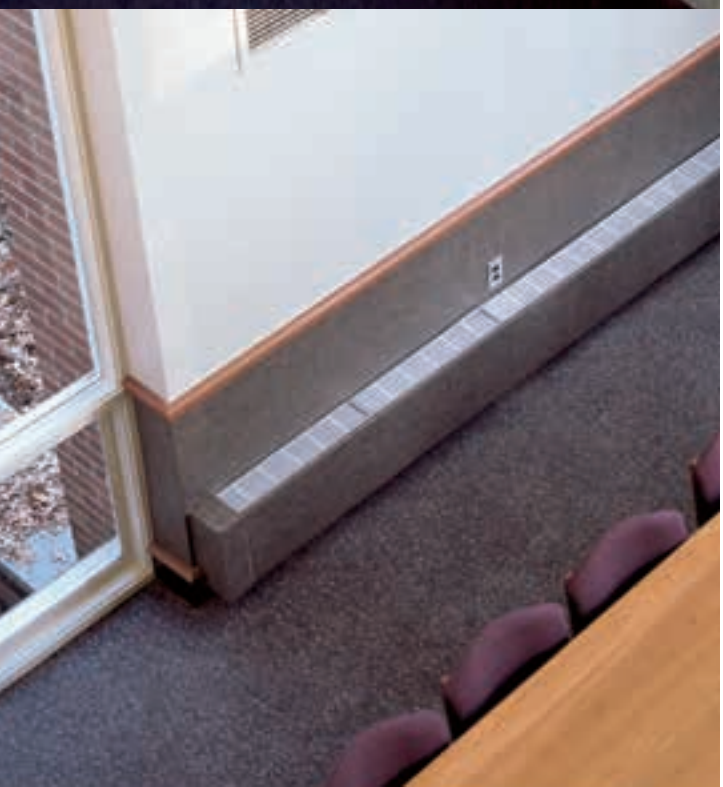
CLASSIC

ARCHITECTURALLY DESIGNED ENCLOSURES

Vulcan RADIATOR



CLASSIC ARCHITECTURALLY STYLED

ENCLOSURES

Classic Architecturally Styled Enclosures have a clean, crisp classic look. The streamlined anodized aluminum grilles help make Classic the ideal choice for modern office buildings, banks, executive offices, luxury hotels – wherever enclosures are intended to enhance a building's interior statement.

Standard Classic Enclosures, with internally telescoping accessories for dramatic shadow effect, offer architects and engineers uninhibited design opportunities.

"J" Style Classic Enclosures provide an interlocking, slip-jointed construction that incorporates overlapping accessories to facilitate layout adjustments for variations of final building construction.

All Vulcan commercial hydronic products are made from recycled materials. Material recycled contents can be obtained from your local Vulcan representative.

DESIGN ADVANTAGE

Standard Classic Architectural Enclosures

- Enhances architectural style and design.
- Clean crisp designs with accenting extruded aluminum grilles in clear anodized or baked powder finish.
- Enclosure designs allow modular/sectional installation.
- Enclosure is easily removed without disrupting adjoining accessories or enclosures.
- Enclosures can be installed inverted on a high wall allowing the anodized grille to be seen at the bottom.
- Enclosure and accessories are interchangeable with Linovector II utilizing same backplates and brackets.
- All accessories underlap the enclosure and telescope within, providing unlimited balancing and make-up in any enclosure run.
- Utilizing a backplate support, the enclosure can be easily installed on window mullions, providing a finished enclosure inside and out.
- Enclosure can be provided in heavy gauge steel or aluminum.

"J" Classic Slip-Jointed Architectural Enclosures

- Maintains the quality lines of the Architectural style enclosure.
- Enclosure features the Classic extruded aluminum grille in clear anodized or baked powder finish.
- Sturdy 14 gauge internal gussets ensure the strength and durability of the grille and enclosure.
- Vertical internal reinforcing stiffeners provide structural integrity and an interlocking feature with the adjoining enclosure.
- Enclosure can be installed on Linovector II backplates and brackets as well.
- All accessories overlap the enclosure and are made with 90 degree formed edges to increase strength and rigidity.
- Enclosure can be provided in 14 gauge cold rolled steel, aluminum or stainless steel.
- Enclosure and accessories are available in standard baked powder decorator colors or custom colors selected by the customer.

