25
24	25.50	11.25
30	31.50	14.25
33	34.50	15.75

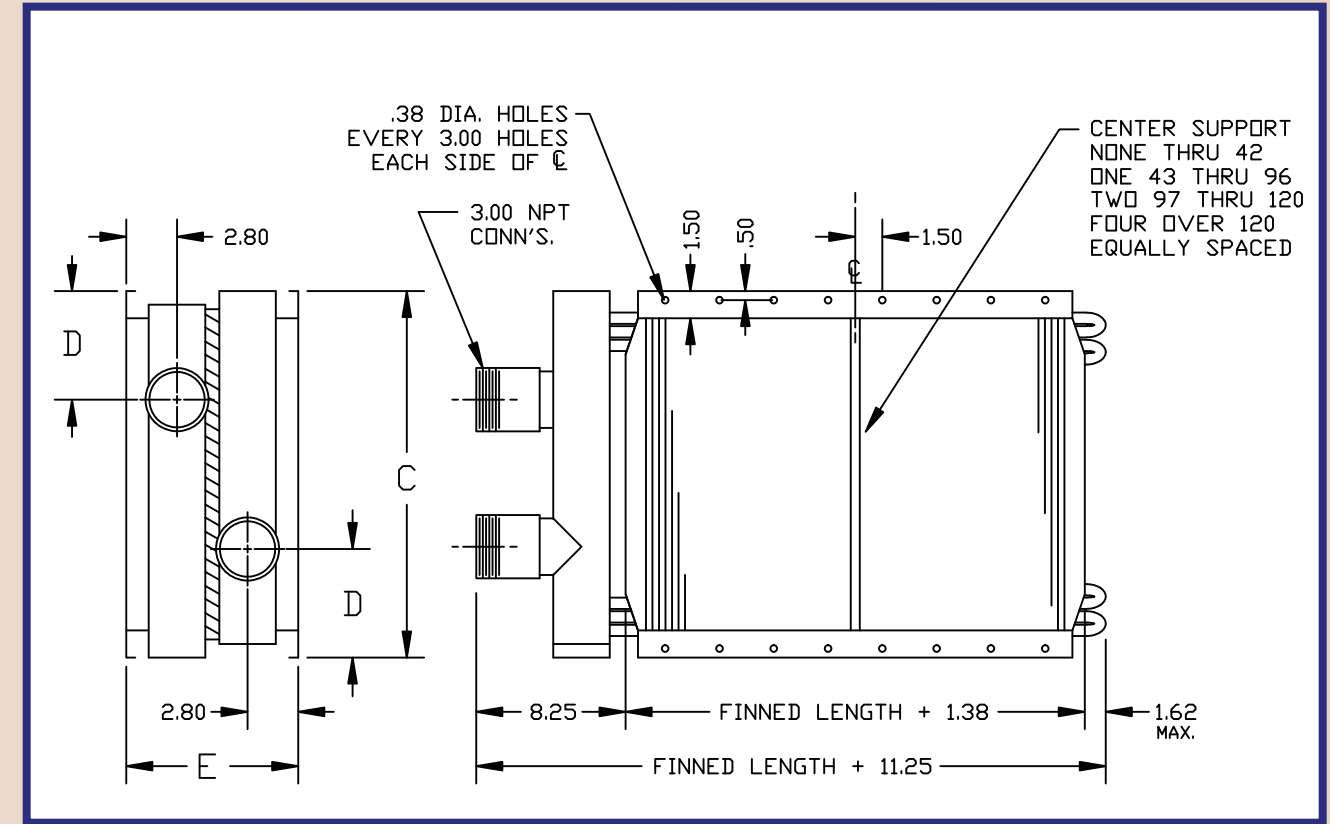
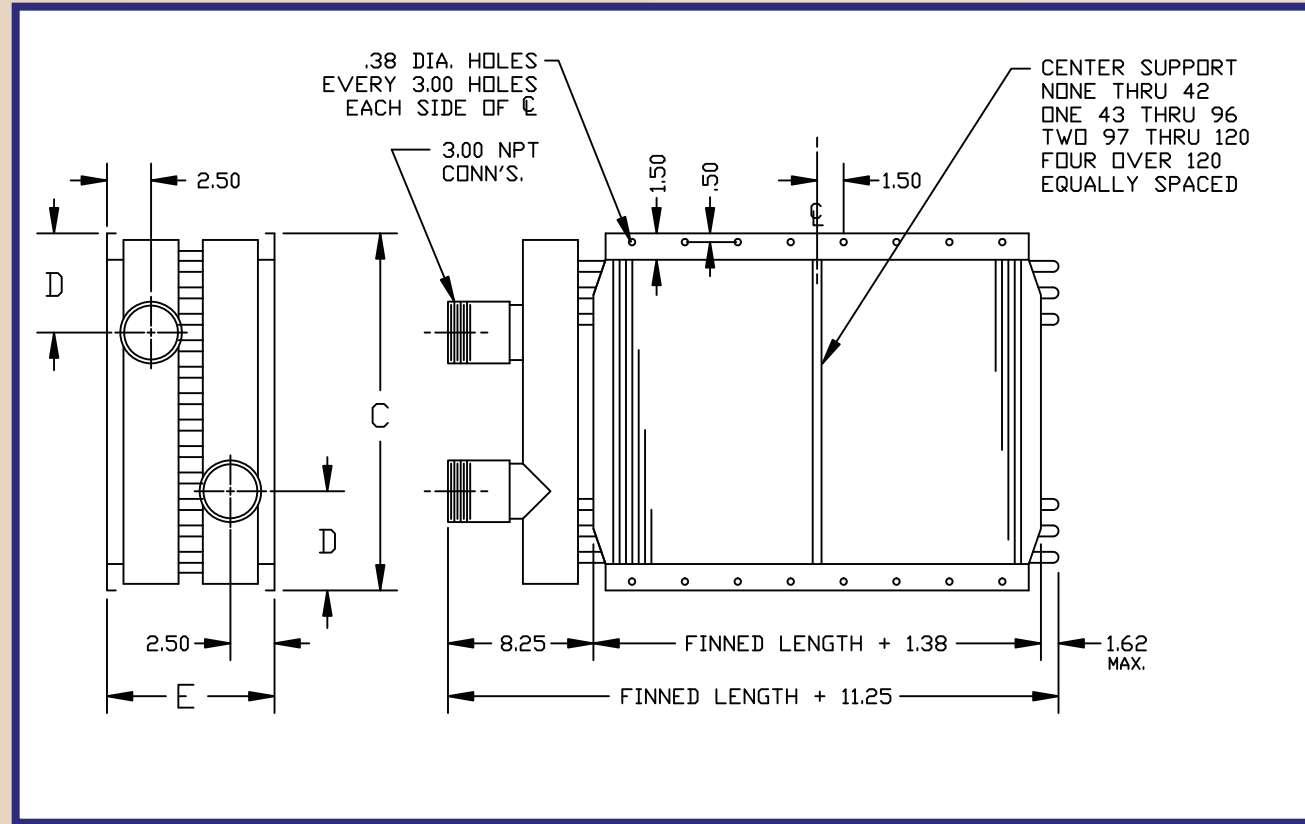
# of Rows	E
2	6.50
4	9.50
6	12.50
8	15.50
10	18.50
12	21.50





# WTP Fluid Coils

# WTS Fluid Coils



### Applications

Water coil for high performance using medium to high temperature water. Drainable when installed level.

### Tubes (5/8") O.D.

Copper with 0.049" wall - Standard  
90-10 Cupro-Nickel with 0.049" wall - Optional  
304 Stainless Steel with 0.035" wall - Optional

### U-Bends

When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Schedule 80 carbon steel pipe headers with 1.25" NPT (EXT) supply and return connections for single row coils. Multi-row coils use 3.00" NPT (EXT) return connections. Headering provides for same end connections.

### Tube-Header Joints

Silver brazed joints with copper tubes. TIG welded joints with carbon or stainless steel tubes.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Turbulators (Optional)

Bronze, spring type turbulators wound tightly in tubes.

### Rating

Tubing	Rating
0.049" Copper	150 psig @ 220°F
0.049" Red Brass	200 psig @ 220°F
0.035" Stainless Steel	350 psig @ 220°F

\*Maximum of 60°F water temperature change through the coil.

