

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.


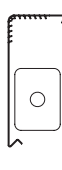
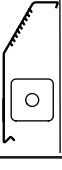
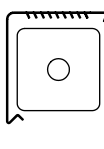

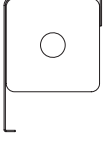

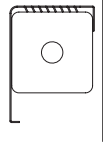

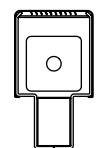

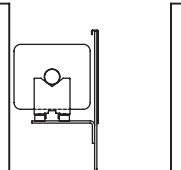




LINOVECTOR-II is used in commercial heating installations — structures that demand good looks, durability and low price. Ideally suited for schools, general office buildings, common walkways and high traffic areas. LINOVECTOR-II is especially suited for high heat loss areas, yet is attractive enough 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 73.
3. See specifications on page 5.

DESIGN FEATURES

ENCLOSURES

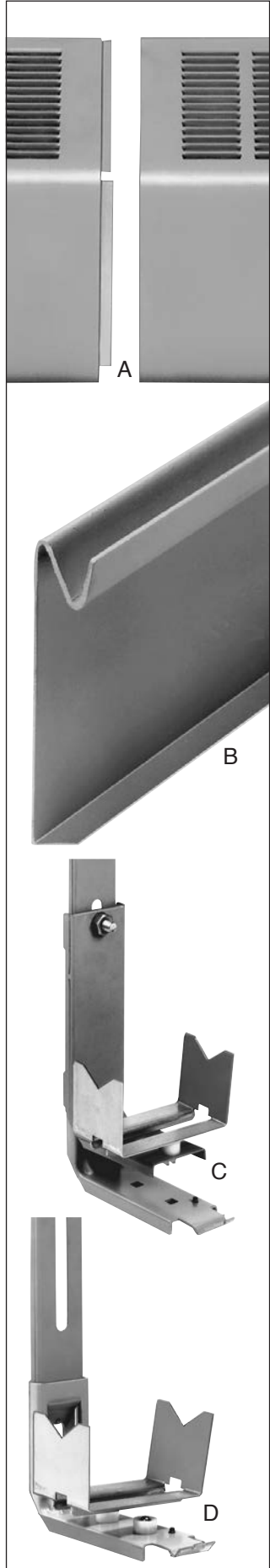
Interlocking slip joints provide for a positive snap together fit between adjoining covers. The male and female slip joints, at the same time, provide vertical stiffness for these enclosures. They are the most rugged and desirable enclosures for today's quality-conscious market. (See photos A.)

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. Approved AHRI ratings must be submitted as required.

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 prime 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

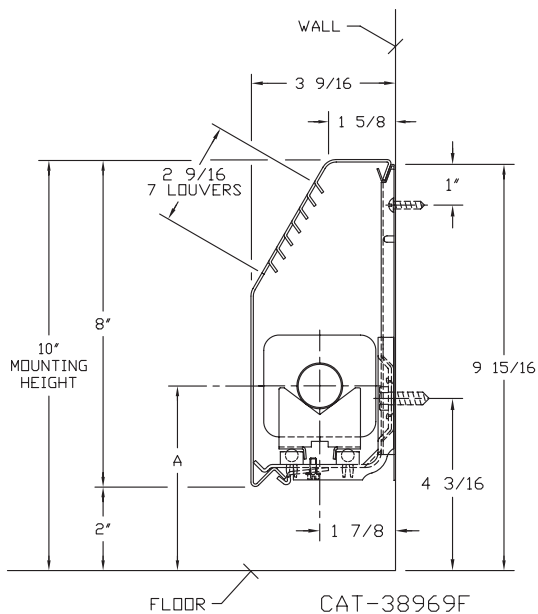


LV2-S8 (Water Brackets only)

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.

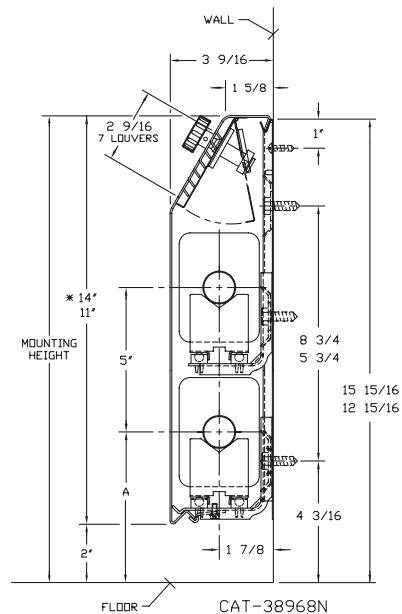
Not recommended for steam applications. Consult factory.



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

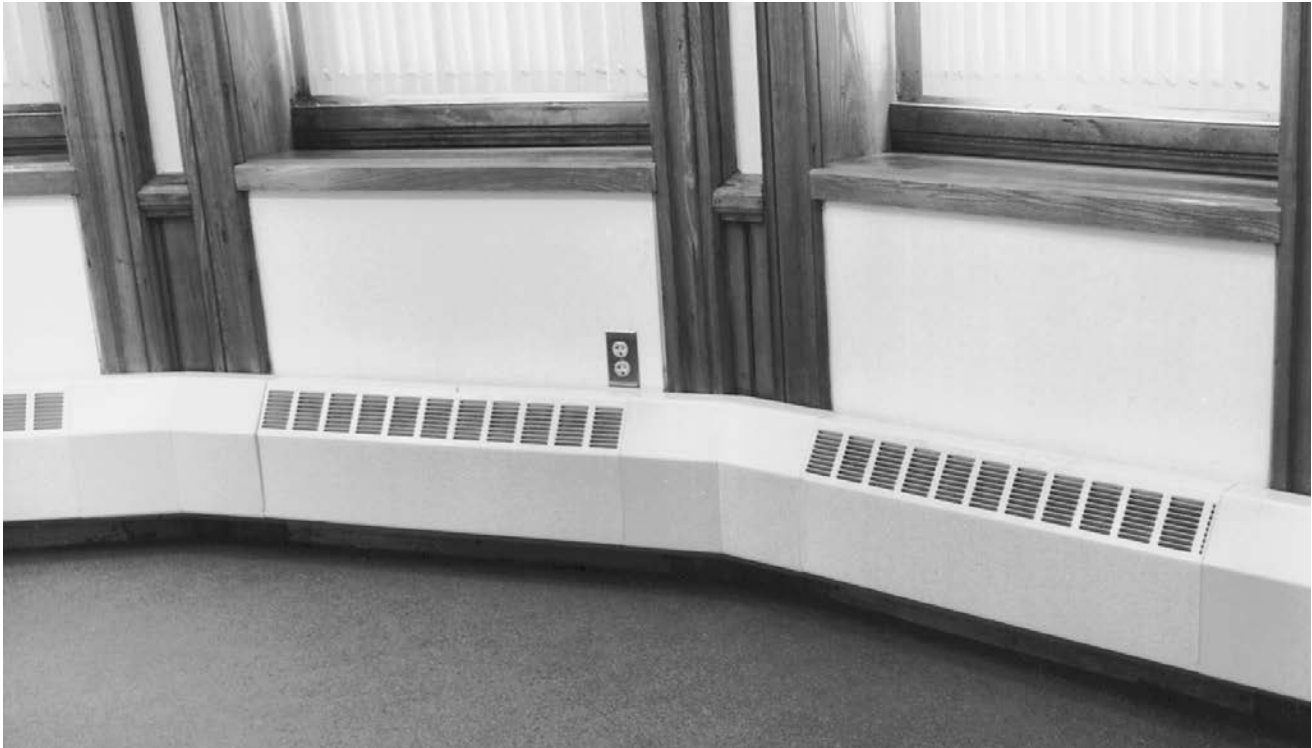
*Not recommended for steam applications, consult factory.

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

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

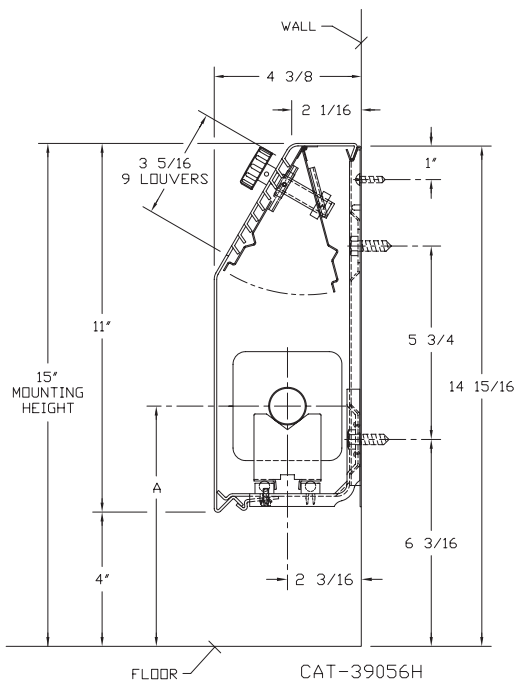
3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVS" SLOPE TOP ENCLOSURES/LOW PROFILE



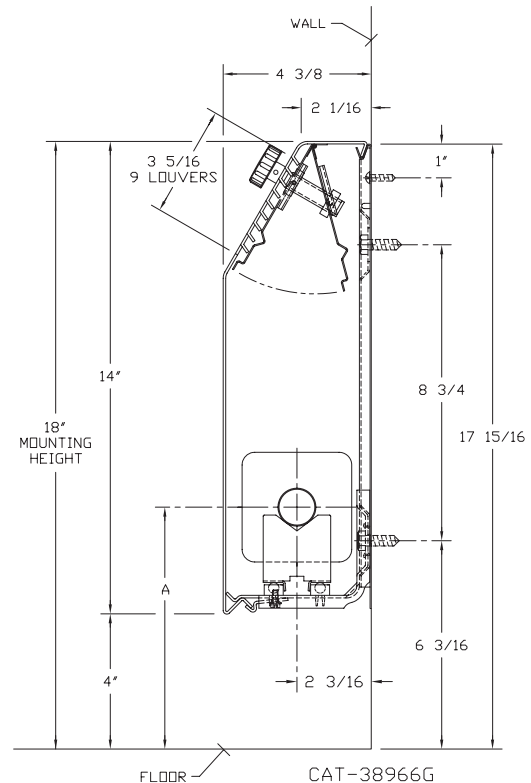
LV3-S11

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	860	780	690	610	530	450	400	330	260
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 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

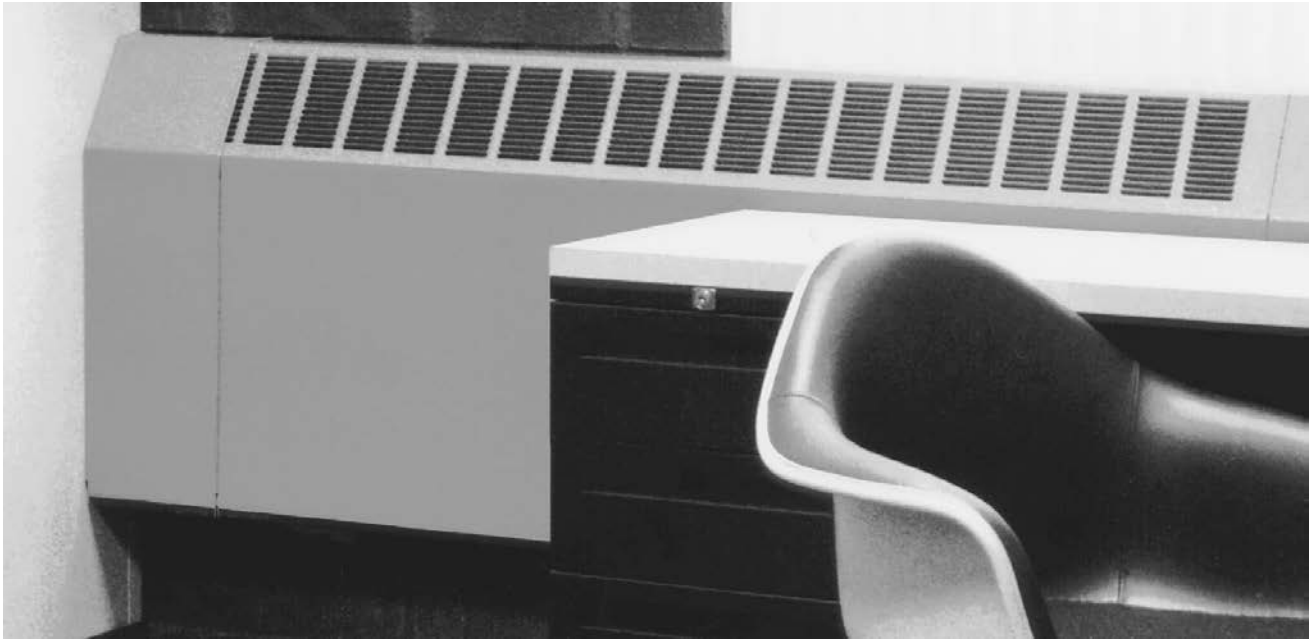
*Not recommended for steam applications consult factory.

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

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

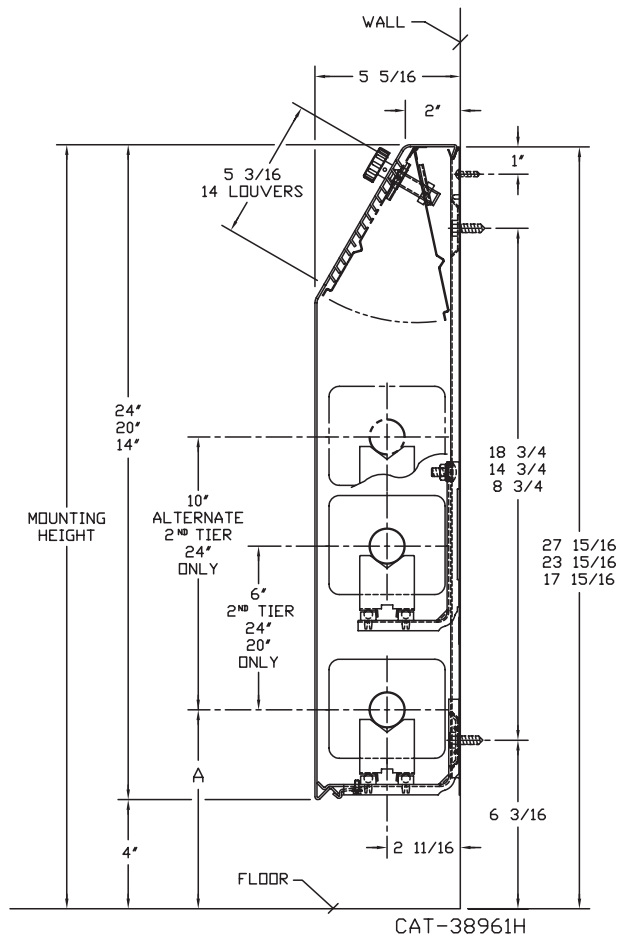
3) The ends can be provided chamfered for field welded fittings when specified.

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
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

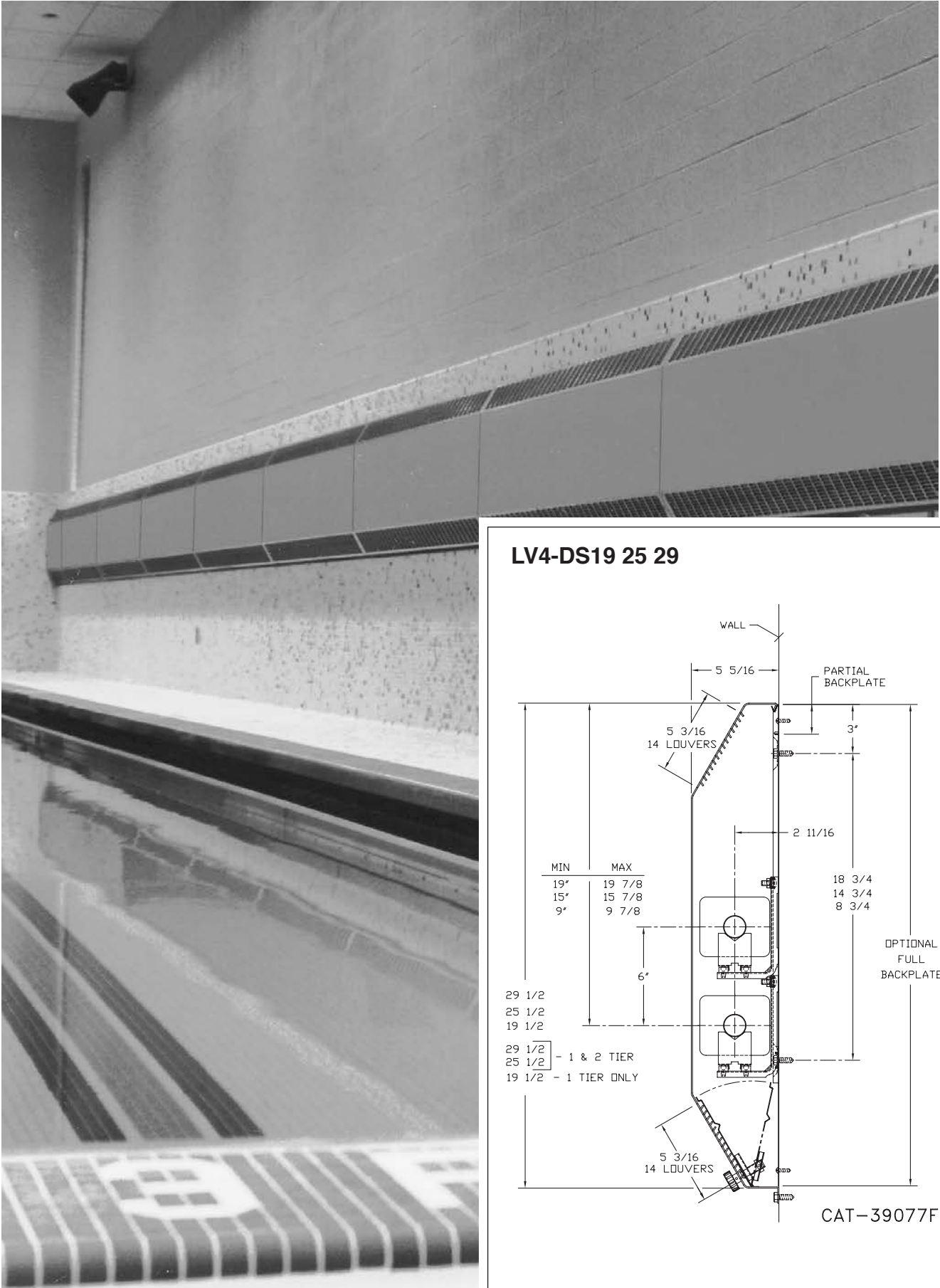


8", 11", 14", 20" and 24" high Linovector-II enclosures can be inverted using standard brackets and ball bearing hangers.

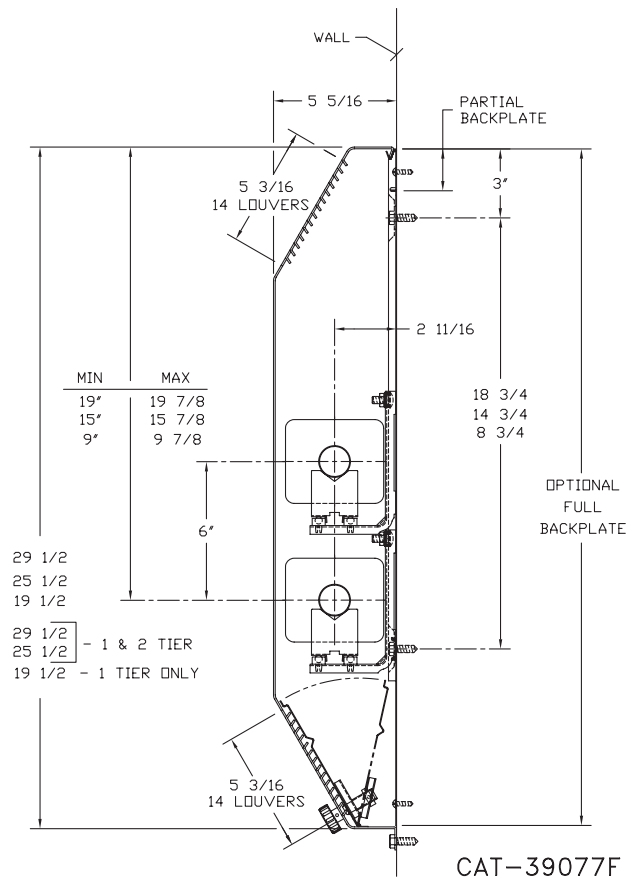
Consult factory for hanger & bracket mounting.

