

LINOVECTOR-II



COMMERCIAL FINNED TUBE
RADIATION FOR ENERGY-EFFICIENT
HYDRONIC HEATING SYSTEMS

Vulcan
RADIATOR

LINOVECTOR-II

LINOVECTOR-II Finned Tube Radiation is Vulcan's most versatile and flexible, multi-purpose commercial hydronic heating enclosure line. LINOVECTOR-II offers architects, engineers and contractors a full range of enclosure styles, heights, depths, lengths and element selections. Known in the trade as a reliable workhorse, LINOVECTOR-II features include small tube sizes and low water temperature ratings.


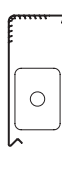
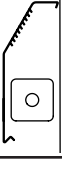
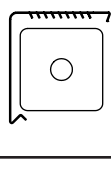

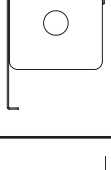

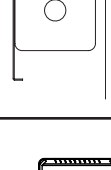
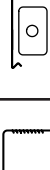
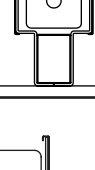

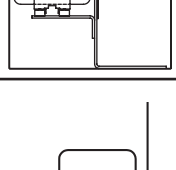



LINOVECTOR-II is used in commercial heating installations — structures that demand good looks, durability and low price. Ideally suited for schools, general office buildings, common walkways and high traffic areas. LINOVECTOR-II is especially suited for high heat loss areas, yet is attractive enough to be used in areas with subtle lines and perimeter heating.

LINOVECTOR-II enclosures are available in 18, 16 and 14 gauge CRS; stainless steel and aluminum are available options. The enclosures are reinforced with full height vertical slip joint stiffeners making them one of the most rugged enclosures on the market today. All enclosures are press brake formed with hard tool dies to ensure consistent styles, shapes and sizes.



- Widest range of heights, depths and element selections.
- 14 basic different enclosure configurations to choose from.
- Overlapping accessories.
- Easy installation.
- Rugged and durable construction.
- Durable baked powder prime finish.
- 9 standard baked powder colors, plus 3 metallic colors.
- Special color capability.
- Ball bearing element hangers.
- Full or partial backplates on all styles.
- Two different damper styles available.
- Available in stainless steel and aluminum.
- 58 standard elements.
- All water ratings are based on 3 feet per second velocity of water.

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Notes:

1. See element ordering information on page 57.
2. For non-standard enclosure mounting heights, see correction factor chart on page 74.
3. See specifications on page 5.

DESIGN FEATURES

ENCLOSURES

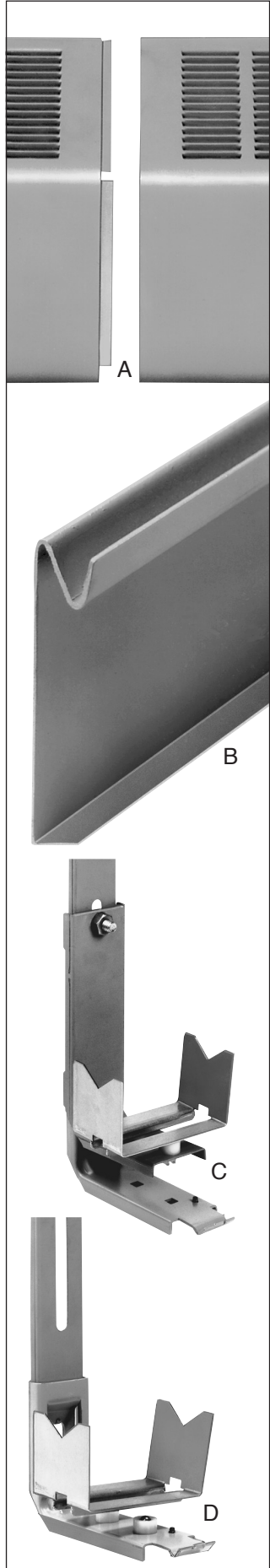
Interlocking slip joints provide for a positive snap together fit between adjoining covers. The male and female slip joints, at the same time, provide vertical stiffness for these enclosures. They are the most rugged and desirable enclosures for today's quality-conscious market. (See photos A.)

BRACKETS AND ELEMENT SUPPORT HANGERS WALL OR BRACKET MOUNTED.

All brackets and element support hangers are die-formed, wiped edge channel type construction which provides the strongest and most rigid support for either the enclosure or element available anywhere. The standard bracket is used with an adjustable bracket mounted hanger. This will provide vertical movement of the element up to 2 1/2 inches for steam pitch requirements simply by loosening a nut. Silent glide action is provided by the nickel chromium plated ball bearings encased in a rugged nylon insert. The isolation effect of the nylon material creates an optimum noise deadening condition and therefore, element expansion noise is virtually eliminated. (See photo C.)

The water brackets are available with the silent glide ball bearing assembly directly mounted to a standard bracket so that the element support hanger is eliminated when pitch is not required. These "water brackets" allow an even faster installation. (See photo D.)

All elements are nested onto a die-formed 18 gauge galvanized slide cradle which rests on the silent glide ball bearings. These slide cradles are designed to support the element tube or pipe only, so that fin drag will not create undesirable noise. (See photos C and D.)



Water and standard brackets are formed at the top to engage the top inside bend of either the partial or full backplate. This automatic locating design simplifies installation and helps keep costs down. (See photos B, C and D.)

All enclosure brackets (standard or water type) are provided with posi-lock enclosure locks. These provide a quick and sure method of securing the enclosure to the bracket and deters vandalism. The bracket is designed to positively snap and secure the enclosure bottom. The posi-lock makes sure it stays there, no matter what. The posi-lock also provides the additional holding force for those installations that require the enclosure assembly to be mounted in an inverted position. (See photo H.)

ROLL PIPE HANGERS

These are designed to support the supply or return pipes within the enclosures. The nylon insert acts as an isolator so that pipe noise is not transmitted as readily through the enclosure. Smooth lateral movement is a definite plus. (See photo E.)

DAMPERS (OPTIONAL)

Knob operated dampers are available in S, T, FT, and F styles. All damper blades are factory installed. The blade is quickly activated by a rugged triple lead screw turned by the die-cast brushed chrome finished knob. (See photo F.)

TAMPER RESISTANT DAMPERS (OPTIONAL)

This optional damper design allows only designated persons to control the desired adjustment with a standard hex key. (See photo G.)

ELEMENTS

All elements are manufactured by means of mechanical expansion. This creates a permanent bond between the fin and tube.

SPECIFICATIONS

Furnish and install where shown on all plans/drawings, Vulcan Linovector-II Finned Tube Assemblies as described in the specifications below or approved equal quality and capacity.

ENCLOSURE AND ACCESSORIES

Finned tube enclosures are to be of style and size as shown on plans. Material will be 18, 16, 14 gauge cold rolled steel with baked primer suitable for field painting. Air discharge and/or inlet louvers are to be "pencil proof." Welded male and female slip joints are to be provided at each end to allow for positive engagement and alignment of adjoining enclosures. All bends (lateral) on enclosure are to be formed on bottoming dies to ensure continuity of all adjoining enclosures and accessories.

ACCESS DOORS

When indicated, access doors will be provided at mixer, shut-off or flow control valves. Doors will be 6" x 9" (or 5" x 6") and hinged at top. Access doors will be located in accessories or enclosure as noted on plans. Door latch head shall require tool for opening.

DAMPERS

Dampers will be provided when indicated on plans. Damper blades will have formed edges for rigidity. Damper blades will be factory installed. Damper actuation will be controlled by knob or tamper resistant operator.

BACKPLATE

All full backplates will be one piece construction, 20 gauge galvanized steel (18 gauge optional) with a die-formed mounting channel into which the enclosure shall self-locate and secure. Self-adhesive sponge air seal gasket to be provided when noted.

All partial backplates are to be machine roll formed, pre-painted, 20 gauge steel with formed mounting channel into which the enclosure shall self-locate and secure. 18 gauge partial backplates will be provided with baked primer finish. Sponge air seal gasket to be provided when noted.

BRACKETS/HANGERS

All brackets and hangers are to be die-formed 14 gauge galvanized steel with channel type wiped edge construction for rigidity. Nickel-chromium plated ball bearings inserted into a nylon isolator insert are to be used in conjunction with an 18 gauge galvanized die-formed element support cradle to provide friction free lateral movement during expansion and contraction. Brackets are to have pre-formed contour at the top allowing the bracket to interlock with the backplate channel. Brackets are to be self-locating in the vertical (height) position. Hangers are to provide for vertical element adjustment when pitch is required (steam). Water jobs will not require adjustable hangers. Full engagement enclosure locks are to be supplied with each bracket.

Accessories will be die-formed 18 gauge cold rolled steel with a baked primer finish suitable for field painting. All vertical edges are to be beaded (180°) edges when overlapping enclosure so that no exposed raw edge will extend outward. Overlapping accessories will provide for make-up required in runs where partitions and/or walls may vary from bay to bay. Accessories shall fit between wall and backplate at top and extend back to wall at bottom for securing with fastener by others.

HEATING ELEMENTS

All copper/aluminum heating elements shall be manufactured with seamless copper tubing mechanically expanded into the diameter of the equally spaced aluminum fins. The ends of the copper tube shall be of finished O.D. (male) and finished I.D. (female, swaged) as to allow the use of standard domestic copper fittings.

All steel heating elements shall be manufactured with steel pressure tubing mechanically expanded into the diameter of the equally spaced steel (.024, .032) fins. The ends of the steel tube shall be threaded to accept all domestic NPT threaded fittings or cut square and chamfered for welding in field. All steel element fins shall be painted black enamel finish.

| | |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENCLOSURES | LINOVECTOR-II SLIP JOINTED. |
| Styles | Slope Top. Flat Top — Top Outlet, Front Outlet, Front and Top Outlet. |
| Lengths | 2' thru 8' in 6" increments. |
| Materials | Cold rolled steel, stainless steel, aluminum, galvanized steel. |
| Gauges | 18, 16, 14 Gauge C.R.S. 18, 16 Gauge SS. |
| Finish | 16, 14, 12 Gauge Aluminum Baked powder prime standard, baked powder colors optional. |
| BACKPLATES | |
| Type | Partial standard, full height optional. |
| Lengths | Partial 8'. Full 2' thru 8' in 6" increments. |
| Material | Partial 20 gauge, pre-painted standard. 18 gauge baked powder finish optional. Full 20 gauge galvanized, 18 gauge C.R.S. optional. |
| BRACKETS/HANGERS | Ball bearing with slide cradle adjustable for pitch or fixed for water systems. Die-formed channel type galvanized steel construction with enclosure securing posi-lock clips. |
| ELEMENTS | |
| Type | Mechanically expanded. Copper tube aluminum fin, Steel tube steel fin. |
| Lengths | 1", 1 1/4" CU, 1", 1 1/4" & 2" Steel 2' Thru 12'6" in 1" increments 3/4" CU 2' thru 8' in 1" increments. |
| End Conditions | CU/AL — Swaged one end. Swaged both ends optional. Steel — NPT threads standard. Chamfered for field welding optional. |
| DAMPERS | Fully modulating damper blades with stiffening roll bend. Operated by hand knob or hex head security type driver. |
| ACCESSORIES | All die-formed with flange at top to engage behind backplate. Bottom return bend provides vertical flange with mounting holes for securing to wall after overlapping the enclosure. Vertical edges to have rolled bead form. |
| AIR SEAL | Optional air seal, factory or field installed, on back of backplate. Material is 1/8" x 3/8" closed cell with adhesive back. |

STYLE "LV2S" SLIMLINE SLOPE TOP

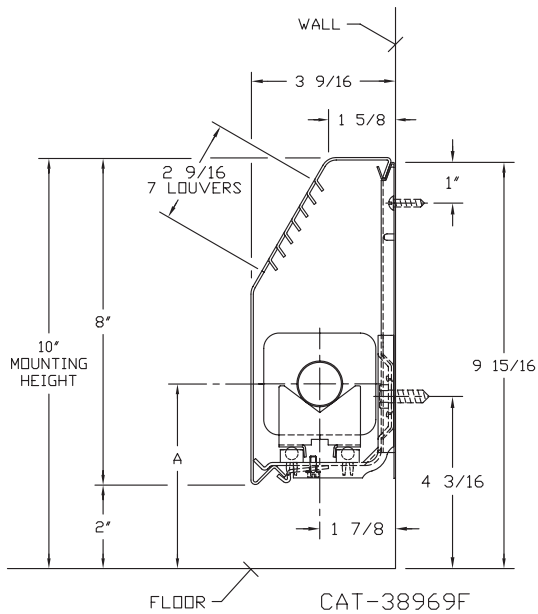


LV2-S8 (Water Brackets only)

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|--------|
| * 3/4 COPPER | 2 1/2 x 2 1/4 | 1 | 4 5/16 |
| * 3/4 COPPER | 2 1/2 x 2 3/4 | 1 | 5' |
| * 3/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5' |
| * 1" COPPER | 2 1/2 x 2 3/4 | 1 | 4 1/2 |
| * 1" COPPER | 3 3/4 x 2 3/4 | 2 | 5 3/16 |
| 1 1/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5 5/16 |
| 1" STEEL | 3 3/4 x 2 3/4 | 2 | 5 5/16 |

* Damper available with these elements only.

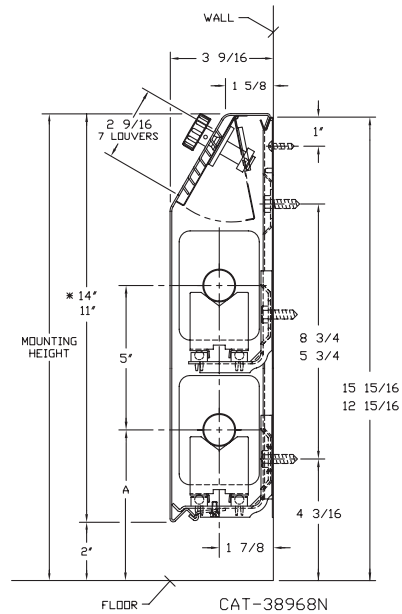
Not recommended for steam applications. Consult factory.



LV2-S11 14 (Water Brackets only)

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| * 3/4 COPPER | 2 1/2 x 2 1/4 | 1 | 4 5/16 |
| * 3/4 COPPER | 2 1/2 x 2 3/4 | 1 | 5' |
| * 3/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5' |
| * 1" COPPER | 2 1/2 x 2 3/4 | 1 | 4 1/2 |
| * 1" COPPER | 3 3/4 x 2 3/4 | 2 | 5 3/16 |
| 1" COPPER | 5" x 2 3/4 | 3A | 5 1/2 |
| 1 1/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5 5/16 |
| 1 1/4 COPPER | 5" x 2 3/4 | 3A | 5 11/16 |
| 1" STEEL | 3 3/4 x 2 3/4 | 2 | 5 5/16 |
| 1" STEEL | 5" x 2 3/4 | 3A | 5 11/16 |
| 1 1/4 STEEL | 3 3/4 x 2 3/4 | 2 | 5 1/2 |
| 1 1/4 STEEL | 5" x 2 3/4 | 3A | 5 15/16 |

* 2 tier with damper available in 14" height with these elements only.



STYLE "LV2S" SLIMLINE SLOPE TOP

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VR01 | 2-1/2" x 2-1/4" | 50 | .011 | 8* | 1 | 10 | 820 | 710 | 640 | 570 | 500 | 430 | 370 | 330 | 270 | 210 |
| | | | | | 11 | 1 | 13 | 890 | 770 | 690 | 610 | 540 | 470 | 400 | 360 | 290 | 230 |
| | | | | | 14 | 1 | 16 | 960 | 830 | 750 | 660 | 590 | 510 | 430 | 380 | 320 | 250 |
| | | | | | 14* | 2-5 CL | 16 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| 3/4" | VR02 | 2-1/2" x 2-3/4" | 60 | .010 | 8* | 1 | 10 | 950 | 820 | 740 | 660 | 580 | 500 | 430 | 380 | 310 | 250 |
| | | | | | 11 | 1 | 13 | 1080 | 930 | 840 | 750 | 660 | 570 | 490 | 430 | 360 | 280 |
| | | | | | 14 | 1 | 16 | 1150 | 990 | 900 | 790 | 700 | 610 | 520 | 460 | 380 | 300 |
| | | | | | 14* | 2-5 CL | 16 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 |
| 1" | VR03 | 2-1/2" x 2-3/4" | 55 | .011 | 8* | 1 | 10 | 980 | 840 | 760 | 680 | 600 | 520 | 440 | 390 | 320 | 250 |
| | | | | | 11 | 1 | 13 | 1050 | 900 | 820 | 720 | 640 | 560 | 470 | 420 | 350 | 270 |
| | | | | | 14 | 1 | 16 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 |
| | | | | | 14* | 2-5 CL | 16 | 1660 | 1430 | 1290 | 1150 | 1010 | 880 | 750 | 660 | 550 | 430 |
| 3/4" | VR04 | 3-3/4" x 2-3/4" | 50 | .014 | 8* | 1 | 10 | 1010 | 870 | 790 | 700 | 620 | 540 | 450 | 400 | 330 | 260 |
| | | | | | 11 | 1 | 13 | 1110 | 950 | 870 | 770 | 680 | 590 | 500 | 440 | 370 | 290 |
| | | | | | 14 | 1 | 16 | 1200 | 1030 | 940 | 830 | 730 | 640 | 540 | 480 | 400 | 310 |
| | | | | | 14* | 2-5 CL | 16 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| 1" | VR05 | 3-3/4" x 2-3/4" | 50 | .011 | 8* | 1 | 10 | 1020 | 880 | 800 | 700 | 620 | 540 | 460 | 410 | 340 | 270 |
| | | | | | 11 | 1 | 13 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| | | | | | 14 | 1 | 16 | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |
| | | | | | 14* | 2-5 CL | 16 | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 |
| 1-1/4" | VR08 | 3-3/4" x 2-3/4" | 50 | .020 | 8* | 1 | 10 | 1040 | 890 | 810 | 720 | 630 | 550 | 470 | 420 | 340 | 270 |
| | | | | | 11 | 1 | 13 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 |
| | | | | | 14 | 1 | 16 | 1200 | 1030 | 940 | 830 | 730 | 640 | 540 | 480 | 400 | 310 |
| | | | | | 14* | 2-5 CL | 16 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 |
| 1" | VR07 | 5" x 2-3/4" | 50 | .020 | 11 | 1 | 13 | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |
| | | | | | 14 | 1 | 16 | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 |
| 1-1/4" | VR10 | 5" x 2-3/4" | 50 | .020 | 11 | 1 | 13 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 14 | 1 | 16 | 1260 | 1080 | 980 | 870 | 770 | 670 | 570 | 500 | 420 | 330 |

*Not recommended for steam applications, consult factory.

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VR11 | 3-3/4" x 2-3/4" | 40 | .024 | 8* | 1 | 10 | 920 | 790 | 720 | 630 | 560 | 490 | 410 | 370 | 300 | 240 |
| | | | | | 11 | 1 | 13 | 1020 | 880 | 800 | 700 | 620 | 540 | 460 | 410 | 340 | 270 |
| | | | | | 14 | 1 | 16 | 1100 | 950 | 860 | 760 | 670 | 580 | 500 | 440 | 360 | 290 |
| | | | | | 14* | 2-5 CL | 16 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| 1" | VR15 | 5" x 2-3/4" | 50 | .024 | 11 | 1 | 13 | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| | | | | | 14 | 1 | 16 | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| 1-1/4" | VR16 | 5" x 2-3/4" | 50 | .024 | 11 | 1 | 13 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 14 | 1 | 16 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |

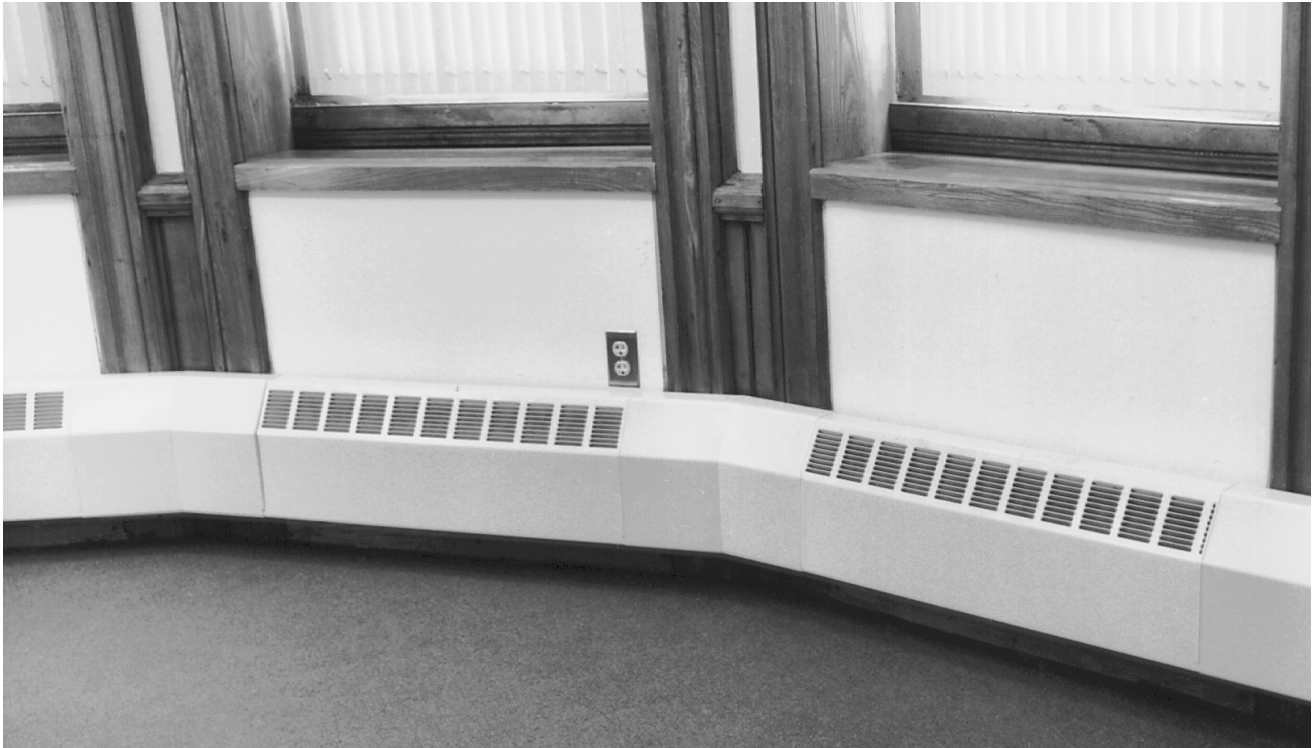
*Not recommended for steam applications, consult factory.

Notes: 1) Steel fin furnished as .024 thick, painted black.

2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.

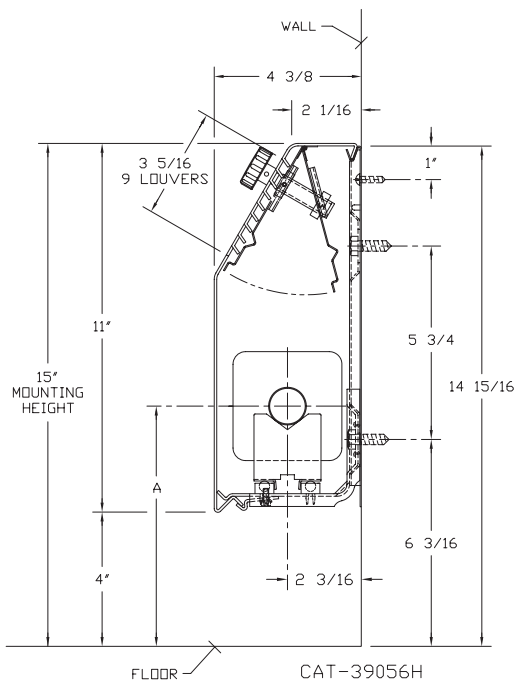
3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVS" SLOPE TOP ENCLOSURES/LOW PROFILE



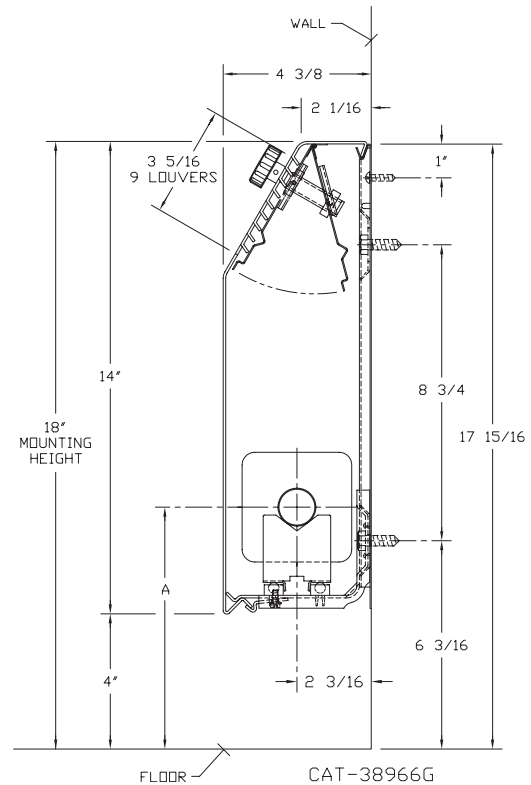
LV3-S11

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4 COPPER | 3 1/4 x 3 1/4 | 2 | 7" |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 | 1 | 6 5/8" |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 | 1 | 6 13/16" |



LV3-S14

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4 COPPER | 3 1/4 x 3 1/4 | 2 | 7" |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 | 1 | 6 5/8" |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 | 1 | 6 13/16" |



STYLE "LVS" SLOPE TOP LOW PROFILE

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 11* | 1 | 15 | 1000 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 11* | 1 | 14 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 11* | 1 | 15 | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 11* | 1 | 15 | 980 | 840 | 760 | 680 | 600 | 520 | 440 | 390 | 320 | 250 |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 11* | 1 | 15 | 1150 | 990 | 900 | 790 | 700 | 610 | 520 | 460 | 380 | 300 |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 11* | 1 | 15 | 1260 | 1080 | 980 | 870 | 770 | 670 | 570 | 500 | 420 | 330 |
| 1 1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 11* | 1 | 15 | 920 | 790 | 720 | 630 | 560 | 490 | 410 | 370 | 300 | 240 |
| 1 1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 11* | 1 | 15 | 1080 | 930 | 840 | 750 | 660 | 570 | 490 | 430 | 360 | 280 |
| 1 1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 11* | 1 | 15 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1080 | 930 | 840 | 750 | 660 | 570 | 490 | 430 | 360 | 280 |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1440 | 1240 | 1120 | 990 | 880 | 760 | 650 | 580 | 480 | 370 |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1060 | 910 | 830 | 730 | 650 | 560 | 480 | 420 | 350 | 280 |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1370 | 1180 | 1070 | 950 | 840 | 730 | 620 | 550 | 450 | 360 |
| 1 1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1020 | 880 | 800 | 700 | 620 | 540 | 460 | 410 | 340 | 270 |
| 1 1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| 1 1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1330 | 1140 | 1040 | 920 | 810 | 700 | 600 | 530 | 440 | 350 |

*Not recommended for steam applications consult factory.

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 11* | 1 | 15 | 930 | 800 | 730 | 640 | 570 | 490 | 420 | 370 | 310 | 240 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 11* | 1 | 15 | 990 | 850 | 770 | 680 | 600 | 520 | 450 | 400 | 330 | 260 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 11* | 1 | 15 | 1080 | 930 | 840 | 750 | 660 | 570 | 490 | 430 | 360 | 280 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 11* | 1 | 15 | 920 | 790 | 720 | 630 | 560 | 490 | 410 | 370 | 300 | 240 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 11* | 1 | 15 | 1000 | 860 | 780 | 690 | 610 | 530 | 450 | 400 | 330 | 260 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 11* | 1 | 15 | 1050 | 900 | 820 | 720 | 640 | 560 | 470 | 420 | 350 | 270 |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 970 | 830 | 760 | 670 | 590 | 510 | 440 | 390 | 320 | 250 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1110 | 950 | 870 | 770 | 680 | 590 | 500 | 440 | 370 | 290 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 960 | 830 | 750 | 660 | 590 | 510 | 430 | 380 | 320 | 250 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1150 | 990 | 900 | 790 | 700 | 610 | 520 | 460 | 380 | 300 |

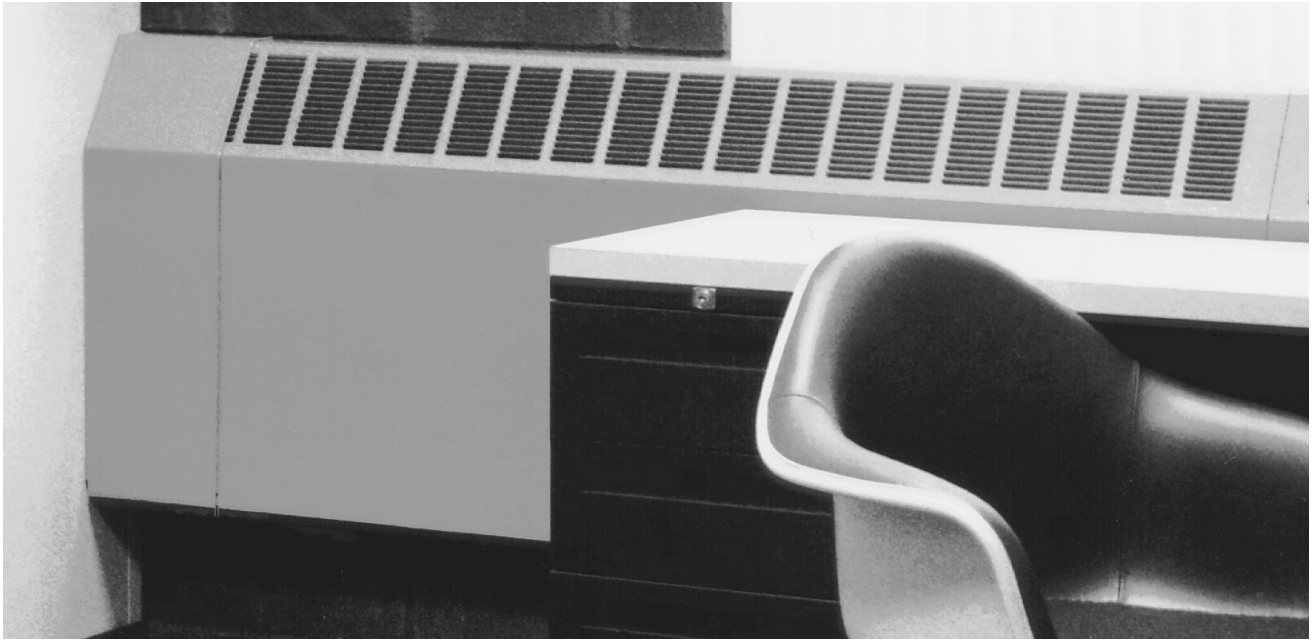
*Not recommended for steam applications consult factory.

Notes: 1) Steel fins furnished as .032 thick, painted black.

2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.

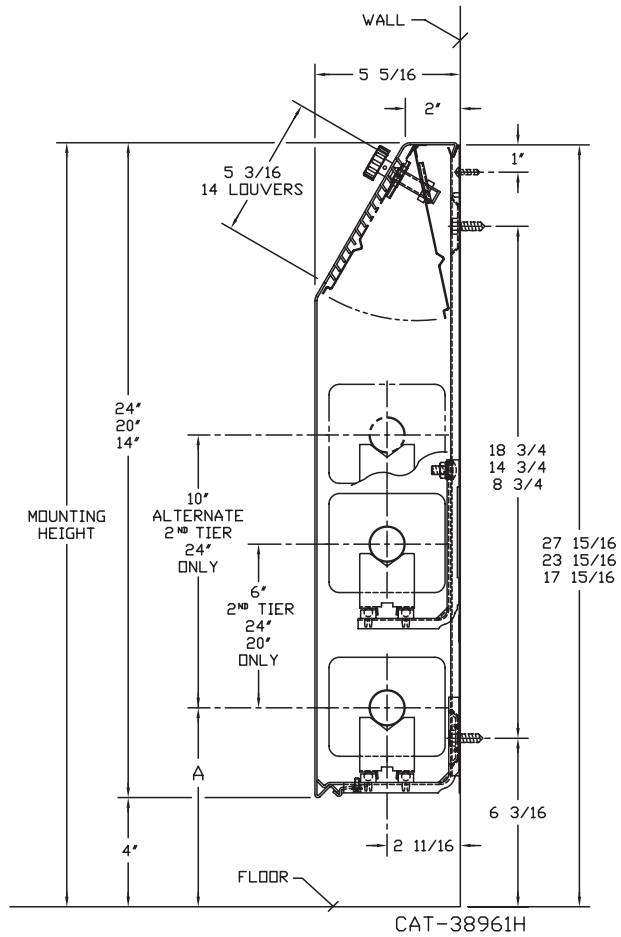
3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVS" SLOPE TOP ENCLOSURES



LV4-S14 20 24

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|--------|
| 3/4" COPPER | 3 5/8 x 4 1/4 | 2 | 7' |
| 3/4" COPPER | 4 1/4 x 4 1/4 | 3A | 7 3/8 |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 3/16 |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 7 3/16 |
| 1 1/4" COPPER | 3 5/8 x 4 1/4 | 2 | 7 5/16 |
| 1 1/4" COPPER | 4 1/4 x 4 1/4 | 2 | 7 5/16 |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 5/16 |
| 1 1/4" STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/2 |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 1/4 |



See page 39 for element center line dimensions with steam bracket install

STYLE "LVS" SLOPE TOP

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| | | | | | 20 | 1 | 24 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| | | | | | 24 | 1 | 28 | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2570 | 2210 | 2000 | 1770 | 1570 | 1360 | 1160 | 1030 | 850 | 670 |
| 24 | 3-6 CL | 28 | 2960 | 2550 | 2310 | 2040 | 1810 | 1570 | 1330 | 1180 | 980 | 770 | | | | | |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1700 | 1460 | 1330 | 1170 | 1040 | 900 | 770 | 680 | 560 | 440 |
| | | | | | 20 | 1 | 24 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 |
| | | | | | 20 | 2-6 CL | 24 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 |
| | | | | | 24 | 1 | 28 | 1910 | 1640 | 1490 | 1320 | 1170 | 1010 | 860 | 760 | 630 | 500 |
| | | | | | 24 | 2-6 CL | 28 | 2700 | 2320 | 2110 | 1860 | 1650 | 1430 | 1220 | 1080 | 890 | 700 |
| 24 | 3-6 CL | 28 | 3080 | 2650 | 2400 | 2130 | 1880 | 1630 | 1390 | 1230 | 1020 | 800 | | | | | |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1840 | 1580 | 1440 | 1270 | 1120 | 980 | 830 | 740 | 610 | 480 |
| | | | | | 20 | 1 | 24 | 2090 | 1800 | 1630 | 1440 | 1270 | 1110 | 940 | 840 | 690 | 540 |
| | | | | | 20 | 2-6 CL | 24 | 2820 | 2430 | 2200 | 1950 | 1720 | 1490 | 1270 | 1130 | 930 | 730 |
| | | | | | 24 | 1 | 28 | 2260 | 1940 | 1760 | 1560 | 1380 | 1200 | 1020 | 900 | 750 | 590 |
| | | | | | 24 | 2-6 CL | 28 | 3110 | 2670 | 2430 | 2150 | 1900 | 1650 | 1400 | 1240 | 1030 | 810 |
| 24 | 3-6 CL | 28 | 3510 | 3020 | 2740 | 2420 | 2140 | 1860 | 1580 | 1400 | 1160 | 910 | | | | | |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 |
| | | | | | 20 | 1 | 24 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 1 | 28 | 1690 | 1450 | 1320 | 1170 | 1030 | 900 | 760 | 680 | 560 | 440 |
| | | | | | 24 | 2-6 CL | 28 | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 |
| 24 | 3-6 CL | 28 | 2980 | 2560 | 2320 | 2060 | 1820 | 1580 | 1340 | 1190 | 980 | 770 | | | | | |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1780 | 1530 | 1390 | 1230 | 1090 | 940 | 800 | 710 | 590 | 460 |
| | | | | | 20 | 1 | 24 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 |
| | | | | | 20 | 2-6 CL | 24 | 2660 | 2290 | 2070 | 1840 | 1620 | 1410 | 1200 | 1060 | 880 | 690 |
| | | | | | 24 | 1 | 28 | 1990 | 1710 | 1550 | 1370 | 1210 | 1050 | 900 | 800 | 660 | 520 |
| | | | | | 24 | 2-6 CL | 28 | 2770 | 2380 | 2160 | 1910 | 1690 | 1470 | 1250 | 1110 | 910 | 720 |
| 24 | 3-6 CL | 28 | 3160 | 2720 | 2460 | 2180 | 1930 | 1670 | 1420 | 1260 | 1040 | 820 | | | | | |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 |
| | | | | | 20 | 1 | 24 | 2180 | 1870 | 1700 | 1500 | 1330 | 1160 | 980 | 870 | 720 | 570 |
| | | | | | 20 | 2-6 CL | 24 | 2640 | 2270 | 2060 | 1820 | 1610 | 1400 | 1190 | 1060 | 870 | 690 |
| | | | | | 24 | 1 | 28 | 2360 | 2030 | 1840 | 1630 | 1440 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 24 | 2-6 CL | 28 | 2910 | 2500 | 2270 | 2010 | 1780 | 1540 | 1310 | 1160 | 960 | 760 |
| 24 | 3-6 CL | 28 | 3290 | 2830 | 2570 | 2270 | 2010 | 1740 | 1480 | 1320 | 1090 | 860 | | | | | |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 20 | 1 | 24 | 1530 | 1320 | 1190 | 1060 | 930 | 810 | 690 | 610 | 500 | 400 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2360 | 2030 | 1840 | 1630 | 1440 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 24 | 1 | 28 | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2450 | 2110 | 1910 | 1690 | 1490 | 1300 | 1100 | 980 | 810 | 640 |
| 24 | 3 @ 6 CL | 28 | 2820 | 2430 | 2200 | 1950 | 1720 | 1490 | 1270 | 1130 | 930 | 730 | | | | | |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1740 | 1500 | 1360 | 1200 | 1060 | 920 | 780 | 700 | 570 | 450 |
| | | | | | 20 | 1 | 24 | 1880 | 1620 | 1470 | 1300 | 1150 | 1000 | 850 | 750 | 620 | 490 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2610 | 2240 | 2040 | 1800 | 1590 | 1380 | 1170 | 1040 | 860 | 680 |
| | | | | | 24 | 1 | 28 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2710 | 2330 | 2110 | 1870 | 1650 | 1440 | 1220 | 1080 | 890 | 700 |
| 24 | 3 @ 6 CL | 28 | 3090 | 2660 | 2410 | 2130 | 1880 | 1640 | 1390 | 1240 | 1020 | 800 | | | | | |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1860 | 1600 | 1450 | 1280 | 1130 | 990 | 840 | 740 | 610 | 480 |
| | | | | | 20 | 1 | 24 | 2130 | 1830 | 1660 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 550 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 1 | 28 | 2270 | 1950 | 1770 | 1570 | 1380 | 1200 | 1020 | 910 | 750 | 590 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 |
| 24 | 3 @ 6 CL | 28 | 3180 | 2730 | 2480 | 2190 | 1940 | 1690 | 1430 | 1270 | 1050 | 830 | | | | | |

STYLE "LVS" SLOPE TOP

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 |
| | | | | | 20 | 1 | 24 | 1720 | 1480 | 1340 | 1190 | 1050 | 910 | 770 | 690 | 570 | 450 |
| | | | | | 20 | 2-6 CL | 24 | 2630 | 2260 | 2050 | 1810 | 1600 | 1390 | 1180 | 1050 | 870 | 680 |
| | | | | | 24 | 1 | 28 | 1790 | 1540 | 1400 | 1240 | 1090 | 950 | 810 | 720 | 590 | 470 |
| | | | | | 24 | 2-6 CL | 28 | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 |
| 24 | 3-6 CL | 28 | 3230 | 2780 | 2520 | 2230 | 1970 | 1710 | 1450 | 1290 | 1070 | 840 | | | | | |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 2030 | 1750 | 1580 | 1400 | 1240 | 1080 | 910 | 810 | 670 | 530 |
| | | | | | 20 | 1 | 24 | 2210 | 1900 | 1720 | 1520 | 1350 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 20 | 2-6 CL | 24 | 2930 | 2520 | 2290 | 2020 | 1790 | 1550 | 1320 | 1170 | 970 | 760 |
| | | | | | 24 | 1 | 28 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 24 | 2-6 CL | 28 | 3210 | 2760 | 2500 | 2210 | 1960 | 1700 | 1440 | 1280 | 1060 | 830 |
| 24 | 3-6 CL | 28 | 3660 | 3150 | 2850 | 2530 | 2230 | 1940 | 1650 | 1460 | 1210 | 950 | | | | | |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 20 | 1 | 24 | 2320 | 2000 | 1810 | 1600 | 1420 | 1230 | 1040 | 930 | 770 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 3070 | 2640 | 2390 | 2120 | 1870 | 1630 | 1380 | 1230 | 1010 | 800 |
| | | | | | 24 | 1 | 28 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 |
| | | | | | 24 | 2-6 CL | 28 | 3270 | 2810 | 2550 | 2260 | 1990 | 1730 | 1470 | 1310 | 1080 | 850 |
| 24 | 3-6 CL | 28 | 3700 | 3180 | 2890 | 2550 | 2260 | 1960 | 1670 | 1480 | 1220 | 960 | | | | | |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 |
| | | | | | 20 | 1 | 24 | 1740 | 1500 | 1360 | 1200 | 1060 | 920 | 780 | 700 | 570 | 450 |
| | | | | | 20 | 2-6 CL | 24 | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 |
| | | | | | 24 | 1 | 28 | 1810 | 1560 | 1410 | 1250 | 1100 | 960 | 810 | 720 | 600 | 470 |
| | | | | | 24 | 2-6 CL | 28 | 2830 | 2430 | 2210 | 1950 | 1730 | 1500 | 1270 | 1130 | 930 | 740 |
| 24 | 3-6 CL | 28 | 3250 | 2800 | 2540 | 2240 | 1980 | 1720 | 1460 | 1300 | 1070 | 850 | | | | | |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1880 | 1620 | 1470 | 1300 | 1150 | 1000 | 850 | 750 | 620 | 490 |
| | | | | | 20 | 1 | 24 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 20 | 2-6 CL | 24 | 2690 | 2310 | 2100 | 1860 | 1640 | 1430 | 1210 | 1080 | 890 | 700 |
| | | | | | 24 | 1 | 28 | 2140 | 1840 | 1670 | 1480 | 1310 | 1130 | 960 | 860 | 710 | 560 |
| | | | | | 24 | 2-6 CL | 28 | 2920 | 2510 | 2280 | 2010 | 1780 | 1550 | 1310 | 1170 | 960 | 760 |
| 24 | 3-6 CL | 28 | 3330 | 2860 | 2600 | 2300 | 2030 | 1760 | 1500 | 1330 | 1100 | 870 | | | | | |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2060 | 1770 | 1610 | 1420 | 1260 | 1090 | 930 | 820 | 680 | 540 |
| | | | | | 20 | 1 | 24 | 2340 | 2010 | 1830 | 1610 | 1430 | 1240 | 1050 | 940 | 770 | 610 |
| | | | | | 20 | 2-6 CL | 24 | 2680 | 2300 | 2090 | 1850 | 1630 | 1420 | 1210 | 1070 | 880 | 700 |
| | | | | | 24 | 1 | 28 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 2-6 CL | 28 | 3000 | 2580 | 2340 | 2070 | 1830 | 1590 | 1350 | 1200 | 990 | 780 |
| 24 | 3-6 CL | 28 | 3390 | 2920 | 2640 | 2340 | 2070 | 1800 | 1530 | 1360 | 1120 | 880 | | | | | |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 1 | 24 | 1710 | 1470 | 1330 | 1180 | 1040 | 910 | 770 | 680 | 560 | 440 |
| | | | | | 20 | 2-6 CL | 24 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 |
| | | | | | 24 | 1 | 28 | 1770 | 1520 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 580 | 460 |
| | | | | | 24 | 2-6 CL | 28 | 2780 | 2390 | 2170 | 1920 | 1700 | 1470 | 1250 | 1110 | 920 | 720 |
| 24 | 3-6 CL | 28 | 3200 | 2750 | 2500 | 2210 | 1950 | 1700 | 1440 | 1280 | 1060 | 830 | | | | | |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1850 | 1590 | 1440 | 1280 | 1130 | 980 | 830 | 740 | 610 | 480 |
| | | | | | 20 | 1 | 24 | 2000 | 1720 | 1560 | 1380 | 1220 | 1060 | 900 | 800 | 660 | 520 |
| | | | | | 20 | 2-6 CL | 24 | 2640 | 2270 | 2060 | 1820 | 1610 | 1400 | 1190 | 1060 | 870 | 690 |
| | | | | | 24 | 1 | 28 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 24 | 2-6 CL | 28 | 2870 | 2470 | 2240 | 1980 | 1750 | 1520 | 1290 | 1150 | 950 | 750 |
| 24 | 3-6 CL | 28 | 3270 | 2810 | 2550 | 2260 | 1990 | 1730 | 1470 | 1310 | 1080 | 850 | | | | | |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2020 | 1740 | 1580 | 1390 | 1230 | 1070 | 910 | 810 | 670 | 530 |
| | | | | | 20 | 1 | 24 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 2630 | 2260 | 2050 | 1810 | 1600 | 1390 | 1180 | 1050 | 870 | 680 |
| | | | | | 24 | 1 | 28 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 |
| | | | | | 24 | 2-6 CL | 28 | 2950 | 2540 | 2300 | 2040 | 1800 | 1560 | 1330 | 1180 | 970 | 770 |
| 24 | 3-6 CL | 28 | 3330 | 2860 | 2600 | 2300 | 2030 | 1760 | 1500 | 1330 | 1100 | 870 | | | | | |

Note: Copper tube furnished flared one end standard.