### Testing

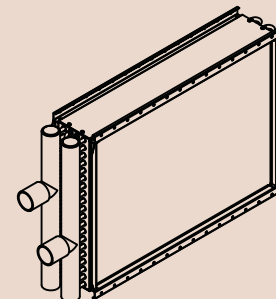
All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D
12	13.50	3.75
15	16.50	5.25
18	19.50	6.75
21	22.50	8.25
24	25.50	9.75
27	28.50	11.25
30	31.50	12.75
33	34.50	14.25

# of Rows	E
2	8.00
4	9.50
6	12.50
8	15.50
10	18.50
12	21.50

Finned Width	C	D
36	38.25	14.62
39	41.25	16.12
42	44.25	17.62
45	47.25	19.12
48	50.25	20.62
54	56.25	23.62
60	62.25	26.62

# of Rows	E
2	9.50
4	9.50
6	12.50
8	15.50
10	18.50
12	21.50



### Applications

Water coil for high performance using medium to high temperature water.

### Tubes (5/8") O.D.

Copper with 0.049" wall - Standard  
90-10 Cupro-Nickel with 0.049" wall - Optional  
304 Stainless Steel with 0.035" wall - Optional

### U-Bends

When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Schedule 80 carbon steel pipe headers with 1.25" NPT (EXT) supply and return connections for single row coils. Multi-row coils use 3.00" NPT (EXT) return connections. Headering provides for same end connections.

### Tube-Header Joints

Silver brazed joints with copper tubes. TIG welded joints with carbon or stainless steel tubes.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Turbulators (Optional)

Bronze, spring type turbulators wound tightly in tubes.

### Rating

Tubing	Rating
0.049" Copper	150 psig @ 220°F
0.049" Red Brass	200 psig @ 220°F
0.035" Stainless Steel	350 psig @ 220°F

\*Maximum of 60°F water temperature change through the coil.

### Testing

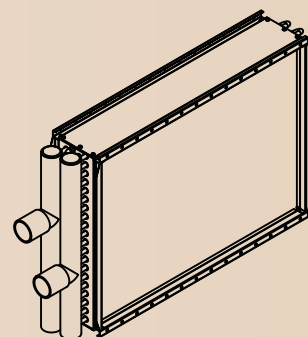
All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

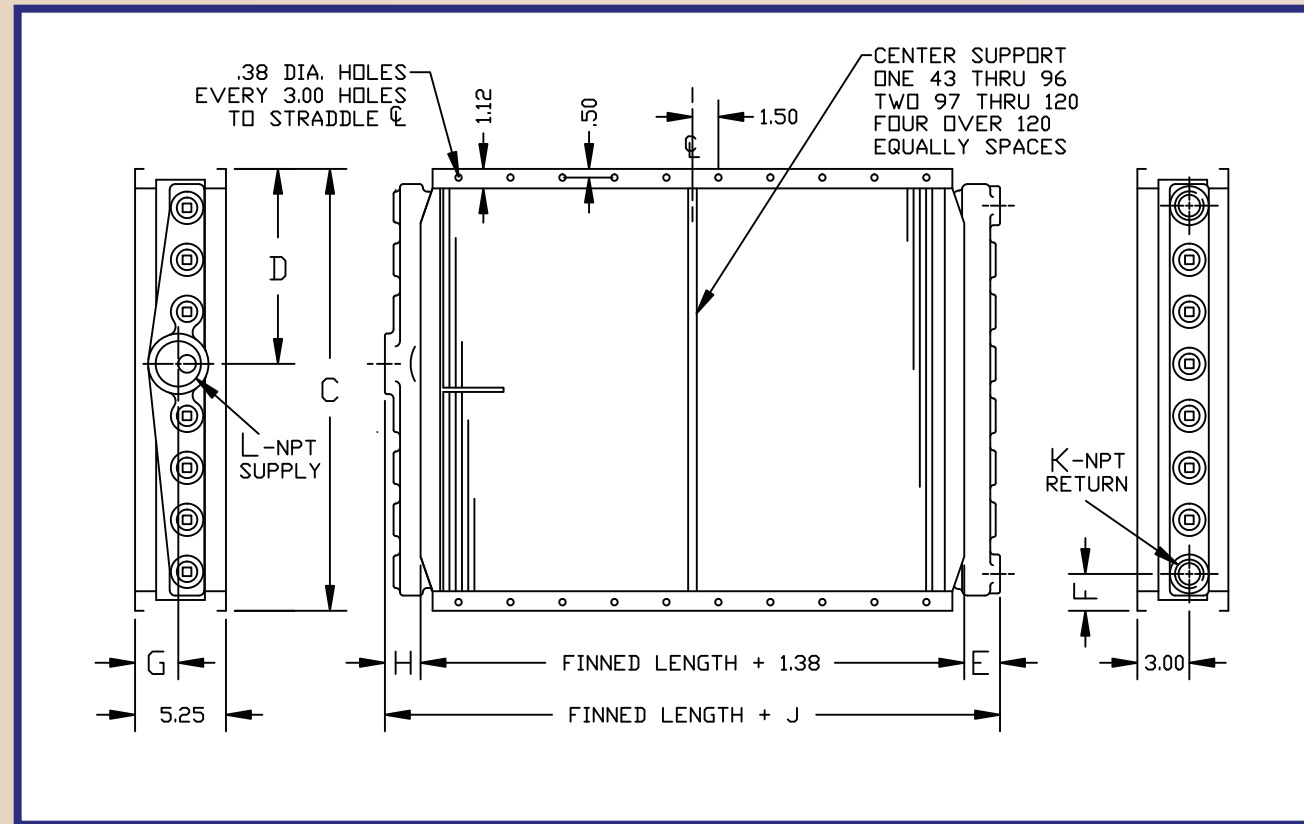
Finned Width	C	D
12	13.50	4.12
15	16.50	5.62
18	19.50	7.12
21	22.50	8.62
24	25.50	10.12
27	28.50	11.62
30	31.50	13.12
33	34.50	14.62

# of Rows	E
4	9.50
6	12.50
8	15.50
10	18.50
12	21.50

Finned Width	C	D
36	38.25	15.00
39	41.25	16.50
42	44.25	18.00
45	47.25	19.50
48	50.25	21.00
54	56.25	24.00
60	62.25	27.00

# of Rows	E
4	9.50
6	12.50
8	15.50
10	18.50
12	21.50





### Applications

Steam distributing coils for steam modulation and maximum freeze protection. Coils for high-performance using low to medium pressure steam. Tube-within-a-tube design for optimum steam distribution. Inner steam distributing tubes located concentrically within the outer condensing tubes by corrosion resistant support clips. Inner tubes with die-formed Directional Kinetic Orifices to discharge steam into the outer tubes in the direction of condensate flow.

### Tubes-Outer (1") O.D.

90-10 Cupro-Nickel with 0.049" wall

### Tubes-Inner(11/16") O.D.

Copper with 0.014" wall - Standard  
316 Stainless Steel with 0.014" wall - Optional

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Gray cast iron headers with threaded internal connections. Headering provides for opposite end connections. Steam deflectors are provided opposite supply connection to prevent tube erosion from steam impingement in the connection area.

### Tube-Header Joints

Tubes are rolled and work-hardened into headers to form a permanent, pressure tight joint.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