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								
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									1.00
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

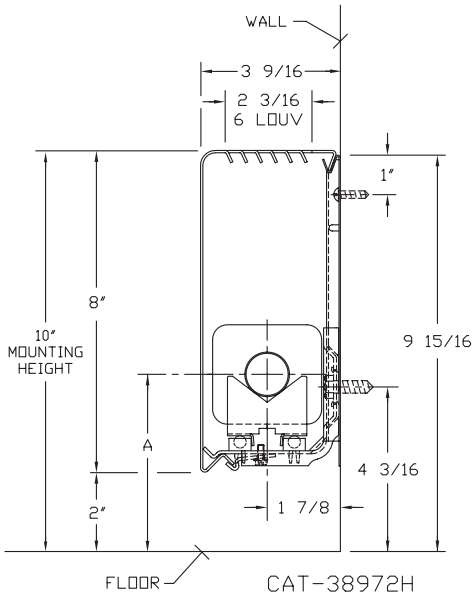


LV2-T8

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.

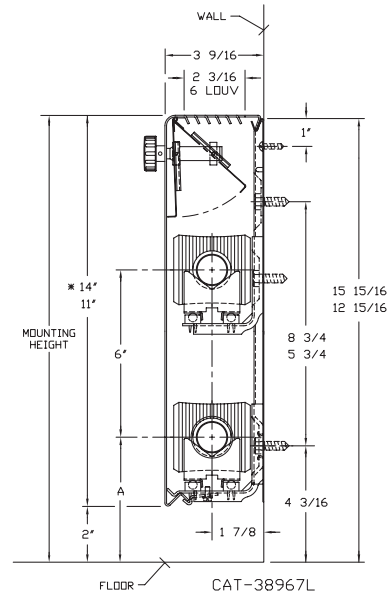
Not recommended for steam applications, consult factory.



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	

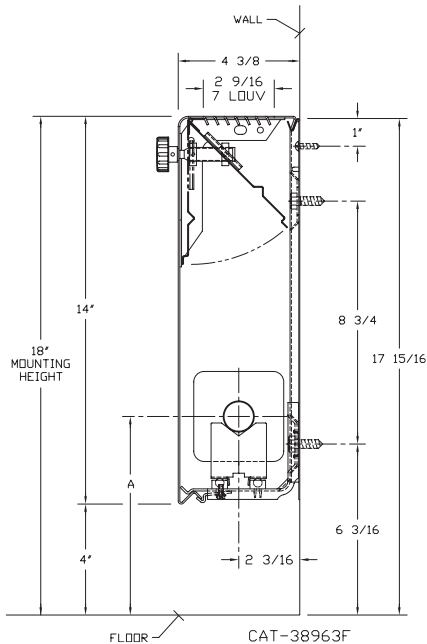
*Not recommended for steam application, consult factory.
Notes: 1) Steel fin furnished as .024 thick, painted black.
2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVT" TOP OUTLET



LV3-T14

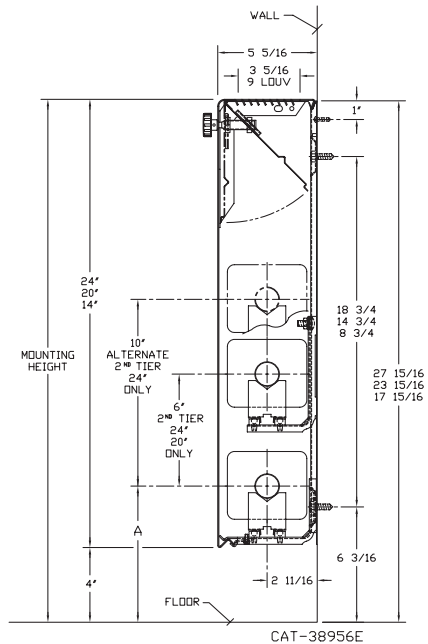
ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A
3/4" COPPER	3 1/4 x 3 1/4	2	7"
1" COPPER	3 1/4 x 3 1/4	2	7 3/16"
1 1/4" COPPER	3 1/4 x 3 1/4	1	6 5/8"
1" STEEL	3 1/4 x 3 1/4	2	7 5/16"
1 1/4" STEEL	3 1/4 x 3 1/4	1	6 13/16"



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								
								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	14	1	18	960	830	750	660	590	510	430	380	320	250
3/4"	VC3/4-34	3-1/4" SQ.	40	.020	14	1	18	1130	970	880	780	690	600	510	450	370	290
3/4"	VC3/4-35	3-1/4" SQ.	50	.020	14	1	18	1280	1100	1000	880	780	680	580	510	420	330
1"	VC33	3-1/4" SQ.	32	.020	14	1	18	940	810	730	650	570	500	420	380	310	240
1"	VC34	3-1/4" SQ.	40	.020	14	1	18	1080	930	840	750	660	570	490	430	360	280
1"	VC35	3-1/4" SQ.	50	.020	14	1	18	1220	1050	950	840	740	650	550	490	400	320
1 1/4"	VC133	3-1/4" SQ.	32	.020	14	1	18	900	770	700	620	550	480	410	360	300	230
1 1/4"	VC134	3-1/4" SQ.	40	.020	14	1	18	1040	890	810	720	630	550	470	420	340	270
1 1/4"	VC135	3-1/4" SQ.	50	.020	14	1	18	1190	1020	930	820	730	630	540	480	390	310
3/4"	VC3/4-433	3-5/8" x 4-1/4"	32	.020	14	1	18	1300	1120	1010	900	790	690	590	520	430	340
					20	1	24	1380	1190	1080	950	840	730	620	550	460	360
					20	2-6 CL	24	2015	1730	1570	1390	1230	1070	910	810	660	520
					24	1	28	1420	1220	1110	980	870	750	640	570	470	370
					24	2-6 CL	28	2100	1810	1640	1450	1280	1110	950	840	690	550
24	3-6 CL	28	2420	2080	1890	1670	1480	1280	1090	970	800	630					
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	14	1	18	1550	1330	1210	1070	950	820	700	620	510	400
					20	1	24	1650	1420	1290	1140	1010	870	740	660	540	430
					20	2-6 CL	24	2360	2030	1840	1630	1440	1250	1060	940	780	610
					24	1	28	1700	1460	1330	1170	1040	900	770	680	560	440
					24	2-6 CL	28	2460	2120	1920	1700	1500	1300	1110	980	810	640
24	3-6 CL	28	2800	2410	2180	1930	1710	1480	1260	1120	920	730					
3/4"	VC3/4-435	3-5/8" x 4-1/4"	50	.020	14	1	18	1740	1500	1360	1200	1060	920	780	700	570	450
					20	1	24	1870	1610	1460	1290	1140	990	840	750	620	490
					20	2-6 CL	24	2690	2310	2100	1860	1640	1430	1210	1080	890	700
					24	1	28	1960	1690	1530	1350	1200	1040	880	780	650	510
					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"	VC433	3-5/8" x 4-1/4"	32	.020	14	1	18	1380	1190	1080	950	840	730	620	550	460	360
					20	1	24	1450	1250	1130	1000	880	770	650	580	480	380
					20	2-6 CL	24	2260	1940	1760	1560	1380	1200	1020	900	750	590
					24	1	28	1490	1280	1160	1030	910	790	670	600	490	390
					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"	VC434	3-5/8" x 4-1/4"	40	.020	14	1	18	1650	1420	1290	1140	1010	870	740	660	540	430
					20	1	24	1710	1470	1330	1180	1040	910	770	680	560	440
					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	2530	2180	1970	1750	1540	1340	1140	1010	830	660
24	3-6 CL	28	2880	2480	2250	1990	1760	1530	1300	1150	950	750					
1"	VC435	3-5/8" x 4-1/4"	50	.020	14	1	18	1810	1560	1410	1250	1100	960	810	720	600	470
					20	1	24	1960	1690	1530	1350	1200	1040	880	780	650	510
					20	2-6 CL	24	2520	2170	1970	1740	1540	1340	1130	1010	830	660
					24	1	28	2050	1760	1600	1410	1250	1090	920	820	680	530
					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"	VC1433	3-5/8" x 4-1/4"	32	.020	14	1	18	1350	1160	1050	930	820	720	610	540	450	350
					20	1	24	1420	1220	1110	980	870	750	640	570	470	370
					20	2 @ 6 CL	24	2220	1910	1730	1530	1350	1180	1000	890	730	580
					24	1	28	1460	1260	1140	1010	890	770	660	580	480	380
					24	2 @ 6 CL	28	2300	1980	1790	1590	1400	1220	1040	920	760	600
24	3 @ 6 CL	28	2650	2280	2070	1830	1620	1400	1190	1060	870	690					
1-1/4"	VC1434	3-5/8" x 4-1/4"	40	.020	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	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"	VC1435	3-5/8" x 4-1/4"	50	.020	14	1	18	1780	1530	1390	1230	1090	940	800	710	590	460
					20	1	24	1920	1650	1500	1320	1170	1020	860	770	630	500
					20	2 @ 6 CL	24	2460	2120	1920	1700	1500	1300	1110	980	810	640
					24	1	28	2010	1730	1570	1390	1230	1070	900	800	660	520
					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 "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									
									1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26									
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	720	660	580	510	450	380	340	280	220
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
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
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
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
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
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
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
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
2"	VS243	4-1/4" SQ.	32	.032	14	1	18	2320	2000	1810	1600	1420	1230	1040	930	770	600
					20	1	24	2320	2000	1810	1600	1420	1230	1040	930	770	600
					20	2-6 CL	24	2320	2000	1810	1600	1420	1230	1040	930	770	600
					24	1	28	2320	2000	1810	1600	1420	1230	1040	930	770	600
					24	2-6 CL	28	2320	2000	1810	1600	1420	1230	1040	930	770	600

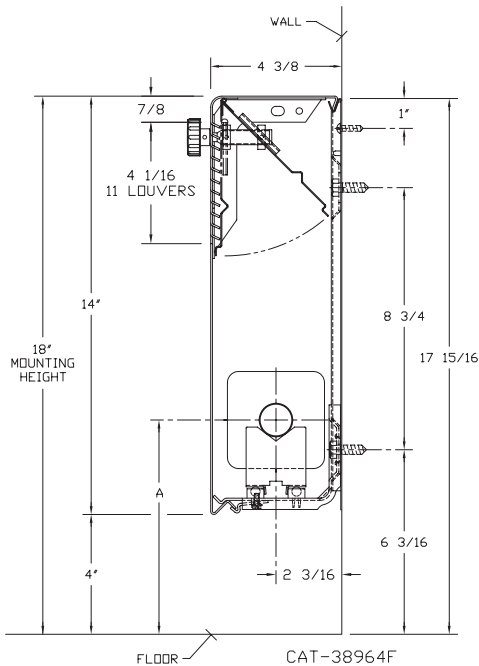
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVF" FRONT OUTLET



LV3-F14

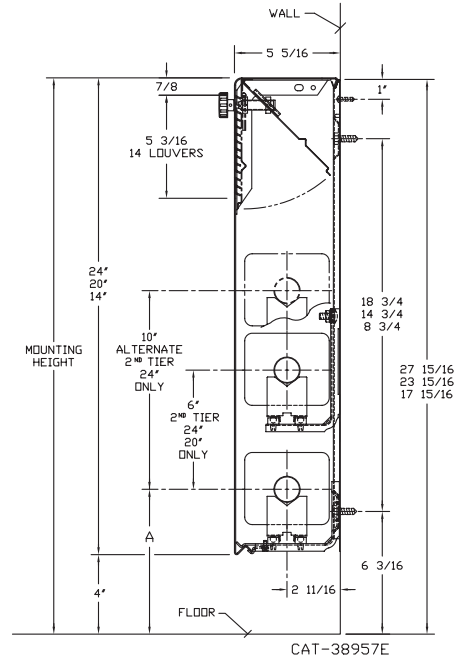
ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A
3/4" COPPER	3 1/4 x 3 1/4	2	7"
1" COPPER	3 1/4 x 3 1/4	2	7 3/16"
1 1/4" COPPER	3 1/4 x 3 1/4	1	6 5/8"
1" STEEL	3 1/4 x 3 1/4	2	7 5/16"
1 1/4" STEEL	3 1/4 x 3 1/4	1	6 13/16"



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									
									1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
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	850	770	680	600	520	450	400	330	260
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
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

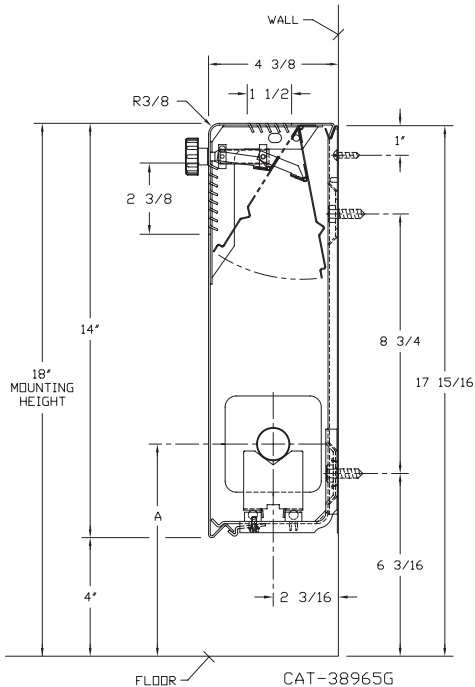
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVFT" FRONT & TOP OUTLET



LV3-FT14

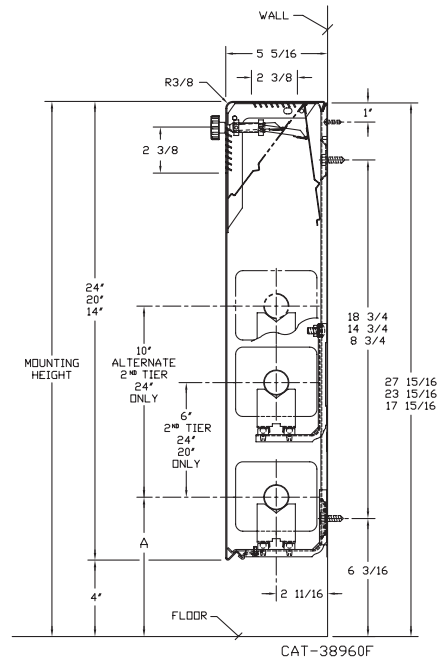
ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A
3/4 COPPER	3 1/4 x 3 1/4	2	7"
1" COPPER	3 1/4 x 3 1/4	2	7 3/16"
1 1/4 COPPER	3 1/4 x 3 1/4	1	6 5/8"
1" STEEL	3 1/4 x 3 1/4	2	7 5/16"
1 1/4 STEEL	3 1/4 x 3 1/4	1	6 13/16"



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									
									1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
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	
									1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26	
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	800	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		

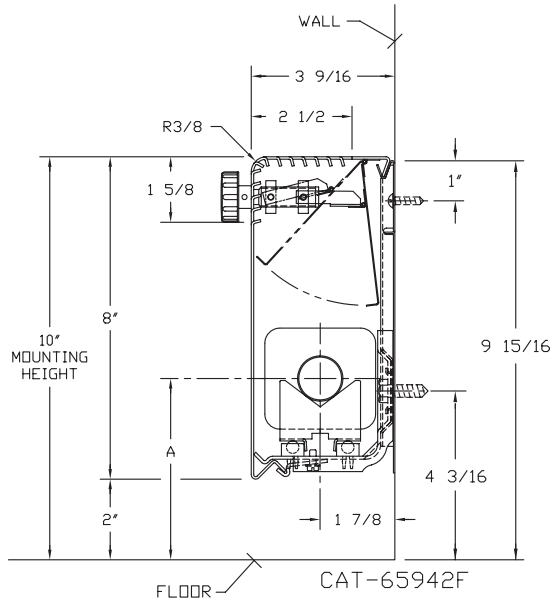
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LV2R" SLIMLINE

LV2-R8

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

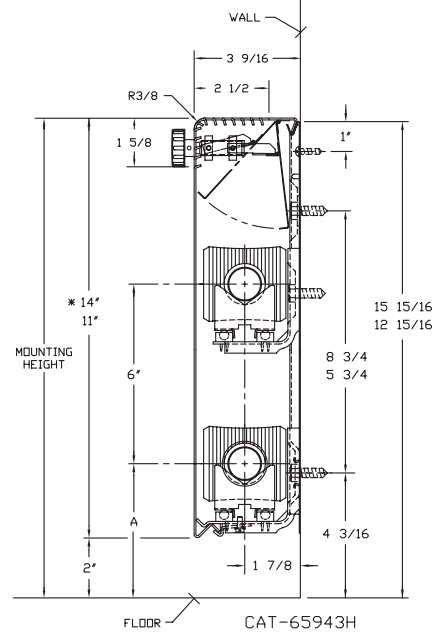
* Damper available with these elements only.



LV2-R11 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	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 "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

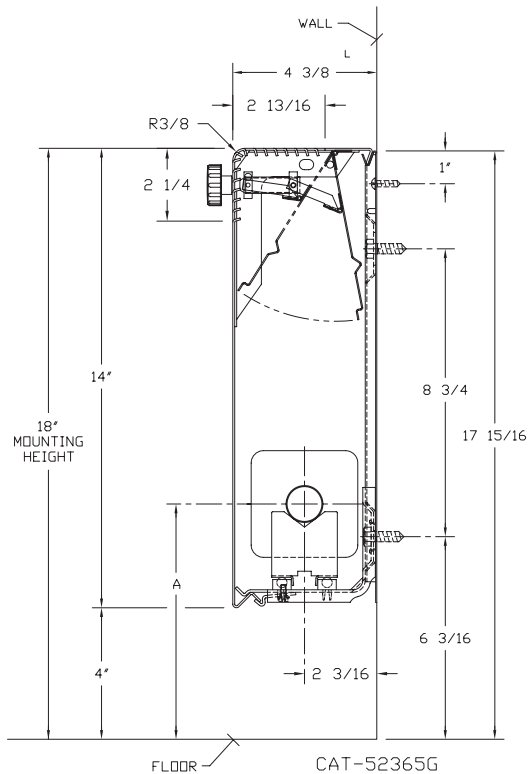
*Not recommended for steam applications, consult factory.
Notes: 1) Steel fin furnished as .024 thick. Painted black.
2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVR" FLAT TOP



LV3-R14

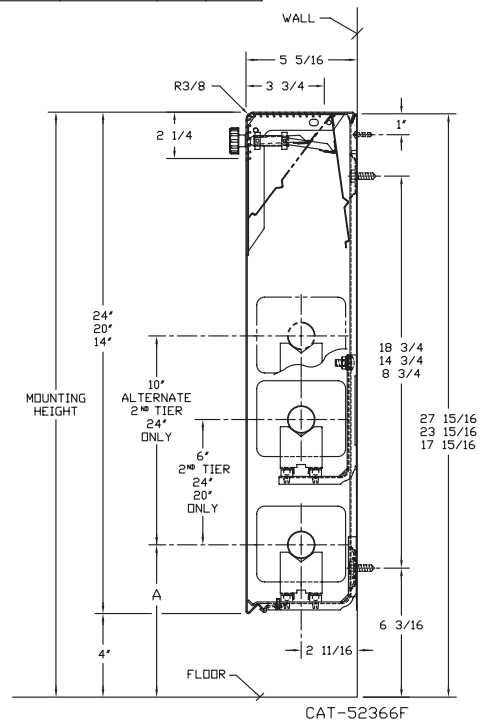
ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A
3/4 COPPER	3 1/4 x 3 1/4	2	7"
1" COPPER	3 1/4 x 3 1/4	2	7 3/16"
1 1/4 COPPER	3 1/4 x 3 1/4	1	6 5/8"
1" STEEL	3 1/4 x 3 1/4	2	7 5/16"
1 1/4 STEEL	3 1/4 x 3 1/4	1	6 13/16"



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	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	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									
									1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
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	
24	3-6 CL	28	2800	2410	2180	1930	1710	1480	1260	1120	920	730						
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	
24	3-6 CL	28	3730	3210	2910	2570	2280	1980	1680	1490	1230	970						
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	
24	3-6 CL	28	3820	3290	2980	2640	2330	2020	1720	1530	1260	990						
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	
24	3-6 CL	28	3230	2780	2520	2230	1970	1710	1450	1290	1070	840						
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	
24	3-6 CL	28	3410	2930	2660	2350	2080	1810	1530	1360	1130	890						
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	
24	3-6 CL	28	3670	3160	2860	2530	2240	1950	1650	1470	1210	950						
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	
24	3-6 CL	28	3130	2690	2440	2160	1910	1660	1410	1250	1030	810						
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	
24	3-6 CL	28	3350	2880	2610	2310	2040	1780	1510	1340	1110	870						
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	
24	3-6 CL	28	3460	2980	2700	2390	2110	1830	1560	1380	1140	900						

Note: Copper tube furnished flared one end standard.