STYLE "LVS" SLOPE TOP

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1410 | 1210 | 1100 | 970 | 860 | 750 | 630 | 560 | 470 | 370 |
| | | | | | 20 | 1 | 24 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 |
| | | | | | 20 | 2-6 CL | 24 | 2200 | 1890 | 1720 | 1520 | 1340 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 24 | 1 | 28 | 1500 | 1290 | 1170 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 |
| | | | | | 24 | 2-6 CL | 28 | 2270 | 1950 | 1770 | 1570 | 1380 | 1200 | 1020 | 910 | 750 | 590 |
| 24 | 3-6 CL | 28 | 2610 | 2240 | 2040 | 1800 | 1590 | 1380 | 1170 | 1040 | 860 | 680 | | | | | |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1580 | 1360 | 1230 | 1090 | 960 | 840 | 710 | 630 | 520 | 410 |
| | | | | | 20 | 1 | 24 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| | | | | | 20 | 2-6 CL | 24 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 1 | 28 | 1740 | 1500 | 1360 | 1200 | 1060 | 920 | 780 | 700 | 570 | 450 |
| | | | | | 24 | 2-6 CL | 28 | 2490 | 2140 | 1940 | 1720 | 1520 | 1320 | 1120 | 1000 | 820 | 650 |
| 24 | 3-6 CL | 28 | 2840 | 2440 | 2220 | 1960 | 1730 | 1510 | 1280 | 1140 | 940 | 740 | | | | | |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1655 | 1420 | 1290 | 1140 | 1010 | 880 | 740 | 660 | 550 | 430 |
| | | | | | 20 | 1 | 24 | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| | | | | | 20 | 2-6 CL | 24 | 2435 | 2090 | 1900 | 1680 | 1490 | 1290 | 1100 | 970 | 800 | 630 |
| | | | | | 24 | 1 | 28 | 1825 | 1570 | 1420 | 1260 | 1110 | 970 | 820 | 730 | 600 | 470 |
| | | | | | 24 | 2-6 CL | 28 | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 |
| 24 | 3-6 CL | 28 | 2880 | 2480 | 2250 | 1990 | 1760 | 1530 | 1300 | 1150 | 950 | 750 | | | | | |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 20 | 1 | 24 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| | | | | | 20 | 2-6 CL | 24 | 2020 | 1740 | 1580 | 1390 | 1230 | 1070 | 910 | 810 | 670 | 530 |
| | | | | | 24 | 1 | 28 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | | | | | 24 | 2-6 CL | 28 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 |
| 24 | 3-6 CL | 28 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 | | | | | |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 |
| | | | | | 20 | 1 | 24 | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 |
| | | | | | 20 | 2-6 CL | 24 | 2370 | 2040 | 1850 | 1640 | 1450 | 1260 | 1070 | 950 | 780 | 620 |
| | | | | | 24 | 1 | 28 | 1730 | 1490 | 1350 | 1190 | 1060 | 920 | 780 | 690 | 570 | 450 |
| | | | | | 24 | 2-6 CL | 28 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| 24 | 3-6 CL | 28 | 2830 | 2430 | 2210 | 1950 | 1730 | 1500 | 1270 | 1130 | 930 | 740 | | | | | |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1645 | 1410 | 1280 | 1140 | 1000 | 870 | 740 | 660 | 540 | 430 |
| | | | | | 20 | 1 | 24 | 1750 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| | | | | | 20 | 2-6 CL | 24 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 24 | 1 | 28 | 1810 | 1560 | 1410 | 1250 | 1100 | 960 | 810 | 720 | 600 | 470 |
| | | | | | 24 | 2-6 CL | 28 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| 24 | 3-6 CL | 28 | 2820 | 2430 | 2200 | 1950 | 1720 | 1490 | 1270 | 1130 | 930 | 730 | | | | | |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 14 | 1 | 18 | 1200 | 1030 | 940 | 830 | 730 | 640 | 540 | 480 | 400 | 310 |
| | | | | | 20 | 1 | 24 | 1230 | 1060 | 960 | 850 | 750 | 650 | 550 | 490 | 410 | 320 |
| | | | | | 20 | 2-6 CL | 24 | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 |
| | | | | | 24 | 1 | 28 | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 |
| | | | | | 24 | 2-6 CL | 28 | 1940 | 1670 | 1510 | 1340 | 1180 | 1030 | 870 | 780 | 640 | 500 |
| 24 | 3-6 CL | 28 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 | | | | | |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1400 | 1200 | 1090 | 970 | 850 | 740 | 630 | 560 | 460 | 360 |
| | | | | | 20 | 1 | 24 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 20 | 2-6 CL | 24 | 2110 | 1810 | 1650 | 1460 | 1290 | 1120 | 950 | 840 | 700 | 550 |
| | | | | | 24 | 1 | 28 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 24 | 2-6 CL | 28 | 2180 | 1870 | 1700 | 1500 | 1330 | 1160 | 980 | 870 | 720 | 570 |
| 24 | 3-6 CL | 28 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 | | | | | |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVS" SLOPE TOP

INVERTED ENCLOSURE APPLICATION

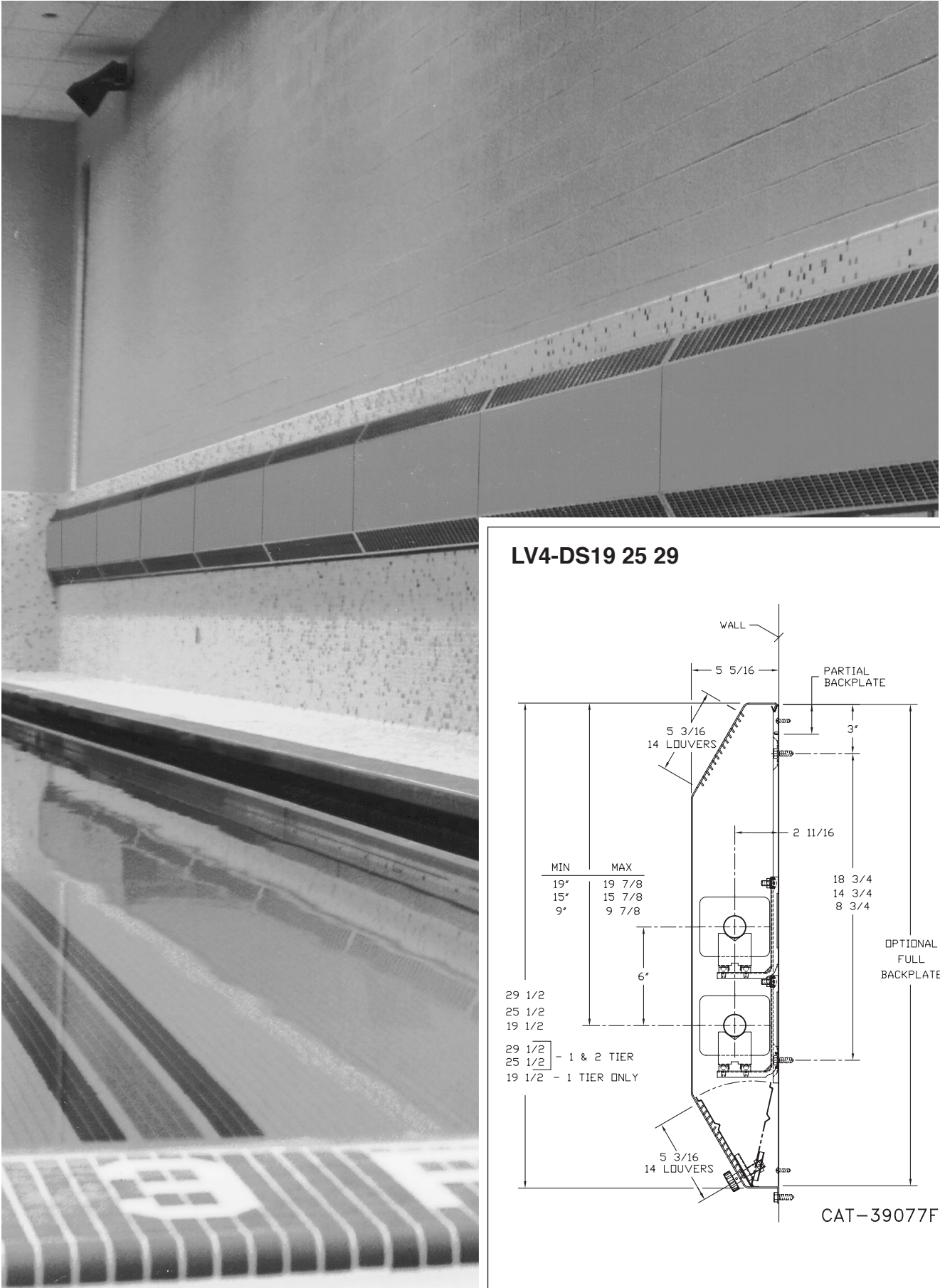


8", 11", 14", 20" and 24" high Linovector-II enclosures can be inverted using standard brackets and ball bearing hangers.

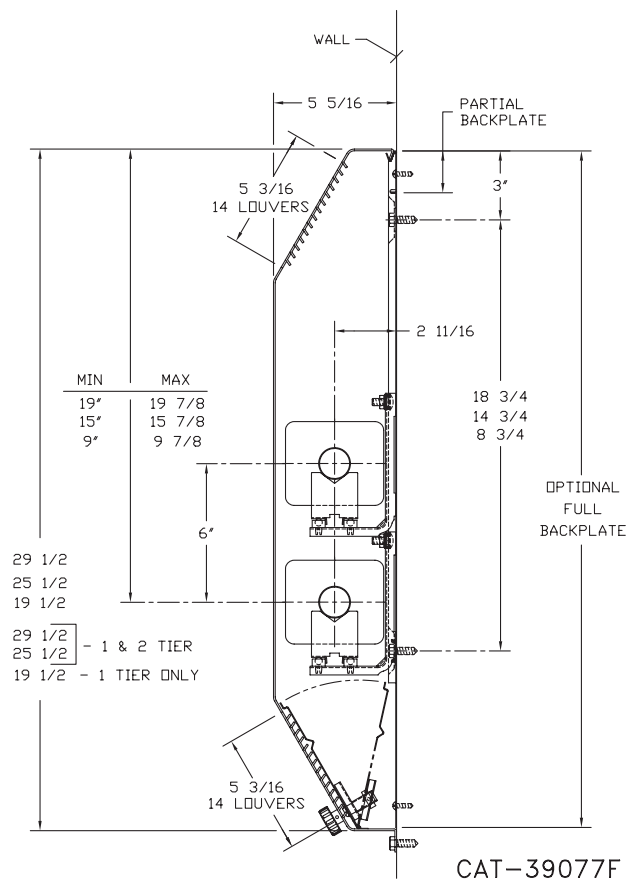
Consult factory for hanger & bracket mounting.

Note: The optional safety latch is available for all inverted enclosures for added security and safety.

STYLE "LVDS" DOUBLE SLOPE TOP



LV4-DS19 25 29



STYLE "LVDS" DOUBLE SLOPE TOP

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | 1.00 |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 19-1/2 | 1 | - | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 | |
| | | | | | 25-1/2 | 1 | - | 1305 | 1120 | 1020 | 900 | 800 | 690 | 590 | 520 | 430 | 340 | |
| | | | | | 25-1/2 | 2-6 CL | - | 1985 | 1710 | 1550 | 1370 | 1210 | 1050 | 890 | 790 | 660 | 520 | |
| | | | | | 29-1/2 | 1 | - | 1370 | 1180 | 1070 | 950 | 840 | 730 | 620 | 550 | 450 | 360 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 | |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 19-1/2 | 1 | - | 1470 | 1260 | 1150 | 1010 | 900 | 780 | 660 | 590 | 490 | 380 | |
| | | | | | 25-1/2 | 1 | - | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 | |
| | | | | | 29-1/2 | 1 | - | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2330 | 2000 | 1820 | 1610 | 1420 | 1230 | 1050 | 930 | 770 | 610 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2660 | 2290 | 2070 | 1840 | 1620 | 1410 | 1200 | 1060 | 880 | 690 | |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 19-1/2 | 1 | - | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 | |
| | | | | | 25-1/2 | 1 | - | 1805 | 1550 | 1410 | 1250 | 1100 | 960 | 810 | 720 | 600 | 470 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2435 | 2090 | 1900 | 1680 | 1490 | 1290 | 1100 | 970 | 800 | 630 | |
| | | | | | 29-1/2 | 1 | - | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2685 | 2310 | 2090 | 1850 | 1640 | 1420 | 1210 | 1070 | 890 | 700 | |
| | | | | | 29-1/2 | 3-6 CL | - | 3030 | 2610 | 2360 | 2090 | 1850 | 1610 | 1360 | 1210 | 1000 | 790 | |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 19-1/2 | 1 | - | 1330 | 1140 | 1040 | 920 | 810 | 700 | 600 | 530 | 440 | 350 | |
| | | | | | 25-1/2 | 1 | - | 1400 | 1200 | 1090 | 970 | 850 | 740 | 630 | 560 | 460 | 360 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 | |
| | | | | | 29-1/2 | 1 | - | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2235 | 1920 | 1740 | 1540 | 1360 | 1180 | 1010 | 890 | 740 | 580 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2570 | 2210 | 2000 | 1770 | 1570 | 1360 | 1160 | 1030 | 850 | 670 | |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 19-1/2 | 1 | - | 1535 | 1320 | 1200 | 1060 | 940 | 810 | 690 | 610 | 510 | 400 | |
| | | | | | 25-1/2 | 1 | - | 1640 | 1410 | 1280 | 1130 | 1000 | 870 | 740 | 660 | 540 | 430 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 | |
| | | | | | 29-1/2 | 1 | - | 1720 | 1480 | 1340 | 1190 | 1050 | 910 | 770 | 690 | 570 | 450 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2720 | 2340 | 2120 | 1880 | 1660 | 1440 | 1220 | 1090 | 900 | 710 | |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 19-1/2 | 1 | - | 1665 | 1430 | 1300 | 1150 | 1020 | 880 | 750 | 670 | 550 | 430 | |
| | | | | | 25-1/2 | 1 | - | 1880 | 1620 | 1470 | 1300 | 1150 | 1000 | 850 | 750 | 620 | 490 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 | |
| | | | | | 29-1/2 | 1 | - | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2840 | 2440 | 2220 | 1960 | 1730 | 1510 | 1280 | 1140 | 940 | 740 | |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 19-1/2 | 1 | - | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 | |
| | | | | | 25-1/2 | 1 | - | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 | |
| | | | | | 29-1/2 | 1 | - | 1375 | 1180 | 1070 | 950 | 840 | 730 | 620 | 550 | 450 | 360 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2115 | 1820 | 1650 | 1460 | 1290 | 1120 | 950 | 850 | 700 | 550 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2430 | 2090 | 1900 | 1680 | 1480 | 1290 | 1090 | 970 | 800 | 630 | |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 19-1/2 | 1 | - | 1500 | 1290 | 1170 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 | |
| | | | | | 25-1/2 | 1 | - | 1625 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2255 | 1940 | 1760 | 1560 | 1380 | 1200 | 1010 | 900 | 740 | 590 | |
| | | | | | 29-1/2 | 1 | - | 1685 | 1450 | 1310 | 1160 | 1030 | 890 | 760 | 670 | 560 | 440 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2340 | 2010 | 1830 | 1610 | 1430 | 1240 | 1050 | 940 | 770 | 610 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2670 | 2300 | 2080 | 1840 | 1630 | 1420 | 1200 | 1070 | 880 | 690 | |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 19-1/2 | 1 | - | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 | |
| | | | | | 25-1/2 | 1 | - | 1840 | 1580 | 1440 | 1270 | 1120 | 980 | 830 | 740 | 610 | 480 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2165 | 1860 | 1690 | 1490 | 1320 | 1150 | 970 | 870 | 710 | 560 | |
| | | | | | 29-1/2 | 1 | - | 1960 | 1690 | 1530 | 1350 | 1200 | 1040 | 880 | 780 | 650 | 510 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2425 | 2090 | 1890 | 1670 | 1480 | 1290 | 1090 | 970 | 800 | 630 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2740 | 2360 | 2140 | 1890 | 1670 | 1450 | 1230 | 1100 | 900 | 710 | |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 19-1/2 | 1 | - | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 | |
| | | | | | 25-1/2 | 1 | - | 1415 | 1220 | 1100 | 980 | 860 | 750 | 640 | 570 | 470 | 370 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2180 | 1870 | 1700 | 1500 | 1330 | 1160 | 980 | 870 | 720 | 570 | |
| | | | | | 29-1/2 | 1 | - | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2620 | 2250 | 2040 | 1810 | 1600 | 1390 | 1180 | 1050 | 860 | 680 | |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 19-1/2 | 1 | - | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 | |
| | | | | | 25-1/2 | 1 | - | 1730 | 1490 | 1350 | 1190 | 1060 | 920 | 780 | 690 | 570 | 450 | |
| | | | | | 25-1/2 | 2-6 CL | - | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 | |
| | | | | | 29-1/2 | 1 | - | 1800 | 1550 | 1400 | 1240 | 1100 | 950 | 810 | 720 | 590 | 470 | |
| | | | | | 29-1/2 | 2-6 CL | - | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 | |
| | | | | | 29-1/2 | 3-6 CL | - | 2910 | 2500 | 2270 | 2010 | 1780 | 1540 | 1310 | 1160 | 960 | 760 | |

STYLE "LVDS" DOUBLE SLOPE TOP

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|------------------|------|------|------|------|------|------|------|------|---------------------------------------------------|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | |
| | | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | | | |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 19-1/2 | 1 | - | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 | | | | | | | | | | |
| | | | | | 25-1/2 | 1 | - | 1770 | 1520 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 580 | 460 | | | | | | | | | | |
| | | | | | 25-1/2 | 2-6 CL | - | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 | | | | | | | | | | |
| | | | | | 29-1/2 | 1 | - | 1990 | 1710 | 1550 | 1370 | 1210 | 1050 | 900 | 800 | 660 | 520 | | | | | | | | | | |
| | | | | | 29-1/2 | 2-6 CL | - | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 | | | | | | | | | | |
| | | | | | 29-1/2 | 3-6 CL | - | 2880 | 2480 | 2250 | 1990 | 1760 | 1530 | 1300 | 1150 | 950 | 750 | | | | | | | | | | |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 19-1/2 | 1 | - | 1425 | 1230 | 1110 | 980 | 870 | 760 | 640 | 570 | 470 | 370 | | | | | | | | | | |
| | | | | | 25-1/2 | 1 | - | 1500 | 1290 | 1170 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 | | | | | | | | | | |
| | | | | | 25-1/2 | 2-6 CL | - | 2235 | 1920 | 1740 | 1540 | 1360 | 1180 | 1010 | 890 | 740 | 580 | | | | | | | | | | |
| | | | | | 29-1/2 | 1 | - | 1565 | 1350 | 1220 | 1080 | 950 | 830 | 700 | 630 | 520 | 410 | | | | | | | | | | |
| | | | | | 29-1/2 | 2-6 CL | - | 2445 | 2100 | 1910 | 1690 | 1490 | 1300 | 1100 | 980 | 810 | 640 | | | | | | | | | | |
| | | | | | 29-1/2 | 3-6 CL | - | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 | | | | | | | | | | |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 19-1/2 | 1 | - | 1625 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 | | | | | | | | | | |
| | | | | | 25-1/2 | 1 | - | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 | | | | | | | | | | |
| | | | | | 25-1/2 | 2-6 CL | - | 2325 | 2000 | 1810 | 1600 | 1420 | 1230 | 1050 | 930 | 770 | 600 | | | | | | | | | | |
| | | | | | 29-1/2 | 1 | - | 1850 | 1590 | 1440 | 1280 | 1130 | 980 | 830 | 740 | 610 | 480 | | | | | | | | | | |
| | | | | | 29-1/2 | 2-6 CL | - | 2520 | 2170 | 1970 | 1740 | 1540 | 1340 | 1130 | 1010 | 830 | 660 | | | | | | | | | | |
| | | | | | 29-1/2 | 3-6 CL | - | 2870 | 2470 | 2240 | 1980 | 1750 | 1520 | 1290 | 1150 | 950 | 750 | | | | | | | | | | |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 19-1/2 | 1 | - | 1780 | 1530 | 1390 | 1230 | 1090 | 940 | 800 | 710 | 590 | 460 | | | | | | | | | | |
| | | | | | 25-1/2 | 1 | - | 2020 | 1740 | 1580 | 1390 | 1230 | 1070 | 910 | 810 | 670 | 530 | | | | | | | | | | |
| | | | | | 25-1/2 | 2-6 CL | - | 2315 | 1990 | 1810 | 1600 | 1410 | 1230 | 1040 | 930 | 760 | 600 | | | | | | | | | | |
| | | | | | 29-1/2 | 1 | - | 2165 | 1860 | 1690 | 1490 | 1320 | 1150 | 970 | 870 | 710 | 560 | | | | | | | | | | |
| | | | | | 29-1/2 | 2-6 CL | - | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 | | | | | | | | | | |
| | | | | | 29-1/2 | 3-6 CL | - | 2930 | 2520 | 2290 | 2020 | 1790 | 1550 | 1320 | 1170 | 970 | 760 | | | | | | | | | | |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 19-1/2 | 1 | - | 1400 | 1200 | 1090 | 970 | 850 | 740 | 630 | 560 | 460 | 360 | | | | | | | | | | |
| | | | | | 25-1/2 | 1 | - | 1475 | 1270 | 1150 | 1020 | 900 | 780 | 660 | 590 | 490 | 380 | | | | | | | | | | |
| | | | | | 25-1/2 | 2-6 CL | - | 2195 | 1890 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 | | | | | | | | | | |
| | | | | | 29-1/2 | 1 | - | 1530 | 1320 | 1190 | 1060 | 930 | 810 | 690 | 610 | 500 | 400 | | | | | | | | | | |
| | | | | | 29-1/2 | 2-6 CL | - | 2400 | 2060 | 1870 | 1660 | 1460 | 1270 | 1080 | 960 | 790 | 620 | | | | | | | | | | |
| | | | | | 29-1/2 | 3-6 CL | - | 2760 | 2370 | 2150 | 1900 | 1680 | 1460 | 1240 | 1100 | 910 | 720 | | | | | | | | | | |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 19-1/2 | 1 | - | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 | | | | | | | | | | |
| | | | | | 25-1/2 | 1 | - | 1725 | 1480 | 1350 | 1190 | 1050 | 910 | 780 | 690 | 570 | 450 | | | | | | | | | | |
| | | | | | 25-1/2 | 2-6 CL | - | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 | | | | | | | | | | |
| | | | | | 29-1/2 | 1 | - | 1815 | 1560 | 1420 | 1250 | 1110 | 960 | 820 | 730 | 600 | 470 | | | | | | | | | | |
| | | | | | 29-1/2 | 2-6 CL | - | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 | | | | | | | | | | |
| | | | | | 29-1/2 | 3-6 CL | - | 2830 | 2430 | 2210 | 1950 | 1730 | 1500 | 1270 | 1130 | 930 | 740 | | | | | | | | | | |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 19-1/2 | 1 | - | 1745 | 1500 | 1360 | 1200 | 1060 | 920 | 790 | 700 | 580 | 450 | | | | | | | | | | |
| | | | | | 25-1/2 | 1 | - | 1985 | 1710 | 1550 | 1370 | 1210 | 1050 | 890 | 790 | 660 | 520 | | | | | | | | | | |
| | | | | | 25-1/2 | 2-6 CL | - | 2270 | 1950 | 1770 | 1570 | 1380 | 1200 | 1020 | 910 | 750 | 590 | | | | | | | | | | |
| | | | | | 29-1/2 | 1 | - | 2135 | 1840 | 1670 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 560 | | | | | | | | | | |
| | | | | | 29-1/2 | 2-6 CL | - | 2545 | 2190 | 1990 | 1760 | 1550 | 1350 | 1150 | 1020 | 840 | 660 | | | | | | | | | | |
| | | | | | 29-1/2 | 3-6 CL | - | 2880 | 2480 | 2250 | 1990 | 1760 | 1530 | 1300 | 1150 | 950 | 750 | | | | | | | | | | |

Note: Copper tube furnished flared one end standard.

STYLE "LVDS" DOUBLE SLOPE TOP

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 19-1/2 | 1 | - | 1215 | 1040 | 950 | 840 | 740 | 640 | 550 | 490 | 400 | 320 |
| | | | | | 25-1/2 | 1 | - | 1255 | 1080 | 980 | 870 | 770 | 670 | 560 | 500 | 410 | 330 |
| | | | | | 25-1/2 | 2-6 CL | - | 1980 | 1700 | 1540 | 1370 | 1210 | 1050 | 890 | 790 | 650 | 510 |
| | | | | | 29-1/2 | 1 | - | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 |
| | | | | | 29-1/2 | 2-6 CL | - | 2045 | 1760 | 1600 | 1410 | 1250 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 29-1/2 | 3-6 CL | - | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 19-1/2 | 1 | - | 1360 | 1170 | 1060 | 940 | 830 | 720 | 610 | 540 | 450 | 350 |
| | | | | | 25-1/2 | 1 | - | 1445 | 1240 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 25-1/2 | 2-6 CL | - | 2140 | 1840 | 1670 | 1480 | 1310 | 1130 | 960 | 860 | 710 | 560 |
| | | | | | 29-1/2 | 1 | - | 1495 | 1290 | 1170 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 29-1/2 | 2-6 CL | - | 2240 | 1930 | 1750 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 580 |
| | | | | | 29-1/2 | 3-6 CL | - | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 19-1/2 | 1 | - | 1425 | 1230 | 1110 | 980 | 870 | 760 | 640 | 570 | 470 | 370 |
| | | | | | 25-1/2 | 1 | - | 1515 | 1300 | 1180 | 1050 | 920 | 800 | 680 | 610 | 500 | 390 |
| | | | | | 25-1/2 | 2-6 CL | - | 2190 | 1880 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 |
| | | | | | 29-1/2 | 1 | - | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 |
| | | | | | 29-1/2 | 2-6 CL | - | 2295 | 1970 | 1790 | 1580 | 1400 | 1220 | 1030 | 920 | 760 | 600 |
| | | | | | 29-1/2 | 3-6 CL | - | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 19-1/2 | 1 | - | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| | | | | | 25-1/2 | 1 | - | 1185 | 1020 | 920 | 820 | 720 | 630 | 530 | 470 | 390 | 310 |
| | | | | | 25-1/2 | 2-6 CL | - | 1780 | 1530 | 1390 | 1230 | 1090 | 940 | 800 | 710 | 590 | 460 |
| | | | | | 29-1/2 | 1 | - | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 |
| | | | | | 29-1/2 | 2-6 CL | - | 1880 | 1620 | 1470 | 1300 | 1150 | 1000 | 850 | 750 | 620 | 490 |
| | | | | | 29-1/2 | 3-6 CL | - | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 19-1/2 | 1 | - | 1360 | 1170 | 1060 | 940 | 830 | 720 | 610 | 540 | 450 | 350 |
| | | | | | 25-1/2 | 1 | - | 1470 | 1260 | 1150 | 1010 | 900 | 780 | 660 | 590 | 490 | 380 |
| | | | | | 25-1/2 | 2-6 CL | - | 2090 | 1800 | 1630 | 1440 | 1270 | 1110 | 940 | 840 | 690 | 540 |
| | | | | | 29-1/2 | 1 | - | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 |
| | | | | | 29-1/2 | 2-6 CL | - | 2240 | 1930 | 1750 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 580 |
| | | | | | 29-1/2 | 3-6 CL | - | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 19-1/2 | 1 | - | 1415 | 1220 | 1100 | 980 | 860 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 25-1/2 | 1 | - | 1505 | 1290 | 1170 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 |
| | | | | | 25-1/2 | 2-6 CL | - | 2150 | 1850 | 1680 | 1480 | 1310 | 1140 | 970 | 860 | 710 | 560 |
| | | | | | 29-1/2 | 1 | - | 1555 | 1340 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 |
| | | | | | 29-1/2 | 2-6 CL | - | 2250 | 1940 | 1760 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 590 |
| | | | | | 29-1/2 | 3-6 CL | - | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 19-1/2 | 1 | - | 1050 | 900 | 820 | 720 | 640 | 560 | 470 | 420 | 350 | 270 |
| | | | | | 25-1/2 | 1 | - | 1110 | 950 | 870 | 770 | 680 | 590 | 500 | 440 | 370 | 290 |
| | | | | | 25-1/2 | 2-6 CL | - | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 |
| | | | | | 29-1/2 | 1 | - | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| | | | | | 29-1/2 | 2-6 CL | - | 1770 | 1520 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 580 | 460 |
| | | | | | 29-1/2 | 3-6 CL | - | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 19-1/2 | 1 | - | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |
| | | | | | 25-1/2 | 1 | - | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 |
| | | | | | 25-1/2 | 2-6 CL | - | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 |
| | | | | | 29-1/2 | 1 | - | 1360 | 1170 | 1060 | 940 | 830 | 720 | 610 | 540 | 450 | 350 |
| | | | | | 29-1/2 | 2-6 CL | - | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 29-1/2 | 3-6 CL | - | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LV2-T" SLIMLINE TOP OUTLET

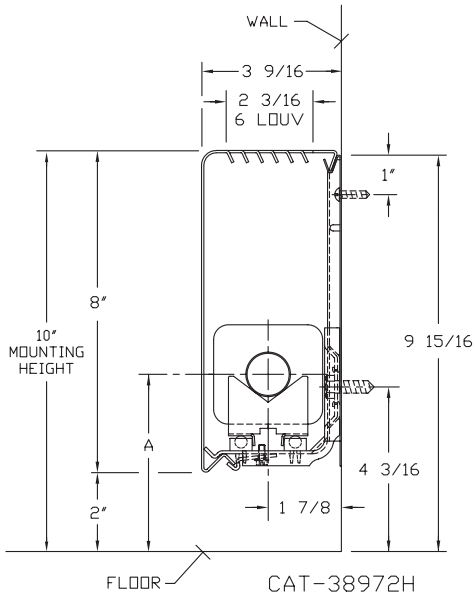


LV2-T8

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| * 3/4 COPPER | 2 1/2 x 2 1/4 | 1 | 4 5/16 |
| * 3/4 COPPER | 2 1/2 x 2 3/4 | 1 | |
| 3/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5" |
| * 1" COPPER | 2 1/2 x 2 3/4 | 1 | 4 1/2 |
| 1" COPPER | 3 3/4 x 2 3/4 | 2 | 5 3/16 |
| 1" COPPER | 5" x 2 3/4 | 3A | 5 1/2 |
| 1 1/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5 5/16 |
| 1 1/4 COPPER | 5" x 2 3/4 | 3A | 5 11/16 |
| 1" STEEL | 3 3/4 x 2 3/4 | 2 | 5 5/16 |
| 1" STEEL | 5" x 2 3/4 | 3A | 5 11/16 |
| 1 1/4 STEEL | 3 3/4 x 2 3/4 | 2 | 5 1/2 |
| 1 1/4 STEEL | 5" x 2 3/4 | 3A | 5 15/16 |

* Damper available with these elements only.

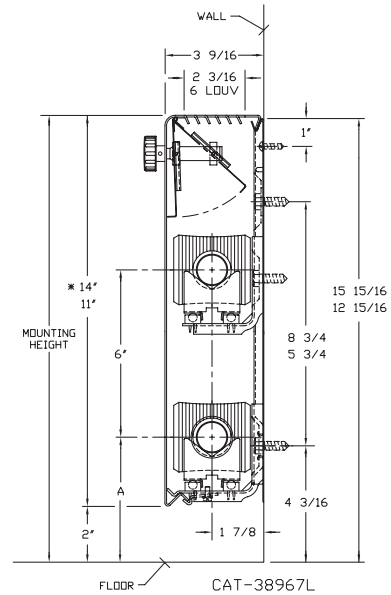
Not recommended for steam applications, consult factory.



LV2-T11 14

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| * 3/4 COPPER | 2 1/2 x 2 1/4 | 1 | 4 5/16 |
| * 3/4 COPPER | 2 1/2 x 2 3/4 | 1 | |
| 3/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5" |
| * 1" COPPER | 2 1/2 x 2 3/4 | 1 | 4 1/2 |
| 1" COPPER | 3 3/4 x 2 3/4 | 2 | 5 3/16 |
| 1" COPPER | 5" x 2 3/4 | 3A | 5 1/2 |
| 1 1/4 COPPER | 3 3/4 x 2 3/4 | 2 | 5 5/16 |
| 1 1/4 COPPER | 5" x 2 3/4 | 3A | 5 11/16 |
| 1" STEEL | 3 3/4 x 2 3/4 | 2 | 5 5/16 |
| 1" STEEL | 5" x 2 3/4 | 3A | 5 11/16 |
| 1 1/4 STEEL | 3 3/4 x 2 3/4 | 2 | 5 1/2 |
| 1 1/4 STEEL | 5" x 2 3/4 | 3A | 5 15/16 |

* 2 tier with damper available in 14" height with these elements only.



STYLE "LV2-T" SLIMLINE TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|-----|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | |
| | | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VR01 | 2-1/2" x 2-1/4" | 50 | .011 | 8* | 1 | 10 | 750 | 650 | 590 | 520 | 460 | 400 | 340 | 300 | 250 | 200 | |
| | | | | | 11 | 1 | 13 | 810 | 700 | 630 | 560 | 490 | 430 | 360 | 320 | 270 | 210 | |
| | | | | | 14 | 1 | 16 | 870 | 750 | 680 | 600 | 530 | 460 | 390 | 350 | 290 | 230 | |
| | | | | | 14* | 2-5 CL | 16 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 | |
| 3/4" | VR02 | 2-1/2" x 2-3/4" | 60 | .010 | 8* | 1 | 10 | 900 | 770 | 700 | 620 | 550 | 480 | 410 | 360 | 300 | 230 | |
| | | | | | 11 | 1 | 13 | 960 | 830 | 750 | 660 | 590 | 510 | 430 | 380 | 320 | 250 | |
| | | | | | 14 | 1 | 16 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 | |
| | | | | | 14* | 2-5 CL | 16 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 | |
| 1" | VR03 | 2-1/2" x 2-3/4" | 55 | .011 | 8* | 1 | 10 | 880 | 760 | 690 | 610 | 540 | 470 | 400 | 350 | 290 | 230 | |
| | | | | | 11 | 1 | 13 | 940 | 810 | 730 | 650 | 570 | 500 | 420 | 380 | 310 | 240 | |
| | | | | | 14 | 1 | 16 | 1000 | 860 | 780 | 690 | 610 | 530 | 450 | 400 | 330 | 260 | |
| | | | | | 14* | 2-5 CL | 16 | 1440 | 1240 | 1120 | 990 | 880 | 760 | 650 | 580 | 480 | 370 | |
| 3/4" | VR04 | 3-3/4" x 2-3/4" | 50 | .014 | 8* | 1 | 10 | 1080 | 930 | 840 | 750 | 660 | 570 | 490 | 430 | 360 | 280 | |
| | | | | | 11 | 1 | 13 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 | |
| | | | | | 14 | 1 | 16 | 1200 | 1030 | 940 | 830 | 730 | 640 | 540 | 480 | 400 | 310 | |
| | | | | | 14* | 2-5 CL | 16 | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 | |
| 1" | VR05 | 3-3/4" x 2-3/4" | 50 | .011 | 8* | 1 | 10 | 1070 | 920 | 830 | 740 | 650 | 570 | 480 | 430 | 350 | 280 | |
| | | | | | 11 | 1 | 13 | 1130 | 970 | 880 | 780 | 690 | 600 | 510 | 450 | 370 | 290 | |
| | | | | | 14 | 1 | 16 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 | |
| | | | | | 14* | 2-5 CL | 16 | 1580 | 1360 | 1230 | 1090 | 960 | 840 | 710 | 630 | 520 | 410 | |
| 1-1/4" | VR08 | 3-3/4" x 2-3/4" | 50 | .020 | 8* | 1 | 10 | 1020 | 880 | 800 | 700 | 620 | 540 | 460 | 410 | 340 | 270 | |
| | | | | | 11 | 1 | 13 | 1080 | 930 | 840 | 750 | 660 | 570 | 490 | 430 | 360 | 280 | |
| | | | | | 14 | 1 | 16 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 | |
| | | | | | 14* | 2-5 CL | 16 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 | |
| 1" | VR07 | 5" x 2-3/4" | 50 | .020 | 8* | 1 | 10 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 | |
| | | | | | 11 | 1 | 13 | 1270 | 1090 | 990 | 880 | 770 | 670 | 570 | 510 | 420 | 330 | |
| | | | | | 14 | 1 | 16 | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 | |
| | | | | | 14* | 2-5 CL | 16 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 | |
| 1-1/4" | VR10 | 5" x 2-3/4" | 50 | .020 | 8* | 1 | 10 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 | |
| | | | | | 11 | 1 | 13 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 | |
| | | | | | 14 | 1 | 16 | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 | |
| | | | | | 14* | 2-5 CL | 16 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 | |

*Not recommended for steam applications consult, factory.

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|-----|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | |
| | | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VR11 | 3-3/4" x 2-3/4" | 40 | .024 | 8* | 1 | 10 | 830 | 710 | 650 | 570 | 510 | 440 | 370 | 330 | 270 | 220 | |
| | | | | | 11 | 1 | 13 | 890 | 770 | 690 | 610 | 540 | 470 | 400 | 360 | 290 | 230 | |
| | | | | | 14 | 1 | 16 | 980 | 840 | 760 | 680 | 600 | 520 | 440 | 390 | 320 | 250 | |
| | | | | | 14* | 2-5 CL | 16 | 1410 | 1210 | 1100 | 970 | 860 | 750 | 630 | 560 | 470 | 370 | |
| 1" | VR15 | 5" x 2-3/4" | 50 | .024 | 8* | 1 | 10 | 890 | 770 | 690 | 610 | 540 | 470 | 400 | 360 | 290 | 230 | |
| | | | | | 11 | 1 | 13 | 950 | 820 | 740 | 660 | 580 | 500 | 430 | 380 | 310 | 250 | |
| | | | | | 14 | 1 | 16 | 1040 | 890 | 810 | 720 | 630 | 550 | 470 | 420 | 340 | 270 | |
| | | | | | 14* | 2-5 CL | 16 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 | |
| 1-1/4" | VR16 | 5" x 2-3/4" | 50 | .024 | 8* | 1 | 10 | 910 | 780 | 710 | 630 | 560 | 480 | 410 | 360 | 300 | 240 | |
| | | | | | 11 | 1 | 13 | 970 | 830 | 760 | 670 | 590 | 510 | 440 | 390 | 320 | 250 | |
| | | | | | 14 | 1 | 16 | 1060 | 910 | 830 | 730 | 650 | 560 | 480 | 420 | 350 | 280 | |
| | | | | | 14* | 2-5 CL | 16 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 | |

*Not recommended for steam application, consult factory.

Notes: 1) Steel fin furnished as .024 thick, painted black.

2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.

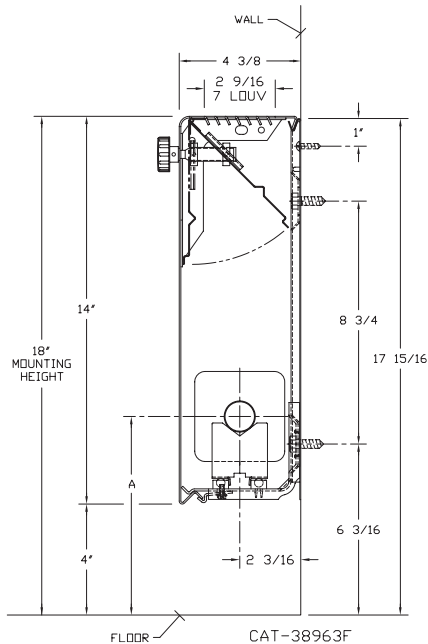
3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVT" TOP OUTLET



LV3-T14

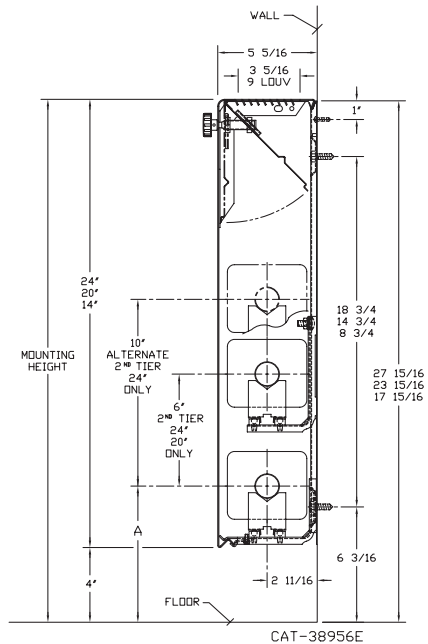
| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4 COPPER | 3 1/4 x 3 1/4 | 2 | 7" |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 | 1 | 6 5/8" |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 | 1 | 6 13/16" |



See page 39 for element center line dimensions with steam bracket installation.

LV4-T14 20 24

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7" |
| 3/4 COPPER | 4 1/4 x 4 1/4 | 3A | 7 3/8" |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 3/16" |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 COPPER | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/2" |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 1/4" |



See page 39 for element center line dimensions with steam bracket installation.