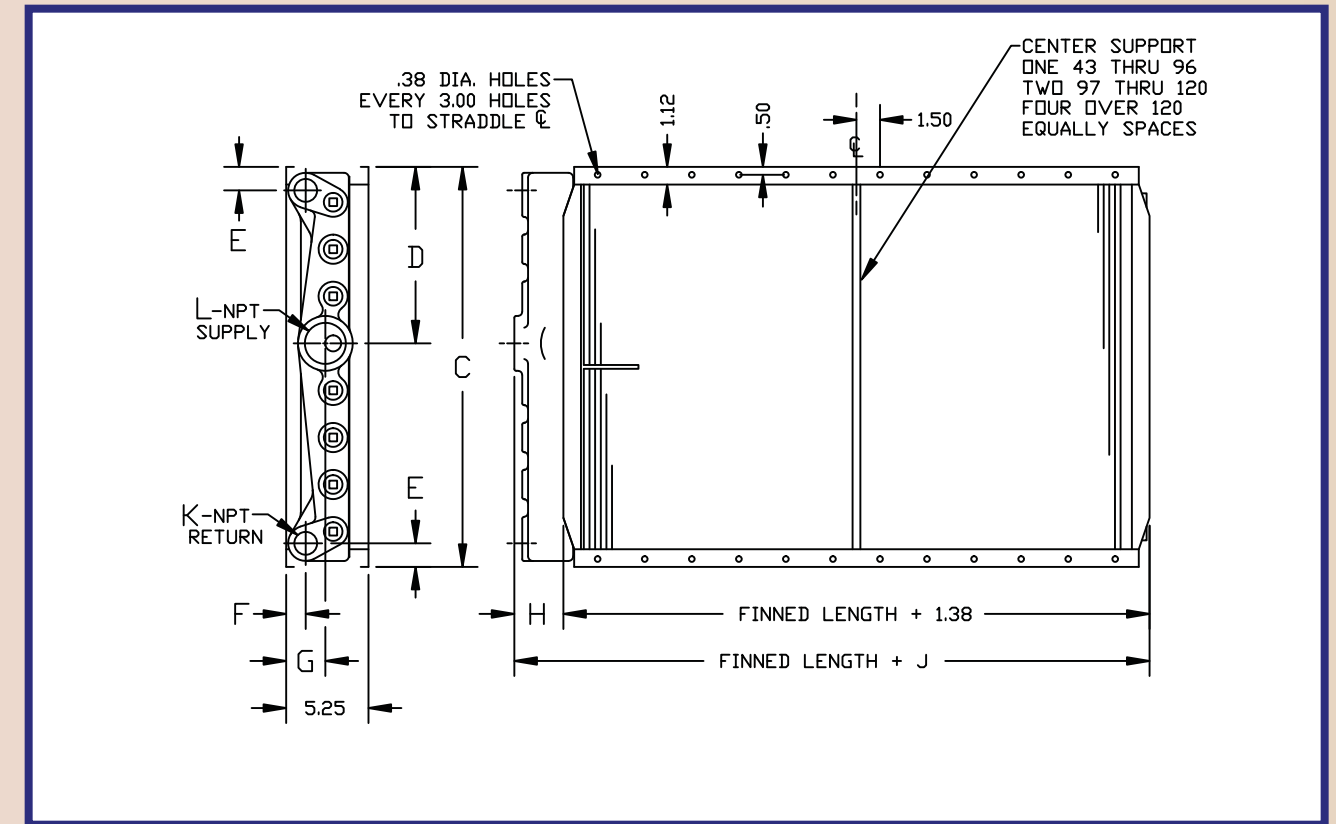
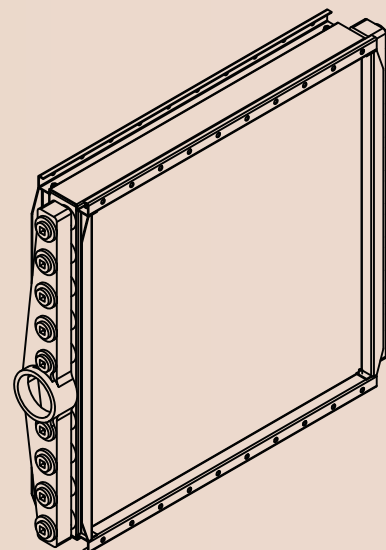
### Rating

Tubing	Rating
0.049" 90-10 CuNi	200 psig @ 400°F

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D	E	F	G	H	J	K	L
12	13.50	5.25	2.50	2.25	2.75	1.69	5.56	1.00	1.50
18	19.50	8.25	2.50	2.25	2.50	1.69	5.56	1.00	2.00
24	25.50	11.25	2.75	2.12	2.50	2.06	6.19	1.25	2.50
30	31.50	14.25	2.75	2.12	2.50	2.31	6.44	1.25	3.00
33	34.50	17.25	2.75	2.12	2.50	2.31	6.44	1.25	3.00



### Applications

Steam distributing coils for steam modulation and maximum freeze protection. Coils for high-performance using low to medium pressure steam. Tube-within-a-tube design for optimum steam distribution. Inner steam distributing tubes located concentrically within the outer condensing tubes by corrosion resistant support clips. Inner tubes with die-formed Directional Kinetic Orifices to discharge steam into the outer tubes in the direction of condensate flow.

### Tubes-Outer (1") O.D.

90-10 Cupro-Nickel with 0.049" wall

### Tubes-Inner(11/16") O.D.

Copper with 0.014" wall - Standard  
316 Stainless Steel with 0.014" wall - Optional

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Gray cast iron headers with threaded internal connections. Headering provides for same end connections. Steam deflectors are provided opposite supply connection to prevent tube erosion from steam impingement in the connection area.

### Tube-Header Joints

Tubes are rolled and work-hardened into headers to form a permanent, pressure tight joint.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

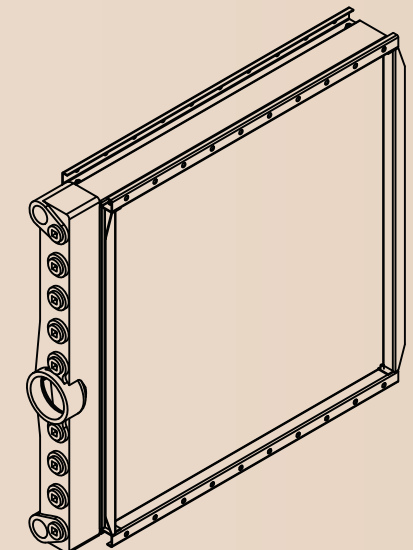
### Rating

Tubing	Rating
0.049" 90-10 CuNi	200 psig @ 400°F

### Testing

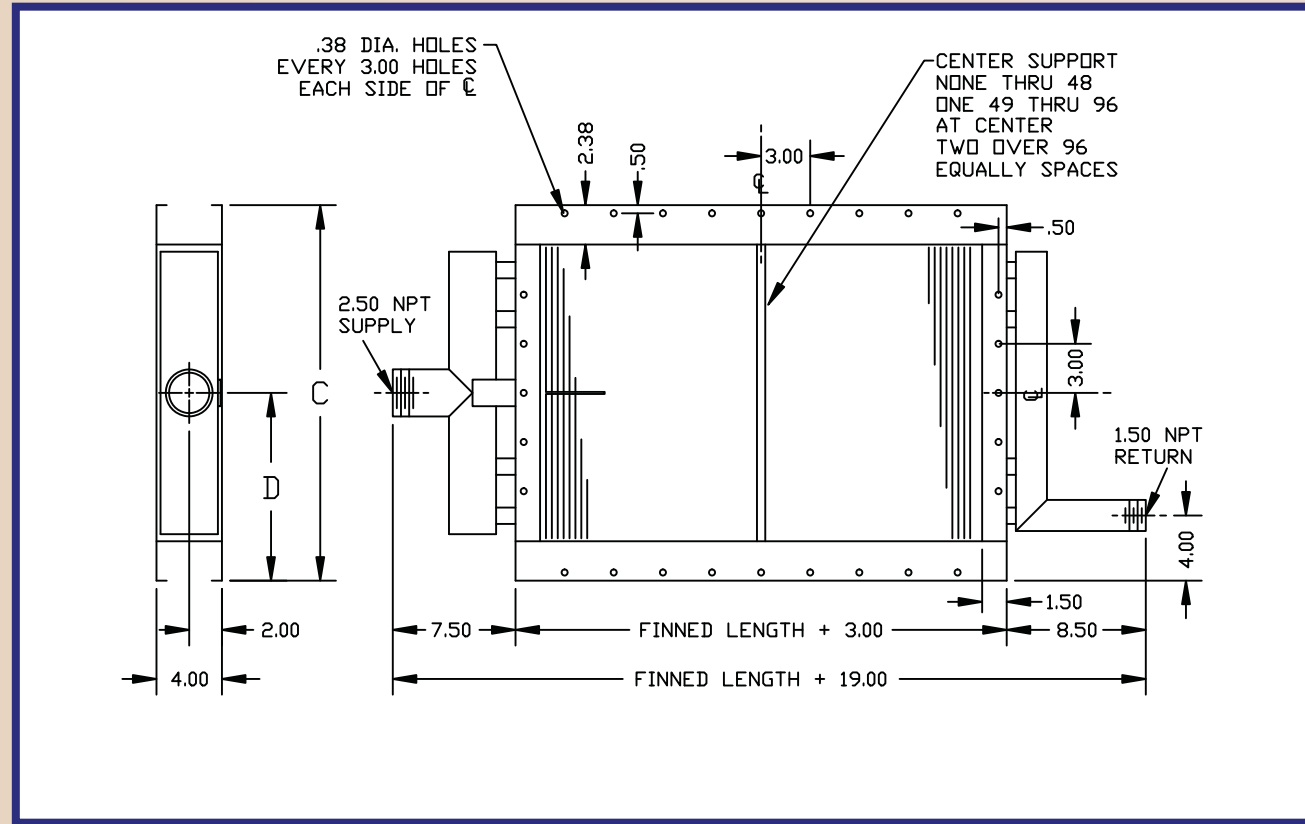
All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D	E	F	G	H	J	K	L
12	13.50	5.25	1.81	1.31	2.75	2.50	3.88	1.00	1.50
18	19.50	8.25	1.81	1.31	2.50	2.50	3.88	1.00	2.00
24	25.50	11.25	1.50	1.25	2.50	2.88	4.25	1.25	2.50
30	31.50	14.25	1.50	1.25	2.50	3.38	4.75	1.25	3.00
33	34.50	17.25	1.50	1.25	2.50	3.38	4.75	1.25	3.00