STYLE "LVR" FLAT TOP

STEEL ELEMENTS

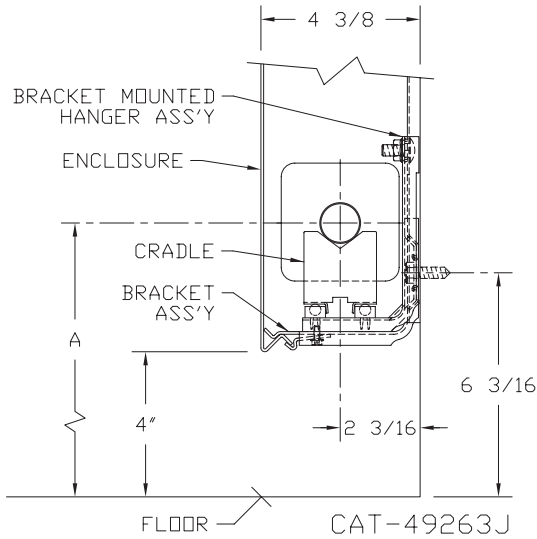
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

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									
									1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26									
1"	VS33	3-1/4" SQ.	32	.032	14	1	18	1000	860	780	690	610	530	450	400	330	260										
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										
24	3-6 CL	28	2590	2230	2020	1790	1580	1370	1170	1040	850	670															
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										
24	3-6 CL	28	2820	2430	2200	1950	1720	1490	1270	1130	930	730															
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										
24	3-6 CL	28	2860	2460	2230	1970	1740	1520	1290	1140	940	740															
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										
24	3-6 CL	28	2440	2100	1900	1680	1490	1290	1100	980	810	630															
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										
24	3-6 CL	28	2860	2460	2230	1970	1740	1520	1290	1140	940	740															
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										
24	3-6 CL	28	2810	2420	2190	1940	1710	1490	1260	1120	930	730															
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										
24	3-6 CL	28	2300	1980	1790	1590	1400	1220	1040	920	760	600															
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															

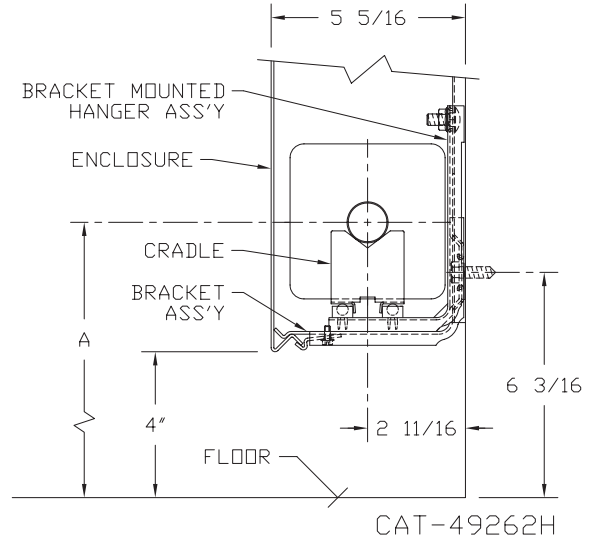
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

VERTICAL ELEMENT CENTERLINE DIMENSIONS FOR INSTALLATIONS USING STEAM BRACKETS WITH HANGERS

“3” OFFSET



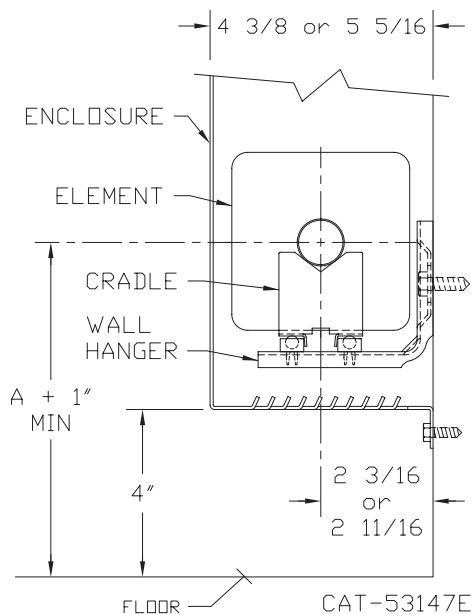
“4” OFFSET



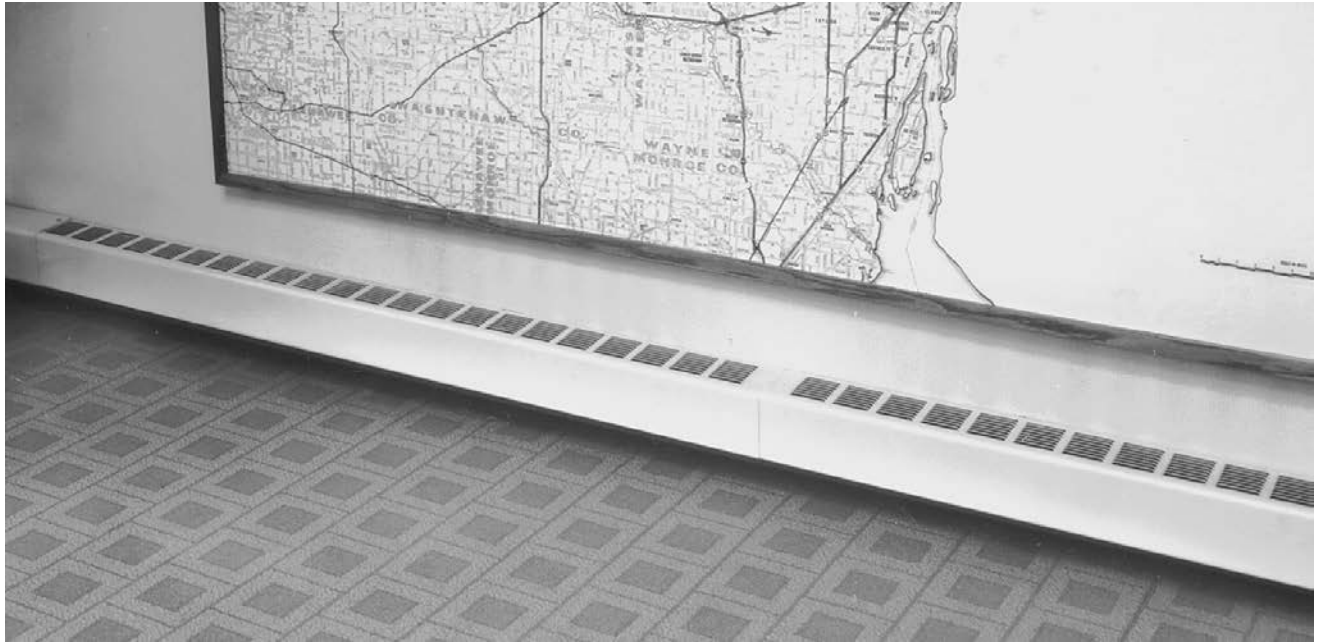
ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A MIN	A MAX
3/4 COPPER	3 1/4 x 3 1/4	2	7 3/8	9 5/8
1" COPPER	3 1/4 x 3 1/4	2	7 1/2	9 3/4
1 1/4 COPPER	3 1/4 x 3 1/4	2	7 5/8	9 7/8
1" STEEL	3 1/4 x 3 1/4	2	7 5/8	9 3/4
1 1/4 STEEL	3 1/4 x 3 1/4	1	7 3/16	9 3/8

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	7 3/8	8 3/4
	4 1/4 x 4 1/4	3A	7 11/16	9 1/16
1" COPPER	3 5/8 x 4 1/4	2	7 1/2	8 7/8
	4 1/4 x 4 1/4			
1 1/4 COPPER	3 5/8 x 4 1/4	2	7 5/8	9"
	4 1/4 x 4 1/4			
1" STEEL	4 1/4 x 4 1/4	2	7 5/8	9"
1 1/4 STEEL	4 1/4 x 4 1/4	2	7 7/8	9 1/4
2" STEEL	4 1/4 x 4 1/4	1	7 5/8	9"

LOUVERED INLET RETURN TO WALL

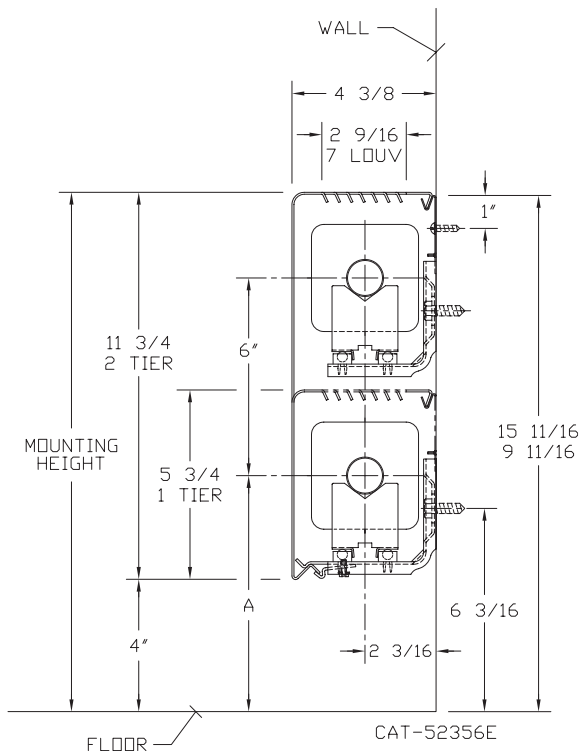


STYLE "LVE" TOP OUTLET



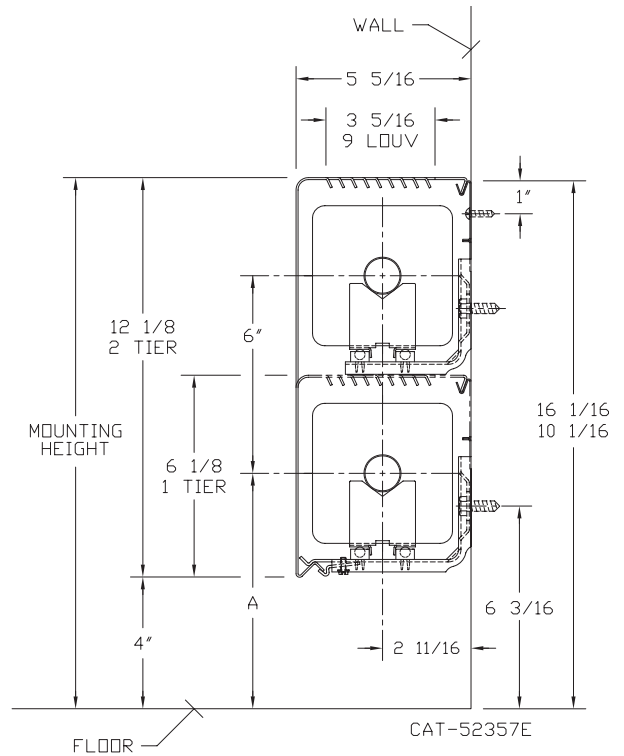
LV3-E5 11

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
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	865 1340	740 1150	670 1050	600 920	530 820	460 710	390 600	350 540	290 440	220 350	
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 1900	1020 1630	930 1480	820 1310	730 1160	630 1010	540 860	480 760	390 630	310 490	
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	1200 1900	1030 1630	940 1480	830 1310	730 1160	640 1010	540 860	480 760	400 630	310 490	
3/4"	VC3/4-44	4-1/4" SQ.	40	.020	6 12	1 2-6 CL	10-1/8 16-1/8	1600 2200	1380 1890	1250 1720	1100 1520	980 1340	850 1170	720 990	640 880	530 730	420 570	
3/4"	VC3/4-45	4-1/4" SQ.	50	.020	6 12	1 2-6 CL	10-1/8 16-1/8	1330 1880	1140 1620	1040 1470	920 1300	810 1150	700 1000	600 850	530 750	440 620	350 490	
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	1480 2010	1270 1730	1150 1570	1020 1390	900 1230	780 1070	670 900	590 800	490 660	380 520	
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

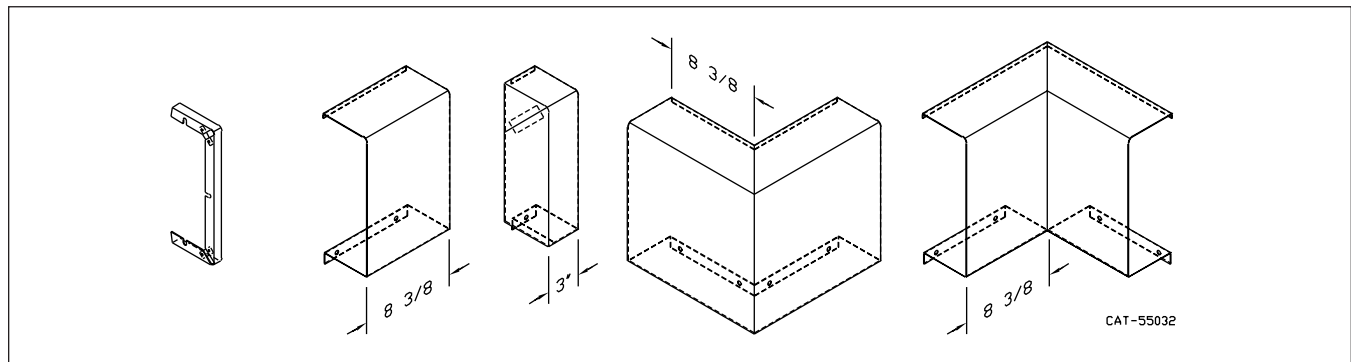
STEEL ELEMENTS

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

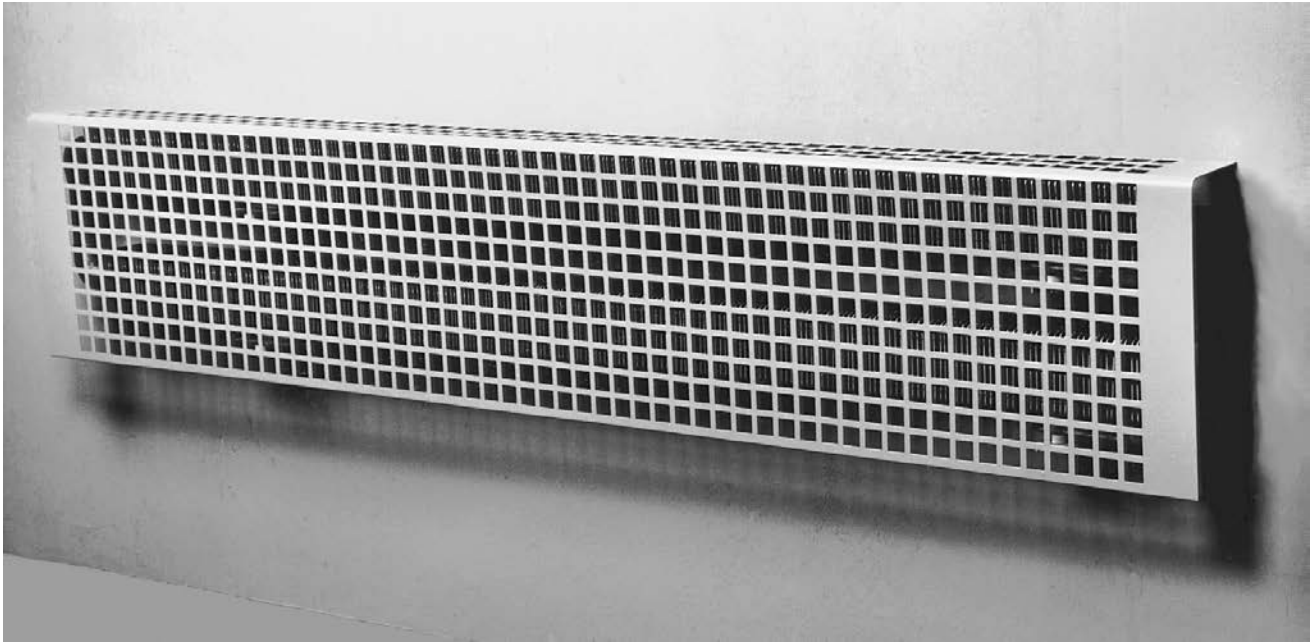
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MOUNTING HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.)																		
									200°	190°	180°	170°	160°	150°	140°	130°	120°	CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES									
									1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26									
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

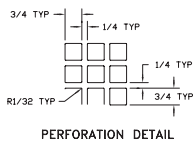
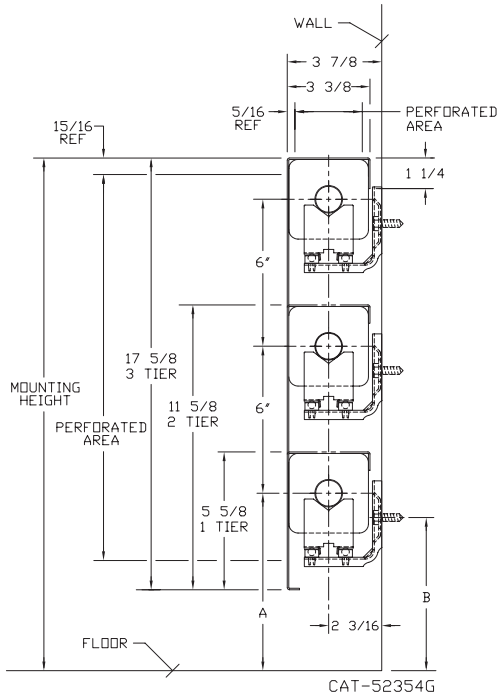


STYLE "LVX" EXPANDED METAL



LV3-X

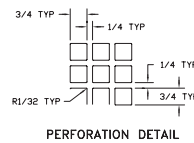
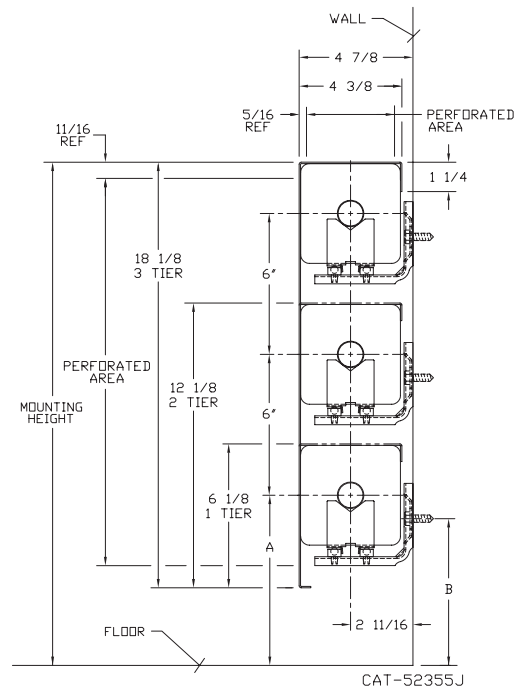
ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A	B
3/4" COPPER	3 1/4 x 3 1/4	2	7 3/16	6 3/8
1" COPPER	3 1/4 x 3 1/4	2	7 3/16	6 3/16
1 1/4" COPPER	3 1/4 x 3 1/4	1	7 3/16	6 3/4
1" STEEL	3 1/4 x 3 1/4	2	7 3/16	6 1/16
1 1/4" STEEL	3 1/4 x 3 1/4	1	7 3/16	6 9/16



PERFORATION DETAIL

LV4-X

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



PERFORATION DETAIL

STYLE "LVX" EXPANDED METAL

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	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" EXPANDED METAL

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	1230	1120	990	870	760	640	570	470	370
					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