STYLE "LVT" TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|-----|-----|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | | |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | .06 | .07 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 960 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1130 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1280 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 940 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1080 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1220 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 1 1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 900 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 1 1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1040 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 1 1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1190 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1300 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1380 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2-6 CL | 24 | 2015 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 1420 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2-6 CL | 28 | 2100 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3-6 CL | 28 | 2420 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1550 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1650 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2-6 CL | 24 | 2360 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 1700 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2-6 CL | 28 | 2460 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3-6 CL | 28 | 2800 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1740 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1870 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2-6 CL | 24 | 2690 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 1960 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2-6 CL | 28 | 2910 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3-6 CL | 28 | 3290 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1380 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1450 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2-6 CL | 24 | 2260 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 1490 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2-6 CL | 28 | 2340 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3-6 CL | 28 | 2690 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1650 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1710 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2-6 CL | 24 | 2440 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 1780 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2-6 CL | 28 | 2530 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3-6 CL | 28 | 2880 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1810 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1960 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2-6 CL | 24 | 2520 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 2050 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2-6 CL | 28 | 2730 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3-6 CL | 28 | 3080 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1350 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1420 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2 @ 6 CL | 24 | 2220 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 1460 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2 @ 6 CL | 28 | 2300 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3 @ 6 CL | 28 | 2650 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1580 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1680 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2 @ 6 CL | 24 | 2380 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 1740 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2 @ 6 CL | 28 | 2480 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3 @ 6 CL | 28 | 2830 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1780 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 1 | 24 | 1920 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 20 | 2 @ 6 CL | 24 | 2460 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 1 | 28 | 2010 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| | | | | | 24 | 2 @ 6 CL | 28 | 2650 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | |
| 24 | 3 @ 6 CL | 28 | 2990 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 | | | | | | | |

STYLE "LVT" TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1400 | 1200 | 1090 | 970 | 850 | 740 | 630 | 560 | 460 | 360 |
| | | | | | 20 | 1 | 24 | 1595 | 1370 | 1240 | 1100 | 970 | 850 | 720 | 640 | 530 | 410 |
| | | | | | 20 | 2-6 CL | 24 | 2215 | 1900 | 1730 | 1530 | 1350 | 1170 | 1000 | 890 | 730 | 580 |
| | | | | | 24 | 1 | 28 | 1530 | 1320 | 1190 | 1060 | 930 | 810 | 690 | 610 | 500 | 400 |
| | | | | | 24 | 2-6 CL | 28 | 2305 | 1980 | 1800 | 1590 | 1410 | 1220 | 1040 | 920 | 760 | 600 |
| 24 | 3-6 CL | 28 | 2650 | 2280 | 2070 | 1830 | 1620 | 1400 | 1190 | 1060 | 870 | 690 | | | | | |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1700 | 1460 | 1330 | 1170 | 1040 | 900 | 770 | 680 | 560 | 440 |
| | | | | | 20 | 1 | 24 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 20 | 2-6 CL | 24 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| | | | | | 24 | 1 | 28 | 1870 | 1610 | 1460 | 1290 | 1140 | 990 | 840 | 750 | 620 | 490 |
| | | | | | 24 | 2-6 CL | 28 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 |
| 24 | 3-6 CL | 28 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 | | | | | |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1745 | 1500 | 1360 | 1200 | 1060 | 920 | 790 | 700 | 580 | 450 |
| | | | | | 20 | 1 | 24 | 2000 | 1720 | 1560 | 1380 | 1220 | 1060 | 900 | 800 | 660 | 520 |
| | | | | | 20 | 2-6 CL | 24 | 2465 | 2120 | 1920 | 1700 | 1500 | 1310 | 1110 | 990 | 810 | 640 |
| | | | | | 24 | 1 | 28 | 2060 | 1770 | 1610 | 1420 | 1260 | 1090 | 930 | 820 | 680 | 540 |
| | | | | | 24 | 2-6 CL | 28 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| 24 | 3-6 CL | 28 | 2800 | 2410 | 2180 | 1930 | 1710 | 1480 | 1260 | 1120 | 920 | 730 | | | | | |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 20 | 1 | 24 | 1550 | 1330 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 |
| | | | | | 20 | 2-6 CL | 24 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 24 | 1 | 28 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 24 | 2-6 CL | 28 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 |
| 24 | 3-6 CL | 28 | 2840 | 2440 | 2220 | 1960 | 1730 | 1510 | 1280 | 1140 | 940 | 740 | | | | | |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1720 | 1480 | 1340 | 1190 | 1050 | 910 | 770 | 690 | 570 | 450 |
| | | | | | 20 | 1 | 24 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 |
| | | | | | 20 | 2-6 CL | 24 | 2570 | 2210 | 2000 | 1770 | 1570 | 1360 | 1160 | 1030 | 850 | 670 |
| | | | | | 24 | 1 | 28 | 1890 | 1630 | 1470 | 1300 | 1150 | 1000 | 850 | 760 | 620 | 490 |
| | | | | | 24 | 2-6 CL | 28 | 2670 | 2300 | 2080 | 1840 | 1630 | 1420 | 1200 | 1070 | 880 | 690 |
| 24 | 3-6 CL | 28 | 3040 | 2610 | 2370 | 2100 | 1850 | 1610 | 1370 | 1220 | 1000 | 790 | | | | | |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 |
| | | | | | 20 | 1 | 24 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 2-6 CL | 24 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 |
| | | | | | 24 | 1 | 28 | 2200 | 1890 | 1720 | 1520 | 1340 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 24 | 2-6 CL | 28 | 2840 | 2440 | 2220 | 1960 | 1730 | 1510 | 1280 | 1140 | 940 | 740 |
| 24 | 3-6 CL | 28 | 3210 | 2760 | 2500 | 2210 | 1960 | 1700 | 1440 | 1280 | 1060 | 830 | | | | | |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 |
| | | | | | 20 | 1 | 24 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| | | | | | 20 | 2-6 CL | 24 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 24 | 1 | 28 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 |
| | | | | | 24 | 2-6 CL | 28 | 2430 | 2090 | 1900 | 1680 | 1480 | 1290 | 1090 | 970 | 800 | 630 |
| 24 | 3-6 CL | 28 | 2790 | 2400 | 2180 | 1930 | 1700 | 1480 | 1260 | 1120 | 920 | 730 | | | | | |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1690 | 1450 | 1320 | 1170 | 1030 | 900 | 760 | 680 | 560 | 440 |
| | | | | | 20 | 1 | 24 | 1790 | 1540 | 1400 | 1240 | 1090 | 950 | 810 | 720 | 590 | 470 |
| | | | | | 20 | 2-6 CL | 24 | 2520 | 2170 | 1970 | 1740 | 1540 | 1340 | 1130 | 1010 | 830 | 660 |
| | | | | | 24 | 1 | 28 | 1860 | 1600 | 1450 | 1280 | 1130 | 990 | 840 | 740 | 610 | 480 |
| | | | | | 24 | 2-6 CL | 28 | 2620 | 2250 | 2040 | 1810 | 1600 | 1390 | 1180 | 1050 | 860 | 680 |
| 24 | 3-6 CL | 28 | 2990 | 2570 | 2330 | 2060 | 1820 | 1580 | 1350 | 1200 | 990 | 780 | | | | | |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 |
| | | | | | 20 | 1 | 24 | 2060 | 1770 | 1610 | 1420 | 1260 | 1090 | 930 | 820 | 680 | 540 |
| | | | | | 20 | 2-6 CL | 24 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 1 | 28 | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 |
| | | | | | 24 | 2-6 CL | 28 | 2780 | 2390 | 2170 | 1920 | 1700 | 1470 | 1250 | 1110 | 920 | 720 |
| 24 | 3-6 CL | 28 | 3140 | 2700 | 2450 | 2170 | 1920 | 1660 | 1410 | 1260 | 1040 | 820 | | | | | |

Note: Copper tube furnished flared one end standard.

STYLE "LVT" TOP OUTLET

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 840 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 965 | 830 | 750 | 670 | 590 | 510 | 430 | 390 | 320 | 250 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1035 | 890 | 810 | 710 | 630 | 550 | 470 | 410 | 340 | 270 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 850 | 730 | 660 | 590 | 520 | 450 | 380 | 340 | 280 | 220 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 960 | 830 | 750 | 660 | 590 | 510 | 430 | 380 | 320 | 250 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1000 | 860 | 780 | 690 | 610 | 530 | 450 | 400 | 330 | 260 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1200 | 1030 | 940 | 830 | 730 | 640 | 540 | 480 | 400 | 310 |
| | | | | | 20 | 1 | 24 | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 |
| | | | | | 20 | 2-6 CL | 24 | 2030 | 1750 | 1580 | 1400 | 1240 | 1080 | 910 | 810 | 670 | 530 |
| | | | | | 24 | 1 | 28 | 1280 | 1100 | 1000 | 880 | 780 | 680 | 580 | 510 | 420 | 330 |
| | | | | | 24 | 2-6 CL | 28 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 |
| 24 | 3-6 CL | 28 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 | | | | | |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 20 | 1 | 24 | 1500 | 1290 | 1170 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 |
| | | | | | 20 | 2-6 CL | 24 | 2200 | 1890 | 1720 | 1520 | 1340 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 24 | 1 | 28 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 |
| | | | | | 24 | 2-6 CL | 28 | 2270 | 1950 | 1770 | 1570 | 1380 | 1200 | 1020 | 910 | 750 | 590 |
| 24 | 3-6 CL | 28 | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 | | | | | |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1485 | 1280 | 1160 | 1020 | 910 | 790 | 670 | 590 | 490 | 390 |
| | | | | | 20 | 1 | 24 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 |
| | | | | | 20 | 2-6 CL | 24 | 2255 | 1940 | 1760 | 1560 | 1380 | 1200 | 1010 | 900 | 740 | 590 |
| | | | | | 24 | 1 | 28 | 1635 | 1410 | 1280 | 1130 | 1000 | 870 | 740 | 650 | 540 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2325 | 2000 | 1810 | 1600 | 1420 | 1230 | 1050 | 930 | 770 | 600 |
| 24 | 3-6 CL | 28 | 2630 | 2260 | 2050 | 1810 | 1600 | 1390 | 1180 | 1050 | 870 | 680 | | | | | |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1100 | 950 | 860 | 760 | 670 | 580 | 500 | 440 | 360 | 290 |
| | | | | | 20 | 1 | 24 | 1150 | 990 | 900 | 790 | 700 | 610 | 520 | 460 | 380 | 300 |
| | | | | | 20 | 2-6 CL | 24 | 1860 | 1600 | 1450 | 1280 | 1130 | 990 | 840 | 740 | 610 | 480 |
| | | | | | 24 | 1 | 28 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 |
| | | | | | 24 | 2-6 CL | 28 | 1910 | 1640 | 1490 | 1320 | 1170 | 1010 | 860 | 760 | 630 | 500 |
| 24 | 3-6 CL | 28 | 2200 | 1890 | 1720 | 1520 | 1340 | 1170 | 990 | 880 | 730 | 570 | | | | | |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1410 | 1210 | 1100 | 970 | 860 | 750 | 630 | 560 | 470 | 370 |
| | | | | | 20 | 1 | 24 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 20 | 2-6 CL | 24 | 2190 | 1880 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 |
| | | | | | 24 | 1 | 28 | 1550 | 1330 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 |
| | | | | | 24 | 2-6 CL | 28 | 2260 | 1940 | 1760 | 1560 | 1380 | 1200 | 1020 | 900 | 750 | 590 |
| 24 | 3-6 CL | 28 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 | | | | | |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1475 | 1270 | 1150 | 1020 | 900 | 780 | 660 | 590 | 490 | 380 |
| | | | | | 20 | 1 | 24 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 |
| | | | | | 20 | 2-6 CL | 24 | 2210 | 1900 | 1720 | 1520 | 1350 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 24 | 1 | 28 | 1625 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 |
| | | | | | 24 | 2-6 CL | 28 | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 |
| 24 | 3-6 CL | 28 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 | | | | | |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 14 | 1 | 18 | 1080 | 930 | 840 | 750 | 660 | 570 | 490 | 430 | 360 | 280 |
| | | | | | 20 | 1 | 24 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| | | | | | 20 | 2-6 CL | 24 | 1790 | 1540 | 1400 | 1240 | 1090 | 950 | 810 | 720 | 590 | 470 |
| | | | | | 24 | 1 | 28 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 |
| | | | | | 24 | 2-6 CL | 28 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 |
| 24 | 3-6 CL | 28 | 2090 | 1800 | 1630 | 1440 | 1270 | 1110 | 940 | 840 | 690 | 540 | | | | | |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1260 | 1080 | 980 | 870 | 770 | 670 | 570 | 500 | 420 | 330 |
| | | | | | 20 | 1 | 24 | 1310 | 1130 | 1020 | 900 | 800 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 20 | 2-6 CL | 24 | 1980 | 1700 | 1540 | 1370 | 1210 | 1050 | 890 | 790 | 650 | 510 |
| | | | | | 24 | 1 | 28 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| | | | | | 24 | 2-6 CL | 28 | 2020 | 1740 | 1580 | 1390 | 1230 | 1070 | 910 | 810 | 670 | 530 |
| 24 | 3-6 CL | 28 | 2320 | 2000 | 1810 | 1600 | 1420 | 1230 | 1040 | 930 | 770 | 600 | | | | | |

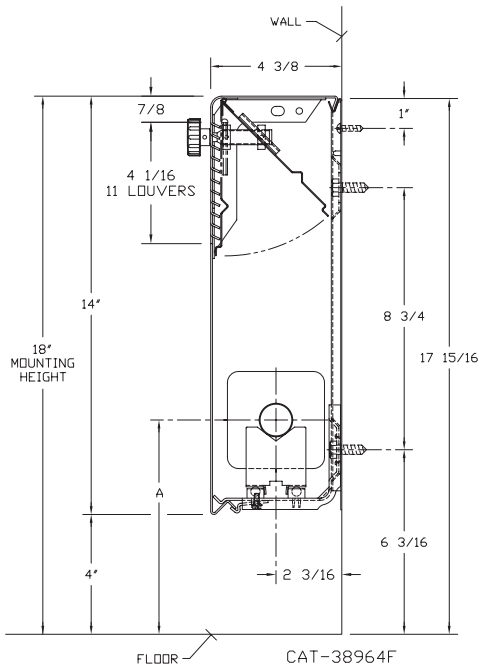
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVF" FRONT OUTLET



LV3-F14

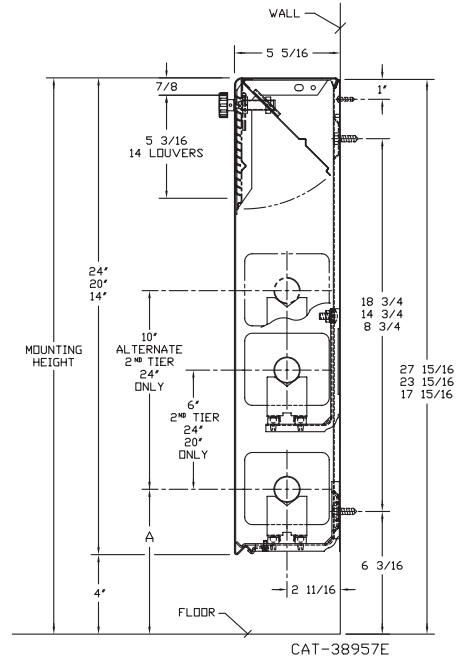
| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4" COPPER | 3 1/4 x 3 1/4 | 2 | 7" |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16" |
| 1 1/4" COPPER | 3 1/4 x 3 1/4 | 1 | 6 5/8" |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 5/16" |
| 1 1/4" STEEL | 3 1/4 x 3 1/4 | 1 | 6 13/16" |



See page 39 for element center line dimensions with steam bracket installation.

LV4-F14 20 24

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| 3/4" COPPER | 3 5/8 x 4 1/4 | 2 | 7" |
| 3/4" COPPER | 4 1/4 x 4 1/4 | 3A | 7 3/8" |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 3/16" |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 7 3/16" |
| 1 1/4" COPPER | 3 5/8 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4" COPPER | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4" STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/2" |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 1/4" |



See page 39 for element center line dimensions with steam bracket installation.

STYLE "LVF" FRONT OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | 1.00 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 |
| 1 1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1090 | 940 | 850 | 750 | 660 | 580 | 490 | 440 | 360 | 280 |
| 1 1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 |
| 1 1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 |
| | | | | | 20 | 1 | 24 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 |
| | | | | | 20 | 2-6 CL | 24 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 24 | 1 | 28 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 24 | 2-6 CL | 28 | 2410 | 2070 | 1880 | 1660 | 1470 | 1280 | 1080 | 960 | 800 | 630 |
| 24 | 3-6 CL | 28 | 2770 | 2380 | 2160 | 1910 | 1690 | 1470 | 1250 | 1110 | 910 | 720 | | | | | |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| | | | | | 20 | 1 | 24 | 1790 | 1540 | 1400 | 1240 | 1090 | 950 | 810 | 720 | 590 | 470 |
| | | | | | 20 | 2-6 CL | 24 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 |
| | | | | | 24 | 1 | 28 | 1870 | 1610 | 1460 | 1290 | 1140 | 990 | 840 | 750 | 620 | 490 |
| | | | | | 24 | 2-6 CL | 28 | 2670 | 2300 | 2080 | 1840 | 1630 | 1420 | 1200 | 1070 | 880 | 690 |
| 24 | 3-6 CL | 28 | 3040 | 2610 | 2370 | 2100 | 1850 | 1610 | 1370 | 1220 | 1000 | 790 | | | | | |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 |
| | | | | | 20 | 1 | 24 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 |
| | | | | | 20 | 2-6 CL | 24 | 2780 | 2390 | 2170 | 1920 | 1700 | 1470 | 1250 | 1110 | 920 | 720 |
| | | | | | 24 | 1 | 28 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 |
| | | | | | 24 | 2-6 CL | 28 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| 24 | 3-6 CL | 28 | 3320 | 2860 | 2590 | 2290 | 2030 | 1760 | 1490 | 1330 | 1100 | 860 | | | | | |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1530 | 1320 | 1190 | 1060 | 930 | 810 | 690 | 610 | 500 | 400 |
| | | | | | 20 | 1 | 24 | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 |
| | | | | | 20 | 2-6 CL | 24 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 |
| | | | | | 24 | 1 | 28 | 1640 | 1410 | 1280 | 1130 | 1000 | 870 | 740 | 660 | 540 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 |
| 24 | 3-6 CL | 28 | 2920 | 2510 | 2280 | 2010 | 1780 | 1550 | 1310 | 1170 | 960 | 760 | | | | | |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| | | | | | 20 | 1 | 24 | 1870 | 1610 | 1460 | 1290 | 1140 | 990 | 840 | 750 | 620 | 490 |
| | | | | | 20 | 2-6 CL | 24 | 2640 | 2270 | 2060 | 1820 | 1610 | 1400 | 1190 | 1060 | 870 | 690 |
| | | | | | 24 | 1 | 28 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 24 | 2-6 CL | 28 | 2750 | 2370 | 2150 | 1900 | 1680 | 1460 | 1240 | 1100 | 910 | 720 |
| 24 | 3-6 CL | 28 | 3130 | 2690 | 2440 | 2160 | 1910 | 1660 | 1410 | 1250 | 1030 | 810 | | | | | |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 |
| | | | | | 20 | 1 | 24 | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 |
| | | | | | 20 | 2-6 CL | 24 | 2600 | 2240 | 2030 | 1790 | 1590 | 1380 | 1170 | 1040 | 860 | 680 |
| | | | | | 24 | 1 | 28 | 2330 | 2000 | 1820 | 1610 | 1420 | 1230 | 1050 | 930 | 770 | 610 |
| | | | | | 24 | 2-6 CL | 28 | 2760 | 2370 | 2150 | 1900 | 1680 | 1460 | 1240 | 1100 | 910 | 720 |
| 24 | 3-6 CL | 28 | 3120 | 2680 | 2430 | 2150 | 1900 | 1650 | 1400 | 1250 | 1030 | 810 | | | | | |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1500 | 1290 | 1170 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 |
| | | | | | 20 | 1 | 24 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2430 | 2090 | 1900 | 1680 | 1480 | 1290 | 1090 | 970 | 800 | 630 |
| | | | | | 24 | 1 | 28 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| 24 | 3 @ 6 CL | 28 | 2880 | 2480 | 2250 | 1990 | 1760 | 1530 | 1300 | 1150 | 950 | 750 | | | | | |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1730 | 1490 | 1350 | 1190 | 1060 | 920 | 780 | 690 | 570 | 450 |
| | | | | | 20 | 1 | 24 | 1850 | 1590 | 1440 | 1280 | 1130 | 980 | 830 | 740 | 610 | 480 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 |
| | | | | | 24 | 1 | 28 | 1910 | 1640 | 1490 | 1320 | 1170 | 1010 | 860 | 760 | 630 | 500 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2700 | 2320 | 2110 | 1860 | 1650 | 1430 | 1220 | 1080 | 890 | 700 |
| 24 | 3 @ 6 CL | 28 | 3080 | 2650 | 2400 | 2130 | 1880 | 1630 | 1390 | 1230 | 1020 | 800 | | | | | |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 |
| | | | | | 20 | 1 | 24 | 2070 | 1780 | 1610 | 1430 | 1260 | 1100 | 930 | 830 | 680 | 540 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 1 | 28 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2650 | 2280 | 2070 | 1830 | 1620 | 1400 | 1190 | 1060 | 870 | 690 |
| 24 | 3 @ 6 CL | 28 | 2990 | 2570 | 2330 | 2060 | 1820 | 1580 | 1350 | 1200 | 990 | 780 | | | | | |

STYLE "LVF" FRONT OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 |
| | | | | | 20 | 1 | 24 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| | | | | | 20 | 2-6 CL | 24 | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 |
| | | | | | 24 | 1 | 28 | 1720 | 1480 | 1340 | 1190 | 1050 | 910 | 770 | 690 | 570 | 450 |
| | | | | | 24 | 2-6 CL | 28 | 2650 | 2280 | 2070 | 1830 | 1620 | 1400 | 1190 | 1060 | 870 | 690 |
| 24 | 3-6 CL | 28 | 3050 | 2620 | 2380 | 2100 | 1860 | 1620 | 1370 | 1220 | 1010 | 790 | | | | | |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 |
| | | | | | 20 | 1 | 24 | 2190 | 1880 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 |
| | | | | | 20 | 2-6 CL | 24 | 2950 | 2540 | 2300 | 2040 | 1800 | 1560 | 1330 | 1180 | 970 | 770 |
| | | | | | 24 | 1 | 28 | 2290 | 1970 | 1790 | 1580 | 1400 | 1210 | 1030 | 920 | 760 | 600 |
| | | | | | 24 | 2-6 CL | 28 | 3000 | 2580 | 2340 | 2070 | 1830 | 1590 | 1350 | 1200 | 990 | 780 |
| 24 | 3-6 CL | 28 | 3420 | 2940 | 2670 | 2360 | 2090 | 1810 | 1540 | 1370 | 1130 | 890 | | | | | |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 20 | 1 | 24 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 |
| | | | | | 20 | 2-6 CL | 24 | 3012 | 2590 | 2350 | 2080 | 1840 | 1600 | 1360 | 1200 | 990 | 780 |
| | | | | | 24 | 1 | 28 | 2400 | 2060 | 1870 | 1660 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 3185 | 2740 | 2480 | 2200 | 1940 | 1690 | 1430 | 1270 | 1050 | 830 |
| 24 | 3-6 CL | 28 | 3600 | 3100 | 2810 | 2480 | 2200 | 1910 | 1620 | 1440 | 1190 | 940 | | | | | |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 |
| | | | | | 20 | 1 | 24 | 1720 | 1480 | 1340 | 1190 | 1050 | 910 | 770 | 690 | 570 | 450 |
| | | | | | 20 | 2-6 CL | 24 | 2630 | 2260 | 2050 | 1810 | 1600 | 1390 | 1180 | 1050 | 870 | 680 |
| | | | | | 24 | 1 | 28 | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| | | | | | 24 | 2-6 CL | 28 | 2690 | 2310 | 2100 | 1860 | 1640 | 1430 | 1210 | 1080 | 890 | 700 |
| 24 | 3-6 CL | 28 | 3090 | 2660 | 2410 | 2130 | 1880 | 1640 | 1390 | 1240 | 1020 | 800 | | | | | |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1890 | 1630 | 1470 | 1300 | 1150 | 1000 | 850 | 760 | 620 | 490 |
| | | | | | 20 | 1 | 24 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 20 | 2-6 CL | 24 | 2730 | 2350 | 2130 | 1880 | 1670 | 1450 | 1230 | 1090 | 900 | 710 |
| | | | | | 24 | 1 | 28 | 2130 | 1830 | 1660 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 550 |
| | | | | | 24 | 2-6 CL | 28 | 2860 | 2460 | 2230 | 1970 | 1740 | 1520 | 1290 | 1140 | 940 | 740 |
| 24 | 3-6 CL | 28 | 3260 | 2800 | 2540 | 2250 | 1990 | 1730 | 1470 | 1300 | 1080 | 850 | | | | | |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1980 | 1700 | 1540 | 1370 | 1210 | 1050 | 890 | 790 | 650 | 510 |
| | | | | | 20 | 1 | 24 | 2260 | 1940 | 1760 | 1560 | 1380 | 1200 | 1020 | 900 | 750 | 590 |
| | | | | | 20 | 2-6 CL | 24 | 2660 | 2290 | 2070 | 1840 | 1620 | 1410 | 1200 | 1060 | 880 | 690 |
| | | | | | 24 | 1 | 28 | 2430 | 2090 | 1900 | 1680 | 1480 | 1290 | 1090 | 970 | 800 | 630 |
| | | | | | 24 | 2-6 CL | 28 | 2930 | 2520 | 2290 | 2020 | 1790 | 1550 | 1320 | 1170 | 970 | 760 |
| 24 | 3-6 CL | 28 | 3310 | 2850 | 2580 | 2280 | 2020 | 1750 | 1490 | 1320 | 1090 | 860 | | | | | |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1640 | 1410 | 1280 | 1130 | 1000 | 870 | 740 | 660 | 540 | 430 |
| | | | | | 20 | 1 | 24 | 1690 | 1450 | 1320 | 1170 | 1030 | 900 | 760 | 680 | 560 | 440 |
| | | | | | 20 | 2-6 CL | 24 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 |
| | | | | | 24 | 1 | 28 | 1730 | 1490 | 1350 | 1190 | 1060 | 920 | 780 | 690 | 570 | 450 |
| | | | | | 24 | 2-6 CL | 28 | 2640 | 2270 | 2060 | 1820 | 1610 | 1400 | 1190 | 1060 | 870 | 690 |
| 24 | 3-6 CL | 28 | 3040 | 2610 | 2370 | 2100 | 1850 | 1610 | 1370 | 1220 | 1000 | 790 | | | | | |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1860 | 1600 | 1450 | 1280 | 1130 | 990 | 840 | 740 | 610 | 480 |
| | | | | | 20 | 1 | 24 | 2000 | 1720 | 1560 | 1380 | 1220 | 1060 | 900 | 800 | 660 | 520 |
| | | | | | 20 | 2-6 CL | 24 | 2680 | 2300 | 2090 | 1850 | 1630 | 1420 | 1210 | 1070 | 880 | 700 |
| | | | | | 24 | 1 | 28 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 24 | 2-6 CL | 28 | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 |
| 24 | 3-6 CL | 28 | 3200 | 2750 | 2500 | 2210 | 1950 | 1700 | 1440 | 1280 | 1060 | 830 | | | | | |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 20 | 1 | 24 | 2220 | 1910 | 1730 | 1530 | 1350 | 1180 | 1000 | 890 | 730 | 580 |
| | | | | | 20 | 2-6 CL | 24 | 2610 | 2240 | 2040 | 1800 | 1590 | 1380 | 1170 | 1040 | 860 | 680 |
| | | | | | 24 | 1 | 28 | 2400 | 2060 | 1870 | 1660 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 2870 | 2470 | 2240 | 1980 | 1750 | 1520 | 1290 | 1150 | 950 | 750 |
| 24 | 3-6 CL | 28 | 3240 | 2790 | 2530 | 2240 | 1980 | 1720 | 1460 | 1300 | 1070 | 840 | | | | | |

Note: Copper tube furnished flared one end standard.

STYLE "LVF" FRONT OUTLET

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 990 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1105 | 950 | 860 | 760 | 670 | 590 | 500 | 440 | 360 | 290 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 980 | 840 | 760 | 680 | 600 | 520 | 440 | 390 | 320 | 250 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1110 | 950 | 870 | 770 | 680 | 590 | 500 | 440 | 370 | 290 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | | | | | 20 | 1 | 24 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 |
| | | | | | 20 | 2-6 CL | 24 | 2155 | 1850 | 1680 | 1490 | 1310 | 1140 | 970 | 860 | 710 | 560 |
| | | | | | 24 | 1 | 28 | 1470 | 1260 | 1150 | 1010 | 900 | 780 | 660 | 590 | 490 | 380 |
| | | | | | 24 | 2-6 CL | 28 | 2225 | 1910 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 730 | 580 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1550 | 1330 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 |
| | | | | | 20 | 1 | 24 | 1645 | 1410 | 1280 | 1140 | 1000 | 870 | 740 | 660 | 540 | 430 |
| | | | | | 20 | 2-6 CL | 24 | 2330 | 2000 | 1820 | 1610 | 1420 | 1230 | 1050 | 930 | 770 | 610 |
| | | | | | 24 | 1 | 28 | 1705 | 1470 | 1330 | 1180 | 1040 | 900 | 770 | 680 | 560 | 440 |
| | | | | | 24 | 2-6 CL | 28 | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 1 | 24 | 1725 | 1480 | 1350 | 1190 | 1050 | 910 | 780 | 690 | 570 | 450 |
| | | | | | 20 | 2-6 CL | 24 | 2385 | 2050 | 1860 | 1650 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 1 | 28 | 1790 | 1540 | 1400 | 1240 | 1090 | 950 | 810 | 720 | 590 | 470 |
| | | | | | 24 | 2-6 CL | 28 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1260 | 1080 | 980 | 870 | 770 | 670 | 570 | 500 | 420 | 330 |
| | | | | | 20 | 1 | 24 | 1270 | 1090 | 990 | 880 | 770 | 670 | 570 | 510 | 420 | 330 |
| | | | | | 20 | 2-6 CL | 24 | 2030 | 1750 | 1580 | 1400 | 1240 | 1080 | 910 | 810 | 670 | 530 |
| | | | | | 24 | 1 | 28 | 1280 | 1100 | 1000 | 880 | 780 | 680 | 580 | 510 | 420 | 330 |
| | | | | | 24 | 2-6 CL | 28 | 2060 | 1770 | 1610 | 1420 | 1260 | 1090 | 930 | 820 | 680 | 540 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 |
| | | | | | 20 | 1 | 24 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 24 | 1 | 28 | 1660 | 1430 | 1290 | 1150 | 1010 | 880 | 750 | 660 | 550 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2400 | 2060 | 1870 | 1660 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 20 | 1 | 24 | 1715 | 1470 | 1340 | 1180 | 1050 | 910 | 770 | 690 | 570 | 450 |
| | | | | | 20 | 2-6 CL | 24 | 2340 | 2010 | 1830 | 1610 | 1430 | 1240 | 1050 | 940 | 770 | 610 |
| | | | | | 24 | 1 | 28 | 1775 | 1530 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 590 | 460 |
| | | | | | 24 | 2-6 CL | 28 | 2450 | 2110 | 1910 | 1690 | 1490 | 1300 | 1100 | 980 | 810 | 640 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 14 | 1 | 18 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 |
| | | | | | 20 | 1 | 24 | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |
| | | | | | 20 | 2-6 CL | 24 | 1910 | 1640 | 1490 | 1320 | 1170 | 1010 | 860 | 760 | 630 | 500 |
| | | | | | 24 | 1 | 28 | 1230 | 1060 | 960 | 850 | 750 | 650 | 550 | 490 | 410 | 320 |
| | | | | | 24 | 2-6 CL | 28 | 1940 | 1670 | 1510 | 1340 | 1180 | 1030 | 870 | 780 | 640 | 500 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | | | | | 20 | 1 | 24 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 20 | 2-6 CL | 24 | 2130 | 1830 | 1660 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 550 |
| | | | | | 24 | 1 | 28 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 24 | 2-6 CL | 28 | 2170 | 1870 | 1690 | 1500 | 1320 | 1150 | 980 | 870 | 720 | 560 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | | | | | 20 | 1 | 24 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 20 | 2-6 CL | 24 | 2130 | 1830 | 1660 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 550 |
| | | | | | 24 | 1 | 28 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 24 | 2-6 CL | 28 | 2170 | 1870 | 1690 | 1500 | 1320 | 1150 | 980 | 870 | 720 | 560 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | | | | | 20 | 1 | 24 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 20 | 2-6 CL | 24 | 2130 | 1830 | 1660 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 550 |
| | | | | | 24 | 1 | 28 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 24 | 2-6 CL | 28 | 2170 | 1870 | 1690 | 1500 | 1320 | 1150 | 980 | 870 | 720 | 560 |

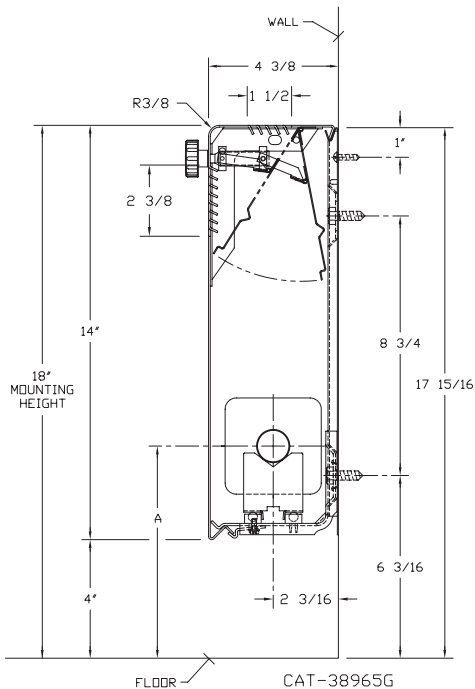
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVFT" FRONT & TOP OUTLET



LV3-FT14

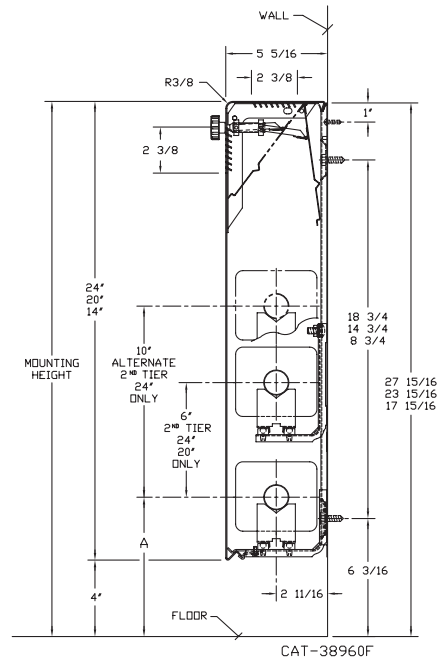
| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4 COPPER | 3 1/4 x 3 1/4 | 2 | 7" |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 | 1 | 6 5/8" |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 | 1 | 6 13/16" |



See page 39 for element center line dimensions with steam bracket installation.

LV4-FT14 20 24

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7" |
| 3/4 COPPER | 4 1/4 x 4 1/4 | 3A | 7 3/8" |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 3/16" |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 COPPER | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/2" |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 1/4" |



See page 39 for element center line dimensions with steam bracket installation.

STYLE "LVFT" FRONT & TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | 1.00 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1040 | 890 | 810 | 720 | 630 | 550 | 470 | 420 | 340 | 270 | |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 | |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 | |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1010 | 870 | 790 | 700 | 620 | 540 | 450 | 400 | 330 | 260 | |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 | |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 | |
| 1 1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 970 | 830 | 760 | 670 | 590 | 510 | 440 | 390 | 320 | 250 | |
| 1 1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1130 | 970 | 880 | 780 | 690 | 600 | 510 | 450 | 370 | 290 | |
| 1 1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 | |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1440 | 1240 | 1120 | 990 | 880 | 760 | 650 | 580 | 480 | 370 | |
| | | | | | 20 | 1 | 24 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 | |
| | | | | | 20 | 2-6 CL | 24 | 2150 | 1850 | 1680 | 1480 | 1310 | 1140 | 970 | 860 | 710 | 560 | |
| | | | | | 24 | 1 | 28 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 | |
| | | | | | 24 | 2-6 CL | 28 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 | |
| 24 | 3-6 CL | 28 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 | | | | | | |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 | |
| | | | | | 20 | 1 | 24 | 1700 | 1460 | 1330 | 1170 | 1040 | 900 | 770 | 680 | 560 | 440 | |
| | | | | | 20 | 2-6 CL | 24 | 2410 | 2070 | 1880 | 1660 | 1470 | 1280 | 1080 | 960 | 800 | 630 | |
| | | | | | 24 | 1 | 28 | 1740 | 1500 | 1360 | 1200 | 1060 | 920 | 780 | 700 | 570 | 450 | |
| | | | | | 24 | 2-6 CL | 28 | 2490 | 2140 | 1940 | 1720 | 1520 | 1320 | 1120 | 1000 | 820 | 650 | |
| 24 | 3-6 CL | 28 | 2840 | 2440 | 2220 | 1960 | 1730 | 1510 | 1280 | 1140 | 940 | 740 | | | | | | |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1770 | 1520 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 580 | 460 | |
| | | | | | 20 | 1 | 24 | 1920 | 1650 | 1500 | 1320 | 1170 | 1020 | 860 | 770 | 630 | 500 | |
| | | | | | 20 | 2-6 CL | 24 | 2680 | 2300 | 2090 | 1850 | 1630 | 1420 | 1210 | 1070 | 880 | 700 | |
| | | | | | 24 | 1 | 28 | 1990 | 1710 | 1550 | 1370 | 1210 | 1050 | 900 | 800 | 660 | 520 | |
| | | | | | 24 | 2-6 CL | 28 | 2860 | 2460 | 2230 | 1970 | 1740 | 1520 | 1290 | 1140 | 940 | 740 | |
| 24 | 3-6 CL | 28 | 3230 | 2780 | 2520 | 2230 | 1970 | 1710 | 1450 | 1290 | 1070 | 840 | | | | | | |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 | |
| | | | | | 20 | 1 | 24 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 | |
| | | | | | 20 | 2-6 CL | 24 | 2320 | 2000 | 1810 | 1600 | 1420 | 1230 | 1040 | 930 | 770 | 600 | |
| | | | | | 24 | 1 | 28 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 | |
| | | | | | 24 | 2-6 CL | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 | |
| 24 | 3-6 CL | 28 | 2740 | 2360 | 2140 | 1890 | 1670 | 1450 | 1230 | 1100 | 900 | 710 | | | | | | |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 | |
| | | | | | 20 | 1 | 24 | 1780 | 1530 | 1390 | 1230 | 1090 | 940 | 800 | 710 | 590 | 460 | |
| | | | | | 20 | 2-6 CL | 24 | 2490 | 2140 | 1940 | 1720 | 1520 | 1320 | 1120 | 1000 | 820 | 650 | |
| | | | | | 24 | 1 | 28 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 | |
| | | | | | 24 | 2-6 CL | 28 | 2570 | 2210 | 2000 | 1770 | 1570 | 1360 | 1160 | 1030 | 850 | 670 | |
| 24 | 3-6 CL | 28 | 2930 | 2520 | 2290 | 2020 | 1790 | 1550 | 1320 | 1170 | 970 | 760 | | | | | | |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1860 | 1600 | 1450 | 1280 | 1130 | 990 | 840 | 740 | 610 | 480 | |
| | | | | | 20 | 1 | 24 | 2010 | 1730 | 1570 | 1390 | 1230 | 1070 | 900 | 800 | 660 | 520 | |
| | | | | | 20 | 2-6 CL | 24 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 | |
| | | | | | 24 | 1 | 28 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 | |
| | | | | | 24 | 2-6 CL | 28 | 2680 | 2300 | 2090 | 1850 | 1630 | 1420 | 1210 | 1070 | 880 | 700 | |
| 24 | 3-6 CL | 28 | 3030 | 2610 | 2360 | 2090 | 1850 | 1610 | 1360 | 1210 | 1000 | 790 | | | | | | |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 | |
| | | | | | 20 | 1 | 24 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 | |
| | | | | | 20 | 2 @ 6 CL | 24 | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 | |
| | | | | | 24 | 1 | 28 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 | |
| | | | | | 24 | 2 @ 6 CL | 28 | 2340 | 2010 | 1830 | 1610 | 1430 | 1240 | 1050 | 940 | 770 | 610 | |
| 24 | 3 @ 6 CL | 28 | 2690 | 2310 | 2100 | 1860 | 1640 | 1430 | 1210 | 1080 | 890 | 700 | | | | | | |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 | |
| | | | | | 20 | 1 | 24 | 1740 | 1500 | 1360 | 1200 | 1060 | 920 | 780 | 700 | 570 | 450 | |
| | | | | | 20 | 2 @ 6 CL | 24 | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 | |
| | | | | | 24 | 1 | 28 | 1780 | 1530 | 1390 | 1230 | 1090 | 940 | 800 | 710 | 590 | 460 | |
| | | | | | 24 | 2 @ 6 CL | 28 | 2520 | 2170 | 1970 | 1740 | 1540 | 1340 | 1130 | 1010 | 830 | 660 | |
| 24 | 3 @ 6 CL | 28 | 2870 | 2470 | 2240 | 1980 | 1750 | 1520 | 1290 | 1150 | 950 | 750 | | | | | | |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 | |
| | | | | | 20 | 1 | 24 | 1970 | 1690 | 1540 | 1360 | 1200 | 1040 | 890 | 790 | 650 | 510 | |
| | | | | | 20 | 2 @ 6 CL | 24 | 2460 | 2120 | 1920 | 1700 | 1500 | 1300 | 1110 | 980 | 810 | 640 | |
| | | | | | 24 | 1 | 28 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 | |
| | | | | | 24 | 2 @ 6 CL | 28 | 2620 | 2250 | 2040 | 1810 | 1600 | 1390 | 1180 | 1050 | 860 | 680 | |
| 24 | 3 @ 6 CL | 28 | 2960 | 2550 | 2310 | 2040 | 1810 | 1570 | 1330 | 1180 | 980 | 770 | | | | | | |

STYLE "LVFT" FRONT & TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 |
| | | | | | 20 | 1 | 24 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 |
| | | | | | 20 | 2-6 CL | 24 | 2360 | 2030 | 1840 | 1630 | 1440 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 24 | 1 | 28 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 |
| | | | | | 24 | 2-6 CL | 28 | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 |
| 24 | 3-6 CL | 28 | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 | | | | | |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1850 | 1590 | 1440 | 1280 | 1130 | 980 | 830 | 740 | 610 | 480 |
| | | | | | 20 | 1 | 24 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 |
| | | | | | 20 | 2-6 CL | 24 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 1 | 28 | 2120 | 1820 | 1650 | 1460 | 1290 | 1120 | 950 | 850 | 700 | 550 |
| | | | | | 24 | 2-6 CL | 28 | 2650 | 2280 | 2070 | 1830 | 1620 | 1400 | 1190 | 1060 | 870 | 690 |
| 24 | 3-6 CL | 28 | 3020 | 2600 | 2360 | 2080 | 1840 | 1600 | 1360 | 1210 | 1000 | 790 | | | | | |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1815 | 1560 | 1420 | 1250 | 1110 | 960 | 820 | 730 | 600 | 470 |
| | | | | | 20 | 1 | 24 | 1970 | 1690 | 1540 | 1360 | 1200 | 1040 | 890 | 790 | 650 | 510 |
| | | | | | 20 | 2-6 CL | 24 | 2565 | 2210 | 2000 | 1770 | 1560 | 1360 | 1150 | 1030 | 850 | 670 |
| | | | | | 24 | 1 | 28 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 24 | 2-6 CL | 28 | 2795 | 2400 | 2180 | 1930 | 1700 | 1480 | 1260 | 1120 | 920 | 730 |
| 24 | 3-6 CL | 28 | 3160 | 2720 | 2460 | 2180 | 1930 | 1670 | 1420 | 1260 | 1040 | 820 | | | | | |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 1 | 24 | 1660 | 1430 | 1290 | 1150 | 1010 | 880 | 750 | 660 | 550 | 430 |
| | | | | | 20 | 2-6 CL | 24 | 2460 | 2120 | 1920 | 1700 | 1500 | 1300 | 1110 | 980 | 810 | 640 |
| | | | | | 24 | 1 | 28 | 1690 | 1450 | 1320 | 1170 | 1030 | 900 | 760 | 680 | 560 | 440 |
| | | | | | 24 | 2-6 CL | 28 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| 24 | 3-6 CL | 28 | 2890 | 2490 | 2250 | 1990 | 1760 | 1530 | 1300 | 1160 | 950 | 750 | | | | | |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| | | | | | 20 | 1 | 24 | 1940 | 1670 | 1510 | 1340 | 1180 | 1030 | 870 | 780 | 640 | 500 |
| | | | | | 20 | 2-6 CL | 24 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 |
| | | | | | 24 | 1 | 28 | 2010 | 1730 | 1570 | 1390 | 1230 | 1070 | 900 | 800 | 660 | 520 |
| | | | | | 24 | 2-6 CL | 28 | 2700 | 2320 | 2110 | 1860 | 1650 | 1430 | 1220 | 1080 | 890 | 700 |
| 24 | 3-6 CL | 28 | 3080 | 2650 | 2400 | 2130 | 1880 | 1630 | 1390 | 1230 | 1020 | 800 | | | | | |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 |
| | | | | | 20 | 1 | 24 | 2120 | 1820 | 1650 | 1460 | 1290 | 1120 | 950 | 850 | 700 | 550 |
| | | | | | 20 | 2-6 CL | 24 | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 |
| | | | | | 24 | 1 | 28 | 2220 | 1910 | 1730 | 1530 | 1350 | 1180 | 1000 | 890 | 730 | 580 |
| | | | | | 24 | 2-6 CL | 28 | 2730 | 2350 | 2130 | 1880 | 1670 | 1450 | 1230 | 1090 | 900 | 710 |
| 24 | 3-6 CL | 28 | 3080 | 2650 | 2400 | 2130 | 1880 | 1630 | 1390 | 1230 | 1020 | 800 | | | | | |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 |
| | | | | | 20 | 1 | 24 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2420 | 2080 | 1890 | 1670 | 1480 | 1280 | 1090 | 970 | 800 | 630 |
| | | | | | 24 | 1 | 28 | 1660 | 1430 | 1290 | 1150 | 1010 | 880 | 750 | 660 | 550 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 |
| 24 | 3-6 CL | 28 | 2840 | 2440 | 2220 | 1960 | 1730 | 1510 | 1280 | 1140 | 940 | 740 | | | | | |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1730 | 1490 | 1350 | 1190 | 1060 | 920 | 780 | 690 | 570 | 450 |
| | | | | | 20 | 1 | 24 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 |
| | | | | | 20 | 2-6 CL | 24 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 1 | 28 | 1970 | 1690 | 1540 | 1360 | 1200 | 1040 | 890 | 790 | 650 | 510 |
| | | | | | 24 | 2-6 CL | 28 | 2660 | 2290 | 2070 | 1840 | 1620 | 1410 | 1200 | 1060 | 880 | 690 |
| 24 | 3-6 CL | 28 | 3030 | 2610 | 2360 | 2090 | 1850 | 1610 | 1360 | 1210 | 1000 | 790 | | | | | |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1860 | 1600 | 1450 | 1280 | 1130 | 990 | 840 | 740 | 610 | 480 |
| | | | | | 20 | 1 | 24 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 |
| | | | | | 20 | 2-6 CL | 24 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 24 | 1 | 28 | 2190 | 1880 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 |
| | | | | | 24 | 2-6 CL | 28 | 2680 | 2300 | 2090 | 1850 | 1630 | 1420 | 1210 | 1070 | 880 | 700 |
| 24 | 3-6 CL | 28 | 3030 | 2610 | 2360 | 2090 | 1850 | 1610 | 1360 | 1210 | 1000 | 790 | | | | | |

Note: Copper tube furnished flared one end standard.