CLASSIC ENCLOSURE STYLES, HEIGHTS AND DEPTHS

CONTENTS:

The standard Classic Enclosure and "J" Classic Enclosure have similar enclosure heights, depths and lengths. The designations for the depths are listed as "2" ($3^{9}/_{16}$), "3" ($4^{3}/_{8}$) and "4" ($5^{5}/_{16}$). All styles can be installed with either partial or full backplate. Standard brackets with bracket mounted hangers or water brackets are available for either the standard wiped edge or "J" slip-jointed enclosures. In situations where standard wiped edge Classic Enclosures have to be field cut, the "J" Classic overlapping accessories can be used to cover the area which has been altered. Consult factory for enclosure heights not shown.

SPECIFICATIONS:

ENCLOSURE Classic Architectural.

- Types: Standard Classic Wiped Edge "J" Classic Slip-Jointed.
- Styles: Wall Mounted, Floor Mounted, Pedestal Mounted, Top Discharge, Extruded Aluminum Grille.
- Offsets: "4" = $5\ ^{5}/_{16}$, "3" = $4\ ^{3}/_{8}$, "2" = $3\ ^{9}/_{16}$
- Heights: 7″, 11″, 14″, 20″, 24″ nominal.
- Lengths: 2′ thru 8′ in 6″ increments. Consult factory for special lengths.
- Materials: CRS 16 gauge standard, 14 optional; Aluminum 14 gauge, 12 gauge available; Stainless Steel 16 or 14-gauge in "J" Style only.
- Finish: Baked powder finish.
- Colors: 9 standard colors, 3 metallic colors. Consult factory for custom color matches.

BACKPLATES

- Type: Partial standard, full height optional.
- Lengths: Partial 8′ only. Full 2′ thru 8′ in 6″ increments.
- Materials: Partial 20 gauge, pre-painted standard; 18 gauge galvannealed optional. Full 20 gauge galvannealed, 18 gauge galvannealed optional. Consult factory for painted finish.

ELEMENT RATINGS

Ratings are in BTU per hour, per linear foot of active fin length. Active length is catalog length minus 4″ for Copper, 5″ for Steel.

ELEMENTS: Mechanically expanded.

- Types: Copper tube aluminum fin, steel tube steel fin.
- Lengths: 2′ thru 12′6″ in 1″, $1^{1}/_{4}$″ CU/AL and 1″, $1^{1}/_{4}$″, 2″ steel element. 2′ thru 8′ on $^{3}/_{4}$″ CU/ALUM element, all in 1″ increments. Note: Elements VR01 thru VR10 available in 12″ increments.
- End Conditions: CU/AL - Swaged one end. Swaged both ends optional. Steel - NPT threads standard. Chamfered for field welding optional.

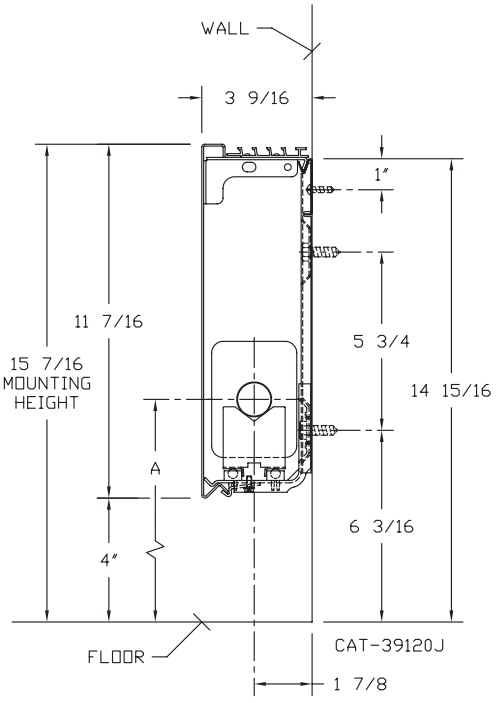
BRACKETS/ HANGERS: Ball bearing with slide cradle adjustable for pitch or fixed for water systems. Die-formed channel type galvannealed steel construction with enclosure securing posi-lock clips.