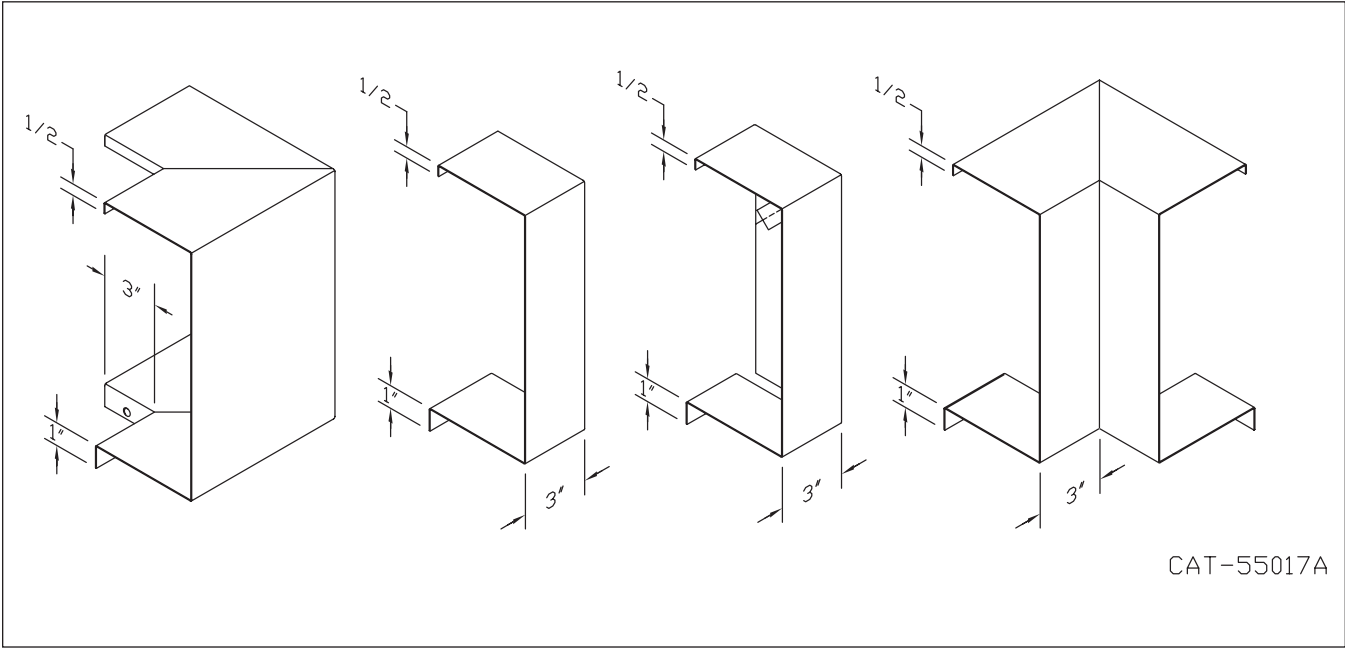
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

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	750	680	600	530	460	390	350	290	230
					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

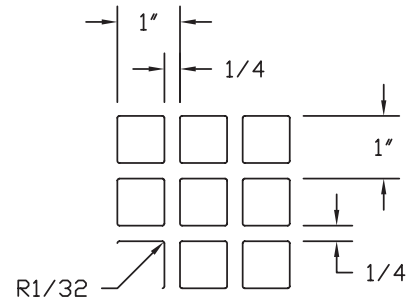
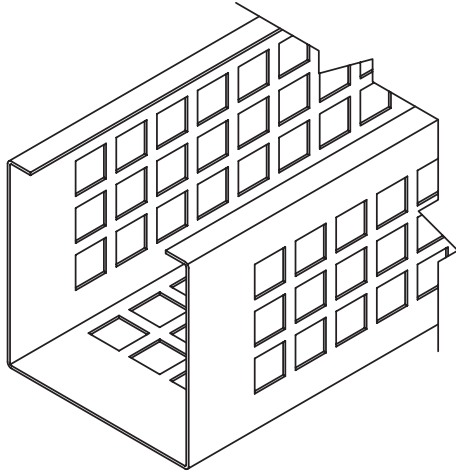
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVX" EXPANDED METAL

STYLE LVX ACCESSORIES



STYLE "LVX" EXPANDED METAL - CEILING



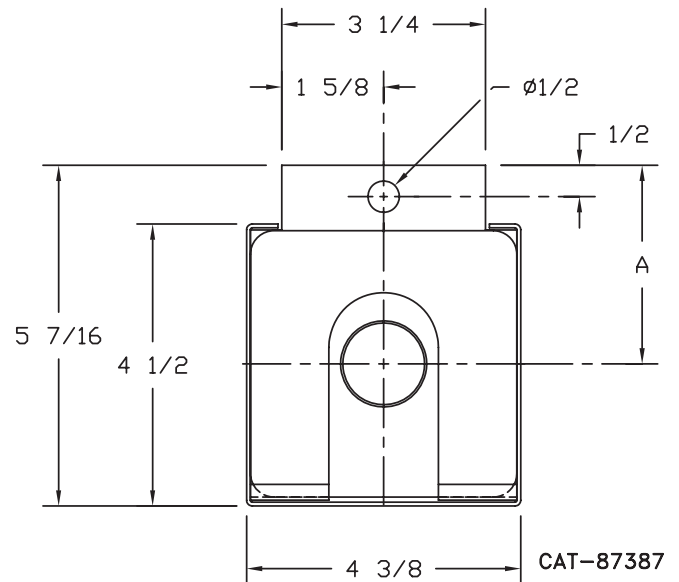
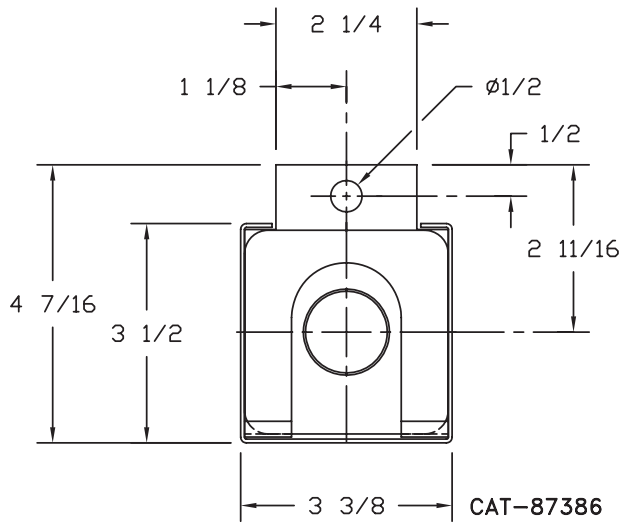
ENCLOSURE PERFORATION DETAIL

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.

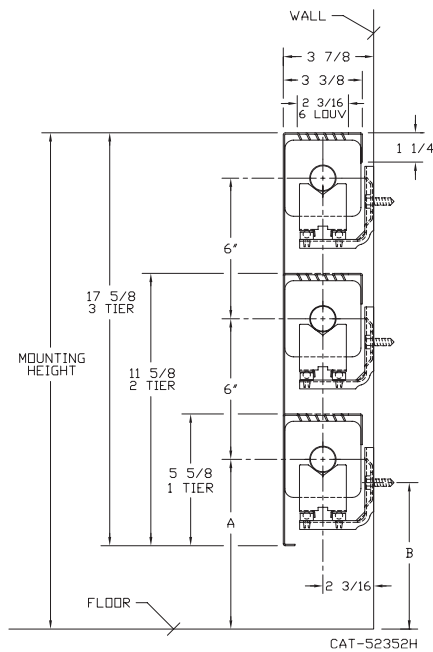
Apply .85 derate factor to "X" style ratings.

STYLE "LVC" TOP OUTLET



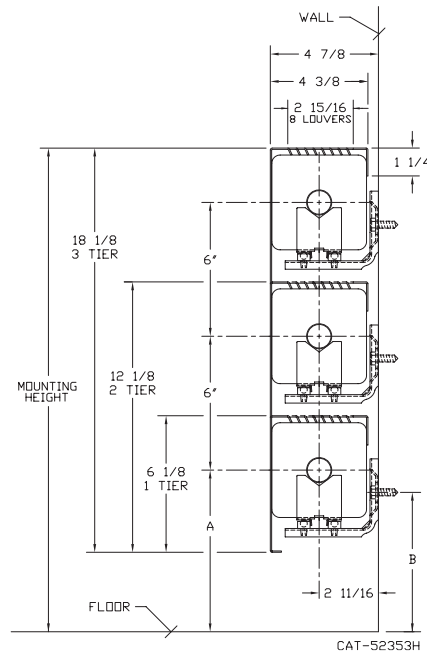
LV3-C

ELEMENT 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 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

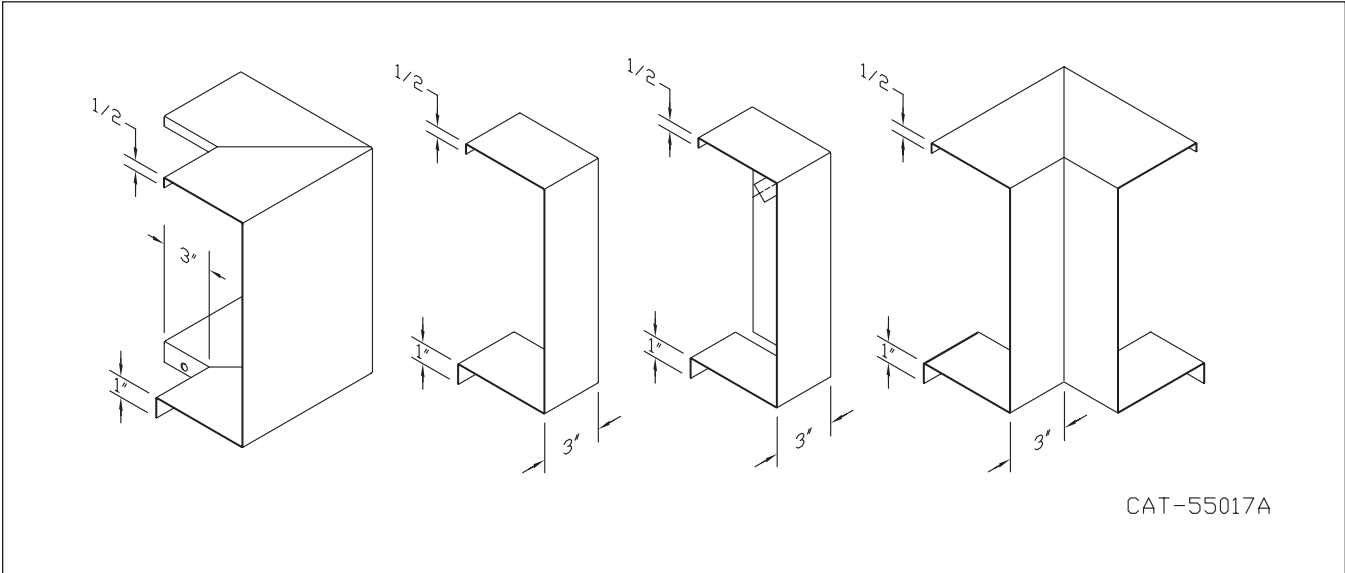
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

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

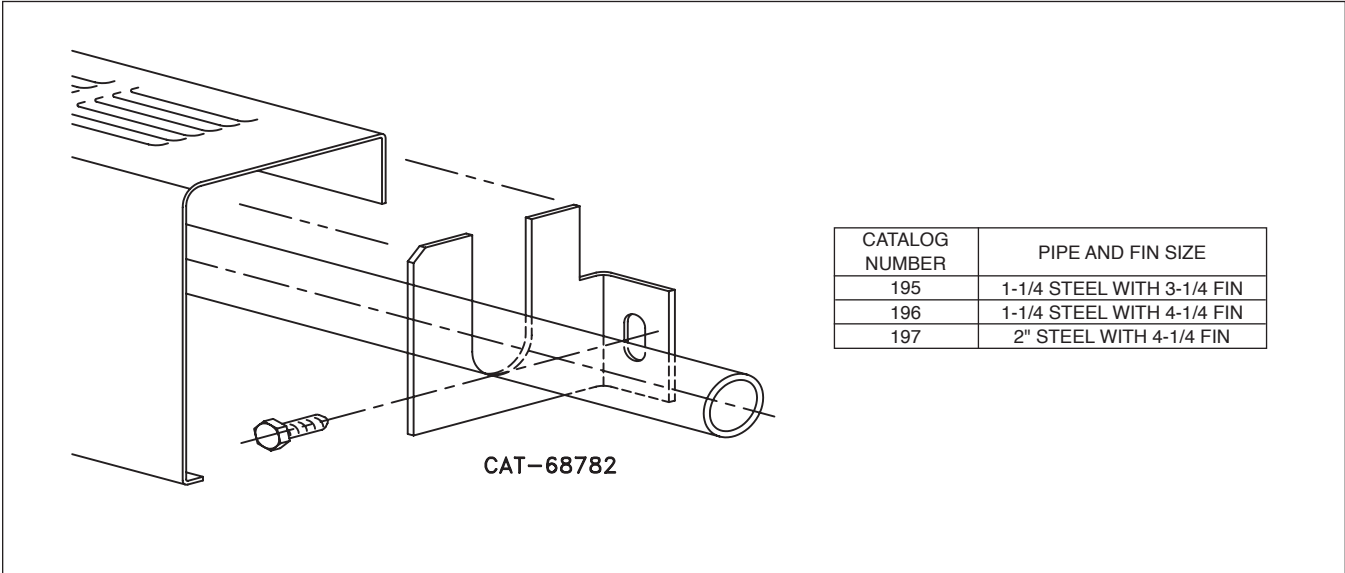
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVC" TOP OUTLET

STYLE LVC ACCESSORIES



PIPE AND COVER SUPPORT BRACKET

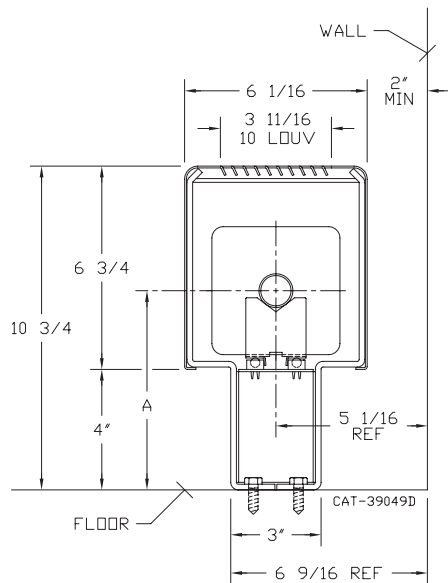


STYLE "LVPM" PEDESTAL MOUNTED



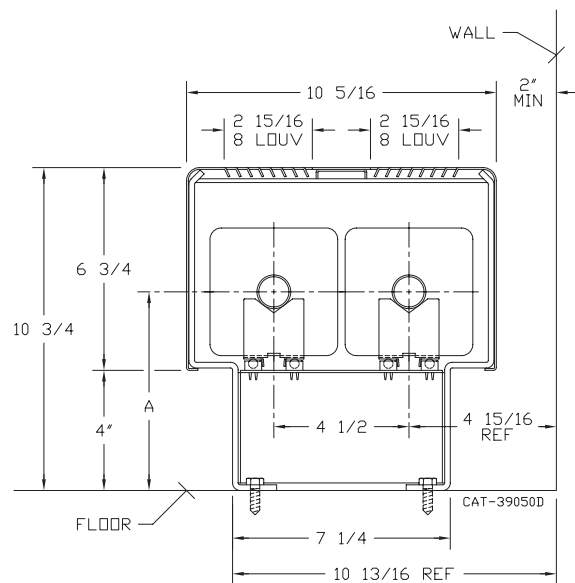
LV4-PM

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	1	10 3/4	1040	890	810	720	630	550	470	420	340	270	
					10 5/16	2 - 4 1/2	10 3/4	2080	1790	1620	1440	1270	1100	940	830	690	540	
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	6 3/4	1	10 3/4	1250	1080	980	860	760	660	560	500	410	330	
					10 5/16	2 - 4 1/2	10 3/4	2490	2140	1940	1720	1520	1320	1120	1000	820	650	
3/4"	VC3/4-435	3-5/8" x 4-1/4"	50	.020	6 3/4	1	10 3/4	1380	1190	1080	950	840	730	620	550	460	360	
					10 5/16	2 - 4 1/2	10 3/4	2750	2370	2150	1900	1680	1460	1240	1100	910	720	
1"	VC433	3-5/8" x 4-1/4"	32	.020	6 3/4	1	10 3/4	1080	930	840	750	660	570	490	430	360	280	
					10 5/16	2 - 4 1/2	10 3/4	2170	1870	1690	1500	1320	1150	980	870	720	560	
1"	VC434	3-5/8" x 4-1/4"	40	.020	6 3/4	1	10 3/4	1210	1040	940	830	740	640	540	480	400	310	
					10 5/16	2 - 4 1/2	10 3/4	2430	2090	1900	1680	1480	1290	1090	970	800	630	
1"	VC435	3-5/8" x 4-1/4"	50	.020	6 3/4	1	10 3/4	1380	1190	1080	950	840	730	620	550	460	360	
					10 5/16	2 - 4 1/2	10 3/4	2750	2370	2150	1900	1680	1460	1240	1100	910	720	
1-1/4"	VC1433	3-5/8" x 4-1/4"	32	.020	6 3/4	1	10 3/4	1130	970	880	780	690	600	510	450	370	290	
					10 5/16	2 - 4 1/2	10 3/4	2250	1940	1760	1550	1370	1190	1010	900	740	590	
1-1/4"	VC1434	3-5/8" x 4-1/4"	40	.020	6 3/4	1	10 3/4	1240	1070	970	860	760	660	560	500	410	320	
					10 5/16	2 - 4 1/2	10 3/4	2480	2130	1930	1710	1510	1310	1120	990	820	640	
1-1/4"	VC1435	3-5/8" x 4-1/4"	50	.020	6 3/4	1	10 3/4	1380	1190	1080	950	840	730	620	550	460	360	
					10 5/16	2 - 4 1/2	10 3/4	2750	2370	2150	1900	1680	1460	1240	1100	910	720	
3/4"	VC3/4-43	4-1/4" SQ.	32	.020	6 3/4	1	10 3/4	1150	990	900	790	700	610	520	460	380	300	
					10 5/16	2 - 4 1/2	10 3/4	2300	1980	1790	1590	1400	1220	1040	920	760	600	
3/4"	VC3/4-44	4-1/4" SQ.	40	.020	6 3/4	1	10 3/4	1380	1190	1080	950	840	730	620	550	460	360	
					10 5/16	2 - 4 1/2	10 3/4	2750	2370	2150	1900	1680	1460	1240	1100	910	720	
3/4"	VC3/4-45	4-1/4" SQ.	50	.020	6 3/4	1	10 3/4	1420	1220	1110	980	870	750	640	570	470	370	
					10 5/16	2 - 4 1/2	10 3/4	2840	2440	2220	1960	1730	1510	1280	1140	940	740	
1"	VC43	4-1/4" SQ.	32	.020	6 3/4	1	10 3/4	1150	990	900	790	700	610	520	460	380	300	
					10 5/16	2 - 4 1/2	10 3/4	2300	1980	1790	1590	1400	1220	1040	920	760	600	
1"	VC44	4-1/4" SQ.	40	.020	6 3/4	1	10 3/4	1280	1100	1000	880	780	680	580	510	420	330	
					10 5/16	2 - 4 1/2	10 3/4	2560	2200	2000	1770	1560	1360	1150	1020	840	670	
1"	VC45	4-1/4" SQ.	50	.020	6 3/4	1	10 3/4	1440	1240	1120	990	880	760	650	580	480	370	
					10 5/16	2 - 4 1/2	10 3/4	2890	2490	2250	1990	1760	1530	1300	1160	950	750	
1-1/4"	VC143	4-1/4" SQ.	32	.020	6 3/4	1	10 3/4	1200	1030	940	830	730	640	540	480	400	310	
					10 5/16	2 - 4 1/2	10 3/4	2410	2070	1880	1660	1470	1280	1080	960	800	630	
1-1/4"	VC144	4-1/4" SQ.	40	.020	6 3/4	1	10 3/4	1430	1230	1120	990	870	760	640	570	470	370	
					10 5/16	2 - 4 1/2	10 3/4	2860	2460	2230	1970	1740	1520	1290	1140	940	740	
1-1/4"	VC145	4-1/4" SQ.	50	.020	6 3/4	1	10 3/4	1470	1260	1150	1010	900	780	660	590	490	380	
					10 5/16	2 - 4 1/2	10 3/4	2940	2530	2290	2030	1790	1560	1320	1180	970	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	1	10 3/4	1140	980	890	790	700	600	510	460	380	300	
					10 5/16	2 - 4 1/2	10 3/4	2270	1950	1770	1570	1380	1200	1020	910	750	590	
1"	VS44	4-1/4" SQ.	40	.032	6 3/4	1	10 3/4	1280	1100	1000	880	780	680	580	510	420	330	
					10 5/16	2 - 4 1/2	10 3/4	2560	2200	2000	1770	1560	1360	1150	1020	840	670	
1"	VS45	4-1/4" SQ.	50	.032	6 3/4	1	10 3/4	1360	1170	1060	940	830	720	610	540	450	350	
					10 5/16	2 - 4 1/2	10 3/4	2720	2340	2120	1880	1660	1440	1220	1090	900	710	
1-1/4"	VS143	4-1/4" SQ.	32	.032	6 3/4	1	10 3/4	1050	900	820	720	640	560	470	420	350	270	
					10 5/16	2 - 4 1/2	10 3/4	2100	1810	1640	1450	1280	1110	950	840	690	550	
1-1/4"	VS144	4-1/4" SQ.	40	.032	6 3/4	1	10 3/4	1270	1090	990	880	770	670	570	510	420	330	
					10 5/16	2 - 4 1/2	10 3/4	2550	2190	1990	1760	1560	1350	1150	1020	840	660	
1-1/4"	VS145	4-1/4" SQ.	50	.032	6 3/4	1	10 3/4	1330	1140	1040	920	810	700	600	530	440	350	
					10 5/16	2 - 4 1/2	10 3/4	2670	2300	2080	1840	1630	1420	1200	1070	880	690	
2"	VS242	4-1/4" SQ.	25	.032	6 3/4	1	10 3/4	980	840	760	680	600	520	440	390	320	250	
					10 5/16	2 - 4 1/2	10 3/4	1960	1690	1530	1350	1200	1040	880	780	650	510	
2"	VS243	4-1/4" SQ.	32	.032	6 3/4	1	10 3/4	1140	980	890	790	700	600	510	460	380	300	
					10 5/16	2 - 4 1/2	10 3/4	2270	1950	1770	1570	1380	1200	1020	910	750	590	

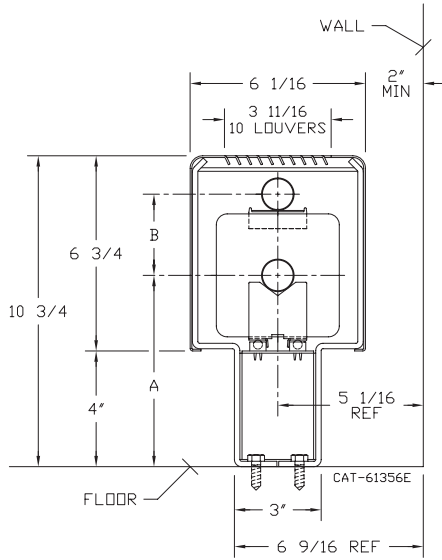
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) Ratings based on typical window wall installation.
 4) The ends can be provided chamfered for field welded fittings when specified.