STYLE "LVFT" FRONT & TOP OUTLET

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 920 | 790 | 720 | 630 | 560 | 490 | 410 | 370 | 300 | 240 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1000 | 860 | 780 | 690 | 610 | 530 | 450 | 400 | 330 | 260 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1070 | 920 | 830 | 740 | 650 | 570 | 480 | 430 | 350 | 280 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 910 | 780 | 710 | 630 | 560 | 480 | 410 | 360 | 300 | 240 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1030 | 890 | 800 | 710 | 630 | 550 | 460 | 410 | 340 | 270 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1060 | 910 | 830 | 730 | 650 | 560 | 480 | 420 | 350 | 280 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 20 | 1 | 24 | 1355 | 1170 | 1060 | 930 | 830 | 720 | 610 | 540 | 450 | 350 |
| | | | | | 20 | 2-6 CL | 24 | 2030 | 1750 | 1580 | 1400 | 1240 | 1080 | 910 | 810 | 670 | 530 |
| | | | | | 24 | 1 | 28 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 |
| | | | | | 24 | 2-6 CL | 28 | 2095 | 1800 | 1630 | 1450 | 1280 | 1110 | 940 | 840 | 690 | 540 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1455 | 1250 | 1130 | 1000 | 890 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 20 | 1 | 24 | 1550 | 1330 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 |
| | | | | | 20 | 2-6 CL | 24 | 2195 | 1890 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 |
| | | | | | 24 | 1 | 28 | 1605 | 1380 | 1250 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 24 | 2-6 CL | 28 | 2295 | 1970 | 1790 | 1580 | 1400 | 1220 | 1030 | 920 | 760 | 600 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1525 | 1310 | 1190 | 1050 | 930 | 810 | 690 | 610 | 500 | 400 |
| | | | | | 20 | 1 | 24 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2245 | 1930 | 1750 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 580 |
| | | | | | 24 | 1 | 28 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| | | | | | 24 | 2-6 CL | 28 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 20 | 1 | 24 | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |
| | | | | | 20 | 2-6 CL | 24 | 1910 | 1640 | 1490 | 1320 | 1170 | 1010 | 860 | 760 | 630 | 500 |
| | | | | | 24 | 1 | 28 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 |
| | | | | | 24 | 2-6 CL | 28 | 1940 | 1670 | 1510 | 1340 | 1180 | 1030 | 870 | 780 | 640 | 500 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1510 | 1300 | 1180 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 |
| | | | | | 20 | 1 | 24 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2330 | 2000 | 1820 | 1610 | 1420 | 1230 | 1050 | 930 | 770 | 610 |
| | | | | | 24 | 1 | 28 | 1660 | 1430 | 1290 | 1150 | 1010 | 880 | 750 | 660 | 550 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2410 | 2070 | 1880 | 1660 | 1470 | 1280 | 1080 | 960 | 800 | 630 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1515 | 1300 | 1180 | 1050 | 920 | 800 | 680 | 610 | 500 | 390 |
| | | | | | 20 | 1 | 24 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2200 | 1890 | 1720 | 1520 | 1340 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 24 | 1 | 28 | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2305 | 1980 | 1800 | 1590 | 1410 | 1220 | 1040 | 920 | 760 | 600 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 14 | 1 | 18 | 1160 | 1000 | 900 | 800 | 710 | 610 | 520 | 460 | 380 | 300 |
| | | | | | 20 | 1 | 24 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 20 | 2-6 CL | 24 | 1870 | 1610 | 1460 | 1290 | 1140 | 990 | 840 | 750 | 620 | 490 |
| | | | | | 24 | 1 | 28 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 |
| | | | | | 24 | 2-6 CL | 28 | 1920 | 1650 | 1500 | 1320 | 1170 | 1020 | 860 | 770 | 630 | 500 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1350 | 1160 | 1050 | 930 | 820 | 720 | 610 | 540 | 450 | 350 |
| | | | | | 20 | 1 | 24 | 1400 | 1200 | 1090 | 970 | 850 | 740 | 630 | 560 | 460 | 360 |
| | | | | | 20 | 2-6 CL | 24 | 2090 | 1800 | 1630 | 1440 | 1270 | 1110 | 940 | 840 | 690 | 540 |
| | | | | | 24 | 1 | 28 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 |
| | | | | | 24 | 2-6 CL | 28 | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| | | | | | 20 | 1 | 24 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| | | | | | 20 | 2-6 CL | 24 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| | | | | | 24 | 1 | 28 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| | | | | | 24 | 2-6 CL | 28 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LV2R" SLIMLINE

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VR01 | 2-1/2" x 2-1/4" | 50 | .011 | 8* | 1 | 10 | 830 | 710 | 650 | 570 | 510 | 440 | 370 | 330 | 270 | 220 |
| | | | | | 11 | 1 | 13 | 890 | 770 | 690 | 610 | 540 | 470 | 400 | 360 | 290 | 230 |
| | | | | | 14 | 1 | 16 | 960 | 830 | 750 | 660 | 590 | 510 | 430 | 380 | 320 | 250 |
| | | | | | 14* | 2-5 CL | 16 | 1360 | 1170 | 1060 | 940 | 830 | 720 | 610 | 540 | 450 | 350 |
| 3/4" | VR02 | 2-1/2" x 2-3/4" | 60 | .010 | 8* | 1 | 10 | 990 | 850 | 770 | 680 | 600 | 520 | 450 | 400 | 330 | 260 |
| | | | | | 11 | 1 | 13 | 1060 | 910 | 830 | 730 | 650 | 560 | 480 | 420 | 350 | 280 |
| | | | | | 14 | 1 | 16 | 1230 | 1060 | 960 | 850 | 750 | 650 | 550 | 490 | 410 | 320 |
| | | | | | 14* | 2-5 CL | 16 | 1730 | 1490 | 1350 | 1190 | 1060 | 920 | 780 | 690 | 570 | 450 |
| 1" | VR03 | 2-1/2" x 2-3/4" | 55 | .011 | 8* | 1 | 10 | 970 | 830 | 760 | 670 | 590 | 510 | 440 | 390 | 320 | 250 |
| | | | | | 11 | 1 | 13 | 1030 | 890 | 800 | 710 | 630 | 550 | 460 | 410 | 340 | 270 |
| | | | | | 14 | 1 | 16 | 1100 | 950 | 860 | 760 | 670 | 580 | 500 | 440 | 360 | 290 |
| | | | | | 14* | 2-5 CL | 16 | 1580 | 1360 | 1230 | 1090 | 960 | 840 | 710 | 630 | 520 | 410 |
| 3/4" | VR04 | 3-3/4" x 2-3/4" | 50 | .014 | 8* | 1 | 10 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 11 | 1 | 13 | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 |
| | | | | | 14 | 1 | 16 | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 |
| | | | | | 14* | 2-5 CL | 16 | 1750 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| 1" | VR05 | 3-3/4" x 2-3/4" | 50 | .011 | 8* | 1 | 10 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 |
| | | | | | 11 | 1 | 13 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 |
| | | | | | 14 | 1 | 16 | 1310 | 1130 | 1020 | 900 | 800 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 14* | 2-5 CL | 16 | 1740 | 1500 | 1360 | 1200 | 1060 | 920 | 780 | 700 | 570 | 450 |
| 1-1/4" | VR08 | 3-3/4" x 2-3/4" | 50 | .020 | 8* | 1 | 10 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| | | | | | 11 | 1 | 13 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 14 | 1 | 16 | 1310 | 1130 | 1020 | 900 | 800 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 14* | 2-5 CL | 16 | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| 1" | VR07 | 5" x 2-3/4" | 50 | .020 | 8* | 1 | 10 | 1330 | 1140 | 1040 | 920 | 810 | 700 | 600 | 530 | 440 | 350 |
| | | | | | 11 | 1 | 13 | 1400 | 1200 | 1090 | 970 | 850 | 740 | 630 | 560 | 460 | 360 |
| | | | | | 14 | 1 | 16 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 14* | 2-5 CL | 16 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 |
| 1-1/4" | VR10 | 5" x 2-3/4" | 50 | .020 | 8* | 1 | 10 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 11 | 1 | 13 | 1360 | 1170 | 1060 | 940 | 830 | 720 | 610 | 540 | 450 | 350 |
| | | | | | 14 | 1 | 16 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 14* | 2-5 CL | 16 | 1770 | 1520 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 580 | 460 |

*Not recommended for steam applications, consult factory.
Note: Copper tube furnished flared one end standard.

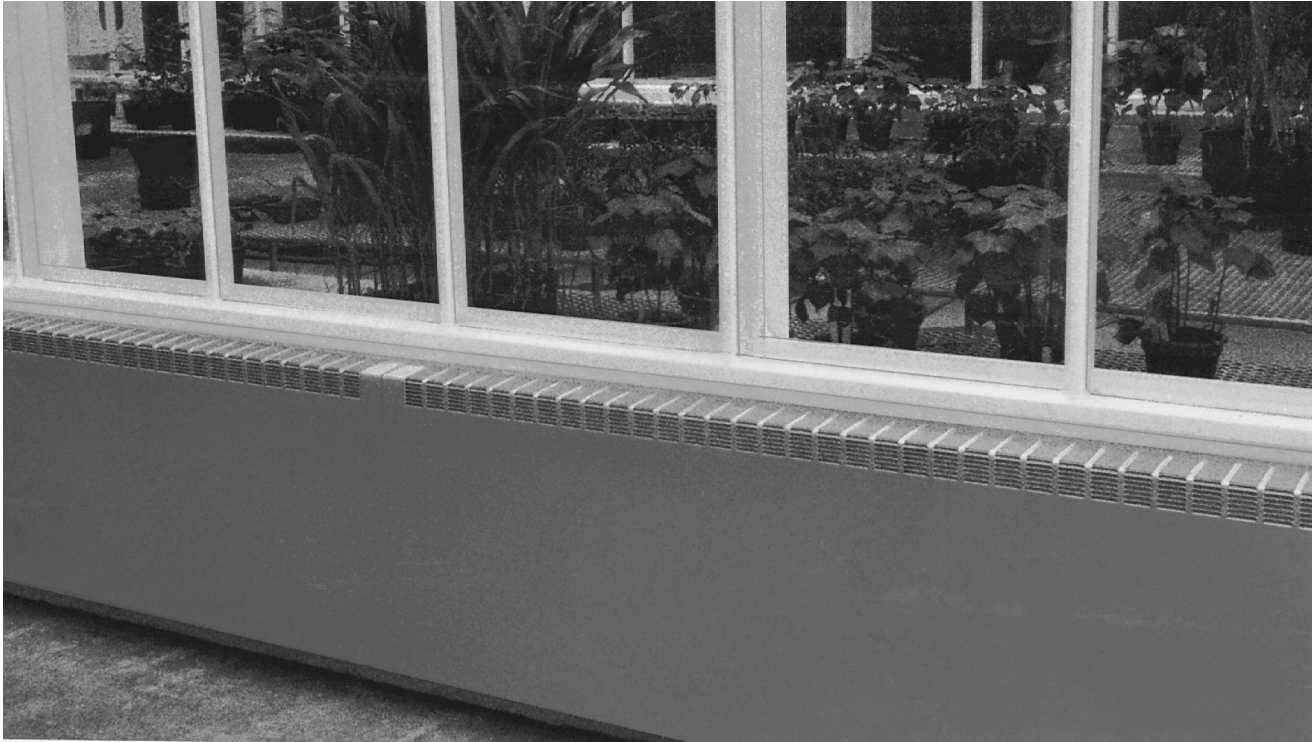
STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VR11 | 3-3/4" x 2-3/4" | 40 | .024 | 8* | 1 | 10 | 920 | 790 | 720 | 630 | 560 | 490 | 410 | 370 | 300 | 240 |
| | | | | | 11 | 1 | 13 | 980 | 840 | 760 | 680 | 600 | 520 | 440 | 390 | 320 | 250 |
| | | | | | 14 | 1 | 16 | 1050 | 900 | 820 | 720 | 640 | 560 | 470 | 420 | 350 | 270 |
| | | | | | 14* | 2-5 CL | 16 | 1500 | 1290 | 1170 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 |
| 1" | VR15 | 5" x 2-3/4" | 50 | .024 | 8* | 1 | 10 | 990 | 850 | 770 | 680 | 600 | 520 | 450 | 400 | 330 | 260 |
| | | | | | 11 | 1 | 13 | 1040 | 890 | 810 | 720 | 630 | 550 | 470 | 420 | 340 | 270 |
| | | | | | 14 | 1 | 16 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| | | | | | 14* | 2-5 CL | 16 | 1410 | 1210 | 1100 | 970 | 860 | 750 | 630 | 560 | 470 | 370 |
| 1-1/4" | VR16 | 5" x 2-3/4" | 50 | .024 | 8* | 1 | 10 | 1010 | 870 | 790 | 700 | 620 | 540 | 450 | 400 | 330 | 260 |
| | | | | | 11 | 1 | 13 | 1070 | 920 | 830 | 740 | 650 | 570 | 480 | 430 | 350 | 280 |
| | | | | | 14 | 1 | 16 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 |
| | | | | | 14* | 2-5 CL | 16 | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 |

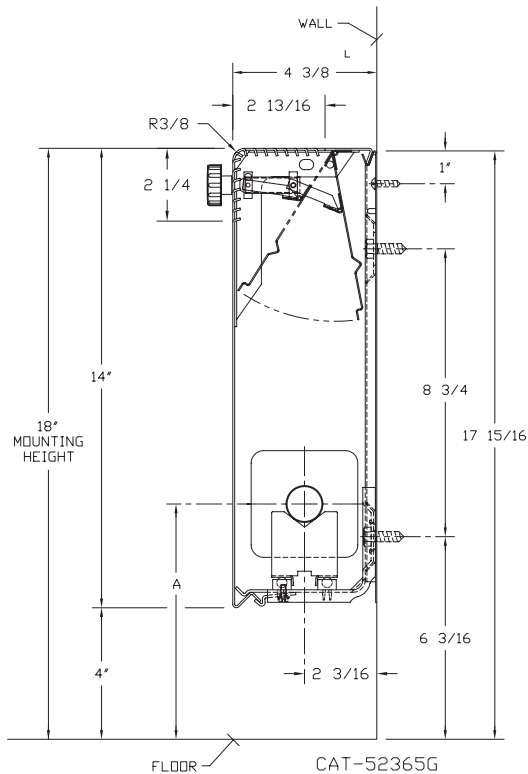
*Not recommended for steam applications, consult factory.
Notes: 1) Steel fin furnished as .024 thick. Painted black.
2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVR" FLAT TOP



LV3-R14

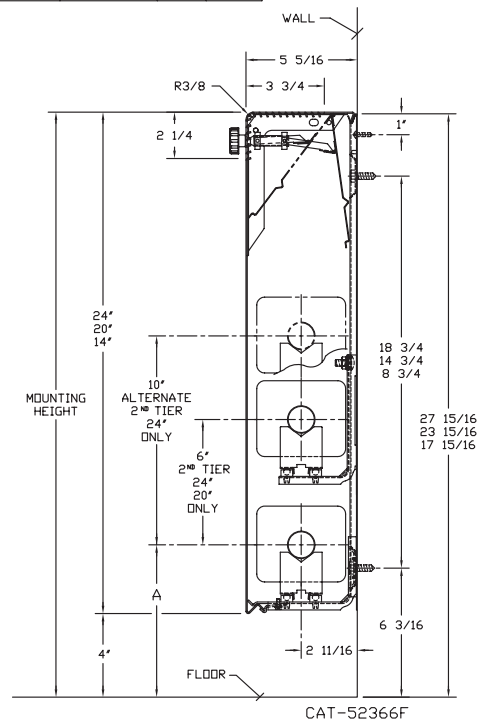
| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4 COPPER | 3 1/4 x 3 1/4 | 2 | 7" |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 | 1 | 6 5/8" |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 | 1 | 6 13/16" |



See page 39 for element center line dimensions with steam bracket installation.

LV4-R14 20 24

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7" |
| 3/4 COPPER | 4 1/4 x 4 1/4 | 3A | 7 3/8" |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 3/16" |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 COPPER | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/2" |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 1/4" |



See page 39 for element center line dimensions with steam bracket installation.

STYLE "LVR" FLAT TOP

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | 1.00 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1070 | 920 | 830 | 740 | 650 | 570 | 480 | 430 | 350 | 280 |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1050 | 900 | 820 | 720 | 640 | 560 | 470 | 420 | 350 | 270 |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 |
| 1 1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1010 | 870 | 790 | 700 | 620 | 540 | 450 | 400 | 330 | 260 |
| 1 1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| 1 1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1405 | 1210 | 1100 | 970 | 860 | 740 | 630 | 560 | 460 | 370 |
| | | | | | 20 | 1 | 24 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 20 | 2-6 CL | 24 | 2140 | 1840 | 1670 | 1480 | 1310 | 1130 | 960 | 860 | 710 | 560 |
| | | | | | 24 | 1 | 28 | 1565 | 1350 | 1220 | 1080 | 950 | 830 | 700 | 630 | 520 | 410 |
| | | | | | 24 | 2-6 CL | 28 | 2215 | 1900 | 1730 | 1530 | 1350 | 1170 | 1000 | 890 | 730 | 580 |
| 24 | 3-6 CL | 28 | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 | | | | | |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1690 | 1450 | 1320 | 1170 | 1030 | 900 | 760 | 680 | 560 | 440 |
| | | | | | 20 | 1 | 24 | 1790 | 1540 | 1400 | 1240 | 1090 | 950 | 810 | 720 | 590 | 470 |
| | | | | | 20 | 2-6 CL | 24 | 2490 | 2140 | 1940 | 1720 | 1520 | 1320 | 1120 | 1000 | 820 | 650 |
| | | | | | 24 | 1 | 28 | 1870 | 1610 | 1460 | 1290 | 1140 | 990 | 840 | 750 | 620 | 490 |
| | | | | | 24 | 2-6 CL | 28 | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 |
| 24 | 3-6 CL | 28 | 2950 | 2540 | 2300 | 2040 | 1800 | 1560 | 1330 | 1180 | 970 | 770 | | | | | |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 |
| | | | | | 20 | 1 | 24 | 2110 | 1810 | 1650 | 1460 | 1290 | 1120 | 950 | 840 | 700 | 550 |
| | | | | | 20 | 2-6 CL | 24 | 2640 | 2270 | 2060 | 1820 | 1610 | 1400 | 1190 | 1060 | 870 | 690 |
| | | | | | 24 | 1 | 28 | 2210 | 1900 | 1720 | 1520 | 1350 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 24 | 2-6 CL | 28 | 2820 | 2430 | 2200 | 1950 | 1720 | 1490 | 1270 | 1130 | 930 | 730 |
| 24 | 3-6 CL | 28 | 3190 | 2740 | 2490 | 2200 | 1950 | 1690 | 1440 | 1280 | 1050 | 830 | | | | | |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 |
| | | | | | 20 | 1 | 24 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2480 | 2130 | 1930 | 1710 | 1510 | 1310 | 1120 | 990 | 820 | 640 |
| | | | | | 24 | 1 | 28 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 |
| | | | | | 24 | 2-6 CL | 28 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 |
| 24 | 3-6 CL | 28 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 | | | | | |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1770 | 1520 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 580 | 460 |
| | | | | | 20 | 1 | 24 | 1880 | 1620 | 1470 | 1300 | 1150 | 1000 | 850 | 750 | 620 | 490 |
| | | | | | 20 | 2-6 CL | 24 | 2600 | 2240 | 2030 | 1790 | 1590 | 1380 | 1170 | 1040 | 860 | 680 |
| | | | | | 24 | 1 | 28 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 24 | 2-6 CL | 28 | 2720 | 2340 | 2120 | 1880 | 1660 | 1440 | 1220 | 1090 | 900 | 710 |
| 24 | 3-6 CL | 28 | 3100 | 2670 | 2420 | 2140 | 1890 | 1640 | 1400 | 1240 | 1020 | 810 | | | | | |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 2030 | 1750 | 1580 | 1400 | 1240 | 1080 | 910 | 810 | 670 | 530 |
| | | | | | 20 | 1 | 24 | 2220 | 1910 | 1730 | 1530 | 1350 | 1180 | 1000 | 890 | 730 | 580 |
| | | | | | 20 | 2-6 CL | 24 | 2770 | 2380 | 2160 | 1910 | 1690 | 1470 | 1250 | 1110 | 910 | 720 |
| | | | | | 24 | 1 | 28 | 2330 | 2000 | 1820 | 1610 | 1420 | 1230 | 1050 | 930 | 770 | 610 |
| | | | | | 24 | 2-6 CL | 28 | 2970 | 2550 | 2320 | 2050 | 1810 | 1570 | 1340 | 1190 | 980 | 770 |
| 24 | 3-6 CL | 28 | 3360 | 2890 | 2620 | 2320 | 2050 | 1780 | 1510 | 1340 | 1110 | 870 | | | | | |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 14 | 1 | 18 | 1530 | 1320 | 1190 | 1060 | 930 | 810 | 690 | 610 | 500 | 400 |
| | | | | | 20 | 1 | 24 | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 |
| | | | | | 24 | 1 | 28 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 |
| 24 | 3 @ 6 CL | 28 | 2970 | 2550 | 2320 | 2050 | 1810 | 1570 | 1340 | 1190 | 980 | 770 | | | | | |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 14 | 1 | 18 | 1750 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| | | | | | 20 | 1 | 24 | 1850 | 1590 | 1440 | 1280 | 1130 | 980 | 830 | 740 | 610 | 480 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2620 | 2250 | 2040 | 1810 | 1600 | 1390 | 1180 | 1050 | 860 | 680 |
| | | | | | 24 | 1 | 28 | 1920 | 1650 | 1500 | 1320 | 1170 | 1020 | 860 | 770 | 630 | 500 |
| | | | | | 24 | 2 @ 6 CL | 28 | 2750 | 2370 | 2150 | 1900 | 1680 | 1460 | 1240 | 1100 | 910 | 720 |
| 24 | 3 @ 6 CL | 28 | 3130 | 2690 | 2440 | 2160 | 1910 | 1660 | 1410 | 1250 | 1030 | 810 | | | | | |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 14 | 1 | 18 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 20 | 1 | 24 | 2240 | 1930 | 1750 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 580 |
| | | | | | 20 | 2 @ 6 CL | 24 | 2730 | 2350 | 2130 | 1880 | 1670 | 1450 | 1230 | 1090 | 900 | 710 |
| | | | | | 24 | 1 | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 2 @ 6 CL | 28 | 3000 | 2580 | 2340 | 2070 | 1830 | 1590 | 1350 | 1200 | 990 | 780 |
| 24 | 3 @ 6 CL | 28 | 3390 | 2920 | 2640 | 2340 | 2070 | 1800 | 1530 | 1360 | 1120 | 880 | | | | | |

STYLE "LVR" FLAT TOP

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| | | | | | 20 | 1 | 24 | 1615 | 1390 | 1260 | 1110 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2345 | 2020 | 1830 | 1620 | 1430 | 1240 | 1060 | 940 | 770 | 610 |
| | | | | | 24 | 1 | 28 | 1685 | 1450 | 1310 | 1160 | 1030 | 890 | 760 | 670 | 560 | 440 |
| | | | | | 24 | 2-6 CL | 28 | 2435 | 2090 | 1900 | 1680 | 1490 | 1290 | 1100 | 970 | 800 | 630 |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 1 | 24 | 2250 | 1940 | 1760 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 590 |
| | | | | | 20 | 2-6 CL | 24 | 3180 | 2730 | 2480 | 2190 | 1940 | 1690 | 1430 | 1270 | 1050 | 830 |
| | | | | | 24 | 1 | 28 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 24 | 2-6 CL | 28 | 3270 | 2810 | 2550 | 2260 | 1990 | 1730 | 1470 | 1310 | 1080 | 850 |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2210 | 1900 | 1720 | 1520 | 1350 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 20 | 1 | 24 | 2420 | 2080 | 1890 | 1670 | 1480 | 1280 | 1090 | 970 | 800 | 630 |
| | | | | | 20 | 2-6 CL | 24 | 3200 | 2750 | 2500 | 2210 | 1950 | 1700 | 1440 | 1280 | 1060 | 830 |
| | | | | | 24 | 1 | 28 | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 |
| | | | | | 24 | 2-6 CL | 28 | 3380 | 2910 | 2640 | 2330 | 2060 | 1790 | 1520 | 1350 | 1120 | 880 |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1710 | 1470 | 1330 | 1180 | 1040 | 910 | 770 | 680 | 560 | 440 |
| | | | | | 20 | 1 | 24 | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| | | | | | 20 | 2-6 CL | 24 | 2720 | 2340 | 2120 | 1880 | 1660 | 1440 | 1220 | 1090 | 900 | 710 |
| | | | | | 24 | 1 | 28 | 1810 | 1560 | 1410 | 1250 | 1100 | 960 | 810 | 720 | 600 | 470 |
| | | | | | 24 | 2-6 CL | 28 | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1940 | 1670 | 1510 | 1340 | 1180 | 1030 | 870 | 780 | 640 | 500 |
| | | | | | 20 | 1 | 24 | 2070 | 1780 | 1610 | 1430 | 1260 | 1100 | 930 | 830 | 680 | 540 |
| | | | | | 20 | 2-6 CL | 24 | 2850 | 2450 | 2220 | 1970 | 1740 | 1510 | 1280 | 1140 | 940 | 740 |
| | | | | | 24 | 1 | 28 | 2140 | 1840 | 1670 | 1480 | 1310 | 1130 | 960 | 860 | 710 | 560 |
| | | | | | 24 | 2-6 CL | 28 | 2990 | 2570 | 2330 | 2060 | 1820 | 1580 | 1350 | 1200 | 990 | 780 |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2220 | 1910 | 1730 | 1530 | 1350 | 1180 | 1000 | 890 | 730 | 580 |
| | | | | | 20 | 1 | 24 | 2430 | 2090 | 1900 | 1680 | 1480 | 1290 | 1090 | 970 | 800 | 630 |
| | | | | | 20 | 2-6 CL | 24 | 3030 | 2610 | 2360 | 2090 | 1850 | 1610 | 1360 | 1210 | 1000 | 790 |
| | | | | | 24 | 1 | 28 | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 |
| | | | | | 24 | 2-6 CL | 28 | 3250 | 2800 | 2540 | 2240 | 1980 | 1720 | 1460 | 1300 | 1070 | 850 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 14 | 1 | 18 | 1700 | 1460 | 1330 | 1170 | 1040 | 900 | 770 | 680 | 560 | 440 |
| | | | | | 20 | 1 | 24 | 1740 | 1500 | 1360 | 1200 | 1060 | 920 | 780 | 700 | 570 | 450 |
| | | | | | 20 | 2-6 CL | 24 | 2670 | 2300 | 2080 | 1840 | 1630 | 1420 | 1200 | 1070 | 880 | 690 |
| | | | | | 24 | 1 | 28 | 1780 | 1530 | 1390 | 1230 | 1090 | 940 | 800 | 710 | 590 | 460 |
| | | | | | 24 | 2-6 CL | 28 | 2720 | 2340 | 2120 | 1880 | 1660 | 1440 | 1220 | 1090 | 900 | 710 |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 14 | 1 | 18 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 20 | 1 | 24 | 2090 | 1800 | 1630 | 1440 | 1270 | 1110 | 940 | 840 | 690 | 540 |
| | | | | | 20 | 2-6 CL | 24 | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 |
| | | | | | 24 | 1 | 28 | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 |
| | | | | | 24 | 2-6 CL | 28 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 1 | 24 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| | | | | | 24 | 1 | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 3060 | 2630 | 2390 | 2110 | 1870 | 1620 | 1380 | 1220 | 1010 | 800 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 1 | 24 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| | | | | | 24 | 1 | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 3060 | 2630 | 2390 | 2110 | 1870 | 1620 | 1380 | 1220 | 1010 | 800 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 1 | 24 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| | | | | | 24 | 1 | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 3060 | 2630 | 2390 | 2110 | 1870 | 1620 | 1380 | 1220 | 1010 | 800 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 1 | 24 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| | | | | | 24 | 1 | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 3060 | 2630 | 2390 | 2110 | 1870 | 1620 | 1380 | 1220 | 1010 | 800 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 1 | 24 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| | | | | | 24 | 1 | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 3060 | 2630 | 2390 | 2110 | 1870 | 1620 | 1380 | 1220 | 1010 | 800 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 14 | 1 | 18 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 20 | 1 | 24 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 20 | 2-6 CL | 24 | 2940 | 2530 | 2290 | 2030 | 1790 | 1560 | 1320 | 1180 | 970 | 760 |
| | | | | | 24 | 1 | 28 | 2380 | 2050 | 1860 | 1640 | 1450 | 1260 | 1070 | 950 | 790 | 620 |
| | | | | | 24 | 2-6 CL | 28 | 3060 | 2630 | 2390 | 2110 | 1870 | 1620 | 1380 | 1220 | 1010 | 800 |

Note: Copper tube furnished flared one end standard.

STYLE "LVR" FLAT TOP

STEEL ELEMENTS

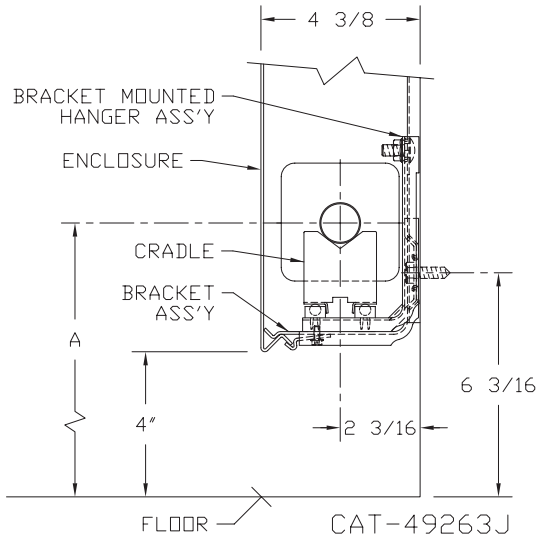
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1000 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1100 | 950 | 860 | 760 | 670 | 580 | 500 | 440 | 360 | 290 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 990 | 850 | 770 | 680 | 600 | 520 | 450 | 400 | 330 | 260 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1150 | 990 | 900 | 790 | 700 | 610 | 520 | 460 | 380 | 300 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 |
| | | | | | 20 | 1 | 24 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| | | | | | 20 | 2-6 CL | 24 | 2215 | 1900 | 1730 | 1530 | 1350 | 1170 | 1000 | 890 | 730 | 580 |
| | | | | | 24 | 1 | 28 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| | | | | | 24 | 2-6 CL | 28 | 2255 | 1940 | 1760 | 1560 | 1380 | 1200 | 1010 | 900 | 740 | 590 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1605 | 1380 | 1250 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 20 | 1 | 24 | 1705 | 1470 | 1330 | 1180 | 1040 | 900 | 770 | 680 | 560 | 440 |
| | | | | | 20 | 2-6 CL | 24 | 2395 | 2060 | 1870 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 24 | 1 | 28 | 1765 | 1520 | 1380 | 1220 | 1080 | 940 | 790 | 710 | 580 | 460 |
| | | | | | 24 | 2-6 CL | 28 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| | | | | | 20 | 1 | 24 | 1785 | 1540 | 1390 | 1230 | 1090 | 950 | 800 | 710 | 590 | 460 |
| | | | | | 20 | 2-6 CL | 24 | 2455 | 2110 | 1910 | 1690 | 1500 | 1300 | 1100 | 980 | 810 | 640 |
| | | | | | 24 | 1 | 28 | 1850 | 1590 | 1440 | 1280 | 1130 | 980 | 830 | 740 | 610 | 480 |
| | | | | | 24 | 2-6 CL | 28 | 2535 | 2180 | 1980 | 1750 | 1550 | 1340 | 1140 | 1010 | 840 | 660 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 20 | 1 | 24 | 1310 | 1130 | 1020 | 900 | 800 | 690 | 590 | 520 | 430 | 340 |
| | | | | | 20 | 2-6 CL | 24 | 2070 | 1780 | 1610 | 1430 | 1260 | 1100 | 930 | 830 | 680 | 540 |
| | | | | | 24 | 1 | 28 | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 |
| | | | | | 24 | 2-6 CL | 28 | 2120 | 1820 | 1650 | 1460 | 1290 | 1120 | 950 | 850 | 700 | 550 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 14 | 1 | 18 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 |
| | | | | | 20 | 1 | 24 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 |
| | | | | | 20 | 2-6 CL | 24 | 2400 | 2060 | 1870 | 1660 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 24 | 1 | 28 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| | | | | | 24 | 2-6 CL | 28 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 14 | 1 | 18 | 1670 | 1440 | 1300 | 1150 | 1020 | 890 | 750 | 670 | 550 | 430 |
| | | | | | 20 | 1 | 24 | 1775 | 1530 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 590 | 460 |
| | | | | | 20 | 2-6 CL | 24 | 2405 | 2070 | 1880 | 1660 | 1470 | 1270 | 1080 | 960 | 790 | 630 |
| | | | | | 24 | 1 | 28 | 1835 | 1580 | 1430 | 1270 | 1120 | 970 | 830 | 730 | 610 | 480 |
| | | | | | 24 | 2-6 CL | 28 | 2485 | 2140 | 1940 | 1710 | 1520 | 1320 | 1120 | 990 | 820 | 650 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 14 | 1 | 18 | 1230 | 1060 | 960 | 850 | 750 | 650 | 550 | 490 | 410 | 320 |
| | | | | | 20 | 1 | 24 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 |
| | | | | | 20 | 2-6 CL | 24 | 1940 | 1670 | 1510 | 1340 | 1180 | 1030 | 870 | 780 | 640 | 500 |
| | | | | | 24 | 1 | 28 | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 |
| | | | | | 24 | 2-6 CL | 28 | 2000 | 1720 | 1560 | 1380 | 1220 | 1060 | 900 | 800 | 660 | 520 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 14 | 1 | 18 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 20 | 1 | 24 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 |
| | | | | | 20 | 2-6 CL | 24 | 2140 | 1840 | 1670 | 1480 | 1310 | 1130 | 960 | 860 | 710 | 560 |
| | | | | | 24 | 1 | 28 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| | | | | | 24 | 2-6 CL | 28 | 2220 | 1910 | 1730 | 1530 | 1350 | 1180 | 1000 | 890 | 730 | 580 |
| 24 | 3-6 CL | 28 | 2550 | 2190 | 1990 | 1760 | 1560 | 1350 | 1150 | 1020 | 840 | 660 | | | | | |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

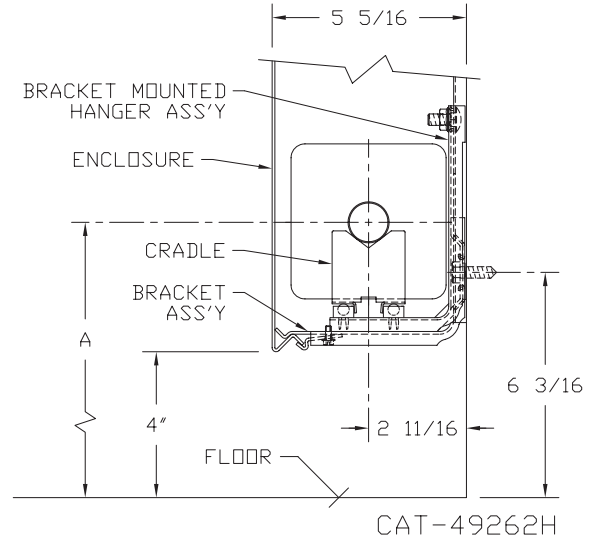
VERTICAL ELEMENT CENTERLINE DIMENSIONS FOR INSTALLATIONS USING STEAM BRACKETS WITH HANGERS

“3” OFFSET



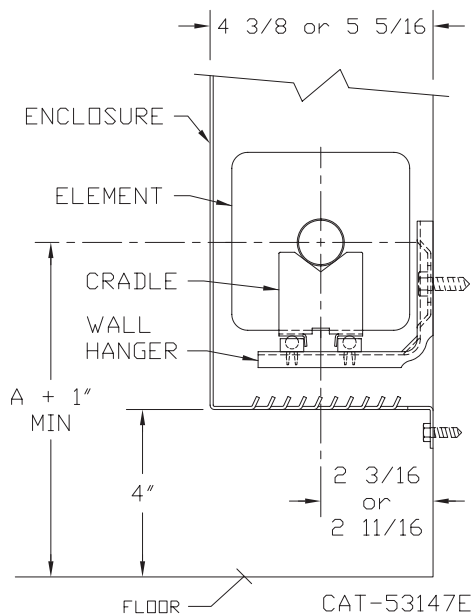
| ELEMENT TUBE SIZE | FIN SIZE HEIGHT × WIDTH | CRADLE NUMBER | A MIN | A MAX |
|-------------------|-------------------------|---------------|--------|-------|
| 3/4 COPPER | 3 1/4 × 3 1/4 | 2 | 7 3/8 | 9 5/8 |
| 1" COPPER | 3 1/4 × 3 1/4 | 2 | 7 1/2 | 9 3/4 |
| 1 1/4 COPPER | 3 1/4 × 3 1/4 | 2 | 7 5/8 | 9 7/8 |
| 1" STEEL | 3 1/4 × 3 1/4 | 2 | 7 5/8 | 9 3/4 |
| 1 1/4 STEEL | 3 1/4 × 3 1/4 | 1 | 7 3/16 | 9 3/8 |

“4” OFFSET

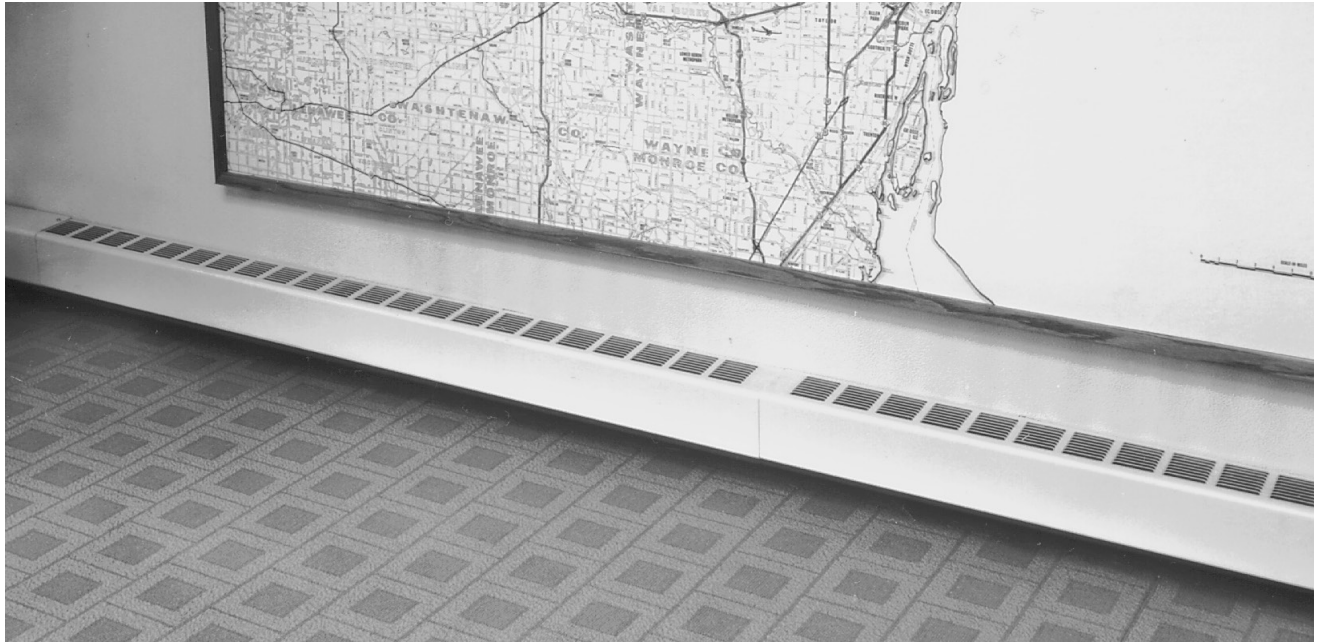


| ELEMENT TUBE SIZE | FIN SIZE HEIGHT × WIDTH | CRADLE NUMBER | A MIN | A MAX |
|-------------------|-------------------------|---------------|---------|--------|
| 3/4 COPPER | 3 5/8 × 4 1/4 | 2 | 7 3/8 | 8 3/4 |
| | 4 1/4 × 4 1/4 | 3A | 7 11/16 | 9 1/16 |
| 1" COPPER | 3 5/8 × 4 1/4 | 2 | 7 1/2 | 8 7/8 |
| | 4 1/4 × 4 1/4 | | | |
| 1 1/4 COPPER | 3 5/8 × 4 1/4 | 2 | 7 5/8 | 9" |
| | 4 1/4 × 4 1/4 | | | |
| 1" STEEL | 4 1/4 × 4 1/4 | 2 | 7 5/8 | 9" |
| 1 1/4 STEEL | 4 1/4 × 4 1/4 | 2 | 7 7/8 | 9 1/4 |
| 2" STEEL | 4 1/4 × 4 1/4 | 1 | 7 5/8 | 9" |

LOUVERED INLET RETURN TO WALL

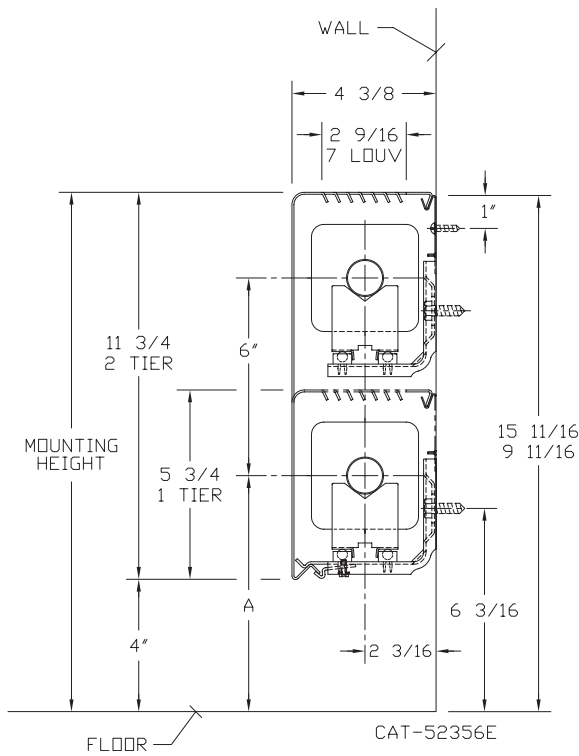


STYLE "LVE" TOP OUTLET



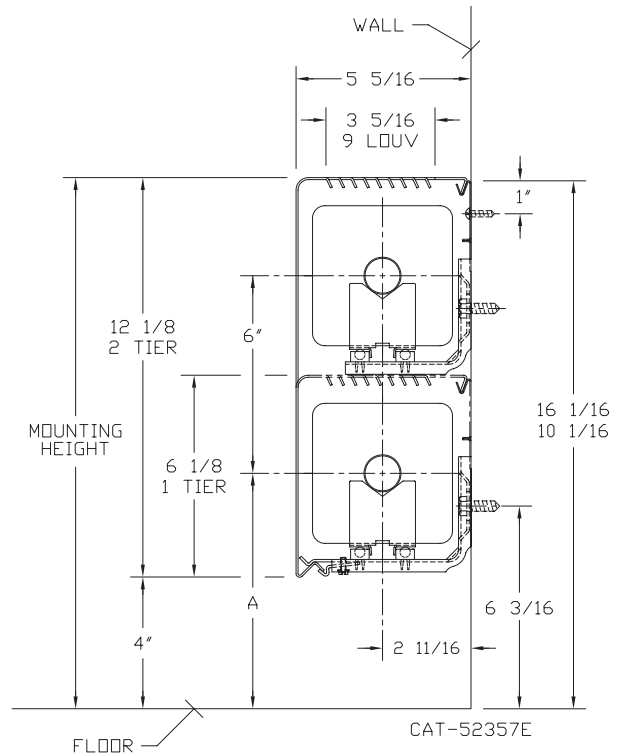
LV3-E5 11

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4 COPPER | 3 1/4 x 3 1/4 | 2 | 7" |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 | 1 | 6 5/8" |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 | 1 | 6 13/16" |



LV4-E6 12

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7" |
| 3/4 COPPER | 4 1/4 x 4 1/4 | 3A | 7 3/8" |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 3/16" |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 7 3/16" |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 COPPER | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 5/16" |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/2" |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 1/4" |



STYLE "LVE" TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|--------------|-------------|-------------|-------------|------------|------------|------------|------------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 840 1380 | 720 1190 | 660 1080 | 580 950 | 510 840 | 450 730 | 380 620 | 340 550 | 280 460 | 220 360 |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 970 1490 | 830 1280 | 760 1160 | 670 1030 | 590 910 | 510 790 | 440 670 | 390 600 | 320 490 | 250 390 |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 980 1440 | 840 1240 | 760 1120 | 680 990 | 600 880 | 520 760 | 440 650 | 390 580 | 320 480 | 250 370 |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 820 1360 | 710 1170 | 640 1060 | 570 940 | 500 830 | 430 720 | 370 610 | 330 540 | 270 450 | 210 350 |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 950 1470 | 820 1260 | 740 1150 | 660 1010 | 580 900 | 500 780 | 430 660 | 380 590 | 310 490 | 250 380 |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 960 1470 | 830 1260 | 750 1150 | 660 1010 | 590 900 | 510 780 | 430 660 | 380 590 | 320 490 | 250 380 |
| 1-1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 780 1320 | 670 1140 | 610 1030 | 540 910 | 480 810 | 410 700 | 350 590 | 310 530 | 260 440 | 200 340 |
| 1-1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 910 1400 | 780 1200 | 710 1090 | 630 970 | 560 850 | 480 740 | 410 630 | 360 560 | 300 460 | 240 360 |
| 1-1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 920 1380 | 790 1190 | 720 1080 | 630 950 | 560 840 | 490 730 | 410 620 | 370 550 | 300 460 | 240 360 |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1080 1900 | 930 1630 | 840 1480 | 750 1310 | 660 1160 | 570 1010 | 490 860 | 430 760 | 360 630 | 280 490 |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1190 2040 | 1020 1750 | 930 1590 | 820 1410 | 730 1240 | 630 1080 | 540 920 | 480 820 | 390 670 | 310 530 |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1270 2060 | 1090 1770 | 990 1610 | 880 1420 | 770 1260 | 670 1090 | 570 930 | 510 820 | 420 680 | 330 540 |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1110 1690 | 950 1450 | 870 1320 | 770 1170 | 680 1030 | 590 900 | 500 760 | 440 680 | 370 560 | 290 440 |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1230 1960 | 1060 1690 | 960 1530 | 850 1350 | 750 1200 | 650 1040 | 550 880 | 490 780 | 410 650 | 320 510 |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1320 1930 | 1140 1660 | 1030 1510 | 910 1330 | 810 1180 | 700 1020 | 590 870 | 530 770 | 440 640 | 340 500 |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1090 1660 | 940 1430 | 850 1290 | 750 1150 | 660 1010 | 580 880 | 490 750 | 440 660 | 360 550 | 280 430 |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1210 1920 | 1040 1650 | 940 1500 | 830 1320 | 740 1170 | 640 1020 | 540 860 | 480 770 | 400 630 | 310 500 |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1300 1890 | 1120 1630 | 1010 1470 | 900 1300 | 790 1150 | 690 1000 | 590 850 | 520 760 | 430 620 | 340 490 |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1890 2090 | 1030 1800 | 940 1630 | 830 1440 | 730 1270 | 640 1110 | 540 940 | 480 840 | 400 690 | 310 540 |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1310 2100 | 1130 1810 | 1020 1640 | 900 1450 | 800 1280 | 690 1110 | 590 950 | 520 840 | 430 690 | 340 550 |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1330 2110 | 1140 1810 | 1040 1650 | 920 1460 | 810 1290 | 700 1120 | 600 950 | 530 840 | 440 700 | 350 550 |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1220 1920 | 1050 1650 | 950 1500 | 840 1320 | 740 1170 | 650 1020 | 550 860 | 490 770 | 400 630 | 320 500 |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1220 2040 | 1050 1750 | 950 1590 | 840 1410 | 740 1240 | 650 1080 | 550 920 | 490 820 | 400 670 | 320 530 |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1370 1930 | 1180 1660 | 1070 1510 | 950 1330 | 840 1180 | 730 1020 | 620 870 | 550 770 | 450 640 | 360 500 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1200 1880 | 1030 1620 | 940 1470 | 830 1300 | 730 1150 | 640 1000 | 540 850 | 480 750 | 400 620 | 310 490 |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1330 1970 | 1140 1690 | 1040 1540 | 920 1360 | 810 1200 | 700 1040 | 600 890 | 530 790 | 440 650 | 350 510 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1350 1890 | 1160 1630 | 1050 1470 | 930 1300 | 820 1150 | 720 1000 | 610 850 | 540 760 | 450 620 | 350 490 |

Note: Copper tube furnished flared one end standard.