DAMPERS: Fully modulating damper blades with lateral stiffening bends or rolls operated by dial or concealed key operators (slide damper available in "4" offset enclosures).

ACCESSORIES: Standard Classic accessories will telescope internally inside the enclosure. "J" style Classic accessories will overlap the enclosure. All accessories will engage between the top of the backplate and the wall, while the bottom will return to the wall and be secured, utilizing the prepunched clearance holes for fasteners by others.

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.

STYLES V2 AND JV2 "AR" CLASSIC SLIMLINE



Styles

V2-AR 11 and JV2-AR 11
(Specify when used with steam, wall mounted brackets or adjustable rod hangers may be required.)

Accessories

V2 — Underlapping Reveal Type
JV2 — Overlapping Type

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

STYLES V2-AR11 AND JV2-AR11

COPPER/ALUMINUM ELEMENT RATINGS

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

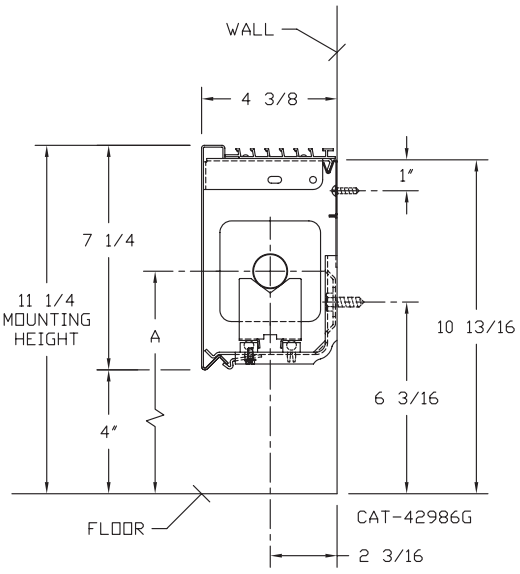
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL DEPTH AND HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	11K	1	15-7/16	780	670	610	540	480	410	350	310	260	200
3/4"	VR02	2-1/2" x 2-3/4"	60	.010	11K	1	15-7/16	1030	890	800	710	630	550	460	410	340	270
1"	VR03	2-1/2" x 2-3/4"	55	.011	11K	1	15-7/16	1000	860	780	690	610	530	450	400	330	260
3/4"	VR04	3-3/4" x 2-3/4"	50	.014	11K	1	15-7/16	1060	910	830	730	650	560	480	420	350	280
1"	VR05	3-3/4" x 2-3/4"	50	.011	11K	1	15-7/16	1010	870	790	700	620	540	450	400	330	260
1-1/4"	VR08	3-3/4" x 2-3/4"	50	.020	11K	1	15-7/16	1140	980	890	790	700	600	510	460	380	300
1"	VR07	5" x 2-3/4"	50	.020	11K	1	15-7/16	1170	1010	910	810	710	620	530	470	390	300
1-1/4"	VR10	5" x 2-3/4"	50	.020	11K	1	15-7/16	1140	980	890	790	700	600	510	460	380	300

STEEL ELEMENT RATINGS

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

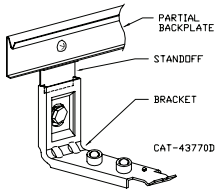
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL DEPTH AND HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	11K	1	15-7/16	760	650	590	520	460	400	340	300	250	200
1"	VR15	5" x 2-3/4"	50	.024	11K	1	15-7/16	930	800	730	640	570	490	420	370	310	240
1-1/4"	VR16	5" x 2-3/4"	50	.024	11K	1	15-7/16	900	770	700	620	550	480	410	360	300	230

STYLES V3 AND JV3 "AR" CLASSIC LOW PROFILE



Styles
V3-AR-7
JV3-AR-7

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



Accessories
V3, V4 — Underlapping Reveal Type
JV3, JV4 — Overlapping Type

Designed for use exclusively with hot water systems in buildings with window sill conditions low to the floor.