## HPSD-O Steam Coils



### Applications

Steam distributing coils for steam modulation and maximum freeze protection. Coils for high-performance using medium to high pressure steam. Tube-within-a-tube design for optimum steam distribution. Inner steam distributing tubes located concentrically within the outer condensing tubes by corrosion resistant support clips. Inner tubes with die-formed Directional Kinetic Orifices to discharge steam into the outer tubes in the direction of condensate flow.

### Tubes-Outer (1") O.D.

90-10 Cupro-Nickel with 0.049" wall - Standard  
 Red Brass with 0.035" wall or 0.049" wall - Optional  
 Carbon Steel with 0.049" wall - Optional

### Tubes-Inner(11/16") O.D.

Copper with 0.014" wall - Standard  
 316 Stainless Steel with 0.014" wall - Optional

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Schedule 80 carbon steel pipe headers with 2.50" NPT (EXT) supply connections and 1.50" NPT (EXT) return connections. Headering provides for opposite end connections.

### Tube-Header Joints

Silver brazed joints with red brass and 90-10 cupro-nickel tubes. TIG welded joints with carbon steel tubes.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Air Tight Casing (Optional)

Designed for air pressures up to and including 15 psig. Construction allows the coil to expand and contract without additional aids. The airtight casing housing permits the coil removal without disconnecting duct work. The 10-gauge painted steel casing is die-formed for strength.

### Rating

Tubing	Rating
0.049" Red Brass	250 psig @ 425°F
0.049" 90-10 CuNi	350 psig @ 450°F (* or 600°F)
0.049" Carbon Steel	350 psig @ 450°F (* or 600°F)

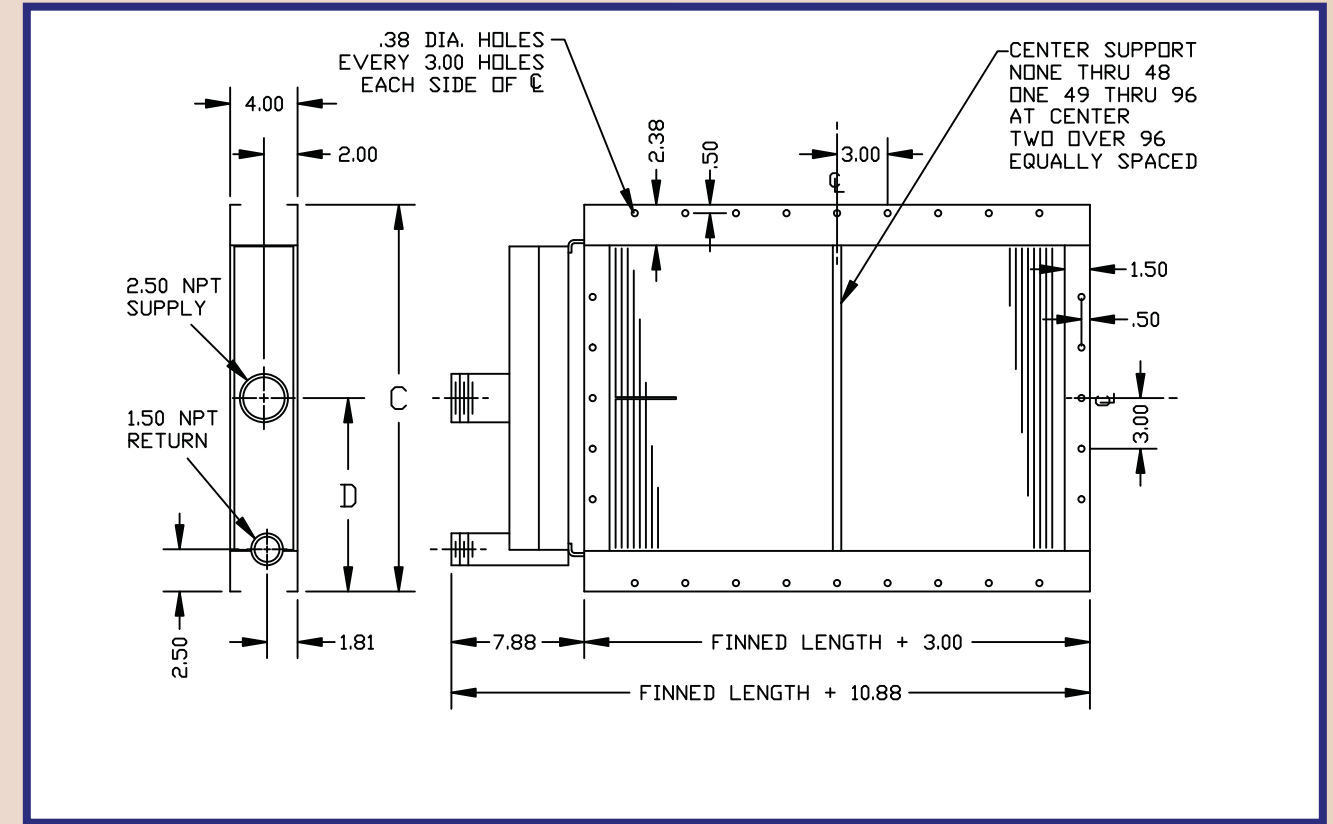
*\*If 316 SS inner tubes are used the temperature rating of 90-10 and steel tubes can be increased to 600°F.*

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing. Optional testing of the air tight casing can be provided at the specified working pressure.

Finned Width	Coil Only		With Air Tight Case		
	C	D	Depth	C	D
12	16.94	8.50	6.94	19.69	9.75
18	22.94	11.50	6.94	25.69	12.75
24	28.94	14.50	6.94	31.69	15.75
30	34.94	17.50	6.94	37.69	18.75
36	40.94	19.00	6.94	43.69	21.75
42	46.94	20.50	6.94		
48	52.94	23.50	6.94		

## HPSSD-S Steam Coils



### Applications

Steam distributing coils for steam modulation and maximum freeze protection. Coils for high-performance using medium to high pressure steam. Tube-within-a-tube design for optimum steam distribution. Inner steam distributing tubes located concentrically within the outer condensing tubes by corrosion resistant support clips. Inner tubes with die-formed Directional Kinetic Orifices to discharge steam into the outer tubes in the direction of condensate flow.

### Tubes-Outer (1") O.D.

90-10 Cupro-Nickel with 0.049" wall - Standard  
 Red Brass with 0.035" wall or 0.049" wall - Optional  
 Carbon Steel with 0.049" wall - Optional

### Tubes-Inner(11/16") O.D.

Copper with 0.014" wall - Standard  
 316 Stainless Steel with 0.014" wall - Optional

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Fabricated rectangular steel tube headers provide for same end connections.

### Tube-Header Joints

Silver brazed joints with red brass and 90-10 cupro-nickel tubes. TIG welded joints with carbon steel tubes.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Air Tight Casing (Optional)

Designed for air pressures up to and including 15 psig. Construction allows the coil to expand and contract without additional aids. The airtight casing housing permits the coil removal without disconnecting duct work. The 10-gauge painted steel casing is die-formed for strength.