STYLE "LVE" TOP OUTLET

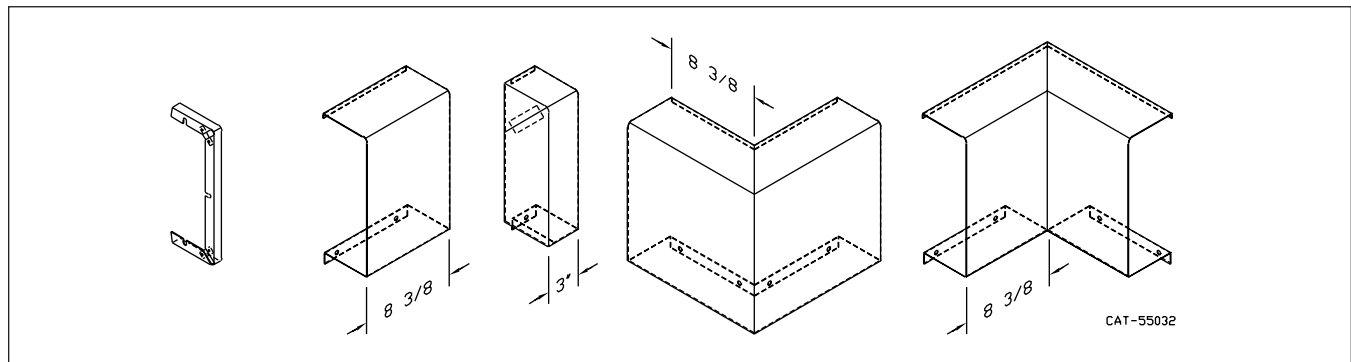
STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

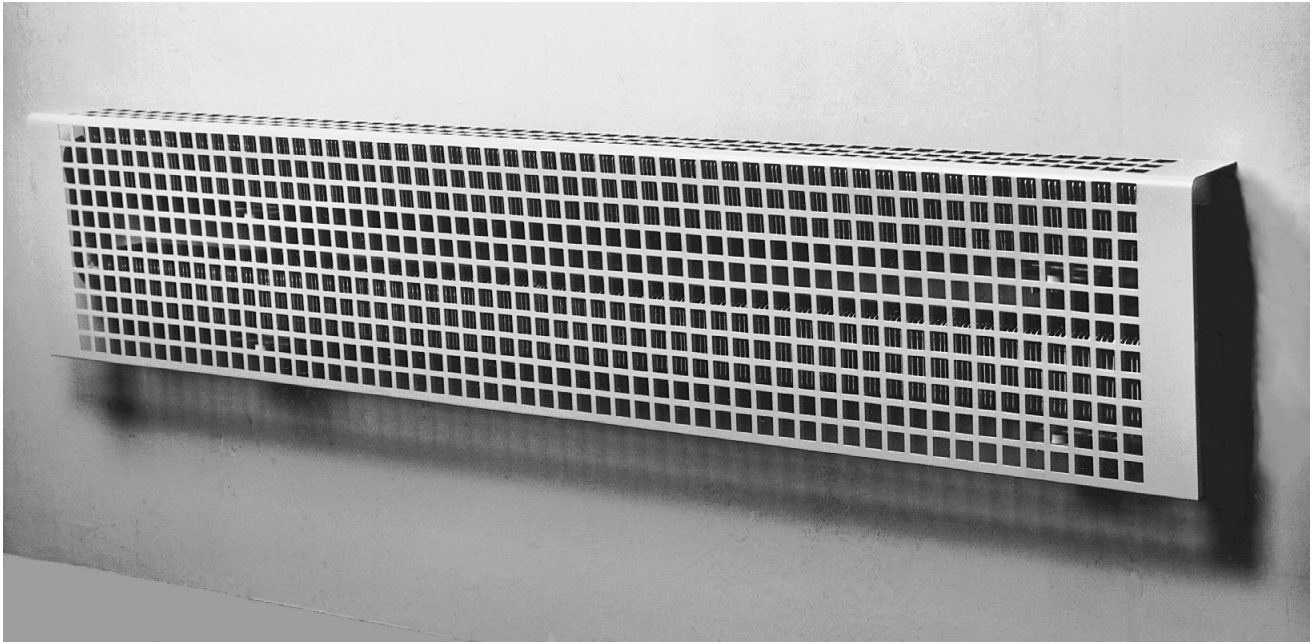
| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|--------------|-------------|-------------|-------------|------------|------------|------------|------------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 780 1330 | 670 1140 | 610 1040 | 540 920 | 480 810 | 410 700 | 350 600 | 310 530 | 260 440 | 200 350 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 860 1475 | 740 1270 | 670 1150 | 590 1020 | 520 900 | 460 780 | 390 660 | 340 590 | 280 490 | 220 380 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 910 1550 | 780 1330 | 710 1210 | 630 1070 | 560 950 | 480 820 | 410 700 | 360 620 | 300 510 | 240 400 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 770 1320 | 660 1140 | 600 1030 | 530 910 | 470 810 | 410 700 | 350 590 | 310 530 | 250 440 | 200 340 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 870 1490 | 750 1280 | 680 1160 | 600 1030 | 530 910 | 460 790 | 390 670 | 350 600 | 290 490 | 230 390 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 5 11 | 1 2-6 CL | 9-3/4 15-3/4 | 880 1510 | 760 1300 | 690 1180 | 610 1040 | 540 920 | 470 800 | 400 680 | 350 600 | 290 500 | 230 390 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1095 1850 | 940 1590 | 850 1440 | 760 1280 | 670 1130 | 580 980 | 490 830 | 440 740 | 360 610 | 280 480 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1215 1910 | 1040 1640 | 950 1490 | 840 1320 | 740 1170 | 640 1010 | 550 860 | 490 760 | 400 630 | 320 500 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1300 2150 | 1120 1850 | 1010 1680 | 900 1480 | 790 1310 | 690 1140 | 590 970 | 520 860 | 430 710 | 340 560 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1010 1700 | 870 1460 | 790 1330 | 700 1170 | 620 1040 | 540 900 | 450 770 | 400 680 | 330 560 | 260 440 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1210 1900 | 1040 1630 | 940 1480 | 830 1310 | 740 1160 | 640 1010 | 540 860 | 480 760 | 400 630 | 310 490 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1280 2135 | 1100 1840 | 1000 1670 | 880 1470 | 780 1300 | 680 1130 | 580 960 | 510 850 | 420 700 | 330 560 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 950 1620 | 820 1390 | 740 1260 | 660 1120 | 580 990 | 500 860 | 430 730 | 380 650 | 310 530 | 250 420 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 6 12 | 1 2-6 CL | 10-1/8 16-1/8 | 1130 1770 | 970 1520 | 880 1380 | 780 1220 | 690 1080 | 600 940 | 510 800 | 450 710 | 370 580 | 290 460 |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE LVE ACCESSORIES

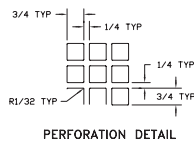
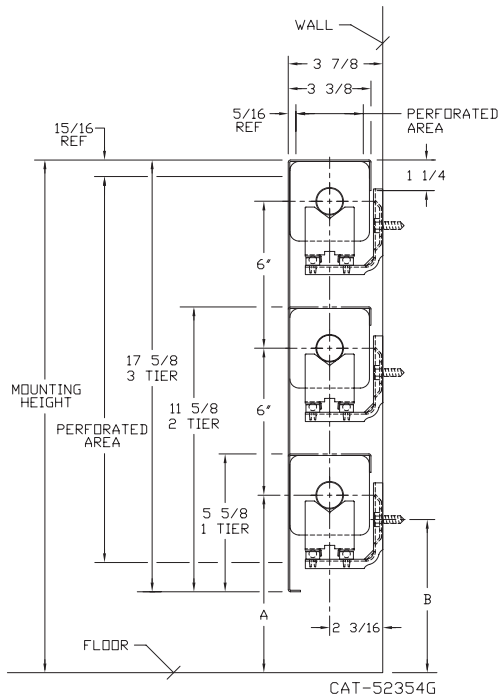


STYLE "LVX" SQUARE PERFORATION



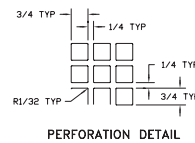
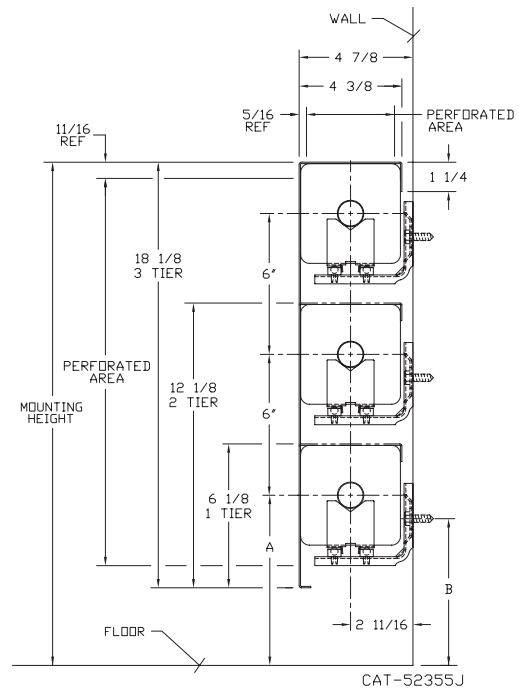
LV3-X (Element Supported)

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A | B |
|-------------------|-------------------------|---------------|--------|--------|
| 3/4" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16 | 6 3/8 |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 7 3/16 | 6 3/16 |
| 1 1/4" COPPER | 3 1/4 x 3 1/4 | 1 | 7 3/16 | 6 3/4 |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 7 3/16 | 6 1/16 |
| 1 1/4" STEEL | 3 1/4 x 3 1/4 | 1 | 7 3/16 | 6 9/16 |



LV4-X (Element Supported)

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A | B |
|-------------------|-------------------------|---------------|--------|---------|
| 3/4" COPPER | 3 5/8 x 4 1/4 | 2 | 7 1/2 | 6 11/16 |
| | 4 1/4 x 4 1/4 | 3A | 7 3/16 | 5 15/16 |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 1/2 | 6 1/2 |
| | 4 1/4 x 4 1/4 | | 7 3/16 | 6 3/16 |
| 1 1/4" COPPER | 3 5/8 x 4 1/4 | 2 | 7 1/2 | 6 3/8 |
| | 4 1/4 x 4 1/4 | | 7 3/16 | 6 1/16 |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 3/16 | 6 1/16 |
| 1 1/4" STEEL | 4 1/4 x 4 1/4 | 2 | 7 3/16 | 5 7/8 |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 3/16 | 6 1/8 |



STYLE "LVX" SQUARE PERFORATION

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | 1.00 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 5 | 1 | 8-7/8 | 930 | 800 | 730 | 640 | 570 | 490 | 420 | 370 | 310 | 240 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2310 | 1990 | 1800 | 1590 | 1410 | 1220 | 1040 | 920 | 760 | 600 | |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 5 | 1 | 8-7/8 | 1090 | 940 | 850 | 750 | 660 | 580 | 490 | 440 | 360 | 280 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1800 | 1550 | 1400 | 1240 | 1100 | 950 | 810 | 720 | 590 | 470 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2470 | 2120 | 1930 | 1700 | 1510 | 1310 | 1110 | 990 | 820 | 640 | |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 5 | 1 | 8-7/8 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 | |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 5 | 1 | 8-7/8 | 930 | 800 | 730 | 640 | 570 | 490 | 420 | 370 | 310 | 240 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 | |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 5 | 1 | 8-7/8 | 1040 | 890 | 810 | 720 | 630 | 550 | 470 | 420 | 340 | 270 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1780 | 1530 | 1390 | 1230 | 1090 | 940 | 800 | 710 | 590 | 460 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 | |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 5 | 1 | 8-7/8 | 1160 | 1000 | 900 | 800 | 710 | 610 | 520 | 460 | 380 | 300 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1860 | 1600 | 1450 | 1280 | 1130 | 990 | 840 | 740 | 610 | 480 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 | |
| 1-1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 5 | 1 | 8-7/8 | 930 | 800 | 730 | 640 | 570 | 490 | 420 | 370 | 310 | 240 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2270 | 1950 | 1770 | 1570 | 1380 | 1200 | 1020 | 910 | 750 | 590 | |
| 1-1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 5 | 1 | 8-7/8 | 1020 | 880 | 800 | 700 | 620 | 540 | 460 | 410 | 340 | 270 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1770 | 1520 | 1380 | 1220 | 1080 | 940 | 800 | 710 | 580 | 460 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 | |
| 1-1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 5 | 1 | 8-7/8 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2450 | 2110 | 1910 | 1690 | 1490 | 1300 | 1100 | 980 | 810 | 640 | |
| 3/4" | VC3/4-433 | 3-5/8" X 4-1/4" | 32 | .020 | 6 | 1 | 9-3/8 | 1160 | 1000 | 900 | 800 | 710 | 610 | 520 | 460 | 380 | 300 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2760 | 2370 | 2150 | 1900 | 1680 | 1460 | 1240 | 1100 | 910 | 720 | |
| 3/4" | VC3/4-434 | 3-5/8" X 4-1/4" | 40 | .020 | 6 | 1 | 9-3/8 | 1390 | 1200 | 1080 | 960 | 850 | 740 | 630 | 560 | 460 | 360 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3170 | 2730 | 2470 | 2190 | 1930 | 1680 | 1430 | 1270 | 1050 | 820 | |
| 3/4" | VC3/4-435 | 3-5/8" X 4-1/4" | 50 | .020 | 6 | 1 | 9-3/8 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3310 | 2850 | 2580 | 2280 | 2020 | 1750 | 1490 | 1320 | 1090 | 860 | |
| 1" | VC433 | 3-5/8" X 4-1/4" | 32 | .020 | 6 | 1 | 9-3/8 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2130 | 1830 | 1660 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 550 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2880 | 2480 | 2250 | 1990 | 1760 | 1530 | 1300 | 1150 | 950 | 750 | |
| 1" | VC434 | 3-5/8" X 4-1/4" | 40 | .020 | 6 | 1 | 9-3/8 | 1350 | 1160 | 1050 | 930 | 820 | 720 | 610 | 540 | 450 | 350 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2320 | 2000 | 1810 | 1600 | 1420 | 1230 | 1040 | 930 | 770 | 600 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3070 | 2640 | 2390 | 2120 | 1870 | 1630 | 1380 | 1230 | 1010 | 800 | |
| 1" | VC435 | 3-5/8" X 4-1/4" | 50 | .020 | 6 | 1 | 9-3/8 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2530 | 2180 | 1970 | 1750 | 1540 | 1340 | 1140 | 1010 | 830 | 660 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3310 | 2850 | 2580 | 2280 | 2020 | 1750 | 1490 | 1320 | 1090 | 860 | |
| 1-1/4" | VC1433 | 3-5/8" X 4-1/4" | 32 | .020 | 6 | 1 | 9-3/8 | 1260 | 1080 | 980 | 870 | 770 | 670 | 570 | 500 | 420 | 330 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2220 | 1910 | 1730 | 1530 | 1350 | 1180 | 1000 | 890 | 730 | 580 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3000 | 2580 | 2340 | 2070 | 1830 | 1590 | 1350 | 1200 | 990 | 780 | |
| 1-1/4" | VC1434 | 3-5/8" X 4-1/4" | 40 | .020 | 6 | 1 | 9-3/8 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2370 | 2040 | 1850 | 1640 | 1450 | 1260 | 1070 | 950 | 780 | 620 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3130 | 2690 | 2440 | 2160 | 1910 | 1660 | 1410 | 1250 | 1030 | 810 | |
| 1-1/4" | VC1435 | 3-5/8" X 4-1/4" | 50 | .020 | 6 | 1 | 9-3/8 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3320 | 2860 | 2590 | 2290 | 2030 | 1760 | 1490 | 1330 | 1100 | 860 | |
| 3/4" | VC3/4 43 | 4-1/4" SQ. | 32 | .020 | 6 | 1 | 9-3/8 | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2250 | 1940 | 1760 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 590 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3070 | 2640 | 2390 | 2120 | 1870 | 1630 | 1380 | 1230 | 1010 | 800 | |
| 3/4" | VC3/4 44 | 4-1/4" SQ. | 40 | .020 | 6 | 1 | 9-3/8 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3200 | 2750 | 2500 | 2210 | 1950 | 1700 | 1440 | 1280 | 1060 | 830 | |
| 3/4" | VC3/4 45 | 4-1/4" SQ. | 50 | .020 | 6 | 1 | 9-3/8 | 1580 | 1360 | 1230 | 1090 | 960 | 840 | 710 | 630 | 520 | 410 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2520 | 2170 | 1970 | 1740 | 1540 | 1340 | 1130 | 1010 | 830 | 660 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3290 | 2830 | 2570 | 2270 | 2010 | 1740 | 1480 | 1320 | 1090 | 860 | |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 6 | 1 | 9-3/8 | 1290 | 1110 | 1010 | 890 | 790 | 680 | 580 | 520 | 430 | 340 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3100 | 2670 | 2420 | 2140 | 1890 | 1640 | 1400 | 1240 | 1020 | 810 | |

STYLE "LVX" SQUARE PERFORATION

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 6 | 1 | 9-3/8 | 1430 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2390 | 2060 | 1860 | 1650 | 1460 | 1270 | 1080 | 960 | 790 | 620 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3190 | 2740 | 2490 | 2200 | 1950 | 1690 | 1440 | 1280 | 1050 | 830 |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 6 | 1 | 9-3/8 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3320 | 2860 | 2590 | 2290 | 2030 | 1760 | 1490 | 1330 | 1100 | 860 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 6 | 1 | 9-3/8 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2370 | 2040 | 1850 | 1640 | 1450 | 1260 | 1070 | 950 | 780 | 620 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3230 | 2780 | 2520 | 2230 | 1970 | 1710 | 1450 | 1290 | 1070 | 840 |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 6 | 1 | 9-3/8 | 1590 | 1370 | 1240 | 1100 | 970 | 840 | 720 | 640 | 520 | 410 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2570 | 2210 | 2000 | 1770 | 1570 | 1360 | 1160 | 1030 | 850 | 670 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3350 | 2880 | 2610 | 2310 | 2040 | 1780 | 1510 | 1340 | 1110 | 870 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 6 | 1 | 9-3/8 | 1640 | 1410 | 1280 | 1130 | 1000 | 870 | 740 | 660 | 540 | 430 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2360 | 2030 | 1840 | 1630 | 1440 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3070 | 2640 | 2390 | 2120 | 1870 | 1630 | 1380 | 1230 | 1010 | 800 |

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

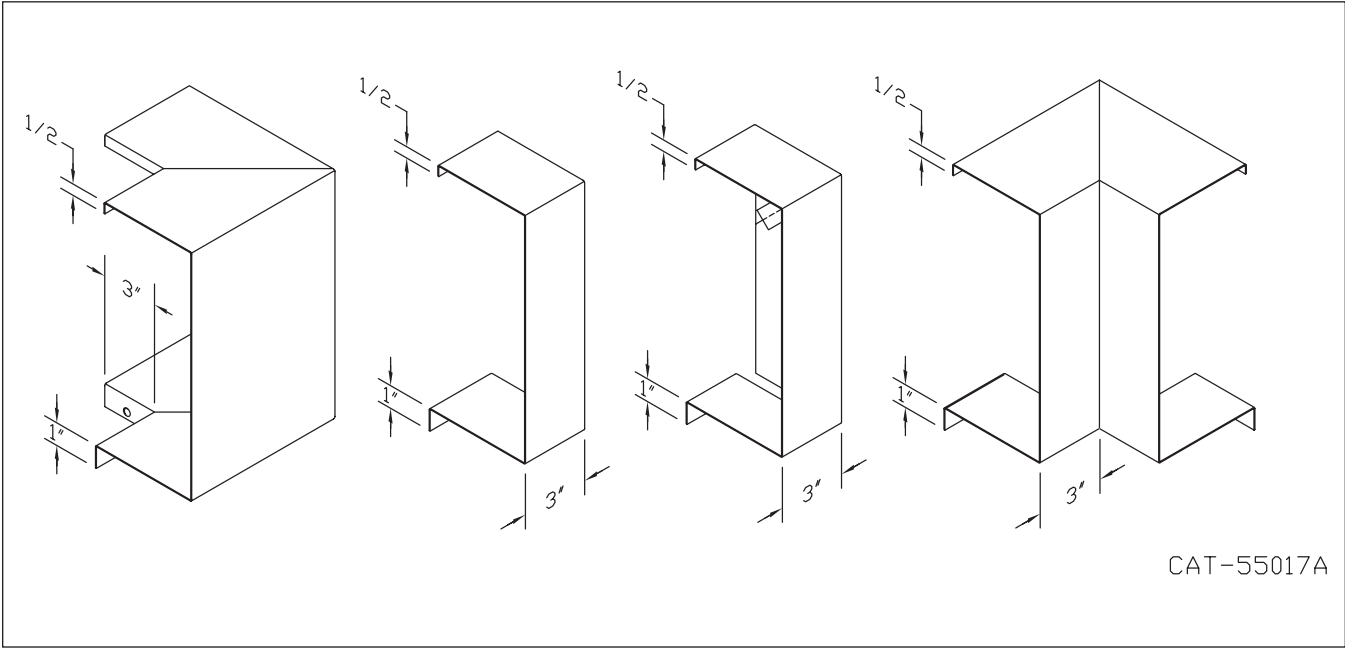
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 5 | 1 | 8-7/8 | 870 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2110 | 1810 | 1650 | 1460 | 1290 | 1120 | 950 | 840 | 700 | 550 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 5 | 1 | 8-7/8 | 950 | 820 | 740 | 660 | 580 | 500 | 430 | 380 | 310 | 250 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2260 | 1940 | 1760 | 1560 | 1380 | 1200 | 1020 | 900 | 750 | 590 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 5 | 1 | 8-7/8 | 1020 | 880 | 800 | 700 | 620 | 540 | 460 | 410 | 340 | 270 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1720 | 1480 | 1340 | 1190 | 1050 | 910 | 770 | 690 | 570 | 450 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 5 | 1 | 8-7/8 | 860 | 740 | 670 | 590 | 520 | 460 | 390 | 340 | 280 | 220 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2150 | 1850 | 1680 | 1480 | 1310 | 1140 | 970 | 860 | 710 | 560 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 5 | 1 | 8-7/8 | 960 | 830 | 750 | 660 | 590 | 510 | 430 | 380 | 320 | 250 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 5 | 1 | 8-7/8 | 990 | 850 | 770 | 680 | 600 | 520 | 450 | 400 | 330 | 260 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1680 | 1440 | 1310 | 1160 | 1020 | 890 | 760 | 670 | 550 | 440 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2190 | 1880 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 6 | 1 | 9-3/8 | 1270 | 1090 | 990 | 880 | 770 | 670 | 570 | 510 | 420 | 330 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2930 | 2520 | 2290 | 2020 | 1790 | 1550 | 1320 | 1170 | 970 | 760 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 6 | 1 | 9-3/8 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2350 | 2020 | 1830 | 1620 | 1430 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3050 | 2620 | 2380 | 2100 | 1860 | 1620 | 1370 | 1220 | 1010 | 790 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 6 | 1 | 9-3/8 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2410 | 2070 | 1880 | 1660 | 1470 | 1280 | 1080 | 960 | 800 | 630 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3100 | 2670 | 2420 | 2140 | 1890 | 1640 | 1400 | 1240 | 1020 | 810 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 6 | 1 | 9-3/8 | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2210 | 1900 | 1720 | 1520 | 1350 | 1170 | 990 | 880 | 730 | 570 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2910 | 2500 | 2270 | 2010 | 1780 | 1540 | 1310 | 1160 | 960 | 760 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 6 | 1 | 9-3/8 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2340 | 2010 | 1830 | 1610 | 1430 | 1240 | 1050 | 940 | 770 | 610 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3040 | 2610 | 2370 | 2100 | 1850 | 1610 | 1370 | 1220 | 1000 | 790 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 6 | 1 | 9-3/8 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2360 | 2030 | 1840 | 1630 | 1440 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 3070 | 2640 | 2390 | 2120 | 1870 | 1630 | 1380 | 1230 | 1010 | 800 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 6 | 1 | 9-3/8 | 1090 | 940 | 850 | 750 | 660 | 580 | 490 | 440 | 360 | 280 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1950 | 1680 | 1520 | 1350 | 1190 | 1030 | 880 | 780 | 640 | 510 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2590 | 2230 | 2020 | 1790 | 1580 | 1370 | 1170 | 1040 | 850 | 670 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 6 | 1 | 9-3/8 | 1270 | 1090 | 990 | 880 | 770 | 670 | 570 | 510 | 420 | 330 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2140 | 1840 | 1670 | 1480 | 1310 | 1130 | 960 | 860 | 710 | 560 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2790 | 2400 | 2180 | 1930 | 1700 | 1480 | 1260 | 1120 | 920 | 730 |

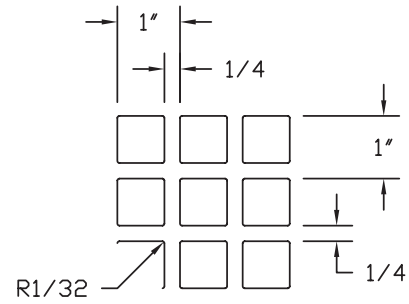
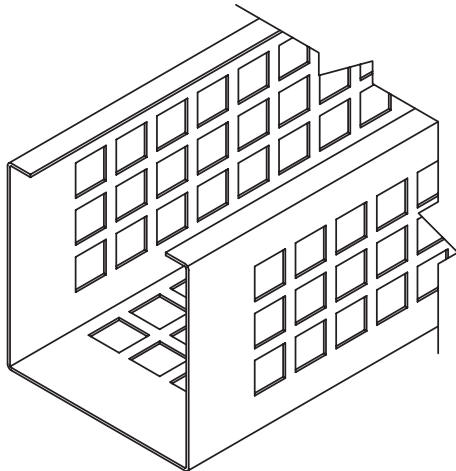
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVX" SQUARE PERFORATION

STYLE LVX ACCESSORIES



STYLE "LVX" SQUARE PERFORATION - CEILING



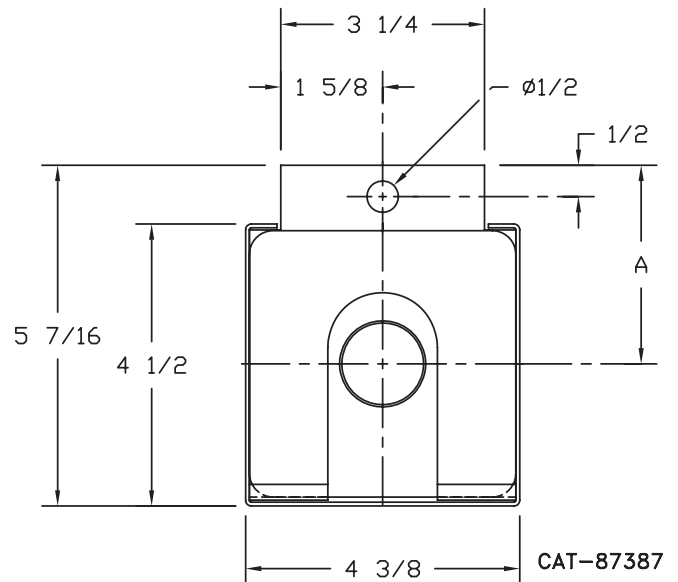
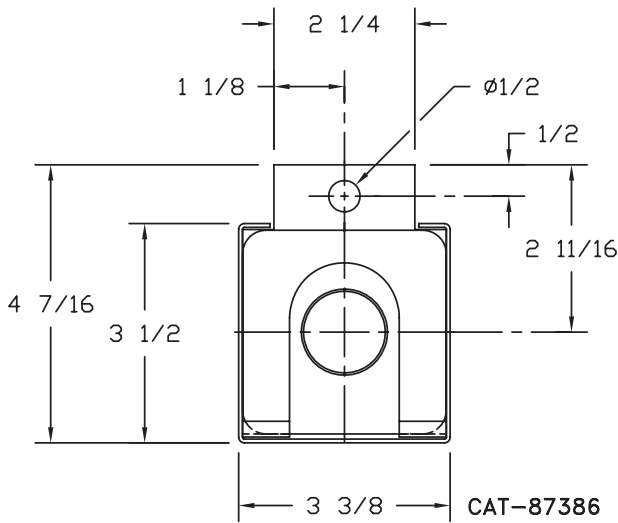
ENCLOSURE PERFORATION DETAIL

LV3-XC

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH |
|-------------------|-------------------------|
| 3/4 COPPER | 3 1/4 x 3 1/4 |
| 1" COPPER | 3 1/4 x 3 1/4 |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 |
| 1" STEEL | 3 1/4 x 3 1/4 |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 |

LV4-XC

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | A |
|-------------------|-------------------------|--------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 3 1/2 |
| 3/4 COPPER | 4 1/4 x 4 1/4 | 3 3/16 |
| 1" COPPER | 3 5/8 x 4 1/4 | 3 1/2 |
| 1" COPPER | 4 1/4 x 4 1/4 | 3 3/16 |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 3 1/2 |
| 1 1/4 COPPER | 4 1/4 x 4 1/4 | 3 3/16 |
| 1" STEEL | 4 1/4 x 4 1/4 | 3 3/16 |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 3 3/16 |



METHOD OF SUPPORT TO BE DETERMINED BY ENGINEER OR CONTRACTOR. MATERIALS USED WILL BE BY OTHERS.

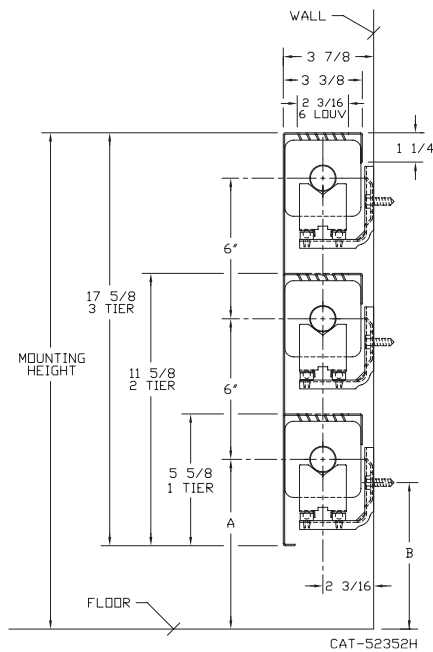
Apply .85 derate factor to "X" style ratings.

STYLE "LVC" TOP OUTLET



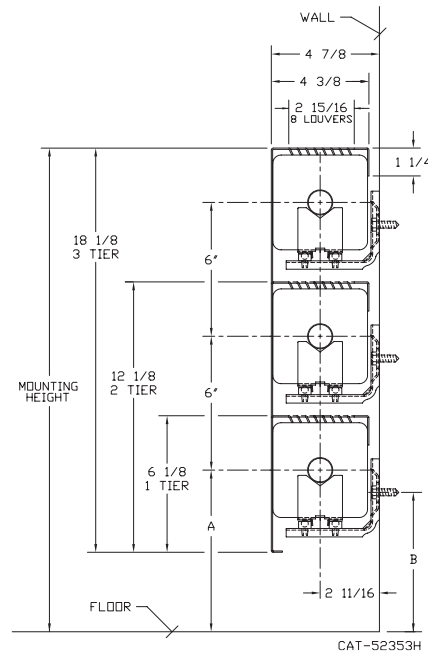
LV3-C (Element Supported)

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A | B |
|-------------------|-------------------------|---------------|---------|---------|
| 3/4 COPPER | 3 1/4 x 3 1/4 | 2 | 6 15/16 | 6 1/8 |
| 1" COPPER | 3 1/4 x 3 1/4 | 2 | 6 15/16 | 5 15/16 |
| 1 1/4 COPPER | 3 1/4 x 3 1/4 | 1 | 6 15/16 | 6 1/2 |
| 1" STEEL | 3 1/4 x 3 1/4 | 2 | 6 15/16 | 5 13/16 |
| 1 1/4 STEEL | 3 1/4 x 3 1/4 | 1 | 6 15/16 | 6 5/16 |



LV4-C (Element Supported)

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A | B |
|-------------------|-------------------------|---------------|---------|---------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 1/4 | 6 7/16 |
| | 4 1/4 x 4 1/4 | 3A | 6 15/16 | 5 11/16 |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 1/4 | 6 1/4 |
| | 4 1/4 x 4 1/4 | | 6 15/16 | 5 15/16 |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 1/4 | 6 1/8 |
| | 4 1/4 x 4 1/4 | | 6 15/16 | 5 13/16 |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 6 15/16 | 5 13/16 |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 6 15/16 | 5 5/8 |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 6 15/16 | 5 7/8 |



STYLE "LVC" TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | 1.00 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 5 | 1 | 8-7/8 | 870 | 750 | 680 | 600 | 530 | 460 | 390 | 350 | 290 | 230 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 | |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 5 | 1 | 8-7/8 | 1030 | 890 | 800 | 710 | 630 | 550 | 460 | 410 | 340 | 270 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2060 | 1770 | 1610 | 1420 | 1260 | 1090 | 930 | 820 | 680 | 540 | |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 5 | 1 | 8-7/8 | 1130 | 970 | 880 | 780 | 690 | 600 | 510 | 450 | 370 | 290 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1710 | 1470 | 1330 | 1180 | 1040 | 910 | 770 | 680 | 560 | 440 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2150 | 1850 | 1680 | 1480 | 1310 | 1140 | 970 | 860 | 710 | 560 | |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 5 | 1 | 8-7/8 | 870 | 750 | 680 | 600 | 530 | 460 | 390 | 350 | 290 | 230 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 | |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 5 | 1 | 8-7/8 | 970 | 830 | 760 | 670 | 590 | 510 | 440 | 390 | 320 | 250 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1570 | 1350 | 1220 | 1080 | 960 | 830 | 710 | 630 | 520 | 410 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1990 | 1710 | 1550 | 1370 | 1210 | 1050 | 900 | 800 | 660 | 520 | |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 5 | 1 | 8-7/8 | 1090 | 940 | 850 | 750 | 660 | 580 | 490 | 440 | 360 | 280 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 | |
| 1-1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 5 | 1 | 8-7/8 | 870 | 750 | 680 | 600 | 530 | 460 | 390 | 350 | 290 | 230 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1890 | 1630 | 1470 | 1300 | 1150 | 1000 | 850 | 760 | 620 | 490 | |
| 1-1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 5 | 1 | 8-7/8 | 950 | 820 | 740 | 660 | 580 | 500 | 430 | 380 | 310 | 250 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1560 | 1340 | 1220 | 1080 | 950 | 830 | 700 | 620 | 510 | 410 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1960 | 1690 | 1530 | 1350 | 1200 | 1040 | 880 | 780 | 650 | 510 | |
| 1-1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 5 | 1 | 8-7/8 | 1050 | 900 | 820 | 720 | 640 | 560 | 470 | 420 | 350 | 270 | |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1620 | 1390 | 1260 | 1120 | 990 | 860 | 730 | 650 | 530 | 420 | |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 | |
| 3/4" | VC3/4-433 | 3-5/8" X 4-1/4" | 32 | .020 | 6 | 1 | 9-3/8 | 1090 | 940 | 850 | 750 | 660 | 580 | 490 | 440 | 360 | 280 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1810 | 1560 | 1410 | 1250 | 1100 | 960 | 810 | 720 | 600 | 470 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 | |
| 3/4" | VC3/4-434 | 3-5/8" X 4-1/4" | 40 | .020 | 6 | 1 | 9-3/8 | 1310 | 1130 | 1020 | 900 | 800 | 690 | 590 | 520 | 430 | 340 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2120 | 1820 | 1650 | 1460 | 1290 | 1120 | 950 | 850 | 700 | 550 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2640 | 2270 | 2060 | 1820 | 1610 | 1400 | 1190 | 1060 | 870 | 690 | |
| 3/4" | VC3/4-435 | 3-5/8" X 4-1/4" | 50 | .020 | 6 | 1 | 9-3/8 | 1440 | 1240 | 1120 | 990 | 880 | 760 | 650 | 580 | 480 | 370 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2250 | 1940 | 1760 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 590 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2760 | 2370 | 2150 | 1900 | 1680 | 1460 | 1240 | 1100 | 910 | 720 | |
| 1" | VC433 | 3-5/8" X 4-1/4" | 32 | .020 | 6 | 1 | 9-3/8 | 1130 | 970 | 880 | 780 | 690 | 600 | 510 | 450 | 370 | 290 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1890 | 1630 | 1470 | 1300 | 1150 | 1000 | 850 | 760 | 620 | 490 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2400 | 2060 | 1870 | 1660 | 1460 | 1270 | 1080 | 960 | 790 | 620 | |
| 1" | VC434 | 3-5/8" X 4-1/4" | 40 | .020 | 6 | 1 | 9-3/8 | 1270 | 1090 | 990 | 880 | 770 | 670 | 570 | 510 | 420 | 330 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2060 | 1770 | 1610 | 1420 | 1260 | 1090 | 930 | 820 | 680 | 540 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 | |
| 1" | VC435 | 3-5/8" X 4-1/4" | 50 | .020 | 6 | 1 | 9-3/8 | 1440 | 1240 | 1120 | 990 | 880 | 760 | 650 | 580 | 480 | 370 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2240 | 1930 | 1750 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 580 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2760 | 2370 | 2150 | 1900 | 1680 | 1460 | 1240 | 1100 | 910 | 720 | |
| 1-1/4" | VC1433 | 3-5/8" X 4-1/4" | 32 | .020 | 6 | 1 | 9-3/8 | 1180 | 1010 | 920 | 810 | 720 | 630 | 530 | 470 | 390 | 310 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1960 | 1690 | 1530 | 1350 | 1200 | 1040 | 880 | 780 | 650 | 510 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2500 | 2150 | 1950 | 1720 | 1530 | 1330 | 1130 | 1000 | 830 | 650 | |
| 1-1/4" | VC1434 | 3-5/8" X 4-1/4" | 40 | .020 | 6 | 1 | 9-3/8 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2610 | 2240 | 2040 | 1800 | 1590 | 1380 | 1170 | 1040 | 860 | 680 | |
| 1-1/4" | VC1435 | 3-5/8" X 4-1/4" | 50 | .020 | 6 | 1 | 9-3/8 | 1440 | 1240 | 1120 | 990 | 880 | 760 | 650 | 580 | 480 | 370 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2250 | 1940 | 1760 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 590 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2770 | 2380 | 2160 | 1910 | 1690 | 1470 | 1250 | 1110 | 910 | 720 | |
| 3/4" | VC3/4 43 | 4-1/4" SQ. | 32 | .020 | 6 | 1 | 9-3/8 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1990 | 1710 | 1550 | 1370 | 1210 | 1050 | 900 | 800 | 660 | 520 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 | |
| 3/4" | VC3/4 44 | 4-1/4" SQ. | 40 | .020 | 6 | 1 | 9-3/8 | 1440 | 1240 | 1120 | 990 | 880 | 760 | 650 | 580 | 480 | 370 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2660 | 2290 | 2070 | 1840 | 1620 | 1410 | 1200 | 1060 | 880 | 690 | |
| 3/4" | VC3/4 45 | 4-1/4" SQ. | 50 | .020 | 6 | 1 | 9-3/8 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2740 | 2360 | 2140 | 1890 | 1670 | 1450 | 1230 | 1100 | 900 | 710 | |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 6 | 1 | 9-3/8 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 | |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2010 | 1730 | 1570 | 1390 | 1230 | 1070 | 900 | 800 | 660 | 520 | |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 | |