STYLE "LVPM" PEDESTAL MOUNTED

ALTERNATE PIPING CAPABILITY WITH 3/4" AND 1" COPPER TUBE ELEMENTS

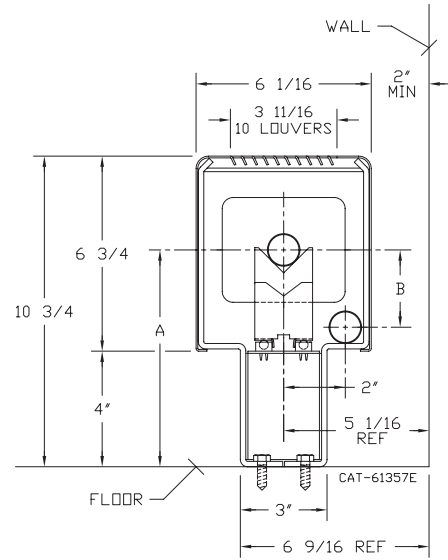
LV4-PM WITH RETURN ABOVE ELEMENT

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



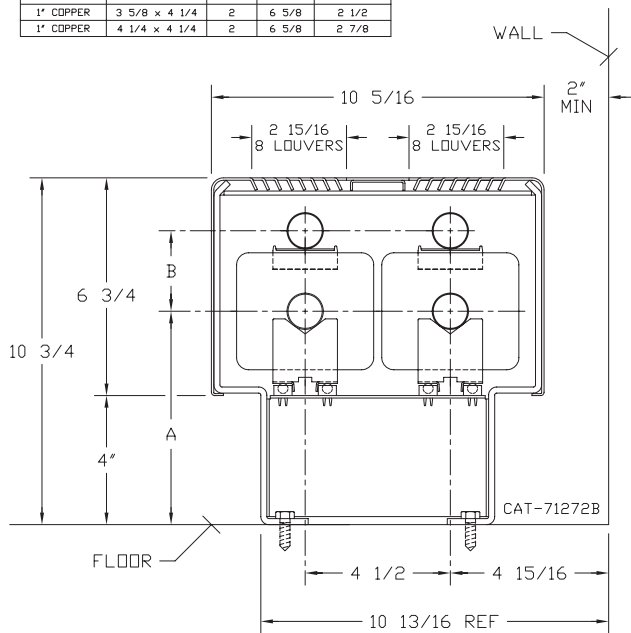
LV4-PM WITH RETURN BELOW ELEMENT

ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A	B WITH 3/4 RETURN	B WITH 1" RETURN
3/4 COPPER	3 5/8 x 4 1/4	6	7 3/16	2 1/2	2 3/8
3/4 COPPER	4 1/4 x 4 1/4	10	7 3/8	2 11/16	N/A
1" COPPER	3 5/8 x 4 1/4	6	7 3/8	2 11/16	2 9/16
1" COPPER	4 1/4 x 4 1/4	10	7 9/16	2 7/8	2 3/4



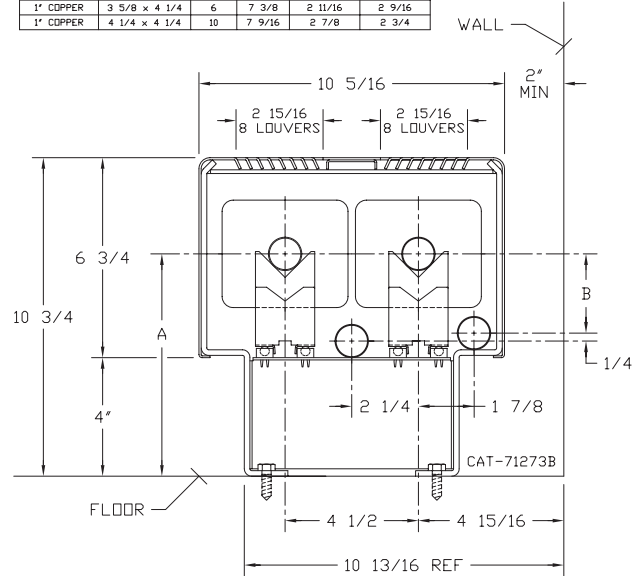
LV4-PM2 WITH RETURN ABOVE ELEMENT

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



LV4-PM2 WITH RETURN BELOW ELEMENT

ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A	B WITH 3/4 RETURN	B WITH 1" RETURN
3/4 COPPER	3 5/8 x 4 1/4	6	7 3/16	2 1/2	2 3/8
3/4 COPPER	4 1/4 x 4 1/4	10	7 3/8	2 11/16	N/A
1" COPPER	3 5/8 x 4 1/4	6	7 3/8	2 11/16	2 9/16
1" COPPER	4 1/4 x 4 1/4	10	7 9/16	2 7/8	2 3/4

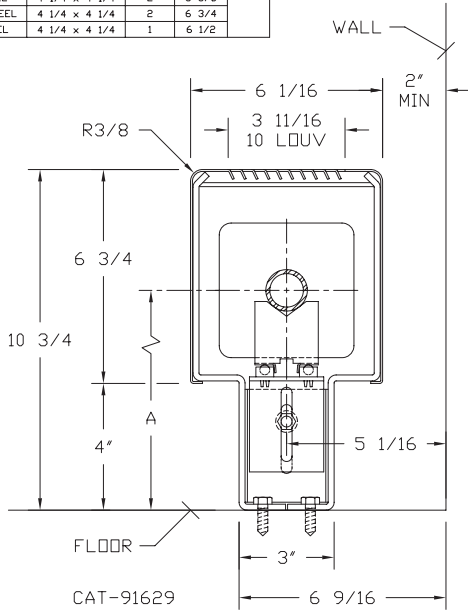


STYLE "LVPM" PEDESTAL MOUNTED

OPTIONAL ADJUSTABLE PEDESTAL BRACKET ASSEMBLIES FOR 2-PIPE STEAM

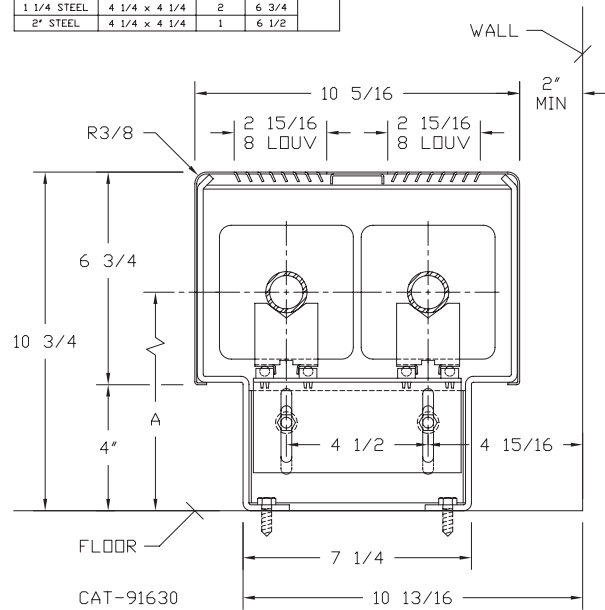
LV4-PM

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		
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		
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		
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		
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	



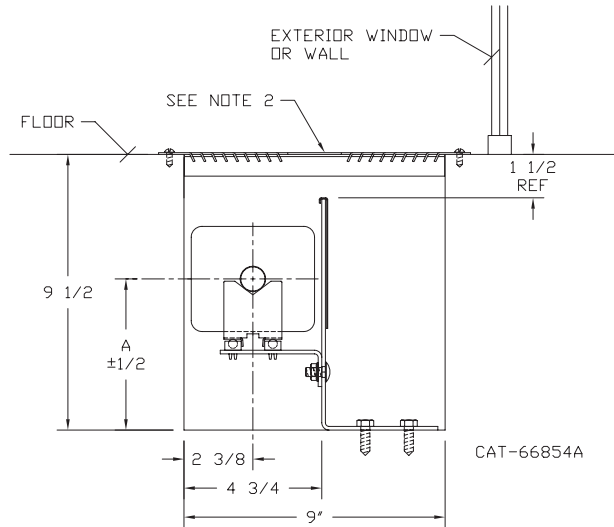
STYLE "TR" TROUGH

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	.020	9 1/2 x 9	1340	1150	1050	920	820	710	600	540	440	350
	VC3/4-435		50	.020	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	.020	9 1/2 x 9	1300	1120	1010	900	790	690	590	520	430	340
	VC435		50	.020	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	.020	9 1/2 x 9	1330	1140	1040	920	810	700	600	530	440	350
	VC1435		50	.020	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	.020	9 1/2 x 9	1480	1270	1150	1020	900	780	670	590	490	380
	VC3/4-45		50	.020	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	.020	9 1/2 x 9	1380	1190	1080	950	840	730	620	550	460	360
	VC45		50	.020	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	.020	9 1/2 x 9	1540	1320	1200	1060	940	820	690	620	510	400
	VC145		50	.020	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.

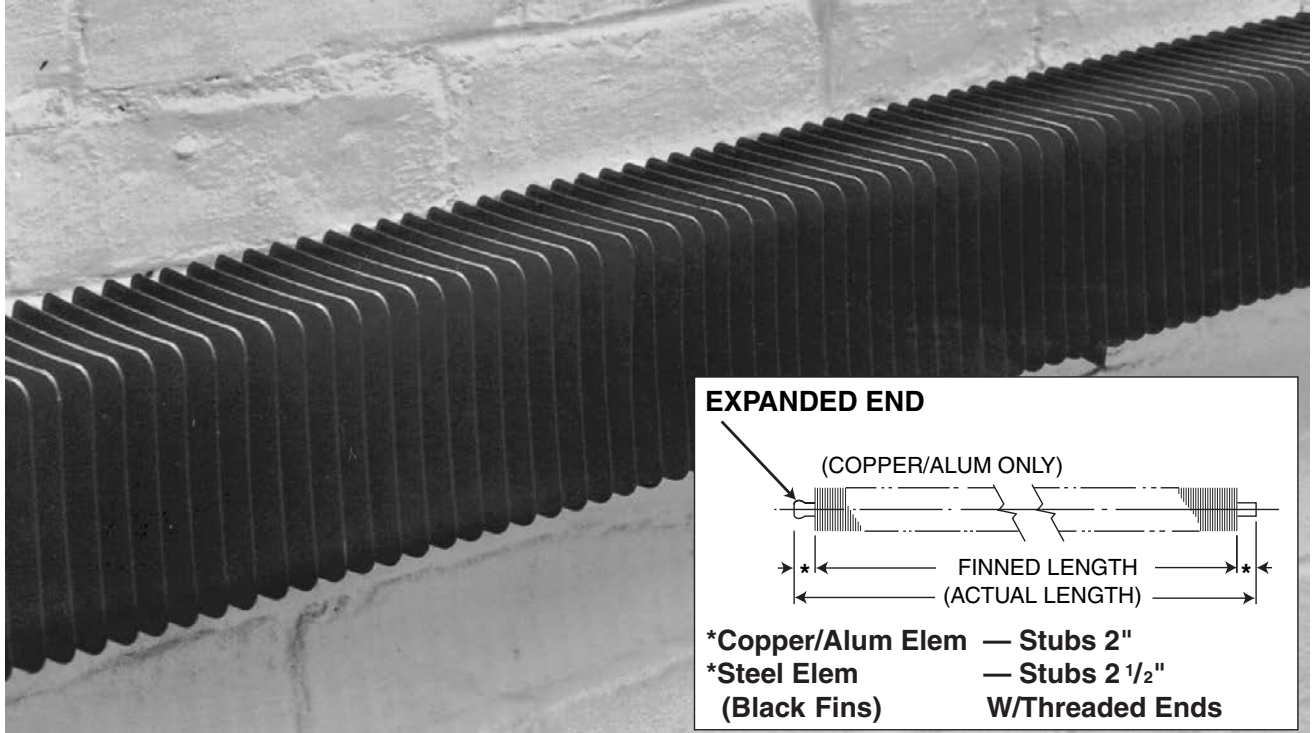
STEEL ELEMENTS

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	.032	9 1/2 x 9	1380	1190	1080	950	840	730	620	550	460	360
	VS45		50	.032	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	.032	9 1/2 x 9	1370	1180	1070	950	840	730	620	550	450	360
	VS145		50	.032	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	.032	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

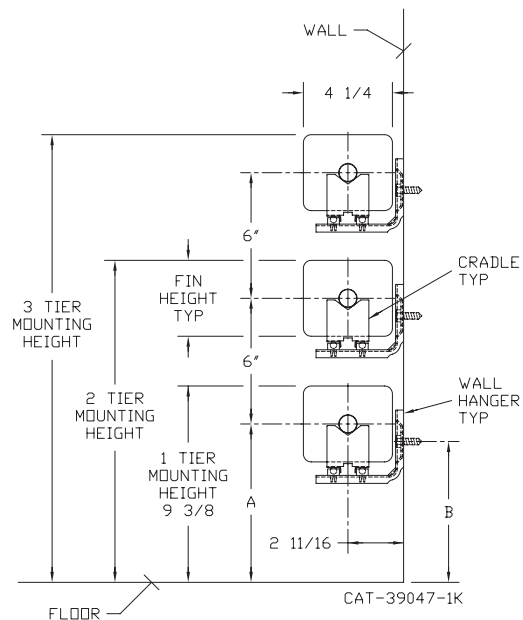
When ordering element specify fin thickness: steel = .024, .032; copper = .020, .011 as shown on Selection Pages.

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/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	1210	1040	940	830	740	640	540	480	400	310	
					2-6 CL	15-3/8	2130	1830	1660	1470	1300	1130	960	850	700	550	
					3-6 CL	21-3/8	2880	2480	2250	1990	1760	1530	1300	1150	950	750	
					1	9-3/8	1450	1250	1130	1000	880	770	650	580	480	380	
					2-6 CL	15-3/8	2490	2140	1940	1720	1520	1320	1120	1000	820	650	
					3-6 CL	21-3/8	3300	2840	2570	2280	2010	1750	1490	1320	1090	860	
					1	9-3/8	1600	1380	1250	1100	980	850	720	640	530	420	
					2-6 CL	15-3/8	2650	2280	2070	1830	1620	1400	1190	1060	870	690	
					3-6 CL	21-3/8	3450	2970	2690	2380	2100	1830	1550	1380	1140	900	
					1	9-3/8	1260	1080	980	870	770	670	570	500	420	330	
					2-6 CL	15-3/8	2220	1910	1730	1530	1350	1180	1000	890	730	580	
					3-6 CL	21-3/8	3000	2580	2340	2070	1830	1590	1350	1200	990	780	
					1	9-3/8	1410	1210	1100	970	860	750	630	560	470	370	
					2-6 CL	15-3/8	2420	2080	1890	1670	1480	1280	1090	970	800	630	
					3-6 CL	21-3/8	3200	2750	2500	2210	1950	1700	1440	1280	1060	830	
					1	9-3/8	1600	1380	1250	1100	980	850	720	640	530	420	
					2-6 CL	15-3/8	2640	2270	2060	1820	1610	1400	1190	1060	870	690	
					3-6 CL	21-3/8	3450	2970	2690	2380	2100	1830	1550	1380	1140	900	
					1	9-3/8	1310	1130	1020	900	800	690	590	520	430	340	
					2-6 CL	15-3/8	2310	1990	1800	1590	1410	1220	1040	920	760	600	
					3-6 CL	21-3/8	3130	2690	2440	2160	1910	1660	1410	1250	1030	810	
					1	9-3/8	1440	1240	1120	990	880	760	650	580	480	370	
					2-6 CL	15-3/8	2470	2120	1930	1700	1510	1310	1110	990	820	640	
					3-6 CL	21-3/8	3260	2800	2540	2250	1990	1730	1470	1300	1080	850	
					1	9-3/8	1600	1380	1250	1100	980	850	720	640	530	420	
					2-6 CL	15-3/8	2650	2280	2070	1830	1620	1400	1190	1060	870	690	
					3-6 CL	21-3/8	3460	2980	2700	2390	2110	1830	1560	1380	1140	900	
					1	9-3/8	1340	1150	1050	920	820	710	600	540	440	350	
					2-6 CL	15-3/8	2340	2010	1830	1610	1430	1240	1050	940	770	610	
					3-6 CL	21-3/8	3200	2750	2500	2210	1950	1700	1440	1280	1060	830	
					1	9-3/8	1600	1380	1250	1100	980	850	720	640	530	420	
					2-6 CL	15-3/8	2540	2180	1980	1750	1550	1350	1140	1020	840	660	
					3-6 CL	21-3/8	3330	2860	2600	2300	2030	1760	1500	1330	1100	870	
					1	9-3/8	1650	1420	1290	1140	1010	870	740	660	540	430	
					2-6 CL	15-3/8	2620	2250	2040	1810	1600	1390	1180	1050	860	680	
					3-6 CL	21-3/8	3430	2950	2680	2370	2090	1820	1540	1370	1130	890	
					1	9-3/8	1340	1150	1050	920	820	710	600	540	440	350	
					2-6 CL	15-3/8	2370	2040	1850	1640	1450	1260	1070	950	780	620	
					3-6 CL	21-3/8	3230	2780	2520	2230	1970	1710	1450	1290	1070	840	
					1	9-3/8	1490	1280	1160	1030	910	790	670	600	490	390	
					2-6 CL	15-3/8	2490	2140	1940	1720	1520	1320	1120	1000	820	650	
					3-6 CL	21-3/8	3320	2860	2590	2290	2030	1760	1490	1330	1100	860	
					1	9-3/8	1680	1440	1310	1160	1020	890	760	670	550	440	
					2-6 CL	15-3/8	2650	2280	2070	1830	1620	1400	1190	1060	870	690	
					3-6 CL	21-3/8	3460	2980	2700	2390	2110	1830	1560	1380	1140	900	
					1	9-3/8	1400	1200	1090	970	850	740	630	560	460	360	
					2-6 CL	15-3/8	2470	2120	1930	1700	1510	1310	1110	990	820	640	
					3-6 CL	21-3/8	3360	2890	2620	2320	2050	1780	1510	1340	1110	870	
					1	9-3/8	1660	1430	1290	1150	1010	880	750	660	550	430	
					2-6 CL	15-3/8	2680	2300	2090	1850	1630	1420	1210	1070	880	700	
					3-6 CL	21-3/8	3490	3000	2720	2410	2130	1850	1570	1400	1150	910	
					1	9-3/8	1710	1470	1330	1180	1040	910	770	680	560	440	
					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	