### Rating

Tubing	Rating
0.049" Red Brass	250 psig @ 425°F
0.049" 90-10 CuNi	350 psig @ 450°F (* or 600°F)
0.049" Carbon Steel	350 psig @ 450°F (* or 600°F)

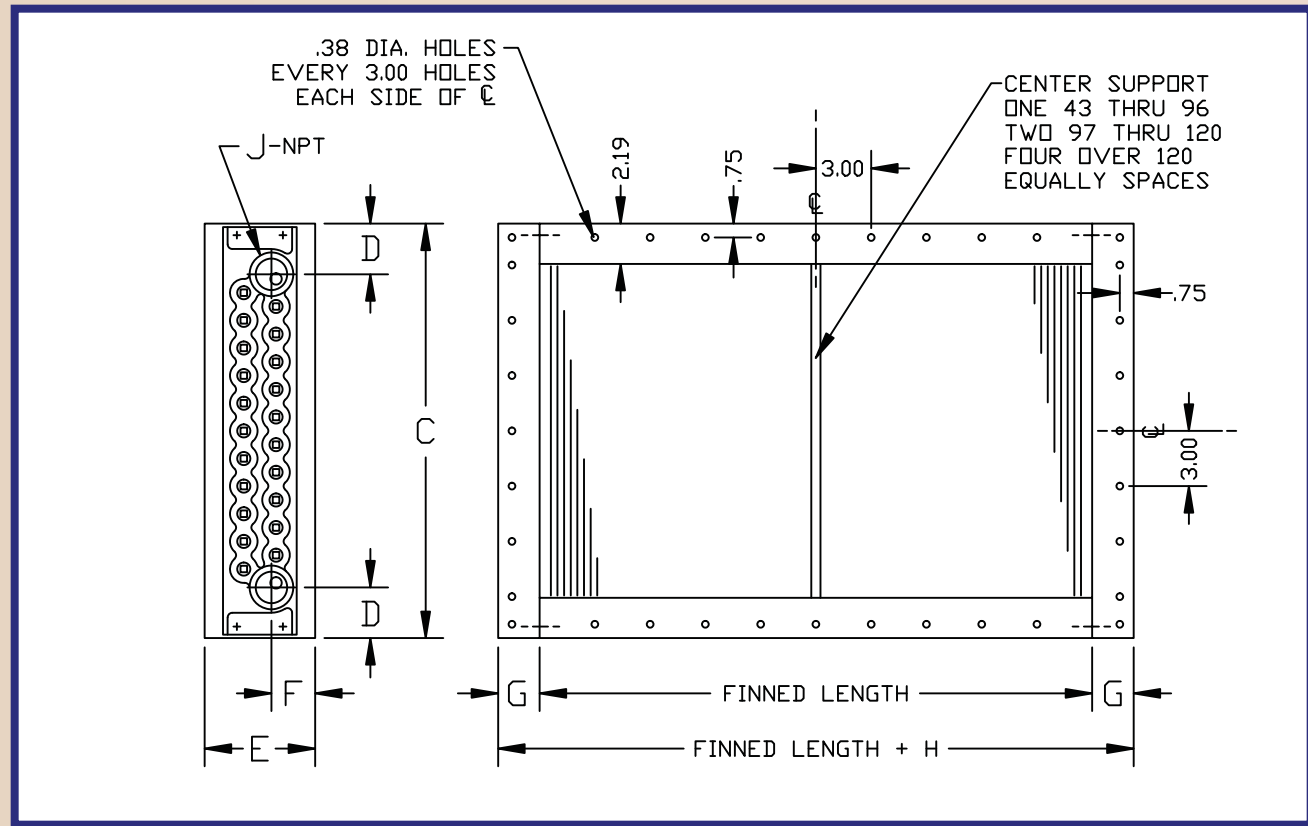
*\*If 316 SS inner tubes are used the temperature rating of 90-10 and steel tubes can be increased to 600°F.*

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing. Optional testing of the air tight casing can be provided at the specified working pressure.

Finned Width	Coil Only		With Air Tight Case		
	C	D	Depth	C	D
12	16.94	8.50	6.94	19.69	9.75
18	22.94	11.50	6.94	25.69	12.75
24	28.94	14.50	6.94	31.69	15.75
30	34.94	17.50	6.94	37.69	18.75
36	40.94	19.00	6.94	43.69	21.75
42	46.94	20.50	6.94		
48	52.94	23.50	6.94		

## E Steam Coils



**Applications**

Low to medium pressure steam coil for low air side pressure drop. Wide fin spacings and flat continuous plate type fins for reduced fin surface fouling.

**Tubes (5/8" O.D.)**

Red Brass with 0.035" wall - Standard  
Red Brass with 0.049" wall - Optional

**Fins**

Low pressure drop, flat plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

**Headers**

Gray cast iron headers with threaded connections. Headering provides for opposite end connections.

**Tube-Header Joints**

Each tube is rolled into the headers and then bushed with a tapered brass bushing to provide a strong, permanent joint and proper steam distribution through the header to each tube.

**Casing**

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

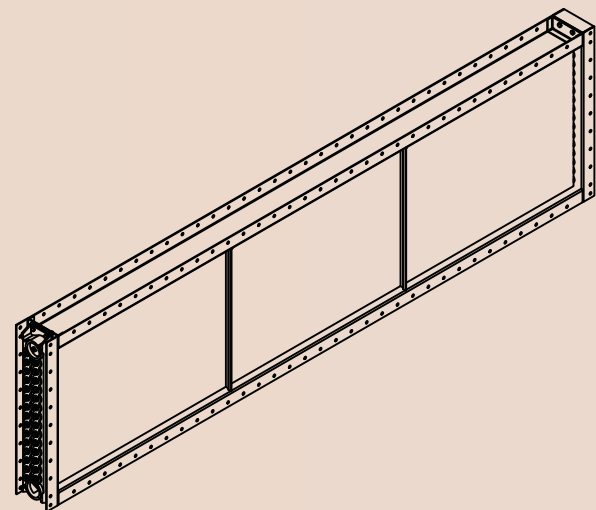
**Rating**

Tubing	Rating
0.035" Red Brass	200 psig @ 400°F
0.049" Red Brass	200 psig @ 400°F