COPPER/ALUMINUM ELEMENT RATINGS

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

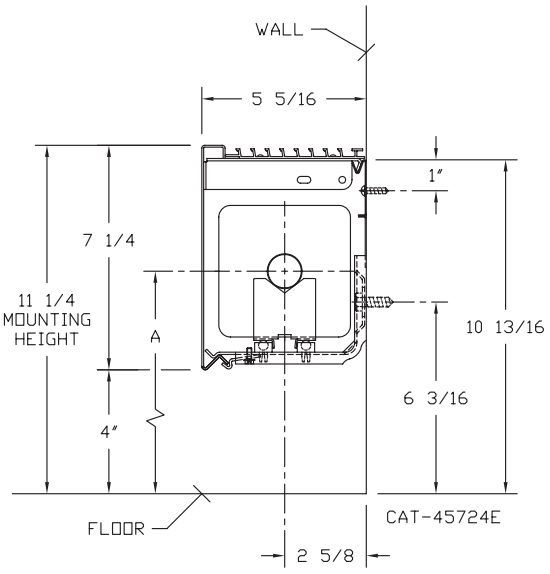
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	7-1/4	1	11-1/4	820	710	640	570	500	430	370	330	270	210
3/4"	VC3/4-34	3-1/4" SQ.	40	.020	7-1/4	1	11-1/4	1000	860	780	690	610	530	450	400	330	260
3/4"	VC3/4-35	3-1/4" SQ.	50	.020	7-1/4	1	11-1/4	1010	870	790	700	620	540	450	400	330	260
1"	VC33	3-1/4" SQ.	32	.020	7-1/4	1	11-1/4	840	720	660	580	510	450	380	340	280	220
1"	VC34	3-1/4" SQ.	40	.020	7-1/4	1	11-1/4	970	830	760	670	590	510	440	390	320	250
1"	VC35	3-1/4" SQ.	50	.020	7-1/4	1	11-1/4	980	840	760	680	600	520	440	390	320	250
1 1/4"	VC133	3-1/4" SQ.	32	.020	7-1/4	1	11-1/4	810	700	630	560	490	430	360	320	270	210
1 1/4"	VC134	3-1/4" SQ.	40	.020	7-1/4	1	11-1/4	930	800	730	640	570	490	420	370	310	240
1 1/4"	VC135	3-1/4" SQ.	50	.020	7-1/4	1	11-1/4	940	810	730	650	570	500	420	380	310	240

STEEL ELEMENT RATINGS

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

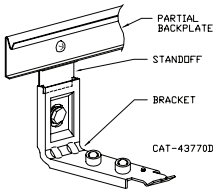
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	7-1/4	1	11-1/4	780	670	610	540	480	410	350	310	260	200
1"	VS34	3-1/4" SQ.	40	.032	7-1/4	1	11-1/4	860	740	670	590	520	460	390	340	280	220
1"	VS35	3-1/4" SQ.	50	.032	7-1/4	1	11-1/4	900	770	700	620	550	480	410	360	300	230
1-1/4"	VS133	3-1/4" SQ.	32	.032	7-1/4	1	11-1/4	770	660	600	530	470	410	350	310	250	200
1-1/4"	VS134	3-1/4" SQ.	40	.032	7-1/4	1	11-1/4	870	750	680	600	530	460	390	350	290	230
1-1/4"	VS135	3-1/4" SQ.	50	.032	7-1/4	1	11-1/4	885	760	690	610	540	470	400	350	290	230

STYLES V4 JV4 “AR” CLASSIC LOW PROFILE



Styles
V4-AR-7
JV4-AR-7

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



Accessories
V3, V4 — Underlapping Reveal Type
JV3, JV4 — Overlapping Type

Designed for use exclusively with hot water systems in buildings with window sill conditions low to the floor.