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

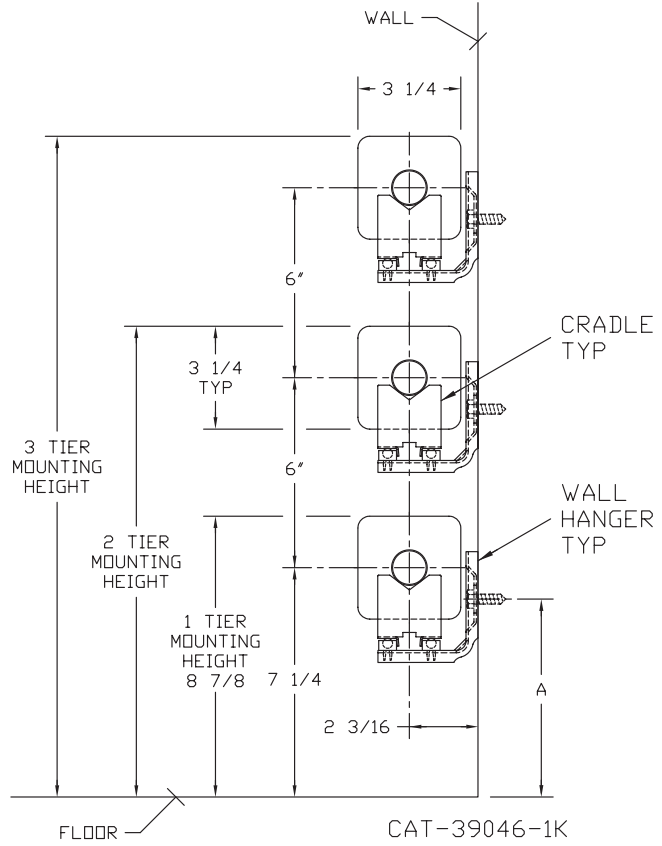
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	TIERS AND CENTERS IN INCHES	MOUNTING HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.)										
								200°	190°	180°	170°	160°	150°	140°	130°	120°	CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES	
								1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26	
1"	VS43	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	2320	2000	1810	1600	1420	1230	1040	930	770	600		
					3-6 CL	21-3/8	3050	2620	2380	2100	1860	1620	1370	1220	1010	790		
1"	VS44	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	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								
3/4"	VC3/4-33	3-1/4" SQ.	32	.020	1	8-7/8	970	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1720	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2410	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	1	8-7/8	1140	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1880	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2570	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	1	8-7/8	1260	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	2010	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2690	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1"	VC33	3-1/4" SQ.	32	.020	1	8-7/8	970	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1720	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2370	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1"	VC34	3-1/4" SQ.	40	.020	1	8-7/8	1080	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1850	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2490	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1"	VC35	3-1/4" SQ.	50	.020	1	8-7/8	1210	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1940	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2600	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	1	8-7/8	970	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1680	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2360	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	1	8-7/8	1060	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1840	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2450	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	1	8-7/8	1170	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1900	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2550	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26

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

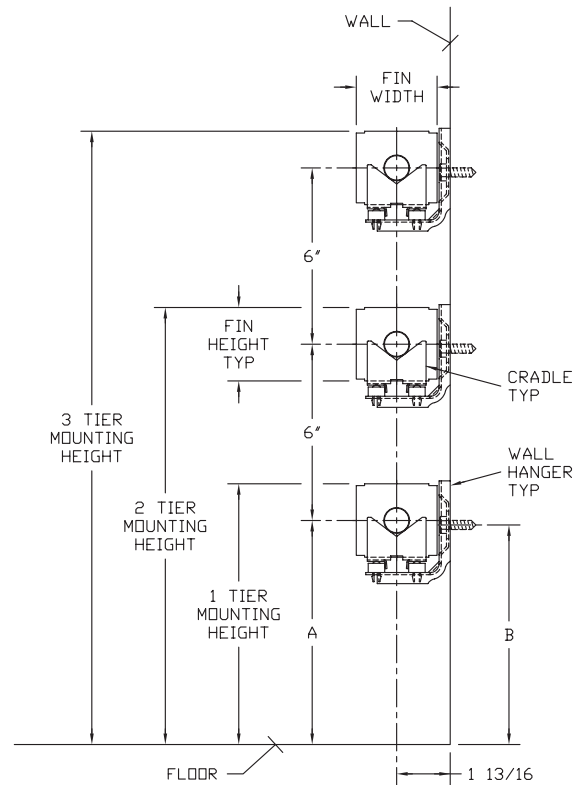
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	TIERS AND CENTERS IN INCHES	MOUNTING HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.)								
								200°	190°	180°	170°	160°	150°	140°	130°	120°
								CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
1"	VS33	3-1/4" SQ.	32	.032	1	8-7/8	910	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1580	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2200	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1"	VS34	3-1/4" SQ.	40	.032	1	8-7/8	990	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1700	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2350	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1"	VS35	3-1/4" SQ.	50	.032	1	8-7/8	1060	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1790	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2450	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1-1/4"	VS133	3-1/4" SQ.	32	.032	1	8-7/8	900	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1620	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2240	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1-1/4"	VS134	3-1/4" SQ.	40	.032	1	8-7/8	1000	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1700	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2250	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
1-1/4"	VS135	3-1/4" SQ.	50	.032	1	8-7/8	1030	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					2-6 CL	14-7/8	1750	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
					3-6 CL	20-7/8	2280	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26

- 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			
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"

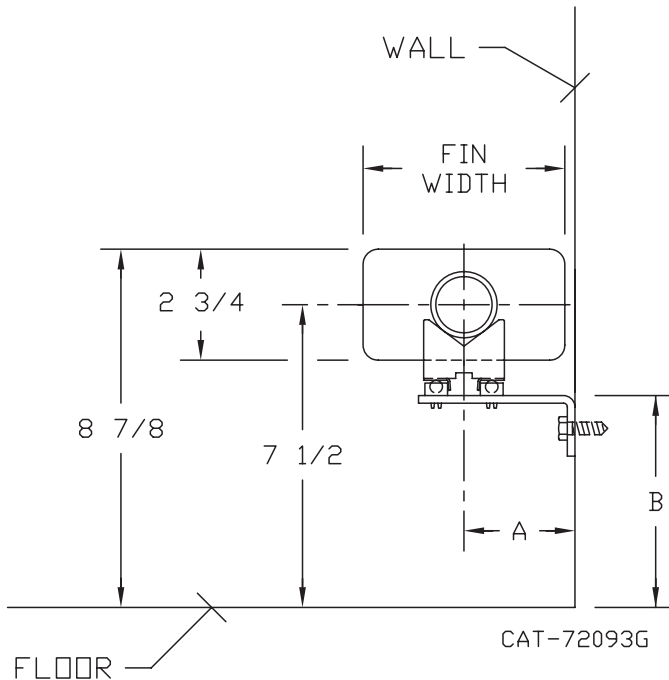


CAT-69647-1B

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 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	800	690	620	550	490	420	360	320	260	210	
								1370	1180	1070	950	840	730	620	550	450	360
								1870	1610	1460	1290	1140	990	840	750	620	490
3/4"	VR02	2-1/2" x 2-3/4"	60	.010	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	950	820	740	660	580	500	430	380	310	250	
								1630	1400	1270	1120	990	860	730	650	540	420
								2240	1930	1750	1550	1370	1190	1010	900	740	580
1"	VR03	2-1/2" x 2-3/4"	55	.011	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	930	800	730	640	570	490	420	370	310	240	
								1610	1380	1260	1110	980	850	720	640	530	420
								2210	1900	1720	1520	1350	1170	990	880	730	570
3/4"	VR04	3-3/4" x 2-3/4"	50	.014	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1130	970	880	780	690	600	510	450	370	290	
								1930	1660	1510	1330	1180	1020	870	770	640	500
								2650	2280	2070	1830	1620	1400	1190	1060	870	690
1"	VR05	3-3/4" x 2-3/4"	50	.014	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1120	960	870	770	680	590	500	450	370	290	
								1910	1640	1490	1320	1170	1010	860	760	630	500
								2630	2260	2050	1810	1600	1390	1180	1050	870	680
1"	VR07	5" x 2-3/4"	50	.020	1 2-6CL 3-6CL	10 16 22	1260	1080	980	870	770	670	570	500	420	330	
								2100	1810	1640	1450	1280	1110	950	840	690	550
								2870	2470	2240	1980	1750	1520	1290	1150	950	750
1-1/4"	VR08	3-3/4" x 2-3/4"	50	.020	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1070	970	830	740	650	570	480	430	350	280	
								1830	1570	1430	1260	1120	970	820	730	600	480
								2560	2200	2000	1770	1560	1360	1150	1020	840	670
1-1/4"	VR10	5" x 2-3/4"	50	.020	1 2-6CL 3-6CL	10 16 22	1230	1060	960	850	750	650	550	490	410	320	
								2070	1780	1610	1430	1260	1100	930	830	680	540
								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 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	880	760	690	610	540	470	400	350	290	230	
								1540	1320	1200	1060	940	820	690	620	510	400
								2150	1850	1680	1480	1310	1140	970	860	710	560
1"	VR15	5" x 2-3/4"	50	.024	1 2-6CL 3-6CL	10 16 22	940	810	730	650	570	500	420	380	310	240	
								1630	1400	1270	1120	990	860	730	650	540	420
								2260	1940	1760	1560	1380	1200	1020	900	750	590
1-1/4"	VR16	5" x 2-3/4"	50	.024	1 2-6CL 3-6CL	10 16 22	960	830	750	660	590	510	430	380	320	250	
								1650	1420	1290	1140	1010	870	740	660	540	430
								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 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
							1280	1100	1000	880	780	680	580	510	420	330
							2190	1880	1710	1510	1340	1160	990	880	720	570
1"	VR05R	2-3/4" x 3-3/4"	50	.014	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1270	1090	990	880	770	670	570	510	420	330
							2180	1870	1700	1500	1330	1160	980	870	720	570
							2980	2560	2320	2060	1820	1580	1340	1190	980	770
1"	VR07R	2-3/4" x 5"	50	.020	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1610	1380	1260	1110	980	850	720	640	530	420
							2510	2160	1960	1730	1530	1330	1130	1000	830	650
							3310	2850	2580	2280	2020	1750	1490	1320	1090	860
1-1/4"	VR08R	2-3/4" x 3-3/4"	50	.020	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1250	1080	980	860	760	660	560	500	410	330
							1980	1700	1540	1370	1210	1050	890	790	650	510
							2620	2250	2040	1810	1600	1390	1180	1050	860	680
1-1/4"	VR10R	2-3/4" x 5"	50	.020	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1600	1380	1250	1100	980	850	720	640	530	420
							2530	2180	1970	1750	1540	1340	1140	1010	830	660
							3310	2850	2580	2280	2020	1750	1490	1320	1090	860

Note: Copper tube furnished flared one end standard.

STEEL ELEMENTS

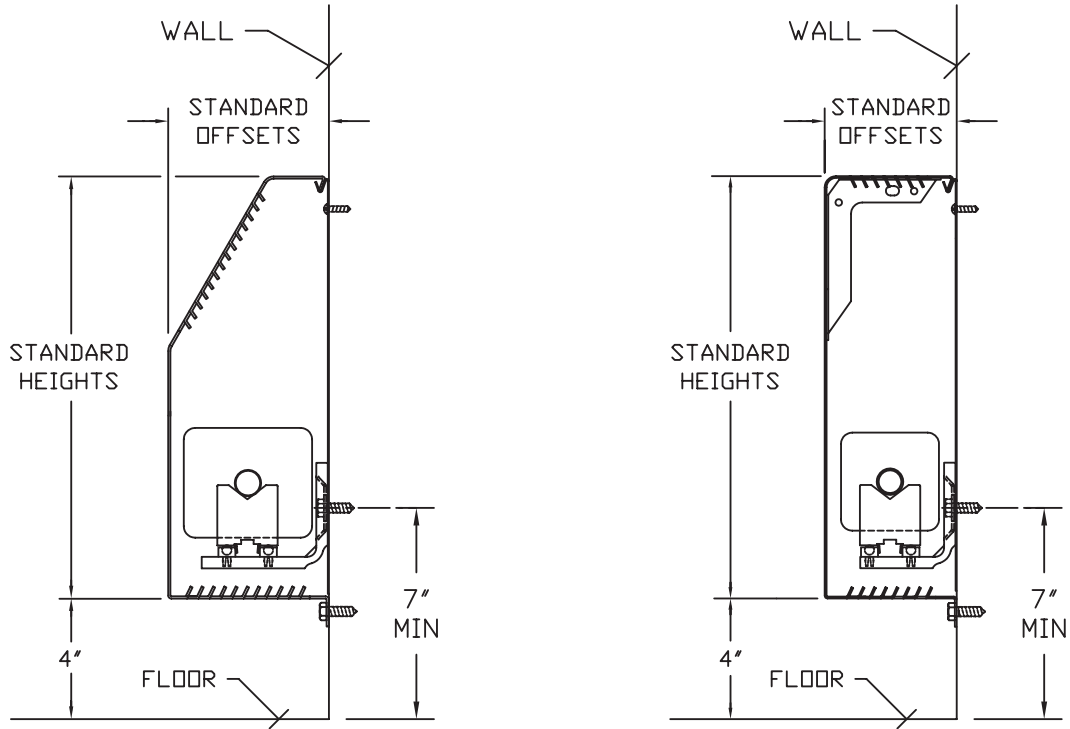
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

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 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1140	980	890	790	700	600	510	460	380	300
							2010	1730	1570	1390	1230	1070	900	800	660	520
							2810	2420	2190	1940	1710	1490	1260	1120	930	730
1-1/4"	VR16R	2-3/4" x 5"	50	.024	1 2-6CL 3-6CL	8-7/8 14-7/8 20-7/8	1170	1010	910	810	710	620	530	470	390	300
							2040	1750	1590	1410	1240	1080	920	820	670	530
							2830	2430	2210	1950	1730	1500	1270	1130	930	740

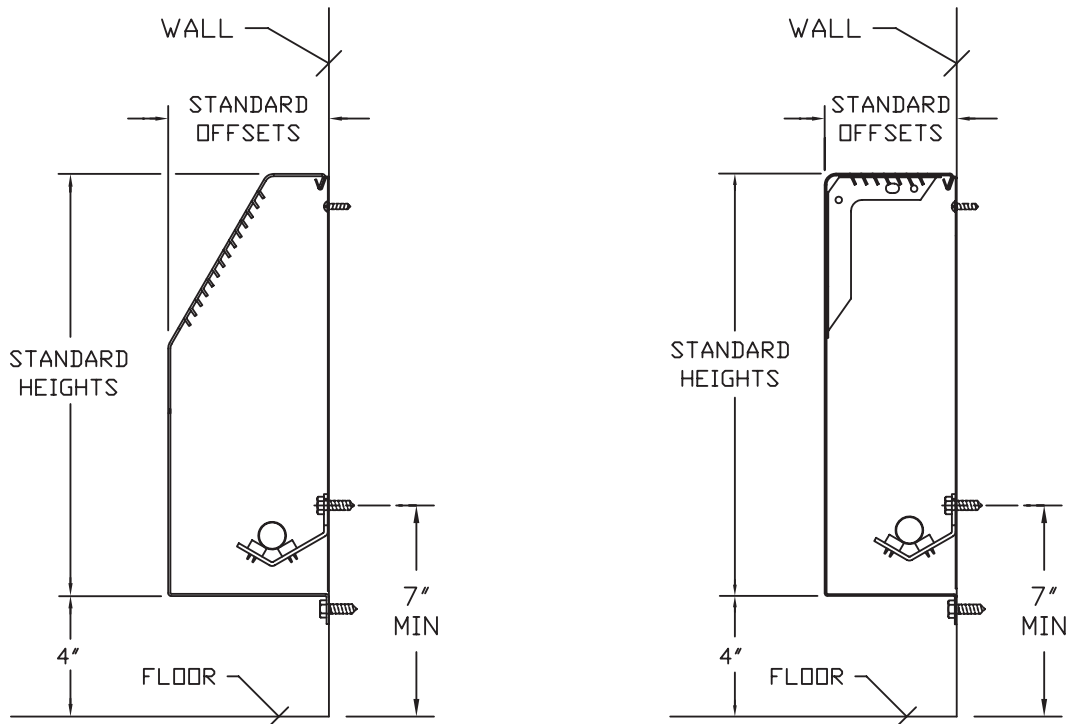
- Notes: 1) Steel fins furnished as .032 thick, painted black.
 2) NPT threads furnished on steel elements. Please use domestic fittings for proper installation.
 3) The ends can be provided chamfered for field welded fittings when specified.

ENCLOSURE ALTERNATIVES

DRAFT BARRIER, RETURN TO WALL AND LOUVERED INLET STYLES



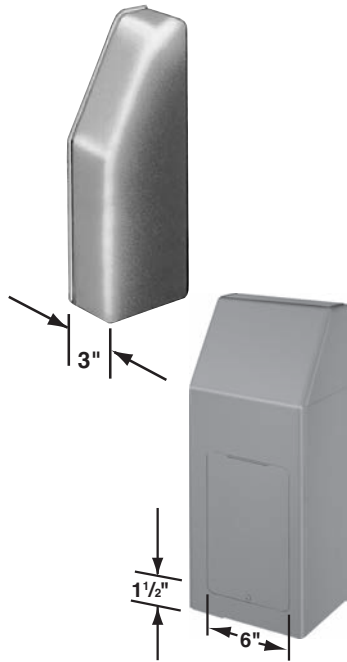
RETURN TO WALL, LOUVERED INLET
RWLI



RETURN TO WALL, NO INLET LOUVERS
DRAFT BARRIER STYLE
RWDB

CAT-53178C

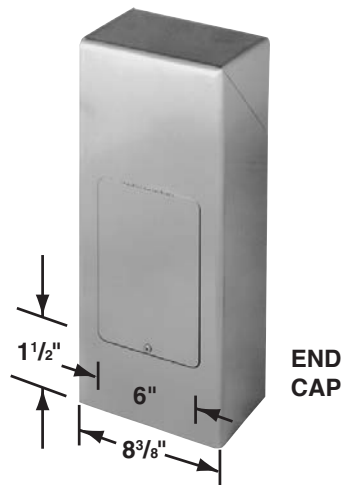
ACCESSORIES



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

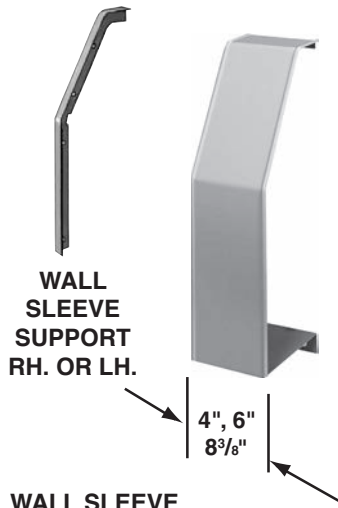
ALTERNATE ACCESS DOOR LOCATIONS
ARE AVAILABLE, CONSULT FACTORY.



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'

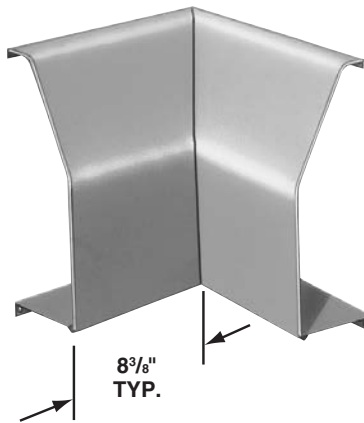
CAT-68521-1E

ALTERNATE ACCESS DOOR LOCATIONS
ARE AVAILABLE, CONSULT FACTORY.