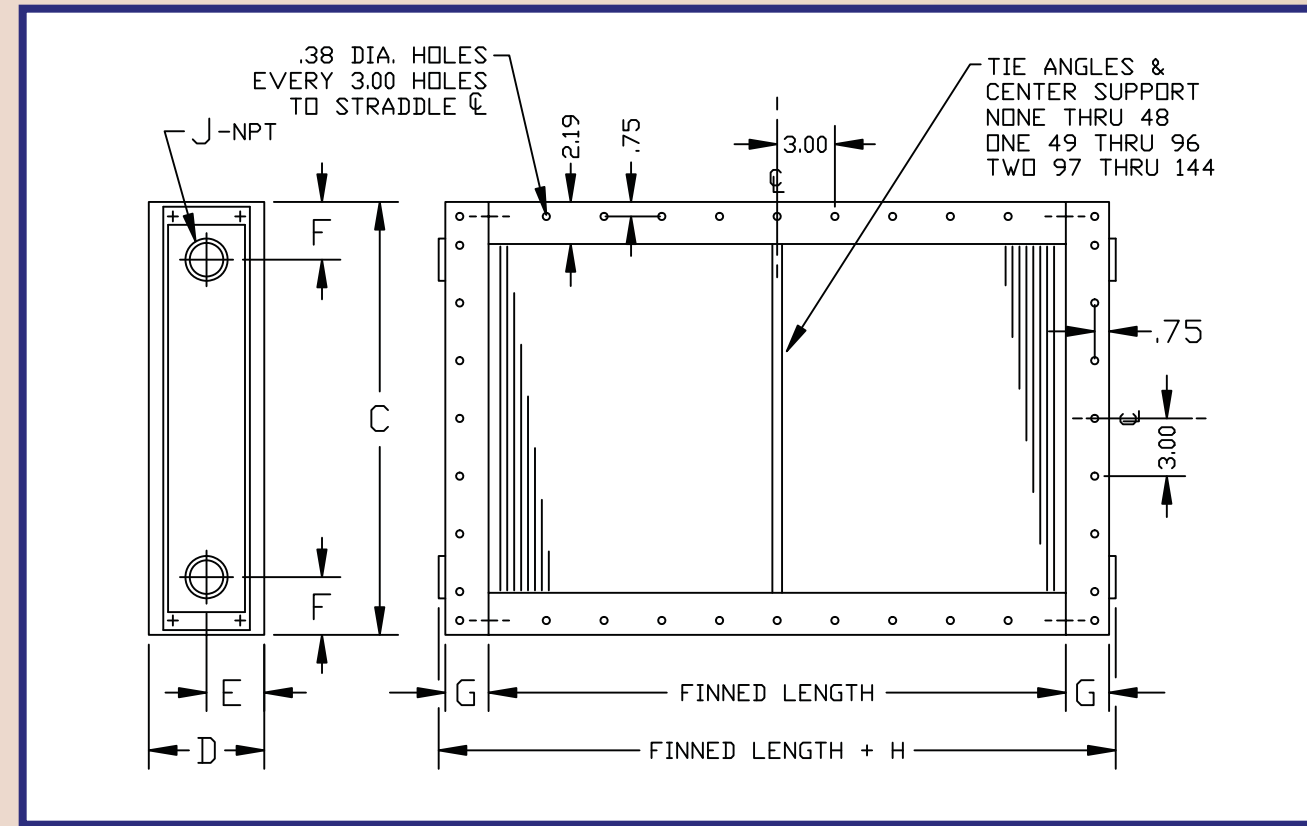
**Testing**

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D	E	F	G	H	J
12	16.50	2.75	6.00	2.38	2.31	4.62	1.25
15	19.50	2.75	6.00	2.38	2.31	4.62	1.50
18	22.50	2.75	6.00	2.38	2.31	4.62	1.50
21	25.50	2.75	6.00	2.38	2.31	4.62	1.50
24	28.50	2.50	6.00	2.50	2.31	4.62	2.00
30	34.50	3.75	7.25	2.81	2.81	5.62	2.50
33	37.50	3.62	7.25	2.44	3.06	6.12	3.00



## EB Steam Coils



**Applications**

Low to medium pressure steam coil for low air side pressure drop. Wide fin spacings and flat continuous plate type fins for reduced fin surface fouling.

**Tubes (5/8" O.D.)**

Red Brass with 0.035" wall - Standard  
Red Brass with 0.049" wall - Optional

**Fins**

Low pressure drop, flat plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

**Headers**

Fabricated rectangular steel headers provide for same end connections.

**Tube-Header Joints**

Each tube is rolled into the headers and then bushed with a tapered brass bushing to provide a strong, permanent joint and proper steam distribution through the header to each tube.

**Casing**

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

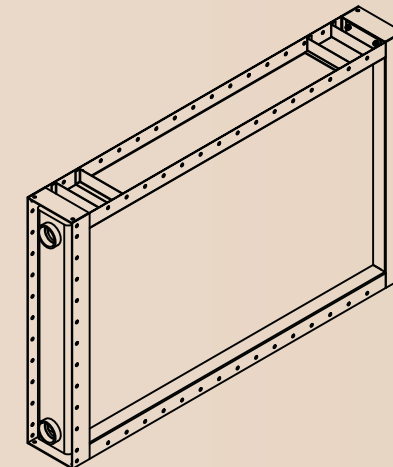
**Rating**

Tubing	Rating
0.035" Red Brass	200 psig @ 400°F
0.049" Red Brass	200 psig @ 400°F

**Testing**

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

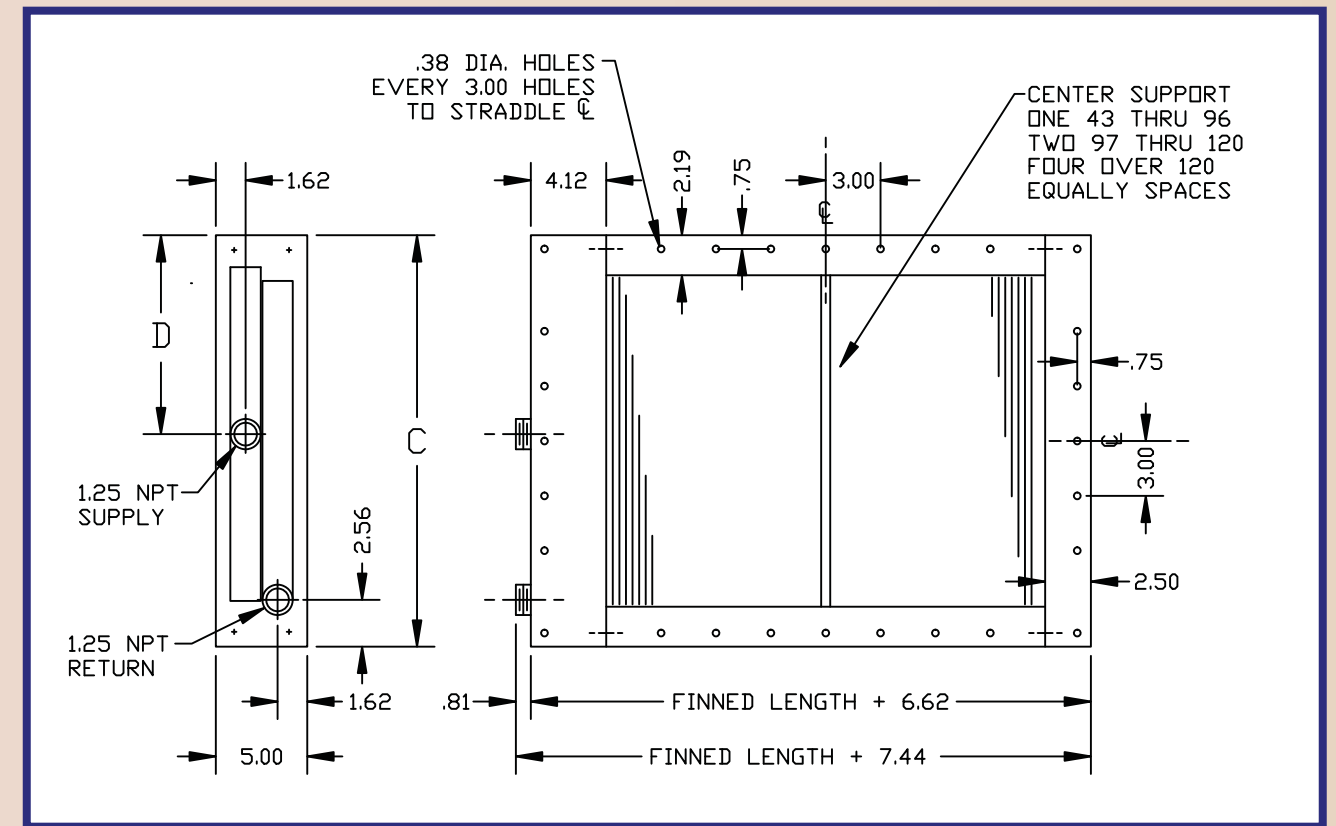
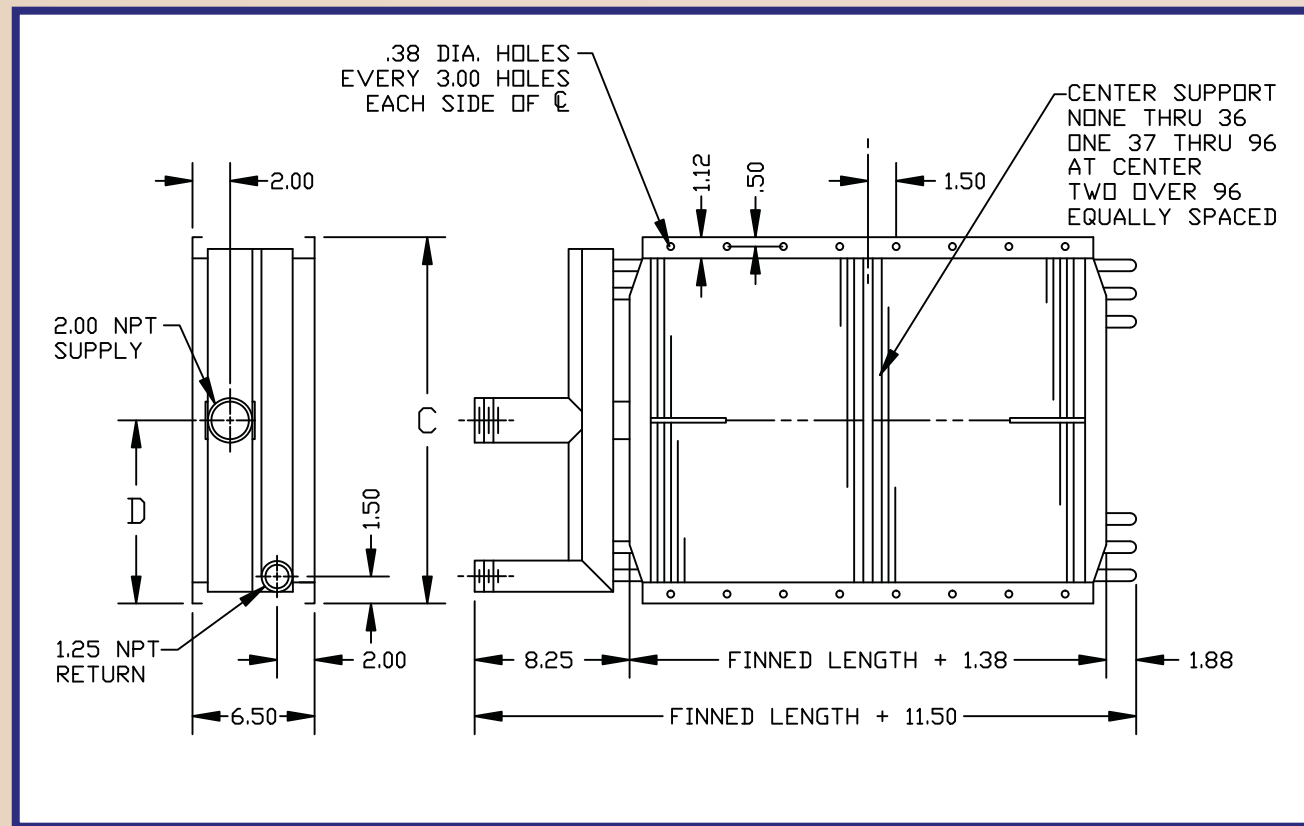
Finned Width	C	D	E	F	G	H	J
12	16.50	6.00	3.00	2.75	2.31	5.25	1.25
15	19.50	6.00	3.00	3.00	2.31	5.38	1.50
18	22.50	6.00	3.00	3.00	2.31	5.38	1.50
21	25.50	6.00	3.00	3.00	2.31	5.38	1.50
24	28.50	6.00	3.00	3.25	2.31	5.62	2.00
27	31.50	7.25	3.62	3.50	2.81	6.75	2.50
30	34.50	7.25	3.62	3.50	2.81	6.75	2.50
33	37.50	7.25	3.62	3.75	3.06	6.75	3.00
36	40.50	7.25	3.62	3.75	3.06	7.00	3.00