COPPER/ALUMINUM ELEMENT RATINGS

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

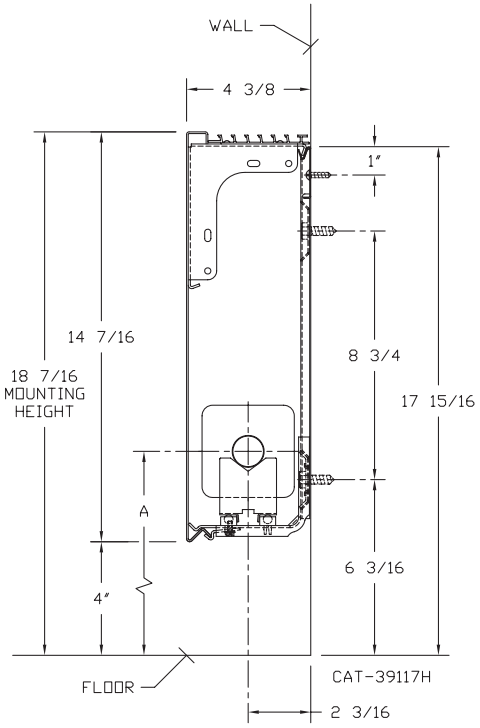
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	7-1/4	1	11-1/4	1065	920	830	730	650	560	480	430	350	280
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	7-1/4	1	11-1/4	1240	1070	970	860	760	660	560	500	410	320
3/4"	VC3/4-435	3-5/8" x 4-1/4"	50	.020	7-1/4	1	11-1/4	1320	1140	1030	910	810	700	590	530	440	340
1"	VC433	3-5/8" x 4-1/4"	32	.020	7-1/4	1	11-1/4	1150	990	900	790	700	610	520	460	380	300
1"	VC434	3-5/8" x 4-1/4"	40	.020	7-1/4	1	11-1/4	1260	1080	980	870	770	670	570	500	420	330
1"	VC435	3-5/8" x 4-1/4"	50	.020	7-1/4	1	11-1/4	1360	1170	1060	940	830	720	610	540	450	350
1-1/4"	VC1433	3-5/8" x 4-1/4"	32	.020	7-1/4	1	11-1/4	1120	960	870	770	680	590	500	450	370	290
1-1/4"	VC1434	3-5/8" x 4-1/4"	40	.020	7-1/4	1	11-1/4	1240	1070	970	860	760	660	560	500	410	320
1-1/4"	VC1435	3-5/8" x 4-1/4"	50	.020	7-1/4	1	11-1/4	1330	1140	1040	920	810	700	600	530	440	350
3/4"	VC3/4-43	4-1/4" SQ.	32	.020	7-1/4	1	11-1/4	1250	1080	980	860	760	660	560	500	410	330
3/4"	VC3/4-44	4-1/4" SQ.	40	.020	7-1/4	1	11-1/4	1360	1170	1060	940	830	720	610	540	450	350
3/4"	VC3/4-45	4-1/4" SQ.	50	.020	7-1/4	1	11-1/4	1380	1190	1080	950	840	730	620	550	460	360
1"	VC43	4-1/4" SQ.	32	.020	7-1/4	1	11-1/4	1260	1080	980	870	770	670	570	500	420	330
1"	VC44	4-1/4" SQ.	40	.020	7-1/4	1	11-1/4	1390	1200	1080	960	850	740	630	560	460	360
1"	VC45	4-1/4" SQ.	50	.020	7-1/4	1	11-1/4	1410	1210	1100	970	860	750	630	560	470	370
1-1/4"	VC143	4-1/4" SQ.	32	.020	7-1/4	1	11-1/4	1230	1060	960	850	750	650	550	490	410	320
1-1/4"	VC144	4-1/4" SQ.	40	.020	7-1/4	1	11-1/4	1370	1180	1070	950	840	730	620	550	450	360
1-1/4"	VC145	4-1/4" SQ.	50	.020	7-1/4	1	11-1/4	1390	1200	1080	960	850	740	630	560	460	360