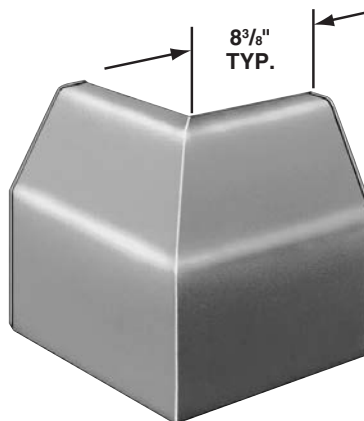


**WALL
SLEEVE
SUPPORT
RH. OR LH.**

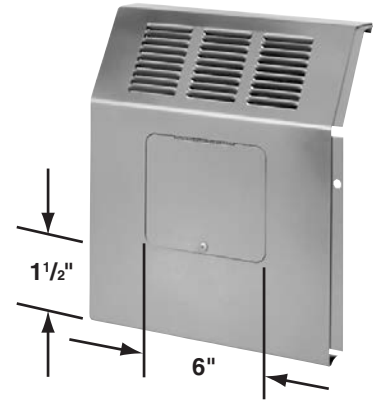
**WALL SLEEVE
ALSO AVAILABLE
WITH ACCESS DOOR**



INSIDE CORNER

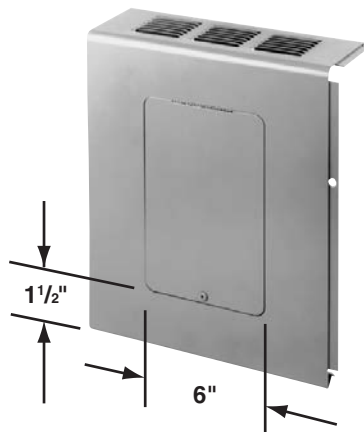


OUTSIDE CORNER



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

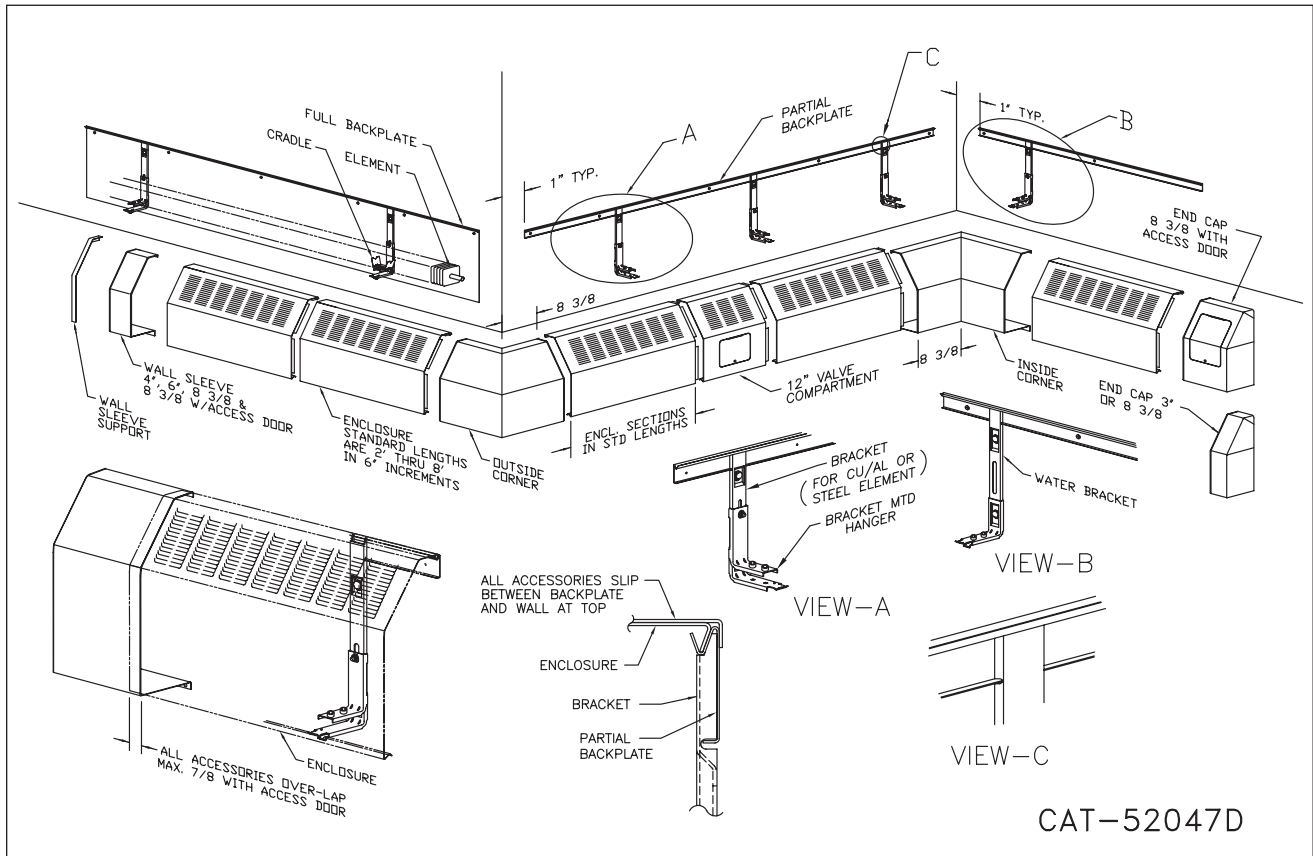


ACCESS DOOR LOCATIONS FLAT TOP VALVE COMPARTMENT		
ENCLOSURE OFFSET	ENCLOSURE HEIGHT	ACCESS DOOR SIZE
3 9/16	8", 11"	6' x 5'
3 9/16	14"	6' x 9'
4 3/8	14"	6' x 9'
5 5/16	14", 20", 24"	6' x 9'

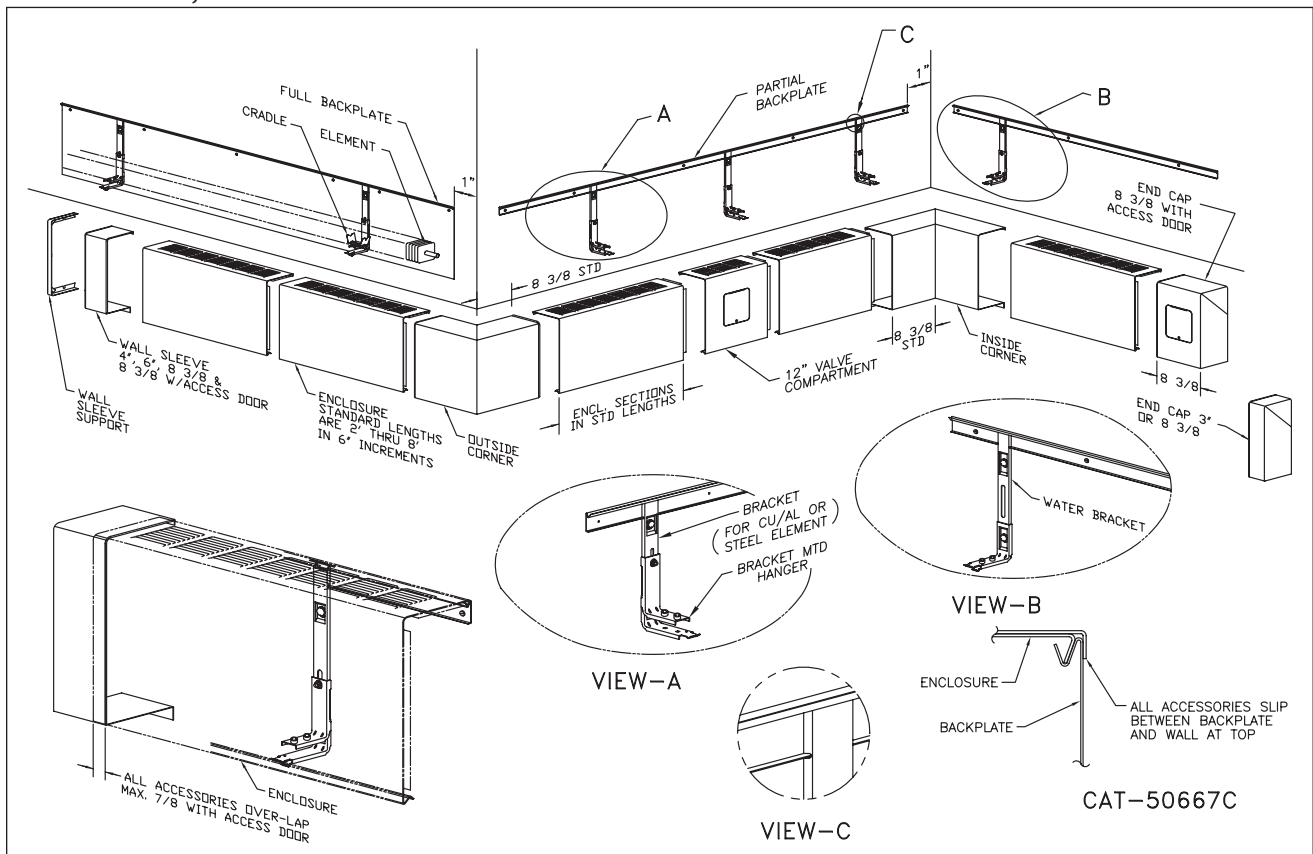
CAT-68521-3E

INSTALLATION

STYLES "S" SLOPE TOP INSTALLATION AND ACCESSORY DETAILS

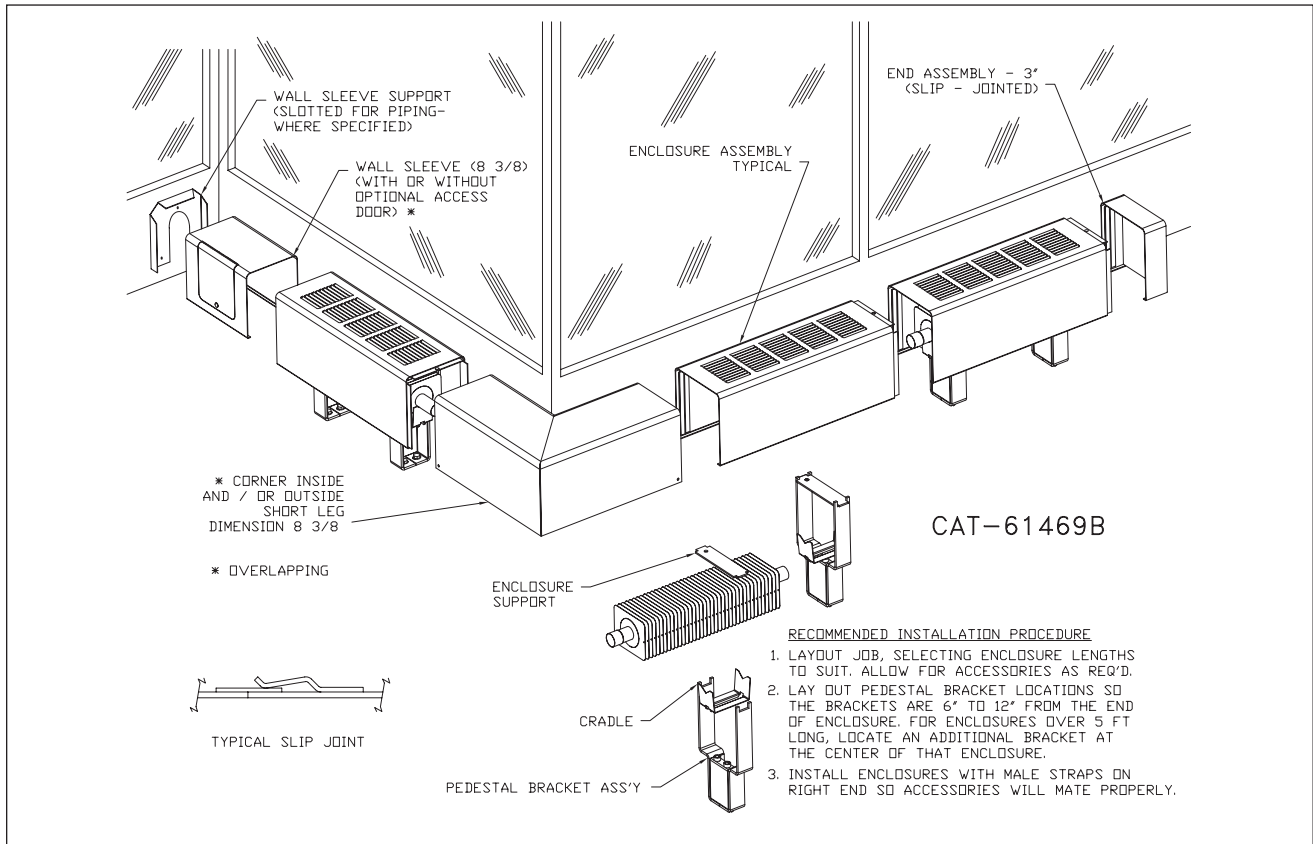


STYLES "F", "T" AND "FT" INSTALLATION AND ACCESSORY DETAILS

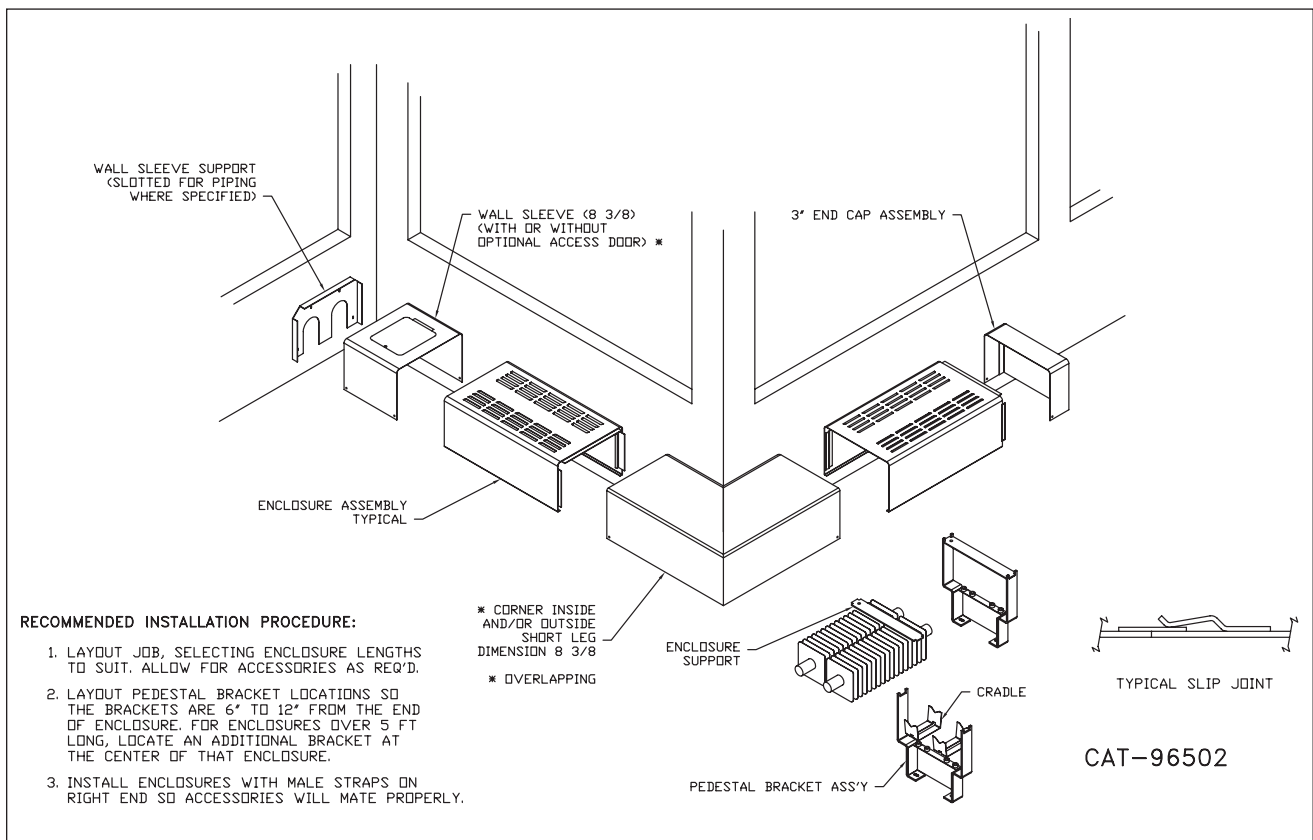


INSTALLATION

STYLE "PM" PEDESTAL MOUNTED INSTALLATION AND ACCESSORY DETAILS

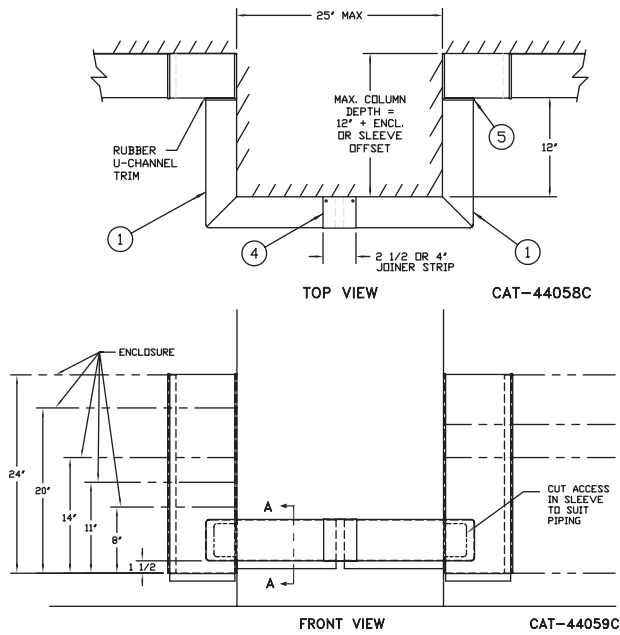


STYLE "PM2" PEDESTAL MOUNTED INSTALLATION AND ACCESSORY DETAILS



ENCLOSURES

COLUMN ENCLOSURES



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.

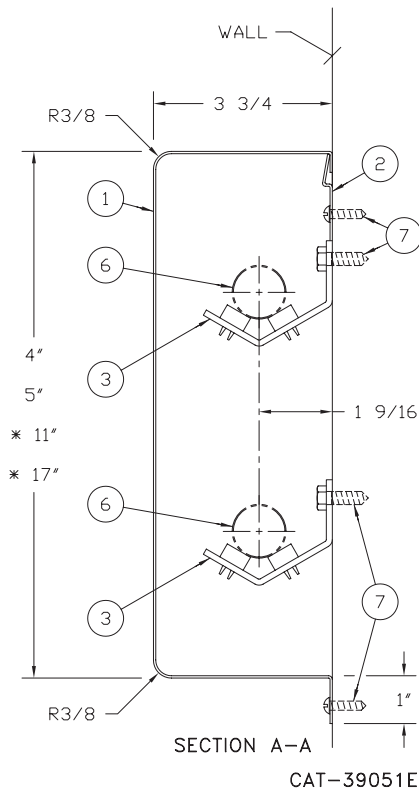


NOTE –
ALL PARTS SUPPLIED TO
MAXIMUM DIMENSIONS,
AS SHOWN TO BE CUT
ON THE JOB TO SUIT
INDIVIDUAL COLUMN SIZES.