# HPS Steam Coils

# WH Steam Coils



### Applications

Steam coils for high performance using medium to high pressure steam.

### Tubes-Outer (5/8") O.D.

90-10 Cupro-Nickel with 0.049" wall - Standard  
Red Brass with 0.035" wall or 0.049" wall - Optional

### U-Bends

Machine die formed on each end to provide an accurate fit for brazed joints. U-Bend thickness is 0.049" wall in all cases with material matching the tubes.

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Schedule 80 carbon steel pipe headers with 2.50" NPT (EXT) supply connections and 1.25" NPT (EXT) return connections. Headering on 1 row design provides for same end connections. Headering on 2 row design provides for either same or opposite end connections.

### Tube-Header Joints

Silver brazed joints with red brass and 90-10 cupro-nickel tubes.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Air Tight Casing (Optional)

Designed for air pressures up to and including 15 psig. Construction allows the coil to expand and contract without additional aids. The airtight casing housing permits the coil removal without disconnecting duct work. The 10-gauge painted steel casing is die-formed for strength.

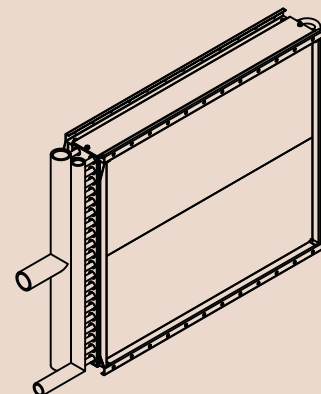
### Rating

Tubing	Rating
0.035" Red Brass	250 psig @ 425°F
0.049" Red Brass	250 psig @ 425°F
0.049" 90-10 CuNi	400 psig @ 600°F

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing. Optional testing of the air tight casing can be provided at the specified working pressure.

Finned Width	C	D
12	13.50	6.75
15	16.50	8.25
18	19.50	9.75
21	22.50	11.25
24	25.50	12.75
27	28.50	14.25
30	31.50	15.75
33	34.50	17.25
36	37.50	18.75



### Applications

Low to medium pressure steam coil for low air side pressure drop. Wide fin spacings and flat continuous plate type fins for reduced fin surface fouling.

### Tubes (5/8") O.D.

Red Brass with 0.035" wall - Standard  
Red Brass with 0.049" wall - Optional

### U-Bends

When required are 5/8" OD, machine die formed on each end to provide an accurate fit for brazed joints.

### Fins

Low pressure drop, flat plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Schedule 80 carbon steel pipe headers with 1.25" NPT (EXT) supply and return connections. Headering provides for same end connections.

### Tube-Header Joints

Each tube is silver brazed to the header.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

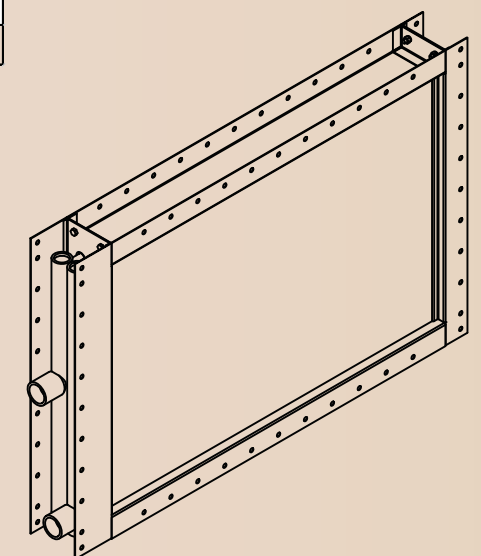
### Rating

Tubing	Rating
0.035" Red Brass	200 psig @ 400°F
0.049" Red Brass	250 psig @ 425°F