STYLE "LVC" TOP OUTLET

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 6 | 1 | 9-3/8 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2120 | 1820 | 1650 | 1460 | 1290 | 1120 | 950 | 850 | 700 | 550 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2660 | 2290 | 2070 | 1840 | 1620 | 1410 | 1200 | 1060 | 880 | 690 |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 6 | 1 | 9-3/8 | 1510 | 1300 | 1180 | 1040 | 920 | 800 | 680 | 600 | 500 | 390 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2250 | 1940 | 1760 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 590 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2770 | 2380 | 2160 | 1910 | 1690 | 1470 | 1250 | 1110 | 910 | 720 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 6 | 1 | 9-3/8 | 1260 | 1080 | 980 | 870 | 770 | 670 | 570 | 500 | 420 | 330 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2690 | 2310 | 2100 | 1860 | 1640 | 1430 | 1210 | 1080 | 890 | 700 |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 6 | 1 | 9-3/8 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2790 | 2400 | 2180 | 1930 | 1700 | 1480 | 1260 | 1120 | 920 | 730 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 6 | 1 | 9-3/8 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2090 | 1800 | 1630 | 1440 | 1270 | 1110 | 940 | 840 | 690 | 540 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 |

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

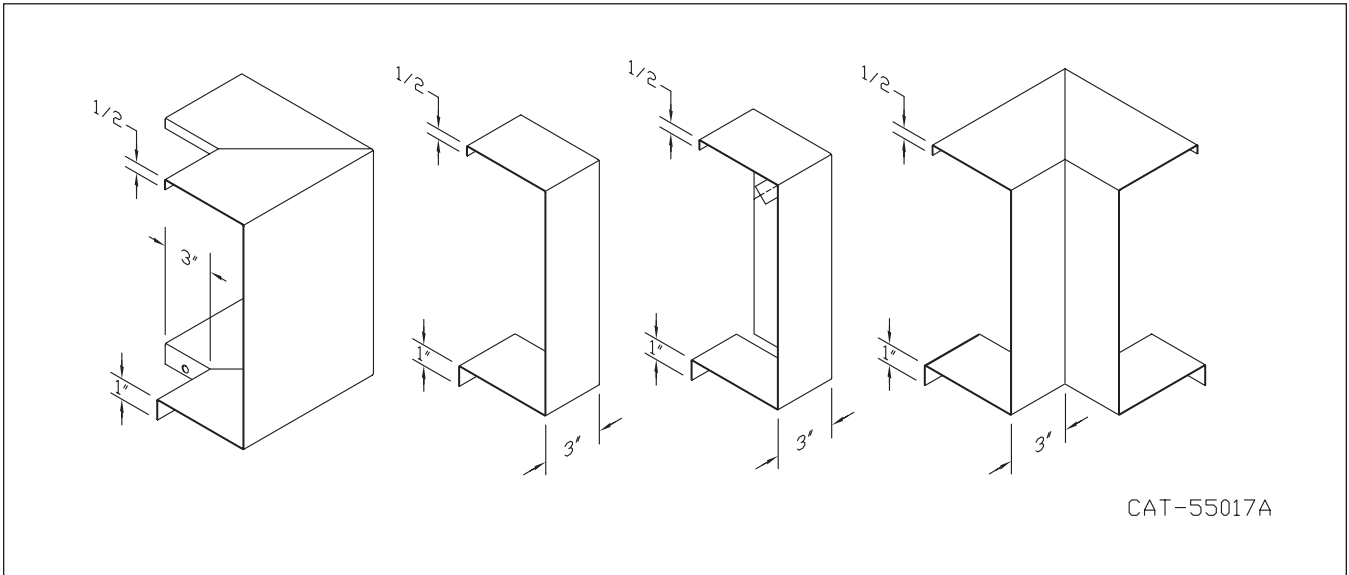
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL HEIGHT IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 5 | 1 | 8-7/8 | 820 | 710 | 640 | 570 | 500 | 430 | 370 | 330 | 270 | 210 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1760 | 1510 | 1370 | 1210 | 1070 | 930 | 790 | 700 | 580 | 460 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 5 | 1 | 8-7/8 | 890 | 770 | 690 | 610 | 540 | 470 | 400 | 360 | 290 | 230 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1880 | 1620 | 1470 | 1300 | 1150 | 1000 | 850 | 750 | 620 | 490 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 5 | 1 | 8-7/8 | 950 | 820 | 740 | 660 | 580 | 500 | 430 | 380 | 310 | 250 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1520 | 1310 | 1190 | 1050 | 930 | 810 | 680 | 610 | 500 | 400 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1960 | 1690 | 1530 | 1350 | 1200 | 1040 | 880 | 780 | 650 | 510 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 5 | 1 | 8-7/8 | 810 | 700 | 630 | 560 | 490 | 430 | 360 | 320 | 270 | 210 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1790 | 1540 | 1400 | 1240 | 1090 | 950 | 810 | 720 | 590 | 470 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 5 | 1 | 8-7/8 | 900 | 770 | 700 | 620 | 550 | 480 | 410 | 360 | 300 | 230 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1450 | 1250 | 1130 | 1000 | 880 | 770 | 650 | 580 | 480 | 380 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1800 | 1550 | 1400 | 1240 | 1100 | 950 | 810 | 720 | 590 | 470 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 5 | 1 | 8-7/8 | 930 | 800 | 730 | 640 | 570 | 490 | 420 | 370 | 310 | 240 |
| | | | | | 11 | 2 @ 6 CL | 14-7/8 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 17 | 3 @ 6 CL | 20-7/8 | 1820 | 1570 | 1420 | 1260 | 1110 | 960 | 820 | 730 | 600 | 470 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 6 | 1 | 9-3/8 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1970 | 1690 | 1540 | 1360 | 1200 | 1040 | 890 | 790 | 650 | 510 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 6 | 1 | 9-3/8 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2080 | 1790 | 1620 | 1440 | 1270 | 1100 | 940 | 830 | 690 | 540 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 6 | 1 | 9-3/8 | 1420 | 1220 | 1110 | 980 | 870 | 750 | 640 | 570 | 470 | 370 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2130 | 1830 | 1660 | 1470 | 1300 | 1130 | 960 | 850 | 700 | 550 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2580 | 2220 | 2010 | 1780 | 1570 | 1370 | 1160 | 1030 | 850 | 670 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 6 | 1 | 9-3/8 | 1100 | 950 | 860 | 760 | 670 | 580 | 500 | 440 | 360 | 290 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1960 | 1690 | 1530 | 1350 | 1200 | 1040 | 880 | 780 | 650 | 510 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2420 | 2080 | 1890 | 1670 | 1480 | 1280 | 1090 | 970 | 800 | 630 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 6 | 1 | 9-3/8 | 1330 | 1140 | 1040 | 920 | 810 | 700 | 600 | 530 | 440 | 350 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2070 | 1780 | 1610 | 1430 | 1260 | 1100 | 930 | 830 | 680 | 540 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2540 | 2180 | 1980 | 1750 | 1550 | 1350 | 1140 | 1020 | 840 | 660 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 6 | 1 | 9-3/8 | 1400 | 1200 | 1090 | 970 | 850 | 740 | 630 | 560 | 460 | 360 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 2090 | 1800 | 1630 | 1440 | 1270 | 1110 | 940 | 840 | 690 | 540 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 6 | 1 | 9-3/8 | 1030 | 890 | 800 | 710 | 630 | 550 | 460 | 410 | 340 | 270 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1730 | 1490 | 1350 | 1190 | 1060 | 920 | 780 | 690 | 570 | 450 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2160 | 1860 | 1680 | 1490 | 1320 | 1140 | 970 | 860 | 710 | 560 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 6 | 1 | 9-3/8 | 1190 | 1020 | 930 | 820 | 730 | 630 | 540 | 480 | 390 | 310 |
| | | | | | 12 | 2 @ 6 CL | 15-3/8 | 1900 | 1630 | 1480 | 1310 | 1160 | 1010 | 860 | 760 | 630 | 490 |
| | | | | | 18 | 3 @ 6 CL | 21-3/8 | 2330 | 2000 | 1820 | 1610 | 1420 | 1230 | 1050 | 930 | 770 | 610 |

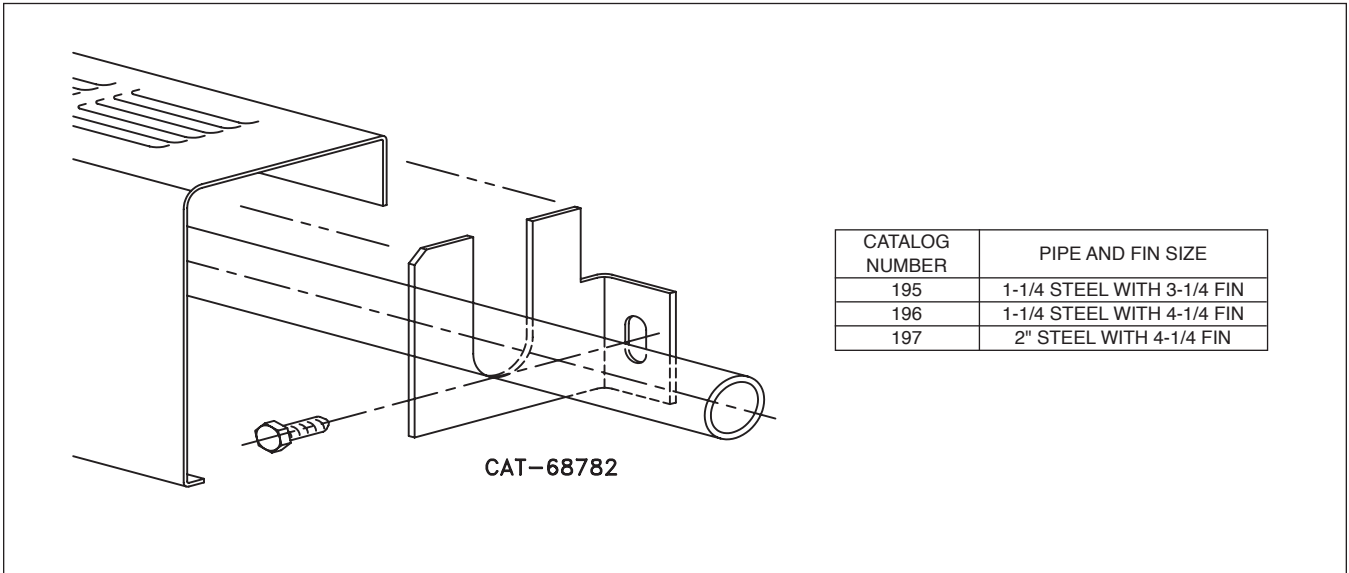
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVC" TOP OUTLET

STYLE LVC ACCESSORIES



PIPE AND COVER SUPPORT BRACKET

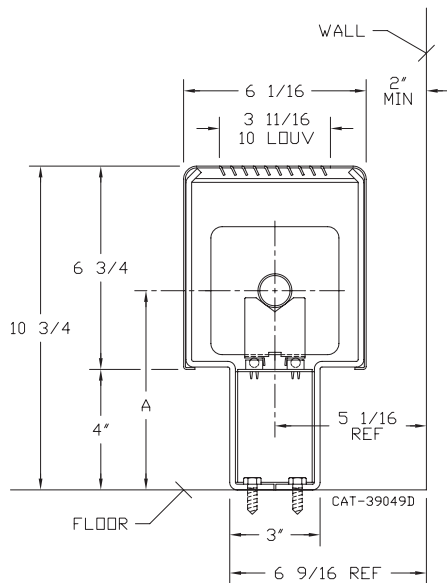


STYLE "LVPM" PEDESTAL MOUNTED



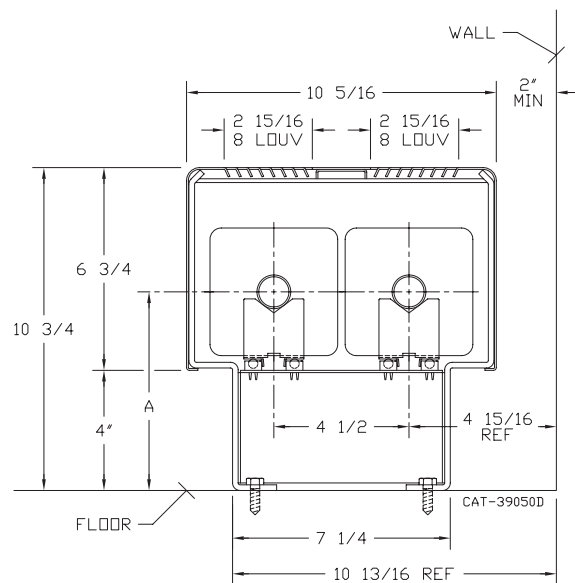
LV4-PM

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| 3/4" COPPER | 3 5/8 x 4 1/4 | 2 | 6 7/16 |
| 3/4" COPPER | 4 1/4 x 4 1/4 | 3A | 6 13/16 |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 6 5/8 |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 6 5/8 |
| 1 1/4" COPPER | 3 5/8 x 4 1/4 | 2 | 6 3/4 |
| 1 1/4" COPPER | 4 1/4 x 4 1/4 | 2 | 6 3/4 |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 6 3/4 |
| 1 1/4" STEEL | 4 1/4 x 4 1/4 | 2 | 6 15/16 |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 6 11/16 |



LV4-PM2

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|---------|
| 3/4" COPPER | 3 5/8 x 4 1/4 | 2 | 6 7/16 |
| 3/4" COPPER | 4 1/4 x 4 1/4 | 3A | 6 13/16 |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 6 5/8 |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 6 5/8 |
| 1 1/4" COPPER | 3 5/8 x 4 1/4 | 2 | 6 3/4 |
| 1 1/4" COPPER | 4 1/4 x 4 1/4 | 2 | 6 3/4 |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 6 3/4 |
| 1 1/4" STEEL | 4 1/4 x 4 1/4 | 2 | 6 15/16 |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 6 11/16 |



STYLE "LVPM" PEDESTAL MOUNTED

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL DEPTH IN INCHES | ROWS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|----------------------|----------------------------|---------------------------|-------------------|---------------------------------------------------|--------------|--------------|-------------|-------------|-------------|-------------|------------|------------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1040 2080 | 890 1790 | 810 1620 | 720 1440 | 630 1270 | 550 1100 | 470 940 | 420 830 | 340 690 | 270 540 |
| 3/4" | VC3/4-434 | 3-5/8" x 4-1/4" | 40 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1250 2490 | 1080 2140 | 980 1940 | 860 1720 | 760 1520 | 660 1320 | 560 1120 | 500 1000 | 410 820 | 330 650 |
| 3/4" | VC3/4-435 | 3-5/8" x 4-1/4" | 50 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1380 2750 | 1190 2370 | 1080 2150 | 950 1900 | 840 1680 | 730 1460 | 620 1240 | 550 1100 | 460 910 | 360 720 |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1080 2170 | 930 1870 | 840 1690 | 750 1500 | 660 1320 | 570 1150 | 490 980 | 430 870 | 360 720 | 280 560 |
| 1" | VC434 | 3-5/8" x 4-1/4" | 40 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1210 2430 | 1040 2090 | 940 1900 | 830 1680 | 740 1480 | 640 1290 | 540 1090 | 480 970 | 400 800 | 310 630 |
| 1" | VC435 | 3-5/8" x 4-1/4" | 50 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1380 2750 | 1190 2370 | 1080 2150 | 950 1900 | 840 1680 | 730 1460 | 620 1240 | 550 1100 | 460 910 | 360 720 |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1130 2250 | 970 1940 | 880 1760 | 780 1550 | 690 1370 | 600 1190 | 510 1010 | 450 900 | 370 740 | 290 590 |
| 1-1/4" | VC1434 | 3-5/8" x 4-1/4" | 40 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1240 2480 | 1070 2130 | 970 1930 | 860 1710 | 760 1510 | 660 1310 | 560 1120 | 500 990 | 410 820 | 320 640 |
| 1-1/4" | VC1435 | 3-5/8" x 4-1/4" | 50 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1380 2750 | 1190 2370 | 1080 2150 | 950 1900 | 840 1680 | 730 1460 | 620 1240 | 550 1100 | 460 910 | 360 720 |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1150 2300 | 990 1980 | 900 1790 | 790 1590 | 700 1400 | 610 1220 | 520 1040 | 460 920 | 380 760 | 300 600 |
| 3/4" | VC3/4-44 | 4-1/4" SQ. | 40 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1380 2750 | 1190 2370 | 1080 2150 | 950 1900 | 840 1680 | 730 1460 | 620 1240 | 550 1100 | 460 910 | 360 720 |
| 3/4" | VC3/4-45 | 4-1/4" SQ. | 50 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1420 2840 | 1220 2440 | 1110 2220 | 980 1960 | 870 1730 | 750 1510 | 640 1280 | 570 1140 | 470 940 | 370 740 |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1150 2300 | 990 1980 | 900 1790 | 790 1590 | 700 1400 | 610 1220 | 520 1040 | 460 920 | 380 760 | 300 600 |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1280 2560 | 1100 2200 | 1000 2000 | 880 1770 | 780 1560 | 680 1360 | 580 1150 | 510 1020 | 420 840 | 330 670 |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1440 2890 | 1240 2490 | 1120 2250 | 990 1990 | 880 1760 | 760 1530 | 650 1300 | 580 1160 | 480 950 | 370 750 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1200 2410 | 1030 2070 | 940 1880 | 830 1660 | 730 1470 | 640 1280 | 540 1080 | 480 960 | 400 800 | 310 630 |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1430 2860 | 1230 2460 | 1120 2230 | 990 1970 | 870 1740 | 760 1520 | 640 1290 | 570 1140 | 470 940 | 370 740 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1470 2940 | 1260 2530 | 1150 2290 | 1010 2030 | 900 1790 | 780 1560 | 660 1320 | 590 1180 | 490 970 | 380 760 |

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | ENCL DEPTH IN INCHES | ROWS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|----------------------|----------------------------|---------------------------|-------------------|---------------------------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|------------|------------|
| | | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1140 2270 | 980 1950 | 890 1770 | 790 1570 | 700 1380 | 600 1200 | 510 1020 | 460 910 | 380 750 | 300 590 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1280 2560 | 1100 2200 | 1000 2000 | 880 1770 | 780 1560 | 680 1360 | 580 1150 | 510 1020 | 420 840 | 330 670 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1360 2720 | 1170 2340 | 1060 2120 | 940 1880 | 830 1660 | 720 1440 | 610 1220 | 540 1090 | 450 900 | 350 710 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1050 2100 | 900 1810 | 820 1640 | 720 1450 | 640 1280 | 560 1110 | 470 950 | 420 840 | 350 690 | 270 550 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1270 2550 | 1090 2190 | 990 1990 | 880 1760 | 770 1560 | 670 1350 | 570 1150 | 510 1020 | 420 840 | 330 660 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1330 2670 | 1140 2300 | 1040 2080 | 920 1840 | 810 1630 | 700 1420 | 600 1200 | 530 1070 | 440 880 | 350 690 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 980 1960 | 840 1690 | 760 1530 | 680 1350 | 600 1200 | 520 1040 | 440 880 | 390 780 | 320 650 | 250 510 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 6 3/4 10 5/16 | 1 2 - 4 1/2 | 10 3/4 10 3/4 | 1140 2270 | 980 1950 | 890 1770 | 790 1570 | 700 1380 | 600 1200 | 510 1020 | 460 910 | 380 750 | 300 590 |

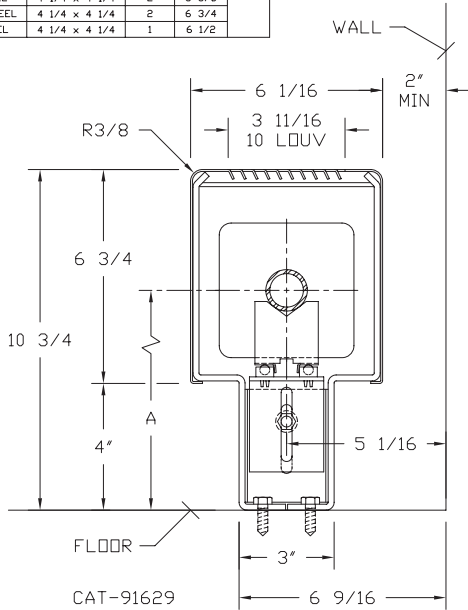
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) Ratings based on typical window wall installation.
 4) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVPM" PEDESTAL MOUNTED

OPTIONAL ADJUSTABLE PEDESTAL BRACKET ASSEMBLIES FOR 2-PIPE STEAM

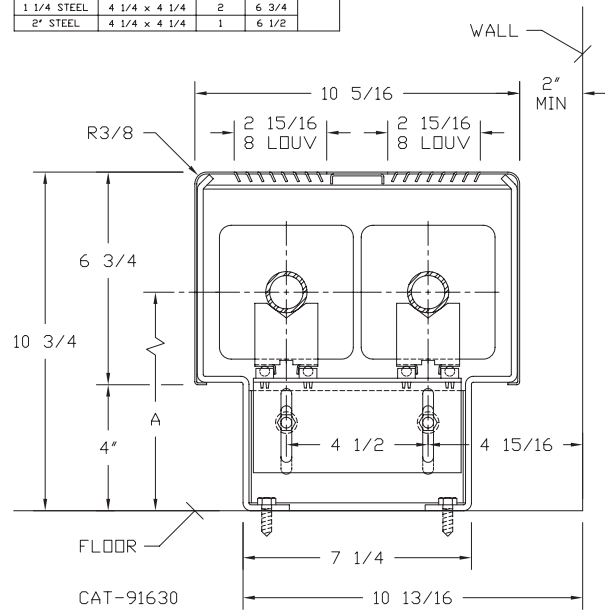
LV4-PM

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A MIN | A MAX |
|-------------------|-------------------------|---------------|---------|-------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 6 1/2 | 8" |
| 3/4 COPPER | 4 1/4 x 4 1/4 | 3A | 6 11/16 | |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 6 1/2 | |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 6 1/2 | |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 6 5/8 | |
| 1 1/4 COPPER | 4 1/4 x 4 1/4 | 2 | 6 5/8 | |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 6 5/8 | |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 6 3/4 | |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 6 1/2 | |



LV4-PM2

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A MIN | A MAX |
|-------------------|-------------------------|---------------|---------|-------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 6 1/2 | 8" |
| 3/4 COPPER | 4 1/4 x 4 1/4 | 3A | 6 11/16 | |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 6 1/2 | |
| 1" COPPER | 4 1/4 x 4 1/4 | 2 | 6 1/2 | |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 6 5/8 | |
| 1 1/4 COPPER | 4 1/4 x 4 1/4 | 2 | 6 5/8 | |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 6 5/8 | |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 6 3/4 | |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 6 1/2 | |



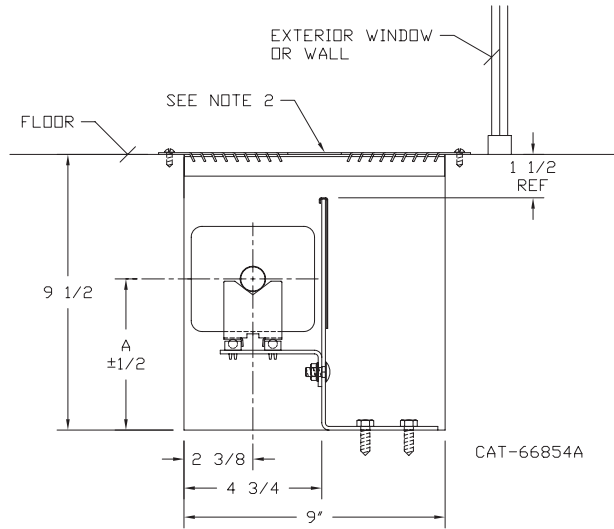
STYLE "TR" TROUGH

TR

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|----------|
| 3/4" COPPER | 3 5/8" x 4 1/4" | 2 | 5 3/16" |
| 3/4" COPPER | 4 1/4" x 4 1/4" | 3A | 5 9/16" |
| 1" COPPER | 3 5/8" x 4 1/4" | 2 | 5 3/8" |
| 1" COPPER | 4 1/4" x 4 1/4" | 2 | 5 3/8" |
| 1 1/4" COPPER | 3 5/8" x 4 1/4" | 2 | 5 1/2" |
| 1 1/4" COPPER | 4 1/4" x 4 1/4" | 2 | 5 1/2" |
| 1" STEEL | 4 1/4" x 4 1/4" | 2 | 5 1/2" |
| 1 1/4" STEEL | 4 1/4" x 4 1/4" | 2 | 5 11/16" |
| 2" STEEL | 4 1/4" x 4 1/4" | 1 | 5 7/16" |

NOTES:

- Trough Liner Optional (Not Shown).
- Floor Grille is by Other or Consult Factory for Availability.



COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TROUGH DEPTH AND HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VC3/4-433 | 3-5/8" x 4-1/4" | 32 | .020 | 9 1/2 x 9 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 |
| | VC3/4-434 | | 40 | | 9 1/2 x 9 | 1340 | 1150 | 1050 | 920 | 820 | 710 | 600 | 540 | 440 | 350 |
| | VC3/4-435 | | 50 | | 9 1/2 x 9 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| 1" | VC433 | 3-5/8" x 4-1/4" | 32 | .020 | 9 1/2 x 9 | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| | VC434 | | 40 | | 9 1/2 x 9 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| | VC435 | | 50 | | 9 1/2 x 9 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| 1-1/4" | VC1433 | 3-5/8" x 4-1/4" | 32 | .020 | 9 1/2 x 9 | 1210 | 1040 | 940 | 830 | 740 | 640 | 540 | 480 | 400 | 310 |
| | VC1434 | | 40 | | 9 1/2 x 9 | 1330 | 1140 | 1040 | 920 | 810 | 700 | 600 | 530 | 440 | 350 |
| | VC1435 | | 50 | | 9 1/2 x 9 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| 3/4" | VC3/4-43 | 4-1/4" SQ. | 32 | .020 | 9 1/2 x 9 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 |
| | VC3/4-44 | | 40 | | 9 1/2 x 9 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| | VC3/4-45 | | 50 | | 9 1/2 x 9 | 1530 | 1320 | 1190 | 1060 | 930 | 810 | 690 | 610 | 500 | 400 |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 9 1/2 x 9 | 1240 | 1070 | 970 | 860 | 760 | 660 | 560 | 500 | 410 | 320 |
| | VC44 | | 40 | | 9 1/2 x 9 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | VC45 | | 50 | | 9 1/2 x 9 | 1550 | 1330 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 9 1/2 x 9 | 1300 | 1120 | 1010 | 900 | 790 | 690 | 590 | 520 | 430 | 340 |
| | VC144 | | 40 | | 9 1/2 x 9 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 |
| | VC145 | | 50 | | 9 1/2 x 9 | 1580 | 1360 | 1230 | 1090 | 960 | 840 | 710 | 630 | 520 | 410 |

- Notes: 1. Ratings are based on 24 sq. in. of free area per linear foot of air inlet and outlet each.
2. For systems using steam, consult factory.

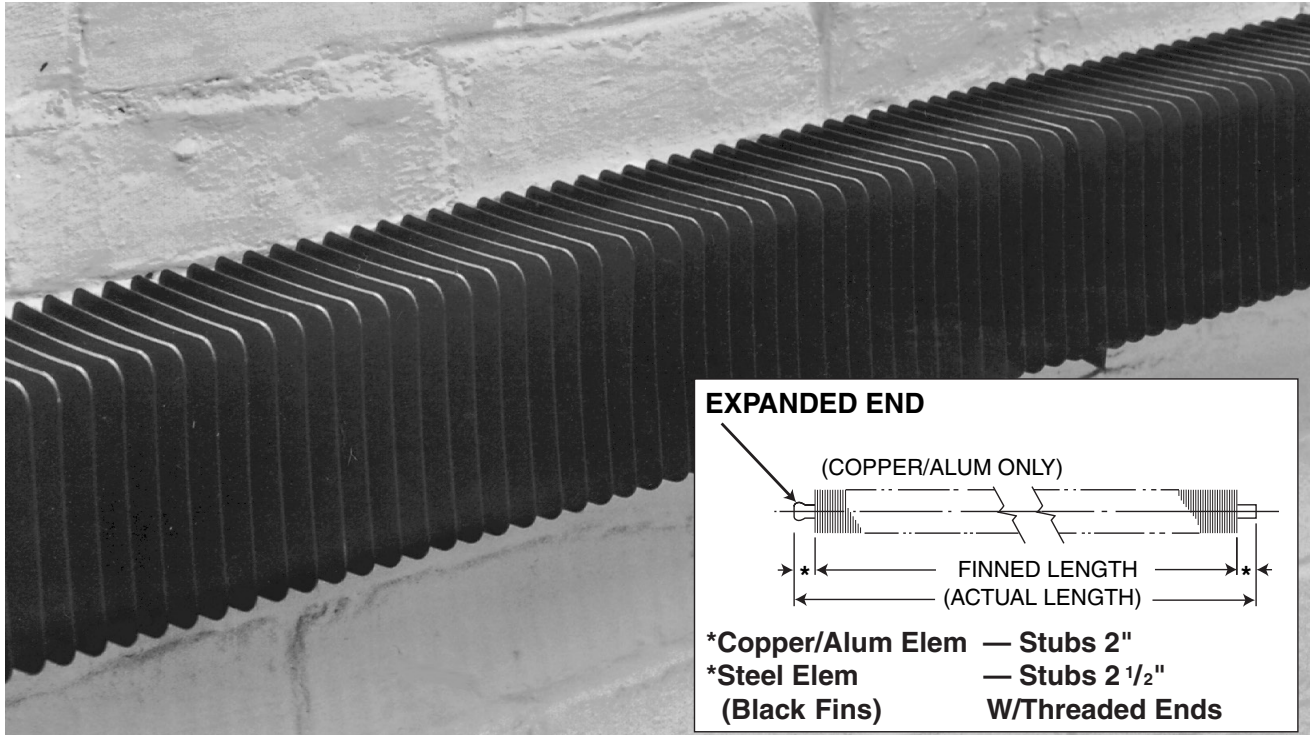
STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TROUGH DEPTH AND HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 9 1/2 x 9 | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |
| | VS44 | | 40 | | 9 1/2 x 9 | 1380 | 1190 | 1080 | 950 | 840 | 730 | 620 | 550 | 460 | 360 |
| | VS45 | | 50 | | 9 1/2 x 9 | 1460 | 1260 | 1140 | 1010 | 890 | 770 | 660 | 580 | 480 | 380 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 9 1/2 x 9 | 1130 | 970 | 880 | 780 | 690 | 600 | 510 | 450 | 370 | 290 |
| | VS144 | | 40 | | 9 1/2 x 9 | 1370 | 1180 | 1070 | 950 | 840 | 730 | 620 | 550 | 450 | 360 |
| | VS145 | | 50 | | 9 1/2 x 9 | 1430 | 1230 | 1120 | 990 | 870 | 760 | 640 | 570 | 470 | 370 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 9 1/2 x 9 | 1050 | 900 | 820 | 720 | 640 | 560 | 470 | 420 | 350 | 270 |
| | VS243 | | 32 | | 9 1/2 x 9 | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |

- Notes: 1. Ratings are based on 24 sq. in. of free area per linear foot of air inlet and outlet each.
2. For systems using steam, consult factory.

BARE ELEMENTS



ELEMENT ORDERING INFORMATION

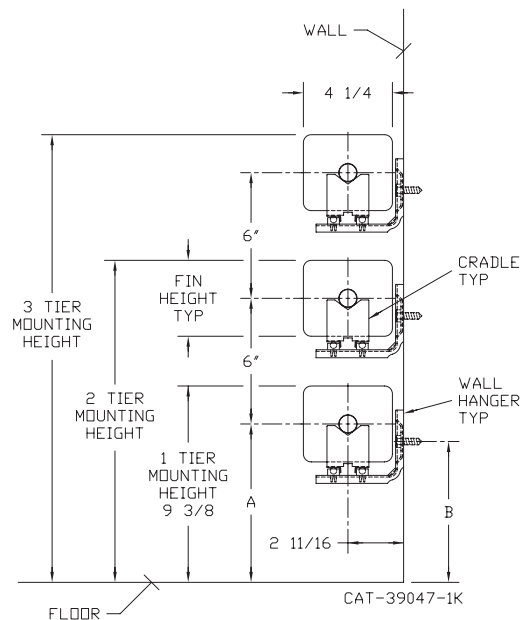
When ordering element specify fin thickness: steel = .024, .032; copper = .020, .011 as shown on Selection Pages.

For standard and special lengths refer to price sheets.

The ratings shown in this catalog are in BTU per hour per linear foot of *active* fin length. Active fin length is catalog ordering length less 4" on copper/aluminum element and less 5" on steel elements. The water ratings shown are based on a water velocity flow rate of three feet per second as determined by AHRI and applying factors to the steam rating.

Bare Element "4" Offset

| TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A | B |
|-----------------|-------------------------|---------------|--------|---------|
| 3/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 9/16 | 6 3/4 |
| | 4 1/4 x 4 1/4 | 3A | 7 1/4 | 6' |
| 1" COPPER | 3 5/8 x 4 1/4 | 2 | 7 9/16 | 6 9/16 |
| | 4 1/4 x 4 1/4 | 2 | 7 1/4 | 6 1/4 |
| 1 1/4 COPPER | 3 5/8 x 4 1/4 | 2 | 7 9/16 | 6 7/16 |
| | 4 1/4 x 4 1/4 | | 7 1/4 | 6 1/8 |
| 1" STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/4 | 6 1/8 |
| 1 1/4 STEEL | 4 1/4 x 4 1/4 | 2 | 7 1/4 | 5 15/16 |
| 2" STEEL | 4 1/4 x 4 1/4 | 1 | 7 1/4 | 6 3/16 |



BARE ELEMENT STYLE "4"

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|----------------------|---------------------------------------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|--------------------|-------------------|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VC3/4-433 | 3-5/8" X 4-1/4" | 32 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1210 2130 2880 | 1040 1830 2480 | 940 1660 2250 | 830 1470 1990 | 740 1300 1760 | 640 1130 1530 | 540 960 1300 | 480 850 1150 | 400 700 950 | 310 550 750 |
| 3/4" | VC3/4-434 | 3-5/8" X 4-1/4" | 40 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1450 2490 3300 | 1250 2140 2840 | 1130 1940 2570 | 1000 1720 2280 | 880 1520 2010 | 770 1320 1750 | 650 1120 1490 | 580 1000 1320 | 480 820 1090 | 380 650 860 |
| 3/4" | VC3/4-435 | 3-5/8" X 4-1/4" | 50 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1600 2650 3450 | 1380 2280 2970 | 1250 2070 2690 | 1100 1830 2380 | 980 1620 2100 | 850 1400 1830 | 720 1190 1550 | 640 1060 1380 | 530 870 1140 | 420 690 900 |
| 1" | VC433 | 3-5/8" X 4-1/4" | 32 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1260 2220 3000 | 1080 1910 2580 | 980 1730 2340 | 870 1530 2070 | 770 1350 1830 | 670 1180 1590 | 570 1000 1350 | 500 890 1200 | 420 730 990 | 330 580 780 |
| 1" | VC434 | 3-5/8" X 4-1/4" | 40 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1410 2420 3200 | 1210 2080 2750 | 1100 1890 2500 | 970 1670 2210 | 860 1480 1950 | 750 1280 1700 | 630 1090 1440 | 560 970 1280 | 470 800 1060 | 370 630 830 |
| 1" | VC435 | 3-5/8" X 4-1/4" | 50 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1600 2640 3450 | 1380 2270 2970 | 1250 2060 2690 | 1100 1820 2380 | 980 1610 2100 | 850 1400 1830 | 720 1190 1550 | 640 1060 1380 | 530 870 1140 | 420 690 900 |
| 1-1/4" | VC1433 | 3-5/8" X 4-1/4" | 32 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1310 2310 3130 | 1130 1990 2690 | 1020 1800 2440 | 900 1590 2160 | 800 1410 1910 | 690 1220 1660 | 590 1040 1410 | 520 920 1250 | 430 760 1030 | 340 600 810 |
| 1-1/4" | VC1434 | 3-5/8" X 4-1/4" | 40 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1440 2470 3260 | 1240 2120 2800 | 1120 1930 2540 | 990 1700 2250 | 880 1510 1990 | 760 1310 1730 | 650 1110 1470 | 580 990 1300 | 480 820 1080 | 370 640 850 |
| 1-1/4" | VC1435 | 3-5/8" X 4-1/4" | 50 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1600 2650 3460 | 1380 2280 2980 | 1250 2070 2700 | 1100 1830 2390 | 980 1620 2110 | 850 1400 1830 | 720 1190 1560 | 640 1060 1380 | 530 870 1140 | 420 690 900 |
| 3/4" | VC3/4 43 | 4-1/4" SQ. | 32 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1340 2340 3200 | 1150 2010 2750 | 1050 1830 2500 | 920 1610 2210 | 820 1430 1950 | 710 1240 1700 | 600 1050 1440 | 540 940 1280 | 440 770 1060 | 350 610 830 |
| 3/4" | VC3/4 44 | 4-1/4" SQ. | 40 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1600 2540 3330 | 1380 2180 2860 | 1250 1980 2600 | 1100 1750 2300 | 980 1550 2030 | 850 1350 1760 | 720 1140 1500 | 640 1020 1330 | 530 840 1100 | 420 660 870 |
| 3/4" | VC3/4 45 | 4-1/4" SQ. | 50 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1650 2620 3430 | 1420 2250 2950 | 1290 2040 2680 | 1140 1810 2370 | 1010 1600 2090 | 870 1390 1820 | 740 1180 1540 | 660 1050 1370 | 540 860 1130 | 430 680 890 |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1340 2370 3230 | 1150 2040 2780 | 1050 1850 2520 | 920 1640 2230 | 820 1450 1970 | 710 1260 1710 | 600 1070 1450 | 540 950 1290 | 440 780 1070 | 350 620 840 |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1490 2490 3320 | 1280 2140 2860 | 1160 1940 2590 | 1030 1720 2290 | 910 1520 2030 | 790 1320 1760 | 670 1120 1490 | 600 1000 1330 | 490 820 1100 | 390 650 860 |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1680 2650 3460 | 1440 2280 2980 | 1310 2070 2700 | 1160 1830 2390 | 1020 1620 2110 | 890 1400 1830 | 760 1190 1560 | 670 1060 1380 | 550 870 1140 | 440 690 900 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1400 2470 3360 | 1200 2120 2890 | 1090 1930 2620 | 970 1700 2320 | 850 1510 2050 | 740 1310 1780 | 630 1110 1510 | 560 990 1340 | 460 820 1110 | 360 640 870 |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1660 2680 3490 | 1430 2300 3000 | 1290 2090 2720 | 1150 1850 2410 | 1010 1630 2130 | 880 1420 1850 | 750 1210 1570 | 660 1070 1400 | 550 880 1150 | 430 700 910 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 1 2-6 CL 3-6 CL | 9-3/8 15-3/8 21-3/8 | 1710 2460 3200 | 1470 2120 2750 | 1330 1920 2500 | 1180 1700 2210 | 1040 1500 1950 | 910 1300 1700 | 770 1110 1440 | 680 980 1280 | 560 810 1060 | 440 640 830 |

Note: Copper tube furnished flared one end standard.