*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"



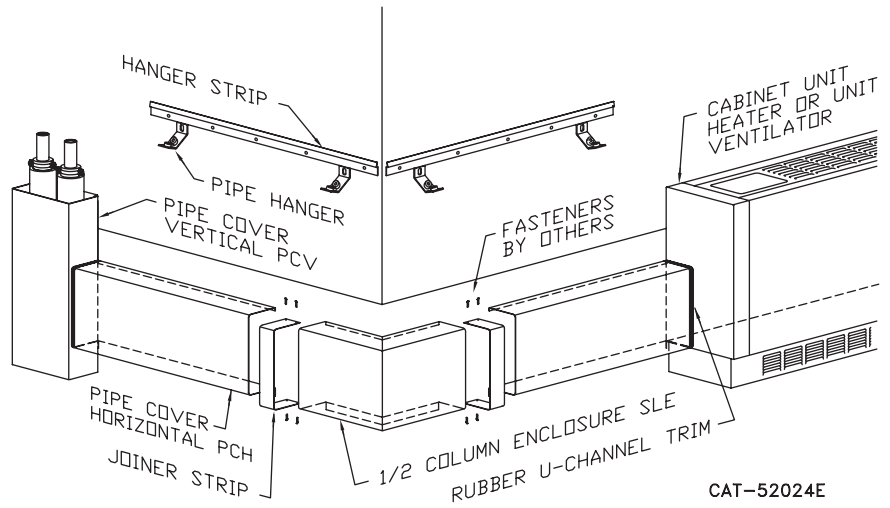
DETAILS AND DIMENSIONS

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

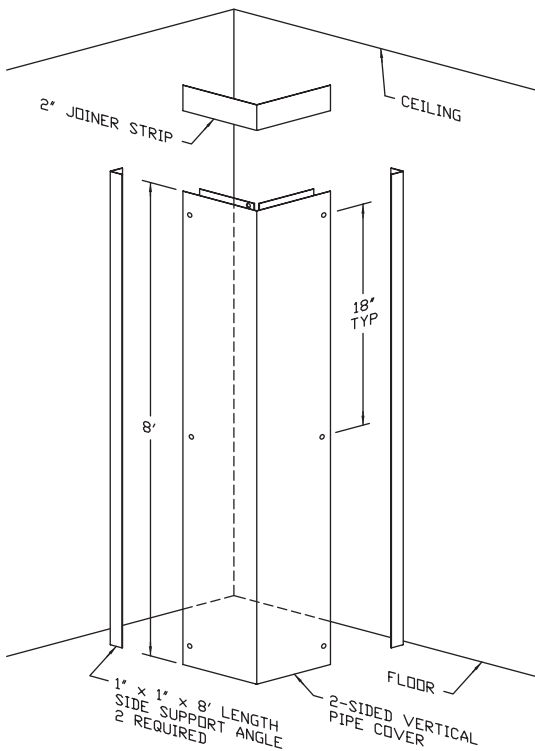
ENCLOSURES

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

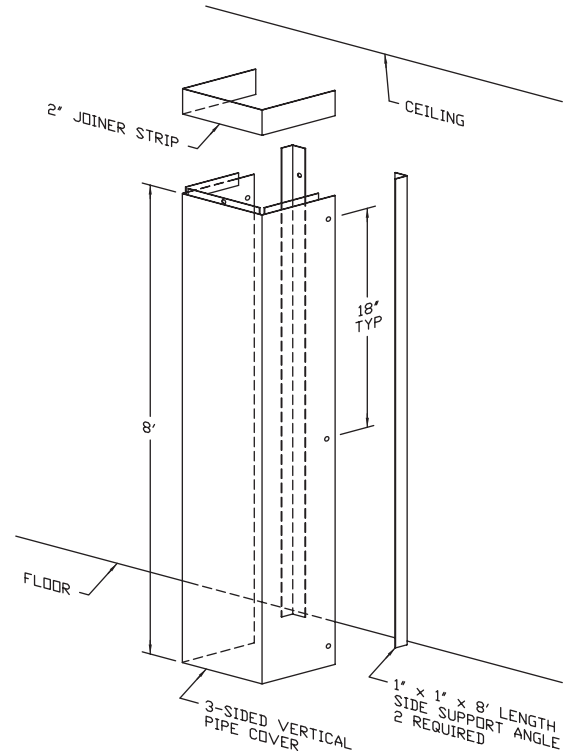


FASTENERS ARE BY OTHERS.

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



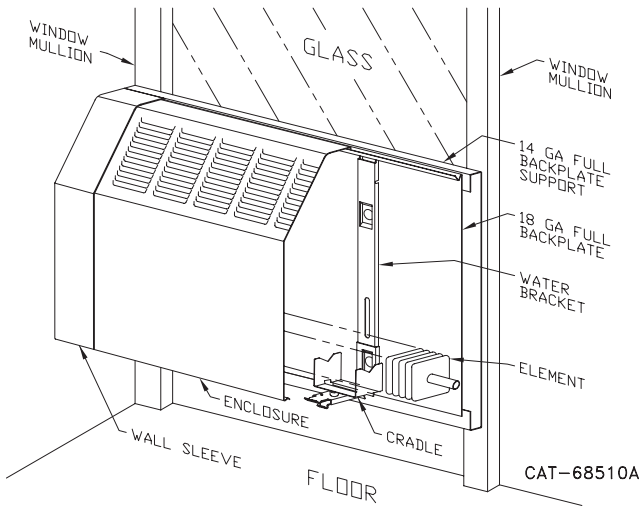
FASTENERS ARE BY OTHERS.

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

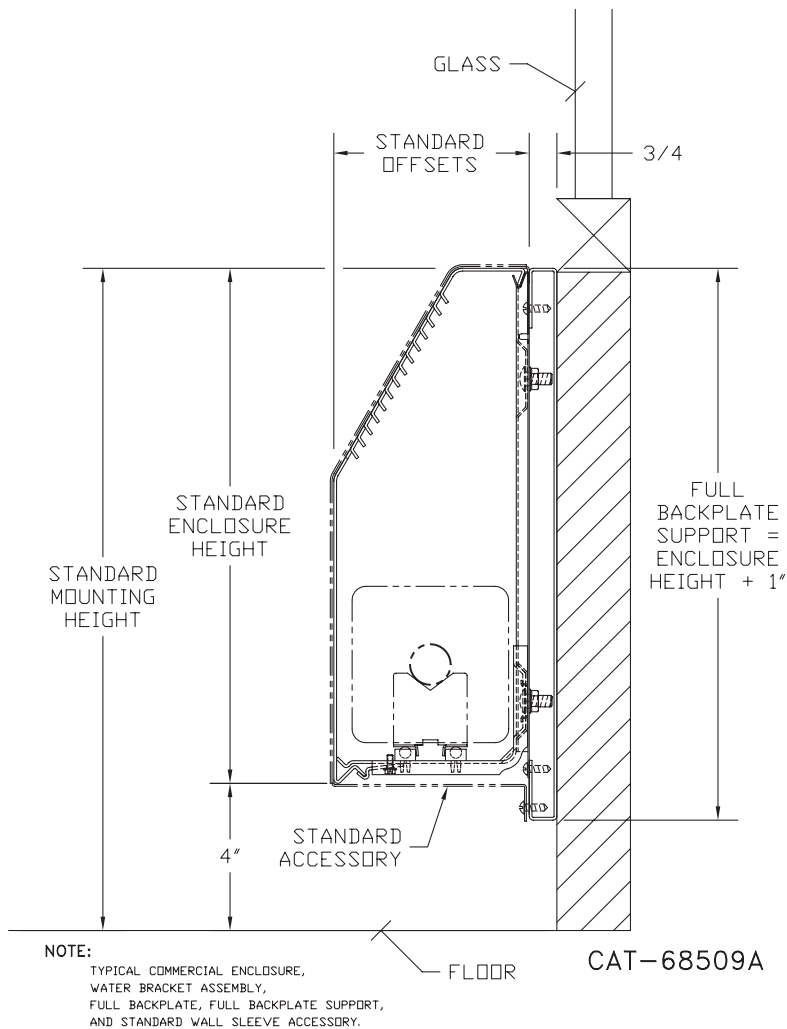


LINOVECTOR-II Radiation is easily adaptable to panel wall, curtain wall, and window wall construction.

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.



DESIGN DATA

Correction Factor Chart for Non-Standard Mounting Heights

MOUNTING HEIGHT (Inches)	ENCLOSURE STYLE						
	BARE FIN ALL SIZES	FRONT OUTLET	FT (FRONT & TOP)		SLOPE		
			3 1/4" FINS	4 1/4" FINS	2 3/4" FINS	3 1/4" FINS	4 1/4" FINS
40 or more	1.000	1.000	1.000	1.000	1.000	1.000	1.000
38	1.000	1.000	1.000	1.000	1.000	1.000	1.003
36	1.000	1.004	1.005	1.005	1.006	1.007	1.009
34	1.010	1.014	1.011	1.010	1.012	1.013	1.016
32	1.020	1.024	1.017	1.015	1.019	1.020	1.025
30	1.030	1.039	1.029	1.024	1.031	1.033	1.039
29	1.040	1.049	1.035	1.029	1.038	1.040	1.045
28	1.050	1.059	1.041	1.034	1.045	1.047	1.052
27	1.060	1.069	1.046	1.039	1.051	1.053	1.059
26	1.070	1.079	1.052	1.044	1.058	1.060	1.065
25	1.080	1.089	1.058	1.049	1.065	1.067	1.072
24	1.090	1.099	1.064	1.054	1.071	1.073	1.079
23	1.100	1.109	1.070	1.059	1.078	1.080	1.085
22	1.110	1.119	1.076	1.064	1.085	1.087	1.092
21	1.120	1.129	1.082	1.069	1.091	1.093	1.099
20	1.130	1.139	1.088	1.074	1.098	1.100	1.100
19	1.140	1.149	1.089	1.075	1.100	1.100	1.100
18 or less	1.150	1.150	1.089	1.075	1.100	1.100	1.100

TOP OUTLET "T" IS NOT AFFECTED.

The AHRI Ratings cataloged include the factor shown for the recommended mounting height.

If the unit is to be installed at a different height than that recommended, the AHRI Rating (except for Top Outlet) must be adjusted as follows: AHRI Rating multiplied by

**Factor from Table Above
for actual mounting height**

**Factor from Table Above
for recommended mounting height**

EXAMPLE: Corrected steam rating for 1 row VC145 element in LV4F14 (14" high enclosures) mounted 30" above floor in lieu of the 18" recommended.

FORMULA:

Catalog Rating x $\frac{\text{Factor at 30" Height}}{\text{Factor at 18" Height}}$

SOLUTION: 1950 x $\frac{1.039}{1.150}$ = 1760 BTU/Hr.

DYNAMIC FORMULAS

BTU = GPM x 500 x TD

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

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

DESIGN DATA

COMMERCIAL FINNED TUBE RATING CORRECTION CHARTS

CATALOG FINNED TUBE RATINGS ARE BASED UPON THE FOLLOWING CONDITIONS:

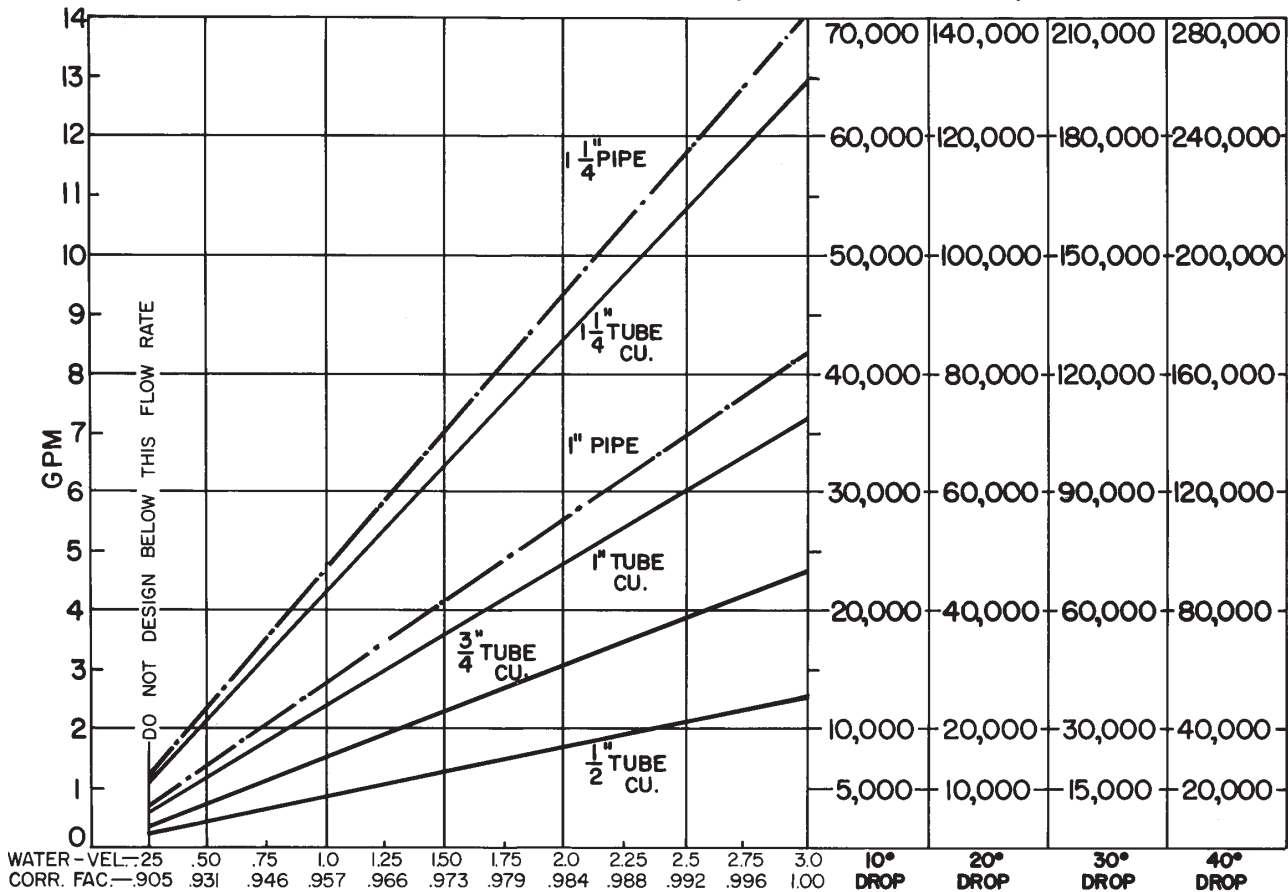
- 215°F AVERAGE WATER OR STEAM TEMPERATURE
- 65°F ENTERING AIR TEMPERATURE
- 3 FEET PER SECOND WATER FLOW RATE
- CATALOG MOUNTING HEIGHT

USE THE FOLLOWING CALCULATION WITH CORRECTION FACTORS FOR JOB CONDITIONS TO DETERMINE CORRECTED RATING:

$$\text{CORRECTED RATING} = (\text{215°F CATALOG RATING}) \times \left(\frac{\text{CORRECTION FACTOR FOR STEAM OR WATER AND AVERAGE AIR TEMP.}}{\text{CORRECTION FACTOR FOR MOUNTING HTG.-SEE CATALOG RATING}} \right) \times \left(\frac{\text{CORRECTION FACTOR FOR FLOW RATE}}{\text{CORRECTION FACTOR FOR MOUNTING HTG.-SEE CATALOG RATING}} \right)$$

USE THE FOLLOWING CHARTS TO SELECT CORRECTION FACTORS

CHART/WATER VEL./CORR. FACTOR / PRESS. DROP/TOTAL BTU.

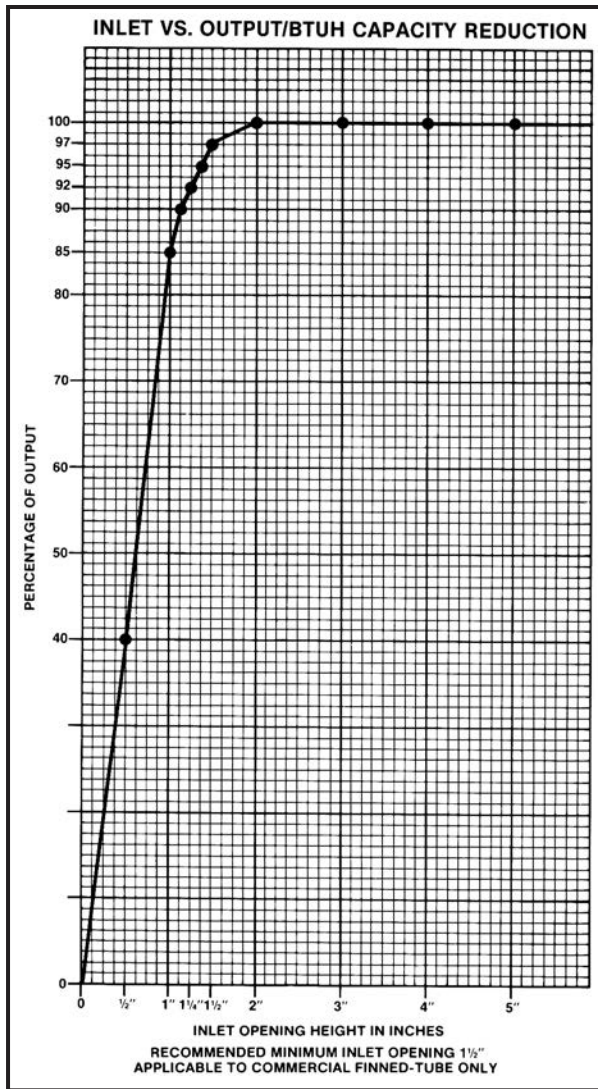


1/2" COP ALUM.	.180	.233	.333	.533	.916
3/4" COP ALUM.	.5	1.5	3.16	5.4	6.25
1" COP ALUM.	.233	.41	.83	1.45	2.83
1" PIPE	.37	.79	1.3	2.00	3.70
1 1/4" COP ALUM.	.16	.33	.55	.79	1.08
1 1/4" PIPE	.09	.18	.31	.5	.70

PRESSURE DROP PER 100 LINEAR FT., IN FEET OF HEAD

DESIGN DATA

INLET AIR CORRECTION FACTOR



GUARANTEED WORKING PRESSURES

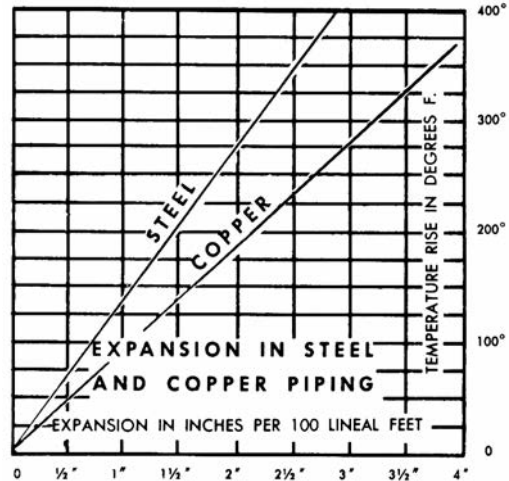
- 1" IPS — 780 AT TEMPERATURES UP TO 650°F.
 - 1 1/4" IPS — 660 AT TEMPERATURES UP TO 650°F.
 - 2" IPS — 405 AT TEMPERATURES UP TO 650°F.
 - 1 1/4" CU — 194 AT TEMPERATURES UP TO 300°F.
 - 1" CU — 204 AT TEMPERATURES UP TO 300°F.
 - 3/4" CU — 218 PSI AT TEMPERATURES UP TO 300°F.
- MAXIMUM PRESSURES AT OTHER TEMPERATURES ARE AVAILABLE UPON REQUEST.

RATE OF PITCH FOR STEAM 1/2" DROP OVER 20 FT. RUN.

PIPE WATER CAPACITIES AND QUANTITIES CIRCULATED AT VELOCITY OF 3 FEET PER SECOND			
Pipe Size	Gals. Per Linear Ft.	Gals./Min. @ 3' Sec. Vel.*	Lbs./Hr. @ 3' Sec. Vel.*
1/2"	.016	2.88	1440
3/4"	.023	4.14	2070
1"	.040	7.20	3600
1 1/4"	.063	11.34	5660
1 1/2"	.102	18.36	9160
2"	.170	30.60	15300
2 1/2"	.275	49.50	24850
3"	.390	70.20	35000

*3 Ft./Sec. Velocity is Basic for Hot Water Rating Factors Shown on this Page.

$$\text{VELOCITY FT./SEC.} = \frac{\text{LBS. PER HOUR}}{(\text{GALS. PER FT.}) (3600) (8.3)}$$



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

DESIGN DATA

CORRECTION FACTORS FOR STEAM PRESSURES AND AIR TEMPERATURES OTHER THAN STANDARD

STEAM		ENTERING AIR TEMPERATURE, °F														
Pressure		Temp.			STD											
Gauge	Abs. Psi	°F	45	55	65	70	75	80	85	90	100	110	120	130	140	150
(Vac) 15" Hg	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
(Vac) 10"	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) 5"	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
(Vac) 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	258.8	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.

CORRECTION FACTORS FOR WATER TEMPERATURES AND AIR TEMPERATURES OTHER THAN STANDARD

AVERAGE WATER TEMP. °F	ENTERING AIR TEMPERATURE, °F														
	45	55	STD	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

In the interest of product improvement, Vulcan reserves the right to make changes without notice.

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

R A D I A T O R

260 North Elm Street, Westfield, MA 01085
Tel: 413-568-9571 • Fax: 413-564-5661
www.vulcanrad.com