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

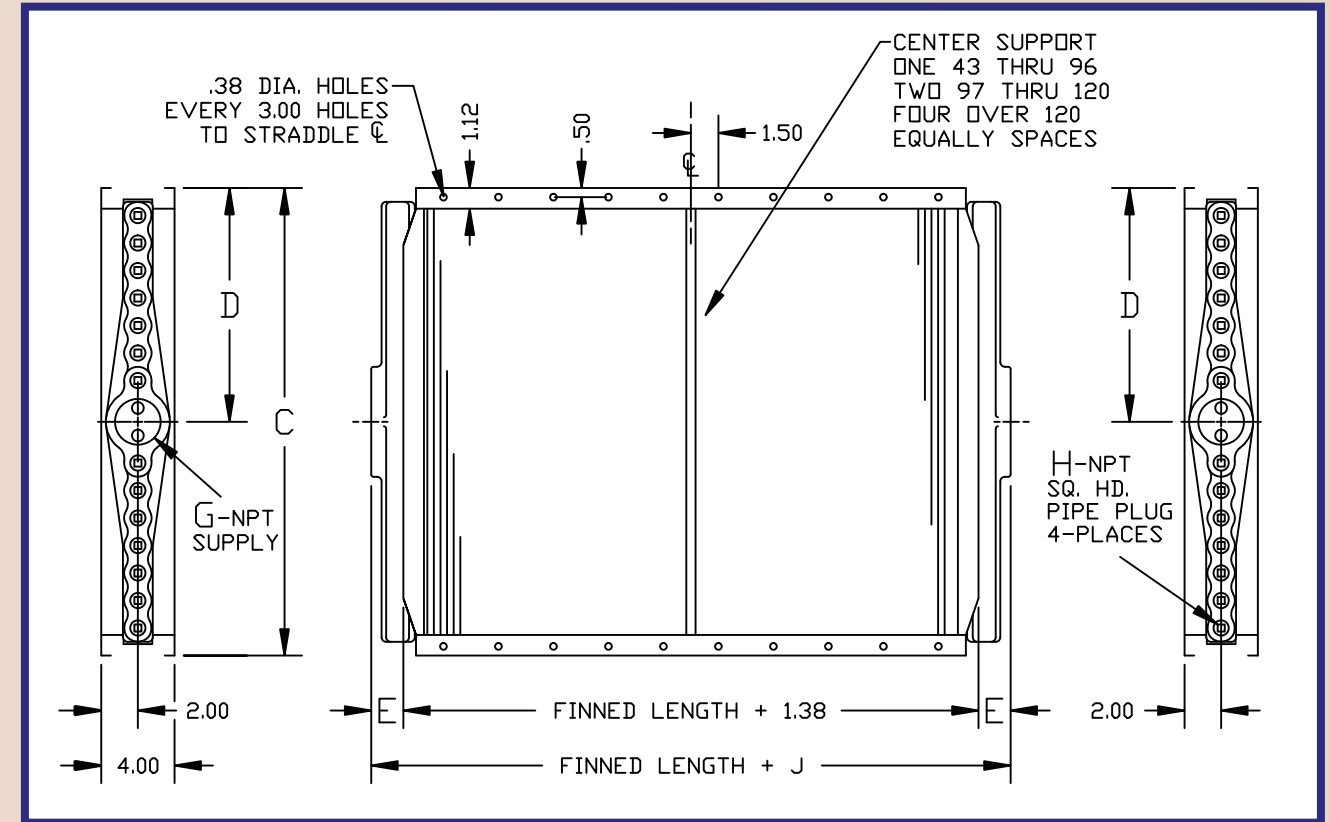
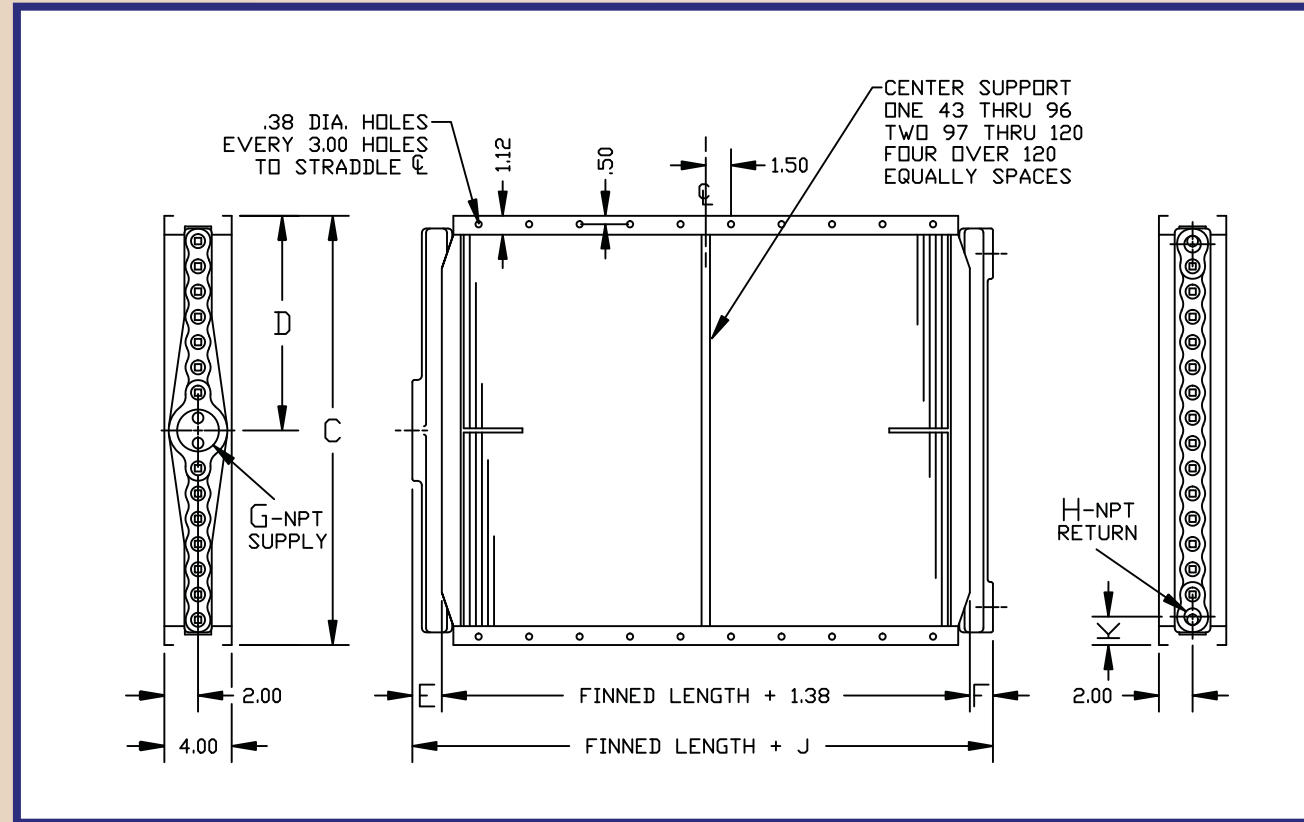
Finned Width	C	D
12	16.50	7.88
15	19.50	9.38
18	22.50	10.88
21	25.50	12.38
24	28.50	13.88
27	31.50	15.38
30	34.50	16.88
33	37.50	18.38
36	40.50	19.88





# A Steam Coils

# AW Fluid Coils



### Applications

Low to medium pressure steam coil for low air side pressure drop. Can be mounted with any flow direction.

### Tubes (5/8" O.D.)

Red Brass with 0.035" wall - Standard  
Red Brass with 0.049" wall - Optional

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Gray cast iron headers with threaded connections. Headering provides for opposite end connections.

### Tube-Header Joints

Each tube is rolled into the headers and then bushed with a tapered brass bushing to provide a strong, permanent joint and proper steam distribution through the header to each tube.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

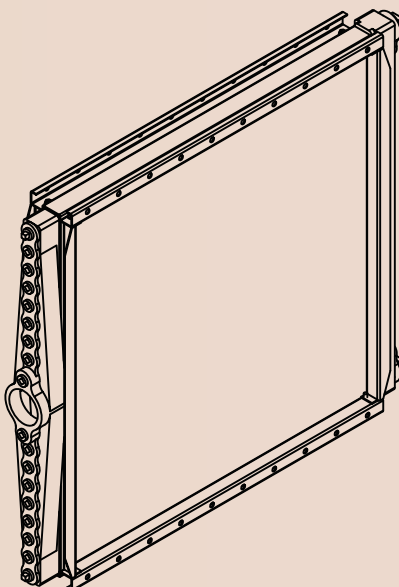
### Rating

Tubing	Rating
0.035" Red Brass	200 psig @ 400°F
0.049" Red Brass	200 psig @ 400°F

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D	E	F	G	H	J	K
6	7.50	3.00	1.38	1.38	1.00	0.75	4.12	1.56
9	10.50	4.50	1.38	1.38	1.00	0.75	4.12	1.56
12	13.50	6.00	1.50	1.38	1.25	0.75	4.25	1.56
18	19.50	9.75	1.75	1.38	2.50	1.00	4.50	1.69
24	25.50	12.75	1.75	1.88	2.50	1.25	5.00	1.50
30	31.50	15.75	2.00	1.88	2.50	1.25	5.25	1.50
33	34.50	17.25	2.00	1.88	2.50	1.25	5.25	1.50



### Applications

Low to medium pressure steam coil for low air side pressure drop. Can be mounted for vertical tubes with horizontal air flow, or horizontal tubes with vertical air flow.

### Tubes (5/8" O.D.)

Red Brass with 0.035" wall - Standard  
Red Brass with 0.049" wall - Optional

### Fins

High capacity, configured plate-type fins of standard aluminum or optional copper. Fins are positioned continuously across coil width and die-formed with full fin collars for maximum fin-to-tube contact, accurate tube fit, and accurate fin spacing. Fins are mechanically bonded to the tubes for lasting reliability.

### Headers

Gray cast iron headers with threaded connections. Headering provides for opposite end connections.

### Tube-Header Joints

Each tube is rolled into the headers and then bushed with a tapered brass bushing to provide a strong, permanent joint and proper steam distribution through the header to each tube.

### Casing

16-gauge galvanized steel casing, end supports, and center supports. One or more center supports on finned lengths over 42".

### Rating

Tubing	Rating
0.035" Red Brass	200 psig @ 400°F
0.049" Red Brass	200 psig @ 400°F

### Testing

All coils are proof tested at 1.5 times the maximum working pressure, then leak tested at the maximum working pressure. The coil testing process is water-submerged air bubble leak testing.

Finned Width	C	D	E	G	H	J
6	7.50	3.00	1.38	1.00	0.75	4.12
9	10.50	4.50	1.38	1.00	0.75	4.12
12	13.50	6.00	1.50	1.25	0.50	4.38
18	19.50	9.75	1.75	2.50	0.50	4.88
24	25.50	12.75	1.75	2.50	0.50	4.88
30	31.50	15.75	2.00	2.50	0.50	5.38
33	34.50	17.25	2.00	2.50	0.50	5.38