BARE ELEMENT STYLE "4"

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HRLIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

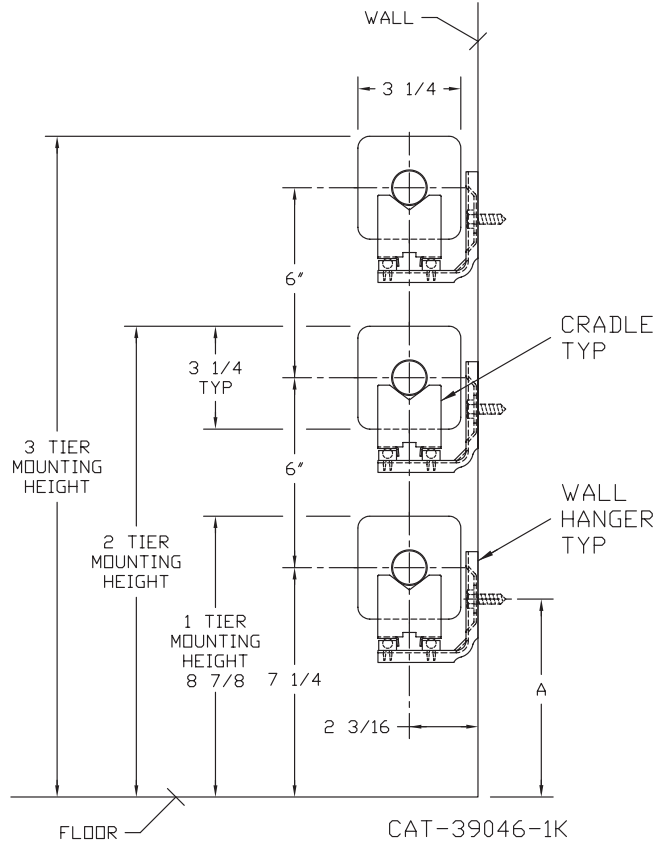
| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | 1 | 9-3/8 | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 2-6 CL | 15-3/8 | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 |
| | | | | | 3-6 CL | 21-3/8 | 2320 | 2000 | 1810 | 1600 | 1420 | 1230 | 1040 | 930 | 770 | 600 |
| | | | | | 1 | 9-3/8 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 2-6 CL | 15-3/8 | 2450 | 2110 | 1910 | 1690 | 1490 | 1300 | 1100 | 980 | 810 | 640 |
| | | | | | 3-6 CL | 21-3/8 | 3180 | 2730 | 2480 | 2190 | 1940 | 1690 | 1430 | 1270 | 1050 | 830 |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 1 | 9-3/8 | 1580 | 1360 | 1230 | 1090 | 960 | 840 | 710 | 630 | 520 | 410 |
| | | | | | 2-6 CL | 15-3/8 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 3-6 CL | 21-3/8 | 3230 | 2780 | 2520 | 2230 | 1970 | 1710 | 1450 | 1290 | 1070 | 840 |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 1 | 9-3/8 | 1220 | 1050 | 950 | 840 | 740 | 650 | 550 | 490 | 400 | 320 |
| | | | | | 2-6 CL | 15-3/8 | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 |
| | | | | | 3-6 CL | 21-3/8 | 3030 | 2610 | 2360 | 2090 | 1850 | 1610 | 1360 | 1210 | 1000 | 790 |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 1 | 9-3/8 | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 |
| | | | | | 2-6 CL | 15-3/8 | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 |
| | | | | | 3-6 CL | 21-3/8 | 3170 | 2730 | 2470 | 2190 | 1930 | 1680 | 1430 | 1270 | 1050 | 820 |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 1 | 9-3/8 | 1550 | 1330 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 |
| | | | | | 2-6 CL | 15-3/8 | 2460 | 2120 | 1920 | 1700 | 1500 | 1300 | 1110 | 980 | 810 | 640 |
| | | | | | 3-6 CL | 21-3/8 | 3200 | 2750 | 2500 | 2210 | 1950 | 1700 | 1440 | 1280 | 1060 | 830 |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 1 | 9-3/8 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 |
| | | | | | 2-6 CL | 15-3/8 | 2030 | 1750 | 1580 | 1400 | 1240 | 1080 | 910 | 810 | 670 | 530 |
| | | | | | 3-6 CL | 21-3/8 | 2700 | 2320 | 2110 | 1860 | 1650 | 1430 | 1220 | 1080 | 890 | 700 |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 1 | 9-3/8 | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 |
| | | | | | 2-6 CL | 15-3/8 | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 |
| | | | | | 3-6 CL | 21-3/8 | 2910 | 2500 | 2270 | 2010 | 1780 | 1540 | 1310 | 1160 | 960 | 760 |
| 2" | VS244 | 4-1/4" SQ. | 40 | .032 | 1 | 9-3/8 | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 |
| | | | | | 2-6 CL | 15-3/8 | 2360 | 2030 | 1840 | 1630 | 1440 | 1250 | 1060 | 940 | 780 | 610 |
| | | | | | 3-6 CL | 21-3/8 | 3040 | 2610 | 2370 | 2100 | 1850 | 1610 | 1370 | 1220 | 1000 | 790 |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

BARE ELEMENT STYLE "3"

Bare Element "3" Offset

| ELEMENT TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A |
|-------------------|-------------------------|---------------|--------|
| 3/4" COPPER | 3 1/4" x 3 1/4" | 2 | 6 3/8" |
| 1" COPPER | 3 1/4" x 3 1/4" | 2 | 6 1/4" |
| 1 1/4" COPPER | 3 1/4" x 3 1/4" | 1 | 6 3/4" |
| 1" STEEL | 3 1/4" x 3 1/4" | 2 | 6 1/8" |
| 1 1/4" STEEL | 3 1/4" x 3 1/4" | 1 | 6 5/8" |



BARE ELEMENT STYLE "3"

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|----------------------|---------------------------------------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|-------------------|-------------------|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VC3/4-33 | 3-1/4" SQ. | 32 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 970 1720 2410 | 830 1480 2070 | 760 1340 1880 | 670 1190 1660 | 590 1050 1470 | 510 910 1280 | 440 770 1080 | 390 690 960 | 320 570 800 | 250 450 630 |
| 3/4" | VC3/4-34 | 3-1/4" SQ. | 40 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1140 1880 2570 | 980 1620 2210 | 890 1470 2000 | 790 1300 1770 | 700 1150 1570 | 600 1000 1360 | 510 850 1160 | 460 750 1030 | 380 620 850 | 300 490 670 |
| 3/4" | VC3/4-35 | 3-1/4" SQ. | 50 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1260 2010 2690 | 1080 1730 2310 | 980 1570 2100 | 870 1390 1860 | 770 1230 1640 | 670 1070 1430 | 570 900 1210 | 500 800 1080 | 420 660 890 | 330 520 700 |
| 1" | VC33 | 3-1/4" SQ. | 32 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 970 1720 2370 | 830 1480 2040 | 760 1340 1850 | 670 1190 1640 | 590 1050 1450 | 510 910 1260 | 440 770 1070 | 390 690 950 | 320 570 780 | 250 450 620 |
| 1" | VC34 | 3-1/4" SQ. | 40 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1080 1850 2490 | 930 1590 2140 | 840 1440 1940 | 750 1280 1720 | 660 1130 1520 | 570 980 1320 | 490 830 1120 | 430 740 1000 | 360 610 820 | 280 480 650 |
| 1" | VC35 | 3-1/4" SQ. | 50 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1210 1940 2600 | 1040 1670 2240 | 940 1510 2030 | 830 1340 1790 | 740 1180 1590 | 640 1030 1380 | 540 870 1170 | 480 780 1040 | 400 640 860 | 310 500 680 |
| 1-1/4" | VC133 | 3-1/4" SQ. | 32 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 970 1680 2360 | 830 1440 2030 | 760 1310 1840 | 670 1160 1630 | 590 1020 1440 | 510 890 1250 | 440 760 1060 | 390 670 940 | 320 550 780 | 250 440 610 |
| 1-1/4" | VC134 | 3-1/4" SQ. | 40 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1060 1840 2450 | 910 1580 2110 | 830 1440 1910 | 730 1270 1690 | 650 1120 1490 | 560 980 1300 | 480 830 1100 | 420 740 980 | 350 610 810 | 280 480 640 |
| 1-1/4" | VC135 | 3-1/4" SQ. | 50 | .020 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1170 1900 2550 | 1010 1630 2190 | 910 1480 1960 | 810 1310 1760 | 710 1160 1560 | 620 1010 1350 | 530 860 1150 | 470 760 1020 | 390 630 840 | 300 490 660 |

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

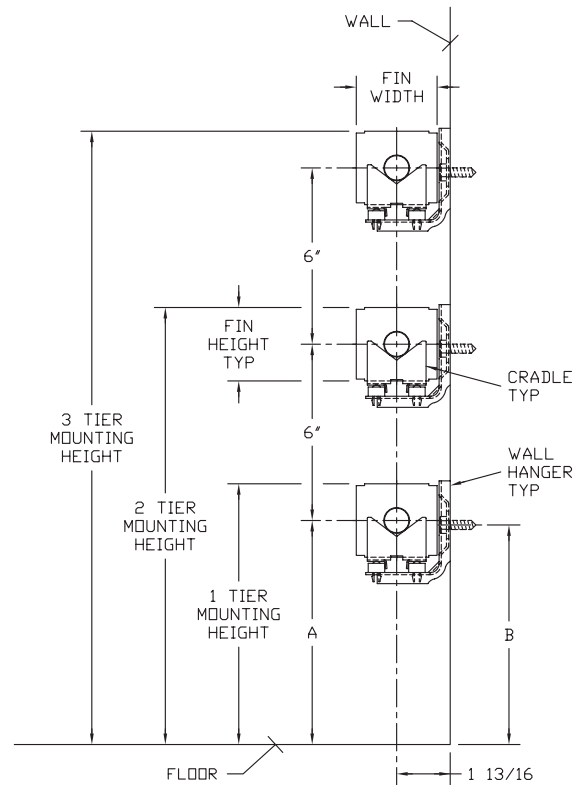
| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|----------------------|---------------------------------------------------|---------------------|---------------------|---------------------|--------------------|--------------------|-------------------|-------------------|-------------------|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VS33 | 3-1/4" SQ. | 32 | .032 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 910 1580 2200 | 780 1360 1890 | 710 1230 1720 | 630 1090 1520 | 560 960 1340 | 480 710 1170 | 410 630 990 | 360 520 880 | 300 410 730 | 240 410 570 |
| 1" | VS34 | 3-1/4" SQ. | 40 | .032 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 990 1700 2350 | 850 1460 2020 | 770 1330 1830 | 680 1170 1620 | 600 1040 1430 | 520 900 1250 | 450 770 1060 | 400 680 940 | 330 560 780 | 260 440 610 |
| 1" | VS35 | 3-1/4" SQ. | 50 | .032 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1060 1790 2450 | 910 1540 2110 | 830 1400 1910 | 730 1240 1690 | 650 1090 1490 | 560 950 1300 | 480 810 1100 | 420 720 980 | 350 590 810 | 280 470 640 |
| 1-1/4" | VS133 | 3-1/4" SQ. | 32 | .032 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 900 1620 2240 | 770 1390 1930 | 700 1260 1750 | 620 1120 1550 | 550 990 1370 | 480 860 1190 | 410 730 1010 | 360 650 900 | 300 530 740 | 230 420 580 |
| 1-1/4" | VS134 | 3-1/4" SQ. | 40 | .032 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1000 1700 2250 | 860 1460 1940 | 780 1330 1760 | 690 1170 1550 | 610 1040 1370 | 530 900 1190 | 450 770 1010 | 400 680 900 | 330 560 740 | 260 440 590 |
| 1-1/4" | VS135 | 3-1/4" SQ. | 50 | .032 | 1 2-6 CL 3-6 CL | 8-7/8 14-7/8 20-7/8 | 1030 1750 2280 | 890 1510 1960 | 800 1370 1780 | 710 1210 1570 | 630 1070 1390 | 550 930 1210 | 460 790 1030 | 410 700 910 | 340 580 750 | 270 460 590 |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

BARE ELEMENT STYLE "2"

Bare Element "2" Offset

| TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A | B | 1 TIER MOUNTING HEIGHT |
|--------------|-------------------------|---------------|-------|---------|------------------------|
| 3/4 COPPER | 2 1/2 x 2 1/4 | 1 | 7 5/8 | 7 1/2 | 8 7/8 |
| | 2 1/2 x 2 3/4 | 1 | | | |
| | 3 3/4 x 2 3/4 | 2 | | 6 3/16 | |
| 1" COPPER | 2 1/2 x 2 3/4 | 1 | 7 5/8 | 7 5/16 | 10" |
| | 3 3/4 x 2 3/4 | 2 | 7" | 6" | |
| | 5" x 2 3/4 | 3A | 7 1/2 | 6 1/8 | |
| 1 1/4 COPPER | 3 3/4 x 2 3/4 | 2 | 7" | 5 7/8 | 8 7/8 |
| | 5" x 2 3/4 | 3A | 7 1/2 | 5 15/16 | 10" |
| 1" STEEL | 3 3/4 x 2 3/4 | 2 | 7" | 5 7/8 | 8 7/8 |
| | 5" x 2 3/4 | 3A | 7 1/2 | 6" | 10" |
| 1 1/4 STEEL | 3 3/4 x 2 3/4 | 2 | 7" | 5 11/16 | 8 7/8 |
| | 5" x 2 3/4 | 3A | 7 1/2 | 5 3/4 | 10" |

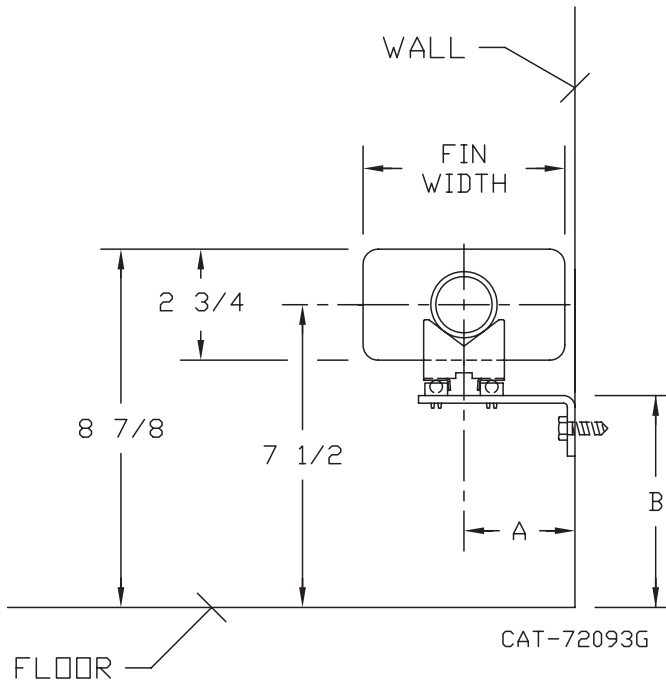


CAT-69647-1B

BARE ELEMENT STYLE "SP"

Bare Element "SP" Offset

| TUBE SIZE | FIN SIZE HEIGHT x WIDTH | CRADLE NUMBER | A | B |
|--------------|-------------------------|---------------|-------|--------|
| 3/4 COPPER | 2 3/4 x 3 3/4 | 2 | 2 1/8 | 5 1/16 |
| 1" COPPER | 2 3/4 x 3 3/4 | 1 | 2 1/8 | 5 9/16 |
| | 2 3/4 x 5" | 1 | 2 3/4 | |
| 1 1/4 COPPER | 2 3/4 x 3 3/4 | 1 | 2 1/8 | 5 7/16 |
| | 2 3/4 x 5" | 1 | 2 3/4 | |
| 1" STEEL | 2 3/4 x 3 3/4 | 1 | 2 1/8 | 5 7/16 |
| | 2 3/4 x 5" | 1 | 2 3/4 | |
| 1 1/4 STEEL | 2 3/4 x 5" | 1 | 2 3/4 | 5 1/4 |



CAT-72093G

BARE ELEMENT STYLE "2"

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|-----|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 3/4" | VR01 | 2-1/2" x 2-1/4" | 50 | .011 | 1 | 8-7/8 | 800 | 690 | 620 | 550 | 490 | 420 | 360 | 320 | 260 | 210 | |
| | | | | | 2-6CL | 14-7/8 | 1370 | 1180 | 1070 | 950 | 840 | 730 | 620 | 550 | 450 | 360 | |
| | | | | | 3-6CL | 20-7/8 | 1870 | 1610 | 1460 | 1290 | 1140 | 990 | 840 | 750 | 620 | 490 | |
| 3/4" | VR02 | 2-1/2" x 2-3/4" | 60 | .010 | 1 | 8-7/8 | 950 | 820 | 740 | 660 | 580 | 500 | 430 | 380 | 310 | 250 | |
| | | | | | 2-6CL | 14-7/8 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 | |
| | | | | | 3-6CL | 20-7/8 | 2240 | 1930 | 1750 | 1550 | 1370 | 1190 | 1010 | 900 | 740 | 580 | |
| 1" | VR03 | 2-1/2" x 2-3/4" | 55 | .011 | 1 | 8-7/8 | 930 | 800 | 730 | 640 | 570 | 490 | 420 | 370 | 310 | 240 | |
| | | | | | 2-6CL | 14-7/8 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 | |
| | | | | | 3-6CL | 20-7/8 | 2210 | 1900 | 1720 | 1520 | 1350 | 1170 | 990 | 880 | 730 | 570 | |
| 3/4" | VR04 | 3-3/4" x 2-3/4" | 50 | .014 | 1 | 8-7/8 | 1130 | 970 | 880 | 780 | 690 | 600 | 510 | 450 | 370 | 290 | |
| | | | | | 2-6CL | 14-7/8 | 1930 | 1660 | 1510 | 1330 | 1180 | 1020 | 870 | 770 | 640 | 500 | |
| | | | | | 3-6CL | 20-7/8 | 2650 | 2280 | 2070 | 1830 | 1620 | 1400 | 1190 | 1060 | 870 | 690 | |
| 1" | VR05 | 3-3/4" x 2-3/4" | 50 | .014 | 1 | 8-7/8 | 1120 | 960 | 870 | 770 | 680 | 590 | 500 | 450 | 370 | 290 | |
| | | | | | 2-6CL | 14-7/8 | 1910 | 1640 | 1490 | 1320 | 1170 | 1010 | 860 | 760 | 630 | 500 | |
| | | | | | 3-6CL | 20-7/8 | 2630 | 2260 | 2050 | 1810 | 1600 | 1390 | 1180 | 1050 | 870 | 680 | |
| 1" | VR07 | 5" x 2-3/4" | 50 | .020 | 1 | 10 | 1260 | 1080 | 980 | 870 | 770 | 670 | 570 | 500 | 420 | 330 | |
| | | | | | 2-6CL | 16 | 2100 | 1810 | 1640 | 1450 | 1280 | 1110 | 950 | 840 | 690 | 550 | |
| | | | | | 3-6CL | 22 | 2870 | 2470 | 2240 | 1980 | 1750 | 1520 | 1290 | 1150 | 950 | 750 | |
| 1-1/4" | VR08 | 3-3/4" x 2-3/4" | 50 | .020 | 1 | 8-7/8 | 1070 | 920 | 830 | 740 | 650 | 570 | 480 | 430 | 350 | 280 | |
| | | | | | 2-6CL | 14-7/8 | 1830 | 1570 | 1430 | 1260 | 1120 | 970 | 820 | 730 | 600 | 480 | |
| | | | | | 3-6CL | 20-7/8 | 2560 | 2200 | 2000 | 1770 | 1560 | 1360 | 1150 | 1020 | 840 | 670 | |
| 1-1/4" | VR10 | 5" x 2-3/4" | 50 | .020 | 1 | 10 | 1230 | 1060 | 960 | 850 | 750 | 650 | 550 | 490 | 410 | 320 | |
| | | | | | 2-6CL | 16 | 2070 | 1780 | 1610 | 1430 | 1260 | 1100 | 930 | 830 | 680 | 540 | |
| | | | | | 3-6CL | 22 | 2850 | 2450 | 2220 | 1970 | 1740 | 1510 | 1280 | 1140 | 940 | 740 | |

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|-----|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° | |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | |
| | | | | | | | | 1.00 | 0.86 | 0.78 | 0.69 | 0.61 | 0.53 | 0.45 | .40 | .33 | .26 |
| 1" | VR11 | 3-3/4" x 2-3/4" | 40 | .024 | 1 | 8-7/8 | 880 | 760 | 690 | 610 | 540 | 470 | 400 | 350 | 290 | 230 | |
| | | | | | 2-6CL | 14-7/8 | 1540 | 1320 | 1200 | 1060 | 940 | 820 | 690 | 620 | 510 | 400 | |
| | | | | | 3-6CL | 20-7/8 | 2150 | 1850 | 1680 | 1480 | 1310 | 1140 | 970 | 860 | 710 | 560 | |
| 1" | VR15 | 5" x 2-3/4" | 50 | .024 | 1 | 10 | 940 | 810 | 730 | 650 | 570 | 500 | 420 | 380 | 310 | 240 | |
| | | | | | 2-6CL | 16 | 1630 | 1400 | 1270 | 1120 | 990 | 860 | 730 | 650 | 540 | 420 | |
| | | | | | 3-6CL | 22 | 2260 | 1940 | 1760 | 1560 | 1380 | 1200 | 1020 | 900 | 750 | 590 | |
| 1-1/4" | VR16 | 5" x 2-3/4" | 50 | .024 | 1 | 10 | 960 | 830 | 750 | 660 | 590 | 510 | 430 | 380 | 320 | 250 | |
| | | | | | 2-6CL | 16 | 1650 | 1420 | 1290 | 1140 | 1010 | 870 | 740 | 660 | 540 | 430 | |
| | | | | | 3-6CL | 22 | 2280 | 1960 | 1780 | 1570 | 1390 | 1210 | 1030 | 910 | 750 | 590 | |

- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

BARE ELEMENT STYLE "SP"

COPPER/ALUMINUM ELEMENTS

ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 3/4" | VR04R | 2-3/4" x 3-3/4" | 50 | .014 | 1 | 8-7/8 | 1280 | 1100 | 1000 | 880 | 780 | 680 | 580 | 510 | 420 | 330 |
| | | | | | 2-6CL | 14-7/8 | 2190 | 1880 | 1710 | 1510 | 1340 | 1160 | 990 | 880 | 720 | 570 |
| | | | | | 3-6CL | 20-7/8 | 3000 | 2580 | 2340 | 2070 | 1830 | 1590 | 1350 | 1200 | 990 | 780 |
| 1" | VR05R | 2-3/4" x 3-3/4" | 50 | .014 | 1 | 8-7/8 | 1270 | 1090 | 990 | 880 | 770 | 670 | 570 | 510 | 420 | 330 |
| | | | | | 2-6CL | 14-7/8 | 2180 | 1870 | 1700 | 1500 | 1330 | 1160 | 980 | 870 | 720 | 570 |
| | | | | | 3-6CL | 20-7/8 | 2980 | 2560 | 2320 | 2060 | 1820 | 1580 | 1340 | 1190 | 980 | 770 |
| 1" | VR07R | 2-3/4" x 5" | 50 | .020 | 1 | 8-7/8 | 1610 | 1380 | 1260 | 1110 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 2-6CL | 14-7/8 | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 |
| | | | | | 3-6CL | 20-7/8 | 3310 | 2850 | 2580 | 2280 | 2020 | 1750 | 1490 | 1320 | 1090 | 860 |
| 1-1/4" | VR08R | 2-3/4" x 3-3/4" | 50 | .020 | 1 | 8-7/8 | 1250 | 1080 | 980 | 860 | 760 | 660 | 560 | 500 | 410 | 330 |
| | | | | | 2-6CL | 14-7/8 | 1980 | 1700 | 1540 | 1370 | 1210 | 1050 | 890 | 790 | 650 | 510 |
| | | | | | 3-6CL | 20-7/8 | 2620 | 2250 | 2040 | 1810 | 1600 | 1390 | 1180 | 1050 | 860 | 680 |
| 1-1/4" | VR10R | 2-3/4" x 5" | 50 | .020 | 1 | 8-7/8 | 1600 | 1380 | 1250 | 1100 | 980 | 850 | 720 | 640 | 530 | 420 |
| | | | | | 2-6CL | 14-7/8 | 2530 | 2180 | 1970 | 1750 | 1540 | 1340 | 1140 | 1010 | 830 | 660 |
| | | | | | 3-6CL | 20-7/8 | 3310 | 2850 | 2580 | 2280 | 2020 | 1750 | 1490 | 1320 | 1090 | 860 |

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

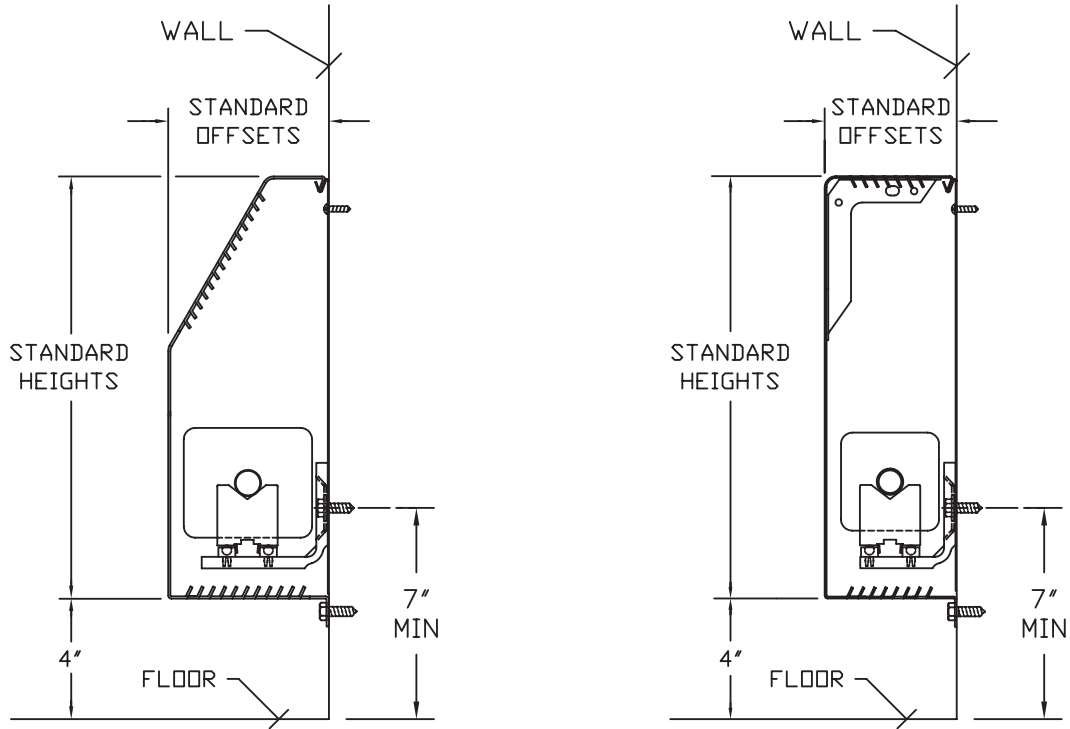
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FINS PER FT. | FIN THICKNESS IN INCHES | TIERS AND CENTERS IN INCHES | MOUNTING HEIGHT IN INCHES | STEAM 215° FACTOR | HOT WATER (AVG.) | | | | | | | | |
|-----------|---------------------|-------------------------|--------------|-------------------------|-----------------------------|---------------------------|-------------------|---------------------------------------------------|------|------|------|------|------|------|------|------|
| | | | | | | | | 200° | 190° | 180° | 170° | 160° | 150° | 140° | 130° | 120° |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | |
| 1" | VR15R | 2-3/4" x 5" | 50 | .024 | 1 | 8-7/8 | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 |
| | | | | | 2-6CL | 14-7/8 | 2010 | 1730 | 1570 | 1390 | 1230 | 1070 | 900 | 800 | 660 | 520 |
| | | | | | 3-6CL | 20-7/8 | 2810 | 2420 | 2190 | 1940 | 1710 | 1490 | 1260 | 1120 | 930 | 730 |
| 1-1/4" | VR16R | 2-3/4" x 5" | 50 | .024 | 1 | 8-7/8 | 1170 | 1010 | 910 | 810 | 710 | 620 | 530 | 470 | 390 | 300 |
| | | | | | 2-6CL | 14-7/8 | 2040 | 1750 | 1590 | 1410 | 1240 | 1080 | 920 | 820 | 670 | 530 |
| | | | | | 3-6CL | 20-7/8 | 2830 | 2430 | 2210 | 1950 | 1730 | 1500 | 1270 | 1130 | 930 | 740 |

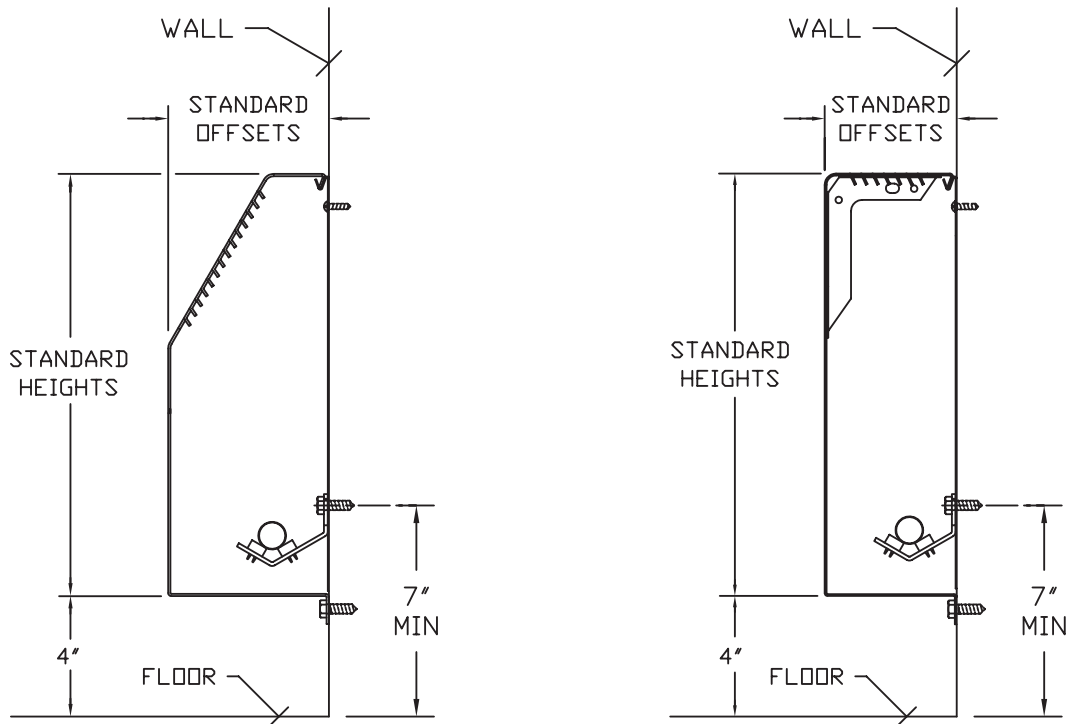
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

ENCLOSURE ALTERNATIVES

DRAFT BARRIER, RETURN TO WALL AND LOUVERED INLET STYLES



RETURN TO WALL, LOUVERED INLET
RWLI

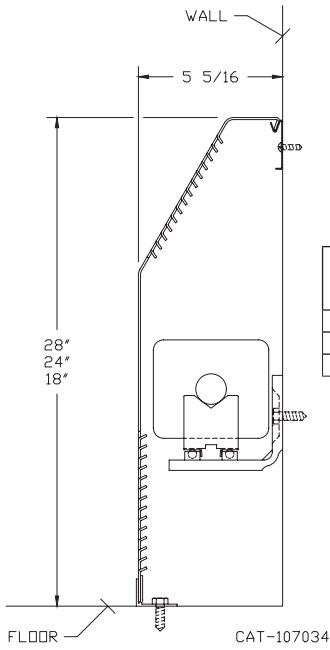


RETURN TO WALL, NO INLET LOUVERS
DRAFT BARRIER STYLE
RWDB

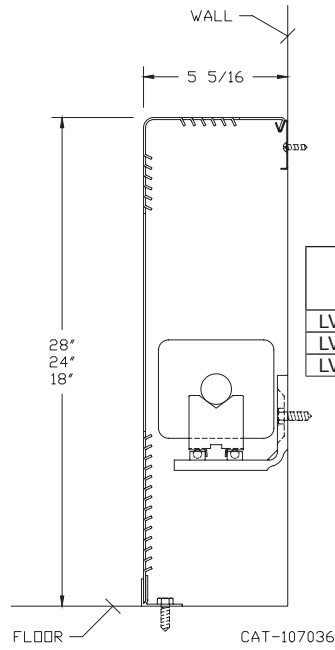
CAT-53178C

ENCLOSURE ALTERNATIVES

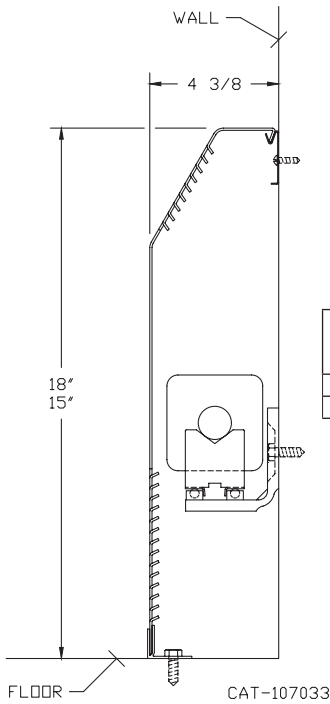
TO-FLOOR LOUVERED INLET STYLES



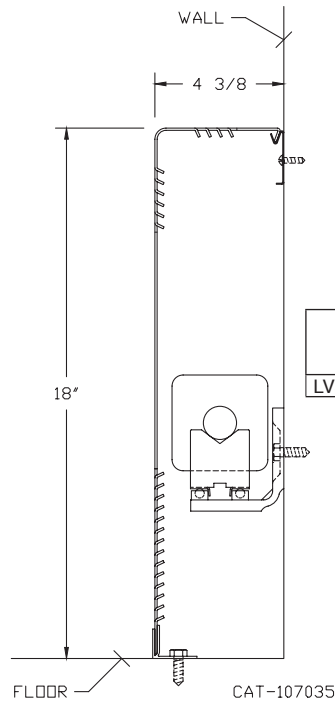
| Louvered Inlet Model | For Ratings, Refer to Standard Model: |
|----------------------|---------------------------------------|
| LV4-S18 LI | LV4-S14 |
| LV4-S24 LI | LV4-S20 |
| LV4-S28 LI | LV4-S24 |



| Louvered Inlet Model | For Ratings, Refer to Standard Model: |
|----------------------|---------------------------------------|
| LV4-T, F, FT, R18 LI | LV4-T, F, FT, R14 |
| LV4-T, F, FT, R24 LI | LV4-T, F, FT, R20 |
| LV4-T, F, FT, R28 LI | LV4-T, F, FT, R24 |

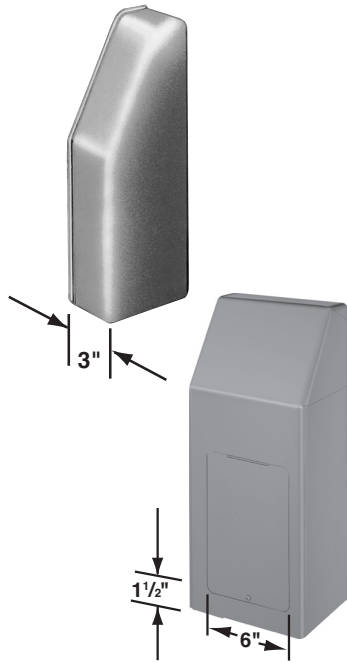


| Louvered Inlet Model | For Ratings, Refer to Standard Model: |
|----------------------|---------------------------------------|
| LV3-S15 LI | LV3-S11 |
| LV3-S18 LI | LV3-S14 |



| Louvered Inlet Model | For Ratings, Refer to Standard Model: |
|----------------------|---------------------------------------|
| LV3-T, F, FT, R15 LI | LV3-T, F, FT, R11 |

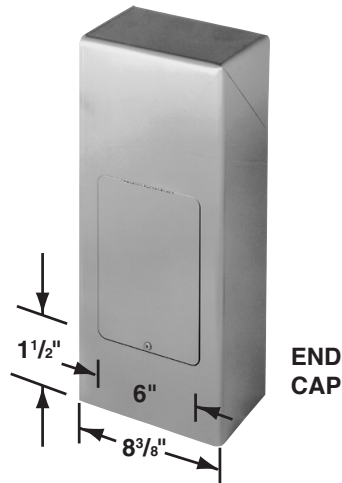
ACCESSORIES



| ACCESS DOOR LOCATIONS SLOPE TOP END CAP & WALL SLEEVE | | |
|-------------------------------------------------------------|---------------------|---------------------|
| ENCLOSURE OFFSET | ENCLOSURE HEIGHT | ACCESS DOOR SIZE |
| 3 9/16 | 8", 11", 14" | 6' x 5' |
| 4 3/8 | 11", 14" | 6' x 5' |
| 5 5/16 | 14" | 6' x 5' |
| 5 5/16 | 20", 24" | 6' x 9' |

CAT-68521-2E

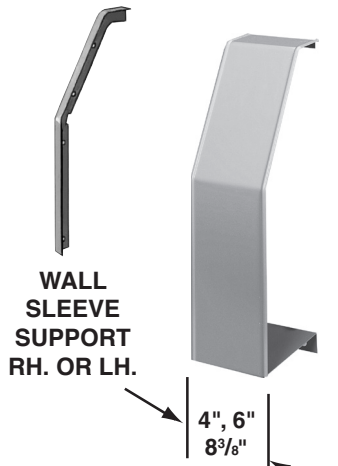
ALTERNATE ACCESS DOOR LOCATIONS
ARE AVAILABLE, CONSULT FACTORY.



| ACCESS DOOR LOCATIONS FLAT TOP END CAP & WALL SLEEVE | | |
|------------------------------------------------------------|---------------------|---------------------|
| ENCLOSURE OFFSET | ENCLOSURE HEIGHT | ACCESS DOOR SIZE |
| 3 9/16 | 8", 11" | 6' x 5' |
| 3 9/16 | 14" | 6' x 9' |
| 4 3/8 | 14" | 6' x 9' |
| 5 5/16 | 14", 20", 24" | 6' x 9' |

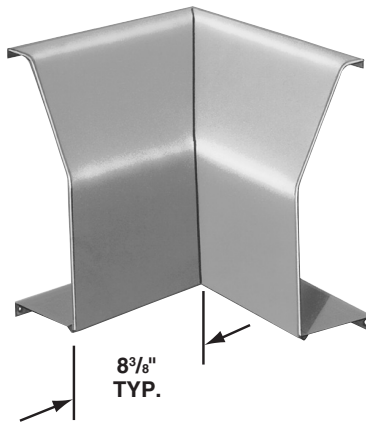
CAT-68521-1E

ALTERNATE ACCESS DOOR LOCATIONS
ARE AVAILABLE, CONSULT FACTORY.

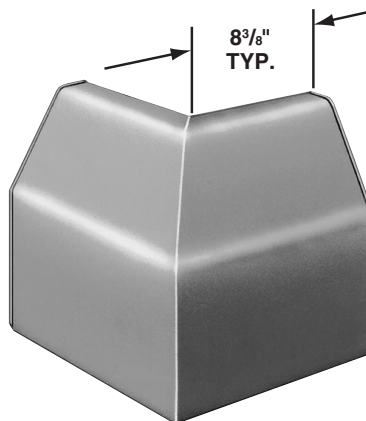


WALL
SLEEVE
SUPPORT
RH. OR LH.

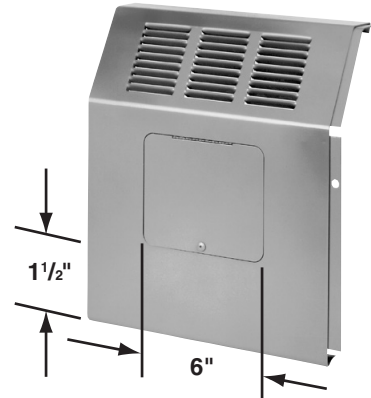
WALL SLEEVE
ALSO AVAILABLE
WITH ACCESS DOOR



INSIDE CORNER

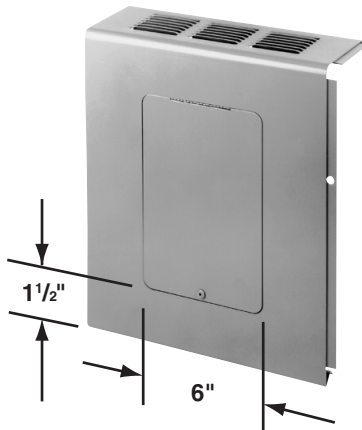


OUTSIDE CORNER



| ACCESS DOOR LOCATIONS SLOPE TOP VALVE COMPARTMENT | | |
|------------------------------------------------------|---------------------|---------------------|
| ENCLOSURE OFFSET | ENCLOSURE HEIGHT | ACCESS DOOR SIZE |
| 3 9/16 | 8", 11", 14" | 6' x 5' |
| 4 3/8 | 11", 14" | 6' x 5' |
| 5 5/16 | 14" | 6' x 5' |
| 5 5/16 | 20", 24" | 6' x 9' |

CAT-68521-4E

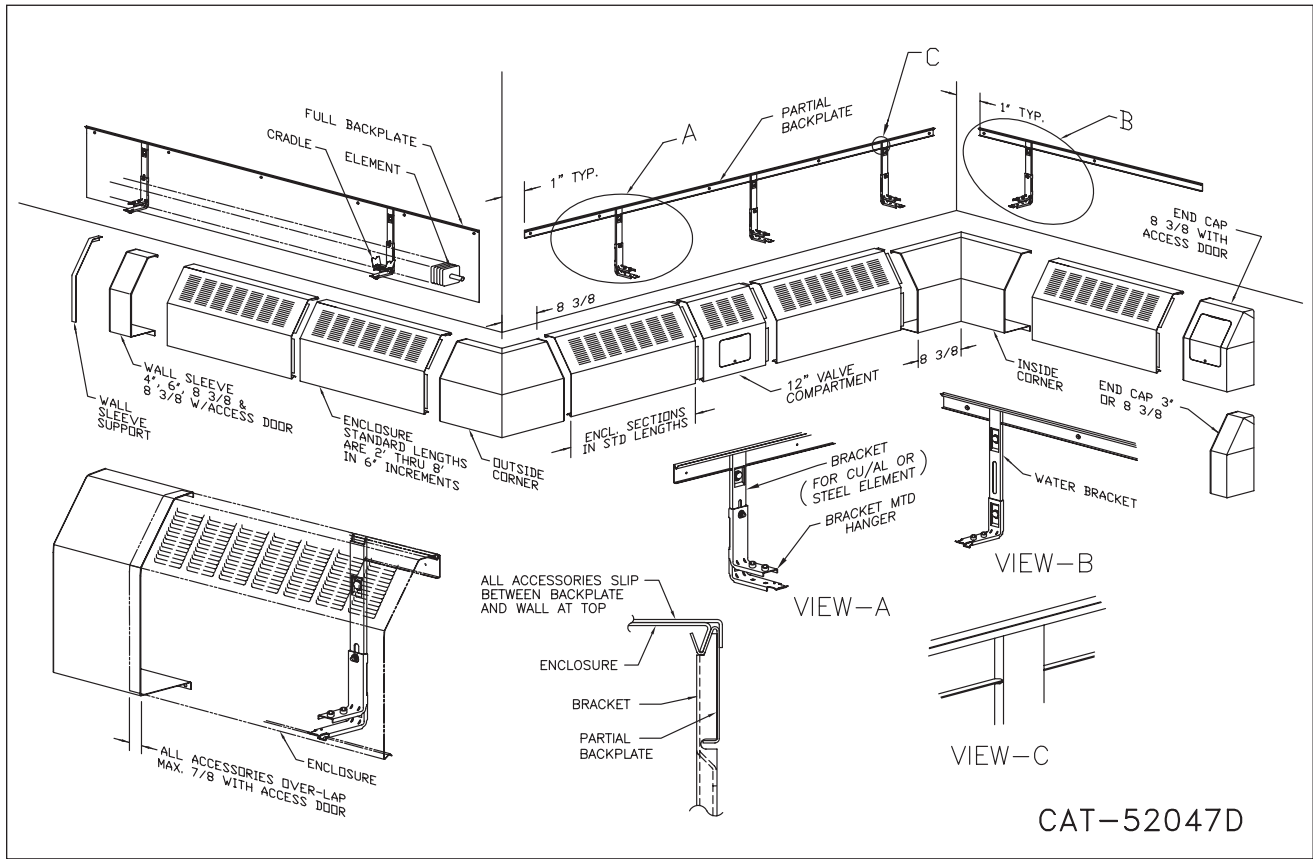


| ACCESS DOOR LOCATIONS FLAT TOP VALVE COMPARTMENT | | |
|-----------------------------------------------------|---------------------|---------------------|
| ENCLOSURE OFFSET | ENCLOSURE HEIGHT | ACCESS DOOR SIZE |
| 3 9/16 | 8", 11" | 6' x 5' |
| 3 9/16 | 14" | 6' x 9' |
| 4 3/8 | 14" | 6' x 9' |
| 5 5/16 | 14", 20", 24" | 6' x 9' |

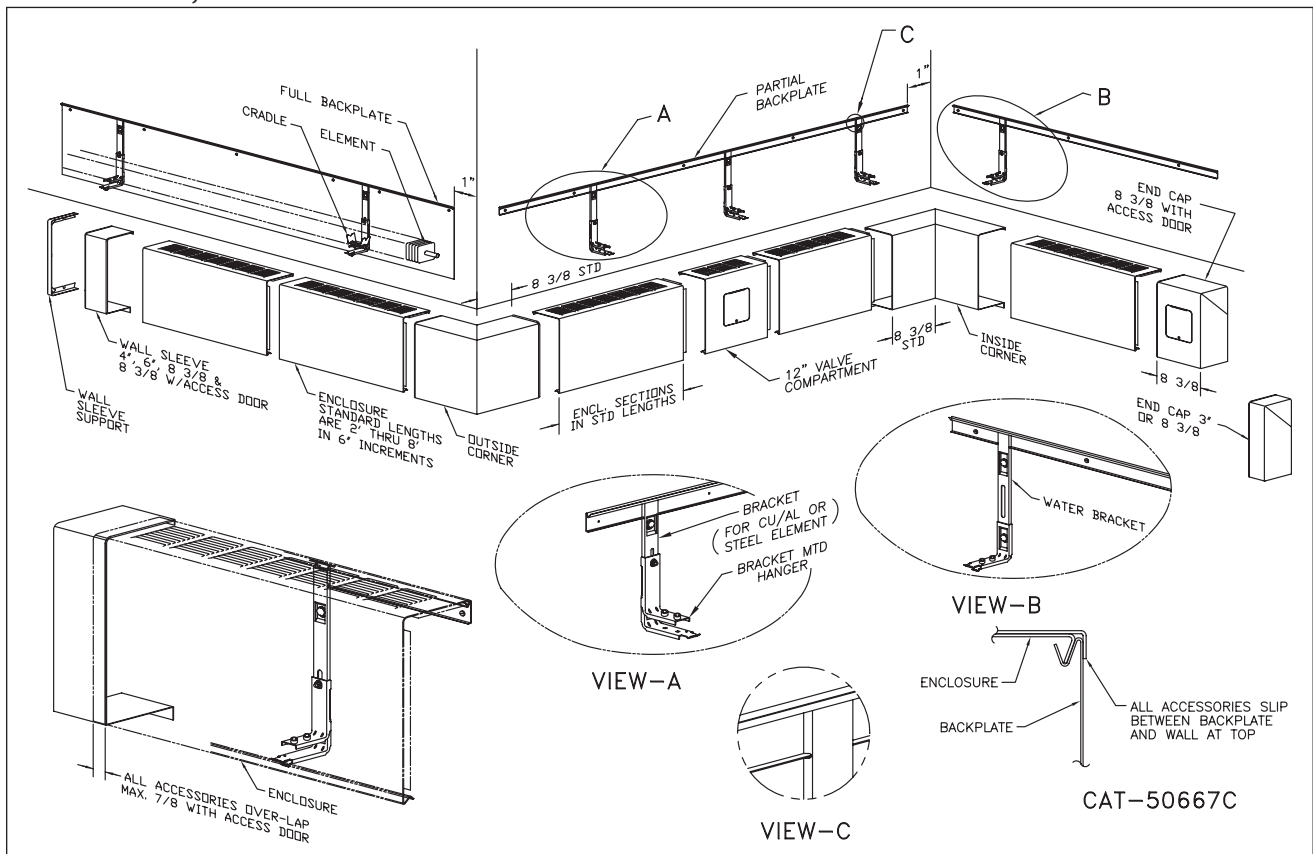
CAT-68521-3E

INSTALLATION

STYLES "S" SLOPE TOP INSTALLATION AND ACCESSORY DETAILS

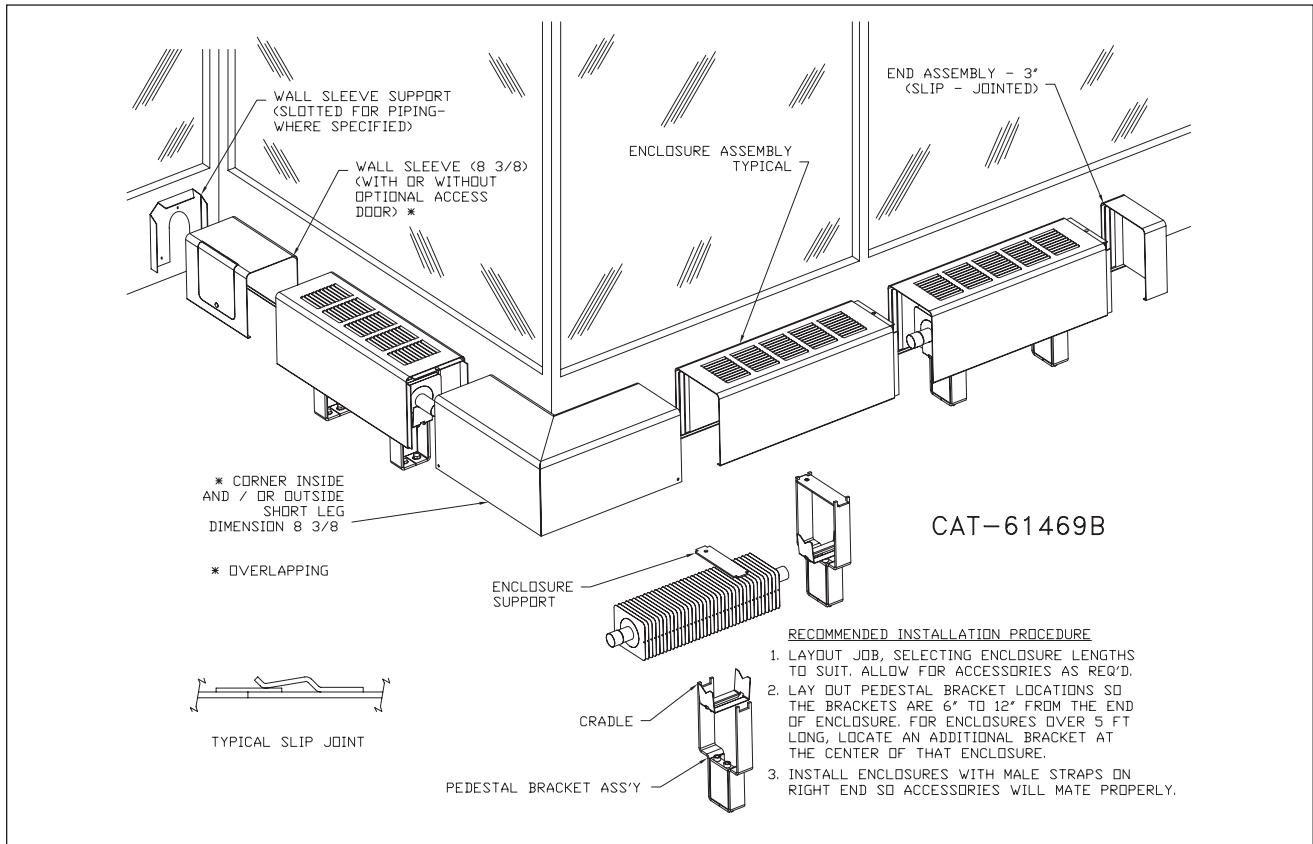


STYLES "F", "T" AND "FT" INSTALLATION AND ACCESSORY DETAILS

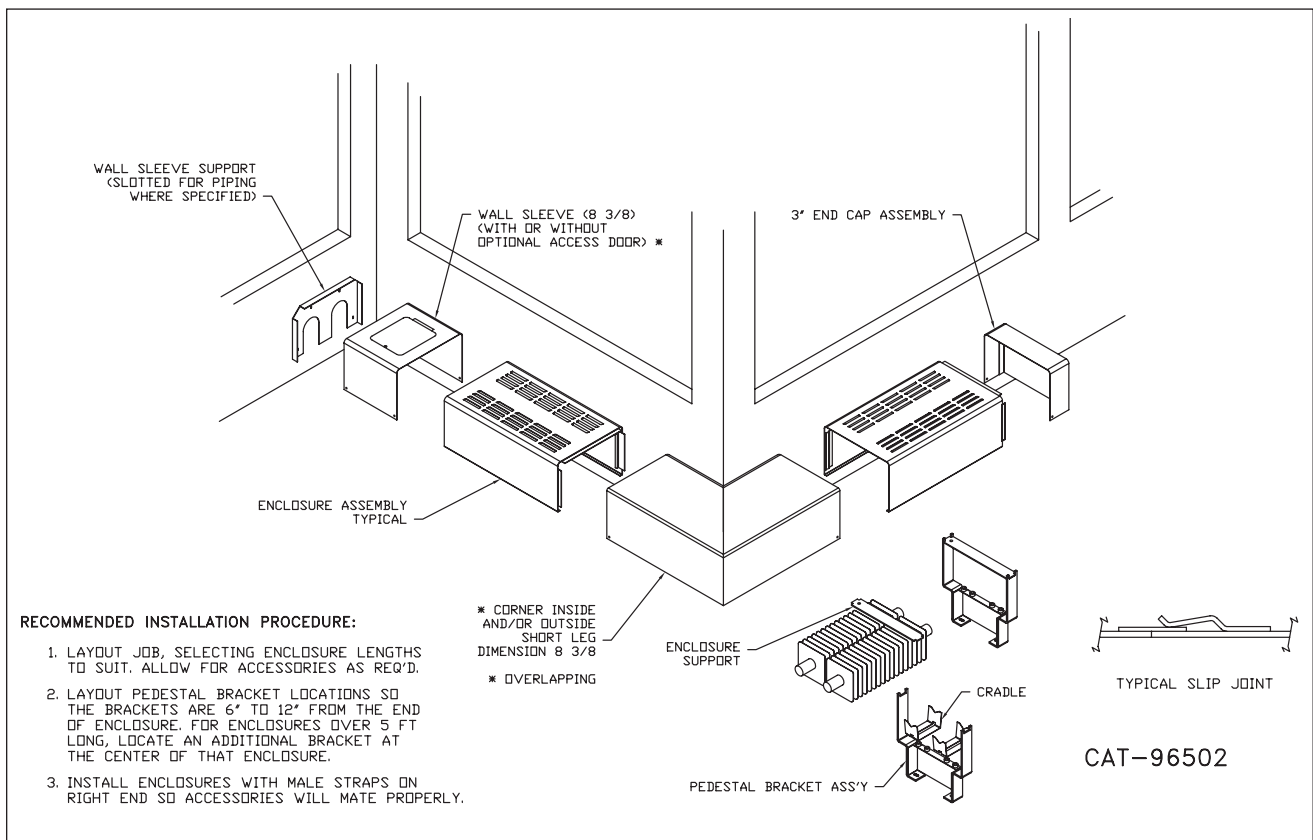


INSTALLATION

STYLE "PM" PEDESTAL MOUNTED INSTALLATION AND ACCESSORY DETAILS

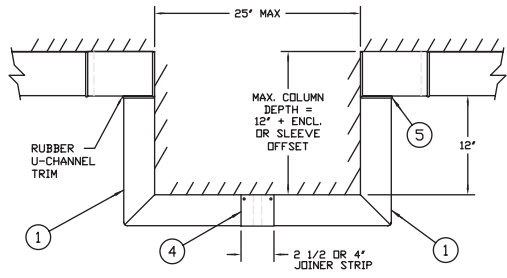


STYLE "PM2" PEDESTAL MOUNTED INSTALLATION AND ACCESSORY DETAILS

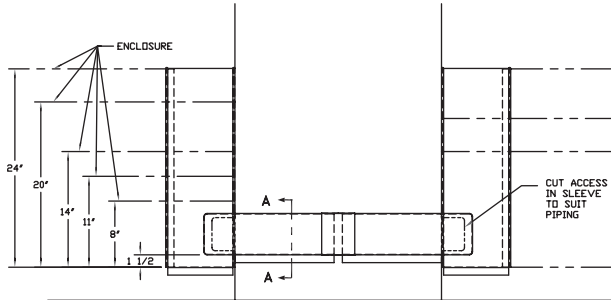


ENCLOSURES

COLUMN ENCLOSURES



TOP VIEW CAT-44058C



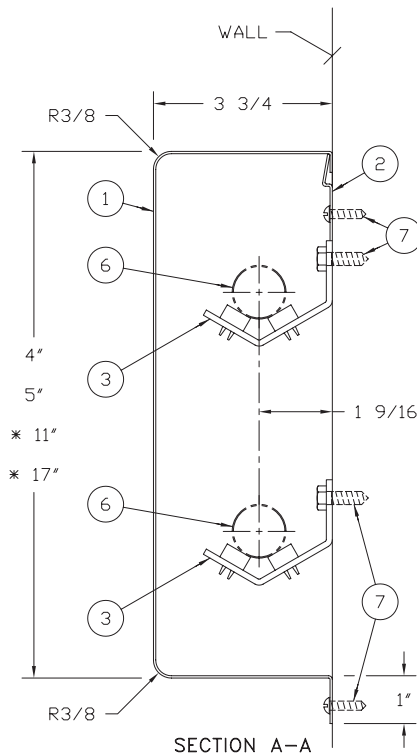
FRONT VIEW CAT-44059C

NOTE –
ALL PARTS SUPPLIED TO
MAXIMUM DIMENSIONS,
AS SHOWN TO BE CUT
ON THE JOB TO SUIT
INDIVIDUAL COLUMN SIZES.

*PIPING MAY BE
1 OR 2 TIERS AS
REQUIRED. INSTALL
HANGERS TO SUIT
ENCLOSURE PIPING.

FOR LV2-S8 CALL FOR 4" HIGH

SEE PAGE 71 FOR STRAIGHT
PIECES 4", 5", 11" OR 17"



CAT-39051E

VULCAN COLUMN ENCLOSURES

Column Enclosures give installations that finished, custom-made look.

It is designed to blend into the installation, both in color and in form. It installs easily without a single bolt showing, yet is highly practical in use.

This picture shows the smooth contours and precision fabrication. The drawing at left gives full details and dimensions.



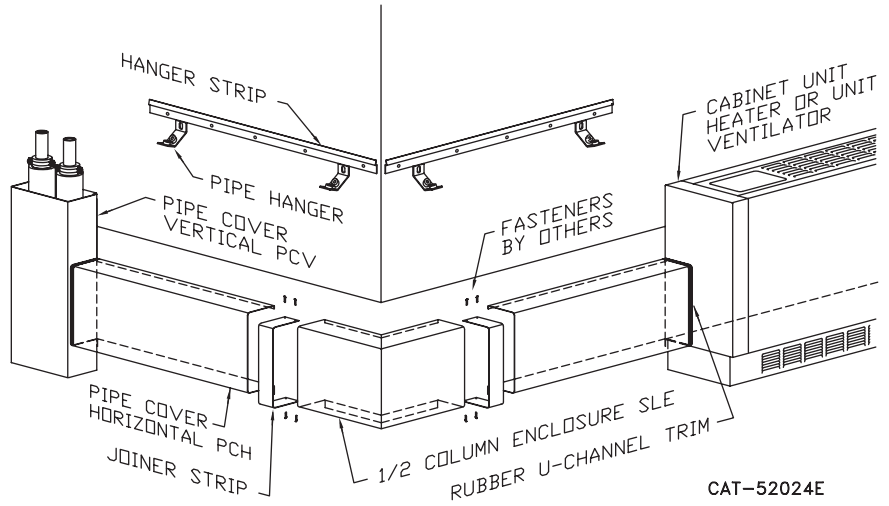
DETAILS AND DIMENSIONS

1. Column Enclosure — 18 Gauge CRS (SRP-15820)
2. Hanger Strip — 18 Gauge CRS
3. Roll Pipe Hanger
4. Joiner Strip — 2 1/2" or 4" wide (SRP-15821) with #8 x 1/2 Truss Head Screws
5. Rubber U-Channel Trim 1/16 x 3/16 x 5/16
6. Pipe By Others
7. Fasteners By Others Unless Specified

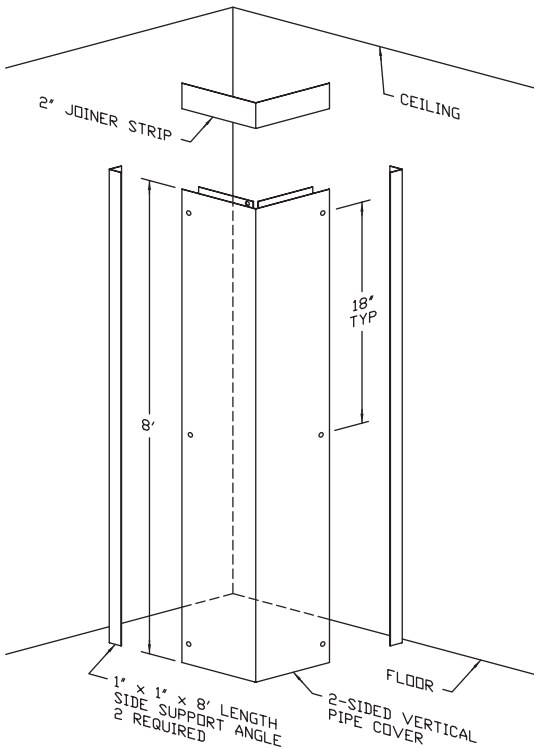
ENCLOSURES

PIPE ENCLOSURES

| Catalog Number | Description |
|-------------------|--------------------------------------------------------------------------|
| Horizontal | |
| HPC-4 | 4" High 18 GA - 8' Lengths |
| HPC-5 | 5" High 18 GA - 8' Lengths |
| HPC-11 | 11" High 18 GA - 8' Lengths |
| HPC-17 | 17" High 18 GA - 8' Lengths |
| V610 | Mounting Strip |
| RPH | Roll Pipe Hanger |
| Vertical | |
| VPC-52 | 5 x 5 Two Side 18 GA - 8' Lengths |
| VPC-82 | 8 x 8 Two Side 18 GA - 8' Lengths |
| VPC-53 | 5 x 5 Three Side 18 GA - 8' Lengths |
| VPC-83 | 8 x 8 Three Side 18 GA - 8' Lengths |
| 1 x 1 | 1 x 1 Side Support Angle - 8' Lengths (2 per Vertical Pipe Enclosure) |



CAT-52024E

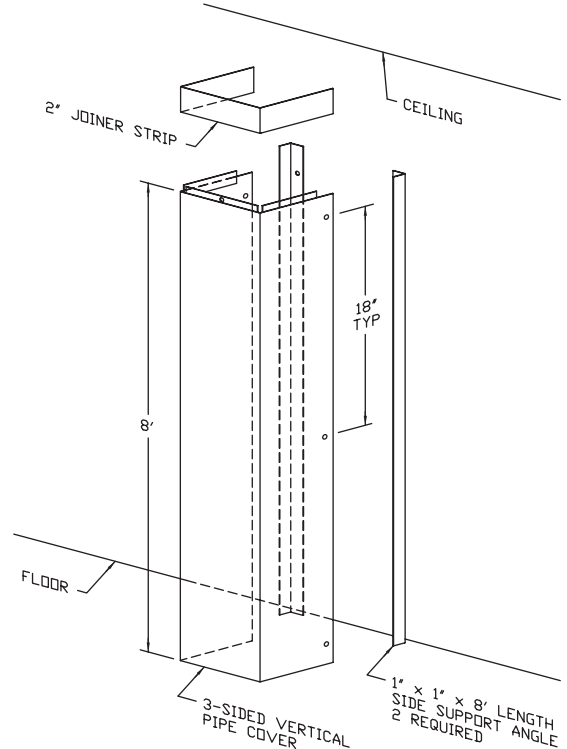


FASTENERS ARE BY OTHERS.

FOR CEILING HEIGHTS GREATER THAN 8', MULTIPLE PIECES WILL BE REQUIRED.

PCV-52 5' x 5' x 8' LENGTHS
PCV-82 8' x 8' x 8' LENGTHS

CAT-68234



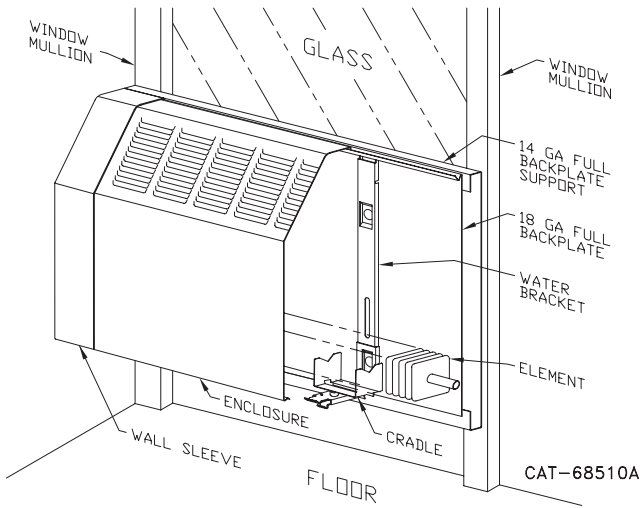
FASTENERS ARE BY OTHERS.

FOR CEILING HEIGHTS GREATER THAN 8', MULTIPLE PIECES WILL BE REQUIRED.

PCV-53 5' x 5' x 8' LENGTHS
PCV-83 8' x 8' x 8' LENGTHS

CAT-68235

BACKPLATE SUPPORTS FOR WINDOW MULLIONS

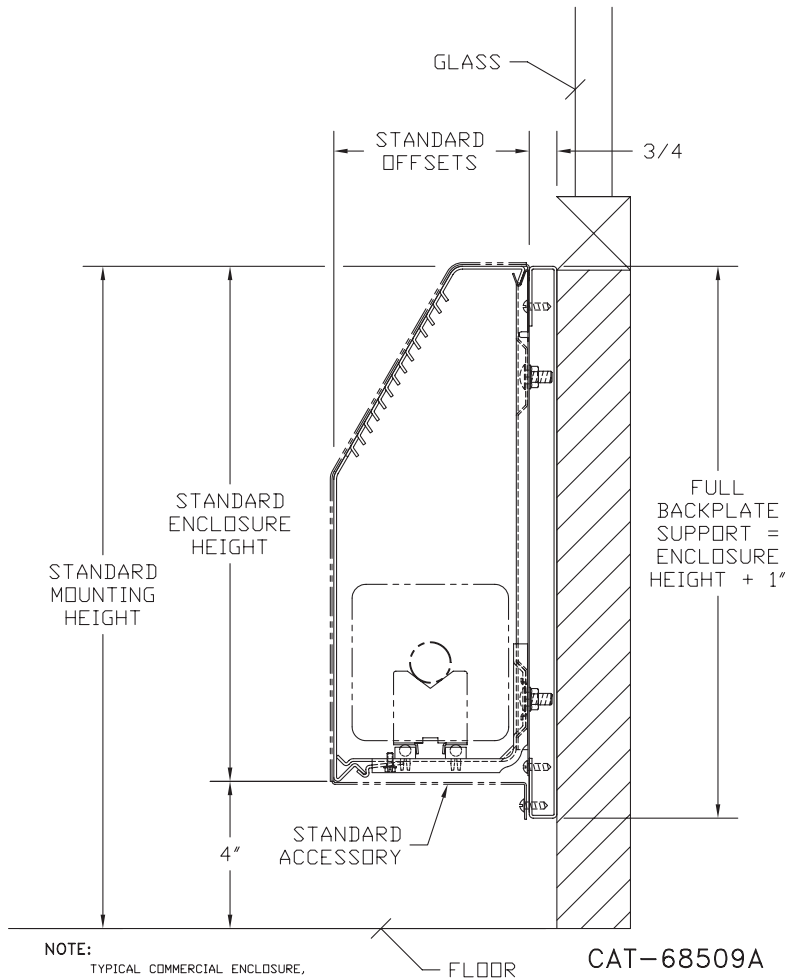


LINOVECTOR-II Radiation is easily adaptable to panel wall, curtain wall, and window wall construction.

All that is necessary for the full support of the LINOVECTOR-II assemblies are the mullions used in this type of construction.

The assemblies are just as easily installed as in any other type of construction. LINOVECTOR-II is versatile. Consult us for unusual dimensional applications. (7¹/₂" minimum height)

Typical panel wall installation using the Vulcan bracket with ball-bearing cradle, and full backplate. Note how the backplate support lag to the mullions and the backplate to the backplate support. Then the brackets attach to the backplate. Consult us for variations.



NOTE:
TYPICAL COMMERCIAL ENCLOSURE,
WATER BRACKET ASSEMBLY,
FULL BACKPLATE, FULL BACKPLATE SUPPORT,
AND STANDARD WALL SLEEVE ACCESSORY.

DESIGN DATA

COMMERCIAL FINNED TUBE CHARTS FOR RATING CORRECTIONS

For assistance with ratings and selection, please use our online Specifier.

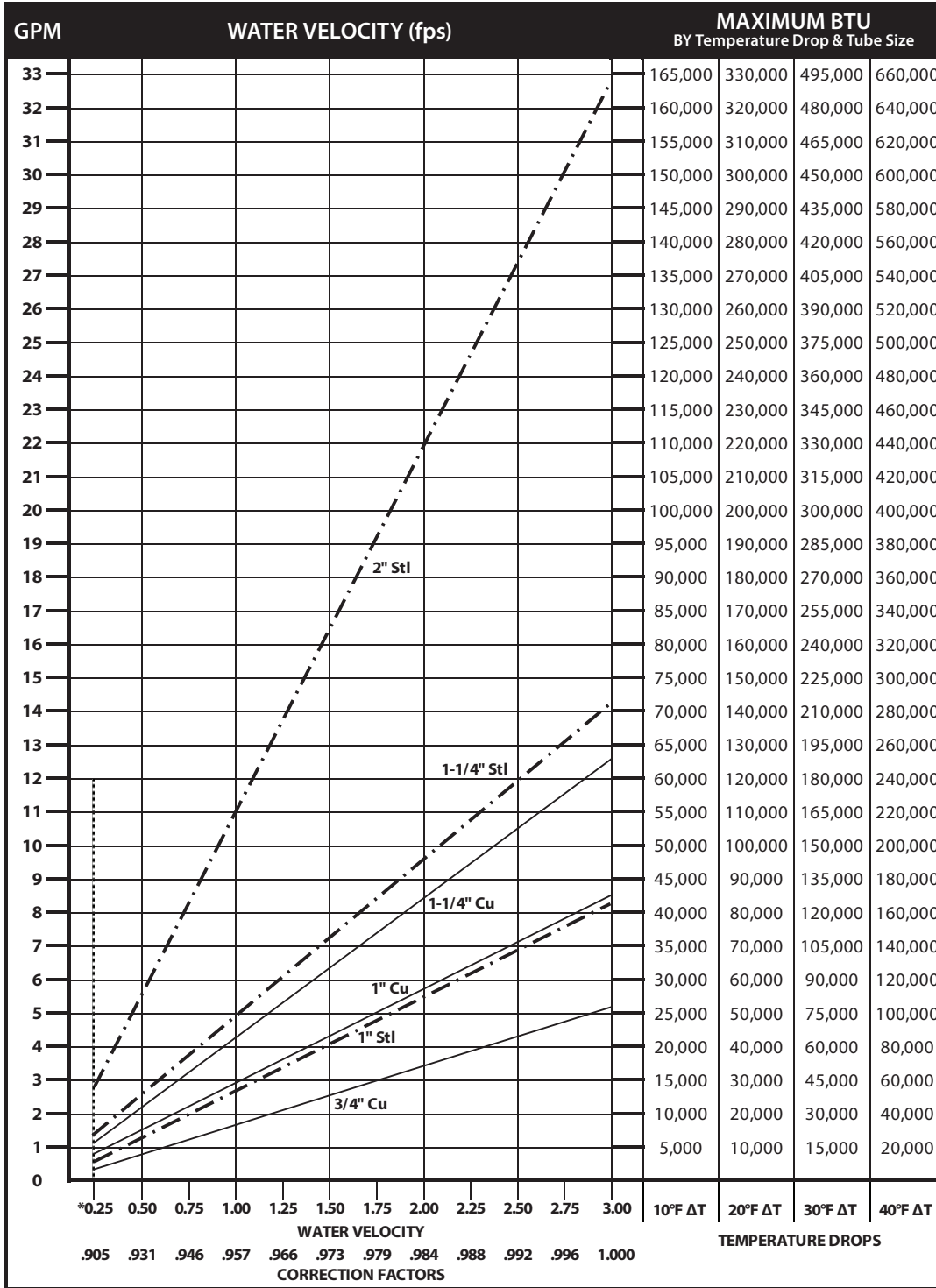
| CORRECTION FACTORS FOR WATER TEMPERATURES AND AIR TEMPERATURES OTHER THAN STANDARD | | | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------|-----------------------------|------|--------|------|------|------|------|------|------|------|------|------|------|------|------|
| AVERAGE WATER TEMP. °F | ENTERING AIR TEMPERATURE °F | | | | | | | | | | | | | | |
| | 45 | 55 | STD 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 | 110 | 120 | 130 | 140 | 150 |
| 90 | .19 | .13 | .11 | .06 | | | | | | | | | | | |
| 100 | .25 | .19 | .15 | .11 | .08 | .06 | | | | | | | | | |
| 110 | .31 | .25 | .20 | .16 | .13 | .11 | .08 | .06 | | | | | | | |
| 120 | .38 | .31 | .26 | .21 | .19 | .16 | .13 | .11 | .08 | .06 | | | | | |
| 130 | .45 | .38 | .33 | .28 | .25 | .21 | .19 | .16 | .13 | .11 | .06 | | | | |
| 140 | .53 | .45 | .40 | .34 | .31 | .28 | .25 | .21 | .19 | .16 | .11 | .06 | | | |
| 150 | .61 | .53 | .45 | .41 | .38 | .34 | .31 | .28 | .25 | .21 | .16 | .11 | .06 | | |
| 160 | .69 | .61 | .53 | .49 | .45 | .41 | .38 | .34 | .31 | .28 | .21 | .16 | .11 | .06 | |
| 170 | .77 | .69 | .61 | .57 | .53 | .49 | .45 | .41 | .38 | .34 | .28 | .21 | .16 | .11 | .06 |
| 180 | .86 | .77 | .69 | .65 | .61 | .57 | .53 | .49 | .45 | .41 | .34 | .28 | .21 | .16 | .11 |
| 190 | .95 | .86 | .78 | .73 | .69 | .65 | .61 | .57 | .53 | .49 | .41 | .34 | .28 | .21 | .16 |
| 200 | 1.05 | .95 | .86 | .82 | .77 | .73 | .69 | .65 | .61 | .57 | .49 | .41 | .34 | .28 | .21 |
| 210 | 1.14 | 1.05 | .95 | .91 | .86 | .82 | .77 | .73 | .69 | .65 | .57 | .49 | .41 | .34 | .28 |
| ▶ 215 (STD.) | 1.19 | 1.09 | 1.00 | .95 | .91 | .86 | .82 | .77 | .73 | .69 | .61 | .53 | .45 | .38 | .31 |
| 220 | 1.24 | 1.14 | 1.05 | 1.00 | .95 | .91 | .86 | .82 | .77 | .73 | .65 | .57 | .49 | .41 | .34 |
| 230 | 1.34 | 1.24 | 1.14 | 1.09 | 1.05 | 1.00 | .95 | .91 | .86 | .82 | .73 | .65 | .57 | .49 | .41 |
| 240 | 1.44 | 1.34 | 1.25 | 1.19 | 1.14 | 1.09 | 1.05 | 1.00 | .95 | .91 | .82 | .73 | .65 | .57 | .49 |
| 250 | 1.55 | 1.44 | 1.34 | 1.29 | 1.24 | 1.19 | 1.14 | 1.09 | 1.05 | 1.00 | .91 | .82 | .73 | .65 | .57 |
| 260 | 1.66 | 1.55 | 1.44 | 1.39 | 1.34 | 1.29 | 1.24 | 1.19 | 1.14 | 1.09 | 1.00 | .91 | .82 | .73 | .65 |
| 270 | 1.76 | 1.66 | 1.55 | 1.50 | 1.44 | 1.39 | 1.34 | 1.29 | 1.24 | 1.19 | 1.09 | 1.00 | .91 | .82 | .73 |
| 280 | 1.87 | 1.76 | 1.66 | 1.60 | 1.55 | 1.50 | 1.44 | 1.39 | 1.34 | 1.29 | 1.19 | 1.09 | 1.00 | .91 | .82 |
| 290 | 1.99 | 1.87 | 1.76 | 1.71 | 1.66 | 1.60 | 1.55 | 1.50 | 1.44 | 1.39 | 1.29 | 1.19 | 1.09 | 1.00 | .91 |
| 300 | 2.10 | 1.99 | 1.87 | 1.82 | 1.76 | 1.71 | 1.66 | 1.60 | 1.55 | 1.50 | 1.39 | 1.29 | 1.19 | 1.09 | 1.00 |

| CORRECTION FACTORS FOR STEAM PRESSURES AND AIR TEMPERATURES OTHER THAN STANDARD | | | | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------|----------|-----------------------------|------|------|--------|------|------|------|------|------|------|------|------|------|------|------|
| STEAM | | ENTERING AIR TEMPERATURE °F | | | | | | | | | | | | | | |
| PRESSURE | | TEMP. °F | 45 | 55 | STD 65 | 70 | 75 | 80 | 85 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| GAUGE | ABS. PSI | | | | | | | | | | | | | | | |
| (VAC) 15" | 7.32 | 178.9 | 0.90 | 0.80 | 0.70 | 0.65 | 0.60 | 0.56 | 0.51 | 0.45 | 0.39 | 0.32 | 0.25 | 0.18 | 0.13 | 0.08 |
| HG | 9.78 | 192.2 | 1.02 | 0.91 | 0.81 | 0.76 | 0.71 | 0.66 | 0.62 | 0.55 | 0.48 | 0.40 | 0.33 | 0.26 | 0.20 | 0.14 |
| (VAC) 10" | 12.25 | 202.9 | 1.11 | 1.00 | 0.90 | 0.85 | 0.79 | 0.75 | 0.70 | 0.63 | 0.56 | 0.48 | 0.40 | 0.33 | 0.27 | 0.20 |
| ▶ 0 PSI | 14.696 | 212.0 | 1.19 | 1.09 | 0.97 | 0.92 | 0.87 | 0.82 | 0.77 | 0.70 | 0.63 | 0.54 | 0.46 | 0.38 | 0.31 | 0.25 |
| .899 | 15.595 | 215.0 | 1.22 | 1.11 | 1.00 | 0.95 | 0.90 | 0.84 | 0.80 | 0.75 | 0.65 | 0.57 | 0.48 | 0.40 | 0.33 | 0.26 |
| 5 | 19.70 | 227.1 | 1.34 | 1.22 | 1.11 | 1.05 | 1.00 | 0.95 | 0.90 | 0.81 | 0.75 | 0.66 | 0.57 | 0.49 | 0.41 | 0.34 |
| 10 | 24.70 | 239.4 | 1.45 | 1.33 | 1.22 | 1.17 | 1.11 | 1.05 | 1.00 | 0.91 | 0.85 | 0.75 | 0.66 | 0.58 | 0.50 | 0.42 |
| 15 | 29.70 | 249.8 | 1.55 | 1.43 | 1.31 | 1.26 | 1.20 | 1.14 | 1.09 | 1.00 | 0.94 | 0.84 | 0.75 | 0.66 | 0.57 | 0.49 |
| 20 | 34.70 | 258.5 | 1.63 | 1.52 | 1.40 | 1.33 | 1.28 | 1.23 | 1.17 | 1.07 | 1.02 | 0.92 | 0.82 | 0.73 | 0.64 | 0.55 |
| 25 | 39.70 | 266.8 | 1.71 | 1.59 | 1.47 | 1.41 | 1.36 | 1.30 | 1.25 | 1.15 | 1.09 | 0.98 | 0.89 | 0.80 | 0.71 | 0.62 |
| 30 | 44.70 | 274.0 | 1.78 | 1.66 | 1.54 | 1.48 | 1.42 | 1.37 | 1.31 | 1.21 | 1.15 | 1.05 | 0.95 | 0.85 | 0.76 | 0.68 |
| 40 | 54.70 | 286.7 | 1.91 | 1.79 | 1.66 | 1.61 | 1.54 | 1.49 | 1.43 | 1.32 | 1.27 | 1.16 | 1.06 | 0.97 | 0.87 | 0.78 |
| 50 | 64.70 | 297.7 | 2.02 | 1.90 | 1.77 | 1.71 | 1.65 | 1.60 | 1.54 | 1.42 | 1.37 | 1.26 | 1.16 | 1.06 | 0.96 | 0.87 |
| 60 | 74.70 | 307.3 | 2.10 | 2.00 | 1.87 | 1.81 | 1.75 | 1.69 | 1.63 | 1.51 | 1.47 | 1.35 | 1.25 | 1.15 | 1.05 | 0.95 |
| 70 | 84.70 | 316.0 | 2.20 | 2.09 | 1.95 | 1.89 | 1.83 | 1.77 | 1.71 | 1.59 | 1.55 | 1.44 | 1.33 | 1.23 | 1.12 | 1.03 |
| 80 | 94.70 | 323.9 | 2.27 | 2.17 | 2.03 | 1.97 | 1.91 | 1.85 | 1.80 | 1.69 | 1.63 | 1.52 | 1.41 | 1.31 | 1.20 | 1.10 |
| 90 | 104.70 | 331.2 | 2.36 | 2.24 | 2.11 | 2.05 | 1.98 | 1.93 | 1.87 | 1.74 | 1.70 | 1.59 | 1.48 | 1.38 | 1.28 | 1.17 |
| 100 | 114.70 | 337.9 | 2.43 | 2.31 | 2.18 | 2.11 | 2.05 | 2.00 | 1.94 | 1.81 | 1.77 | 1.65 | 1.54 | 1.44 | 1.33 | 1.23 |
| 125 | 139.70 | 352.9 | 2.59 | 2.47 | 2.33 | 2.27 | 2.21 | 2.16 | 2.10 | 1.96 | 1.92 | 1.80 | 1.69 | 1.59 | 1.48 | 1.38 |
| 150 | 164.70 | 365.9 | 2.73 | 2.62 | 2.47 | 2.43 | 2.35 | 2.29 | 2.23 | 2.08 | 2.05 | 1.94 | 1.82 | 1.72 | 1.61 | 1.51 |
| 175 | 189.70 | 377.4 | 2.86 | 2.74 | 2.60 | 2.54 | 2.47 | 2.41 | 2.35 | 2.21 | 2.17 | 2.05 | 1.95 | 1.85 | 1.73 | 1.63 |
| 200 | 214.70 | 387.8 | 2.95 | 2.85 | 2.71 | 2.63 | 2.58 | 2.52 | 2.47 | 2.31 | 2.29 | 2.17 | 2.06 | 1.96 | 1.84 | 1.75 |

From Keenan and Keyes — Linear Interpolation. NOTE: Gauge pressure should be corrected for altitude.

Rate of pitch for steam 1/2" drop over 20-foot run.

DESIGN DATA



DYNAMIC FORMULAS

$$BTU = GPM \times 500 \times TD$$

$$GPM = \left(\frac{BTU}{500} \right) \div TD$$

$$TD = \left(\frac{BTU}{500} \right) \div GPM$$

*Do not design below .25 fps.

Pressure Drop at Given Water Velocities (Feet of Water per 100 ft. of pipe) based on Hazen - Williams calculation

| Nominal Pipe Size | Water Velocity (ft/sec) | | | | | | | | | | | |
|-------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 | 2.75 | 3.00 |
| 3/4" Copper | 0.06 | 0.20 | 0.42 | 0.72 | 1.09 | 1.53 | 2.04 | 2.61 | 3.25 | 3.95 | 4.71 | 5.53 |
| 1" Copper | 0.04 | 0.15 | 0.32 | 0.54 | 0.81 | 1.14 | 1.52 | 1.94 | 2.42 | 2.94 | 3.50 | 4.11 |
| 1 1/4" Copper | 0.03 | 0.12 | 0.25 | 0.43 | 0.64 | 0.90 | 1.20 | 1.54 | 1.92 | 2.33 | 2.78 | 3.26 |
| 1" Steel | 0.04 | 0.15 | 0.32 | 0.54 | 0.81 | 1.14 | 1.52 | 1.95 | 2.42 | 2.94 | 3.51 | 4.12 |
| 1 1/4" Steel | 0.03 | 0.11 | 0.23 | 0.40 | 0.60 | 0.84 | 1.12 | 1.44 | 1.79 | 2.17 | 2.59 | 3.05 |
| 2" Steel | 0.02 | 0.07 | 0.14 | 0.25 | 0.37 | 0.52 | 0.69 | 0.89 | 1.10 | 1.34 | 1.60 | 1.88 |

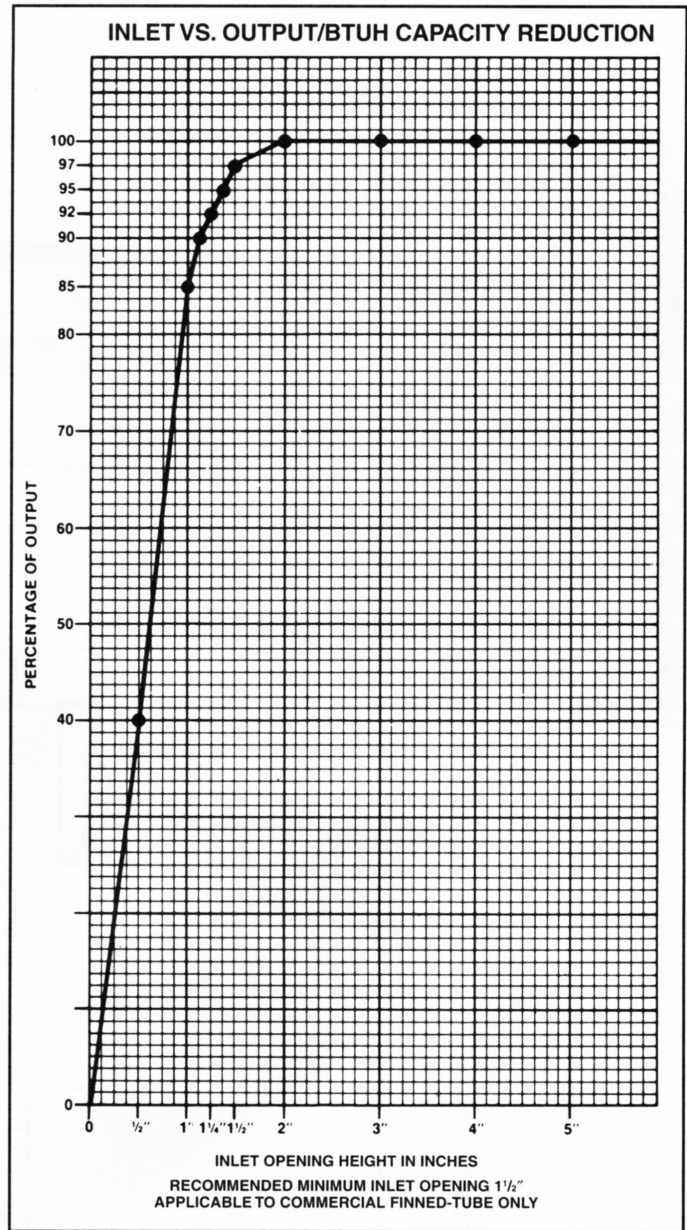
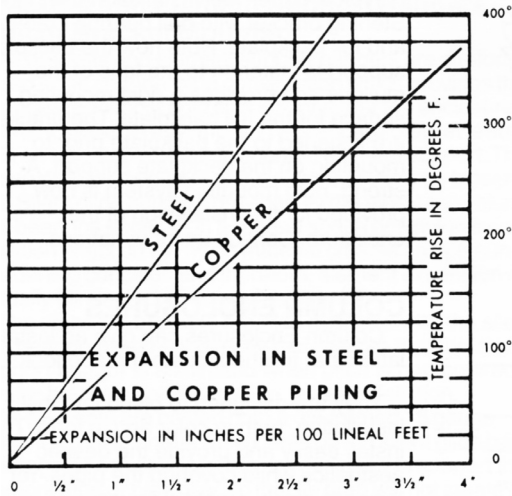
DESIGN DATA

GUARANTEED WORKING PRESSURES

- 1" IPS – 780 at Temperatures up to 650°F.
- 1-1/4" IPS – 660 at Temperatures up to 650°F.
- 2" IPS – 405 at Temperatures up to 650°F.
- 1-1/4" CU – 194 at Temperatures up to 300°F.
- 1" CU 204 at Temperatures up to 300°F.
- 3/4" CU 218 PSI at Temperatures up to 300°F.

MAXIMUM PRESSURES AT OTHER TEMPERATURES
ARE AVAILABLE UPON REQUEST.

| Pipe Water Capacities and Quantities Circulated at Velocity of 3 Feet Per Second | | | |
|-------------------------------------------------------------------------------------|--------------------|-------------------|---------------------------|
| Nominal Pipe Size | Pipe I.D. (inches) | Gals Per Lin. Ft. | GPM @ 3' per sec Velocity |
| 3/4" Copper | 0.835 | 0.028 | 5.12 |
| 1" Copper | 1.077 | 0.047 | 8.52 |
| 1 1/4" Copper | 1.315 | 0.071 | 12.70 |
| 1" Steel | 1.075 | 0.047 | 8.49 |
| 1 1/4" Steel | 1.395 | 0.079 | 14.29 |
| 2" Steel | 2.115 | 0.183 | 32.85 |



Glycol Correction Factors

Fluid Temperature 200°F

| % Solution | Ethylene Glycol | Propylene Glycol |
|------------|-----------------|------------------|
| 20 | .952 | .988 |
| 30 | .921 | .968 |
| 40 | .888 | .943 |
| 50 | .852 | .912 |

Fluid Temperature 180°F

| % Solution | Ethylene Glycol | Propylene Glycol |
|------------|-----------------|------------------|
| 20 | .946 | .982 |
| 30 | .913 | .961 |
| 40 | .879 | .934 |
| 50 | .842 | .902 |

Fluid Temperature 140°F

| % Solution | Ethylene Glycol | Propylene Glycol |
|------------|-----------------|------------------|
| 20 | .934 | .97 |
| 30 | .898 | .946 |
| 40 | .861 | .916 |
| 50 | .821 | .881 |

ALTITUDE FACTORS

Approximate factors for convective heat value at varying altitudes

| Altitude | Ferrous Units | Copper Alum. Units |
|------------|---------------|--------------------|
| Sea Level | 1.000 | 1,000 |
| 1,000 ft. | .984 | .969 |
| 2,000 ft. | .968 | .938 |
| 3,000 ft. | .952 | .908 |
| 4,000 ft. | .936 | .878 |
| 5,000 ft. | .920 | .850 |
| 6,000 ft. | .904 | .822 |
| 7,000 ft. | .889 | .795 |
| 8,000 ft. | .874 | .768 |
| 9,000 ft. | .859 | .743 |
| 10,000 ft. | .844 | .718 |
| 15,000 ft. | .771 | .603 |
| 20,000 ft. | .703 | .502 |

NOTES

LIMITED WARRANTY

Commercial Finned Tube Radiation

The Manufacturer warrants to the original owner at the original installation site that the Commercial Finned Tube (the "Product") will be free from defects in material or workmanship for a period not to exceed (1) year from date of shipment from the factory. If upon examination by the Manufacturer the Product is shown to have a defect in material or workmanship during the warranty period, the Manufacturer will repair or replace, at its option, that part of the Product which is shown to be defective.

This limited warranty does not apply:

- (a) if the Product has been subjected to misuse or neglect, has been accidentally or intentionally damaged, has not been installed, maintained or operated in accordance with the furnished written instructions, or has been altered or modified in any way by any unauthorized person.
- (b) to any expenses, including labor or material, incurred during removal or reinstallation of the defective Product or part thereof.
- (c) to any workmanship of any installer of the Product.

This limited warranty is conditional upon:

- (a) shipment, to the Manufacturer, of that part of the Product thought to be defective. Goods may only be returned with the prior written approval of the Manufacturer. All returns must be freight prepaid.
- (b) determination in the reasonable opinion of the Manufacturer that there exists a defect in material or workmanship.

Repair or replacement of any part under this Limited Warranty shall not extend the duration of the warranty with respect to such repaired or replaced part beyond the stated warranty period.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, AND ALL SUCH OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS LIMITED WARRANTY. IN NO EVENT SHALL THE MANUFACTURER BE LIABLE IN ANY WAY FOR ANY CONSEQUENTIAL, SPECIAL, OR INCIDENTAL DAMAGES OF ANY NATURE WHATSOEVER, OR FOR ANY AMOUNTS IN EXCESS OF THE SELLING PRICE OF THE PRODUCT OR ANY PARTS THEREOF FOUND TO BE DEFECTIVE. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY BY EACH JURISDICTION.

Vulcan

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