STEEL ELEMENT RATINGS

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	MTG. 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	7-1/4	1	11-1/4	1100	950	860	760	670	580	500	440	360	290
1"	VS44	4-1/4" SQ.	40	.032	7-1/4	1	11-1/4	1210	1040	940	830	740	640	540	480	400	310
1"	VS45	4-1/4" SQ.	50	.032	7-1/4	1	11-1/4	1295	1110	1010	890	790	690	580	520	430	340
1-1/4"	VS143	4-1/4" SQ.	32	.032	7-1/4	1	11-1/4	1010	870	790	700	620	540	450	400	330	260
1-1/4"	VS144	4-1/4" SQ.	40	.032	7-1/4	1	11-1/4	1210	1040	940	830	740	640	540	480	400	310
1-1/4"	VS145	4-1/4" SQ.	50	.032	7-1/4	1	11-1/4	1270	1090	990	880	770	670	570	510	420	330
2"	VS242	4-1/4" SQ.	25	.032	7-1/4	1	11-1/4	950	820	740	660	580	500	430	380	310	250
2"	VS243	4-1/4" SQ.	32	.032	7-1/4	1	11-1/4	1130	970	880	780	690	600	510	450	370	290

STYLES V3 AND JV3 "AR" CLASSIC



Styles
V3-AR14 and JV3-AR14

Accessories
V3 – Underlapping Reveal Type
JV3 – Overlapping Type

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

STYLES V3-AR14 AND JV3-AR14

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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	18-7/16	1050	900	820	720	640	560	470	420	350	270
3/4"	VC3/4-34	3-1/4" SQ.	40	.020	14	1	18-7/16	1230	1060	960	850	750	650	550	490	410	320
3/4"	VC3/4-35	3-1/4" SQ.	50	.020	14	1	18-7/16	1370	1180	1070	950	840	730	620	550	450	360
1"	VC33	3-1/4" SQ.	32	.020	14	1	18-7/16	1130	970	880	780	690	600	510	450	370	290
1"	VC34	3-1/4" SQ.	40	.020	14	1	18-7/16	1270	1090	990	880	770	670	570	510	420	330
1"	VC35	3-1/4" SQ.	50	.020	14	1	18-7/16	1320	1140	1030	910	810	700	590	530	440	340
1 1/4"	VC133	3-1/4" SQ.	32	.020	14	1	18-7/16	960	830	750	660	590	510	430	380	320	250
1 1/4"	VC134	3-1/4" SQ.	40	.020	14	1	18-7/16	1130	970	880	780	690	600	510	450	370	290
1 1/4"	VC135	3-1/4" SQ.	50	.020	14	1	18-7/16	1270	1090	990	880	770	670	570	510	420	330

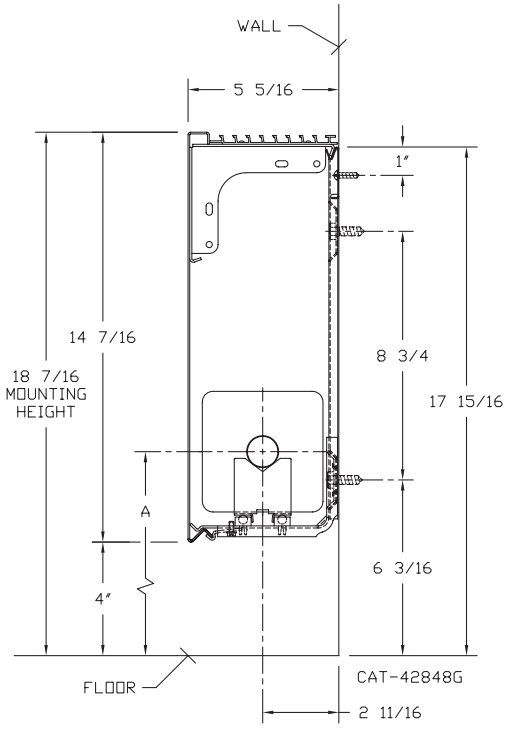
STEEL ELEMENT RATINGS

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

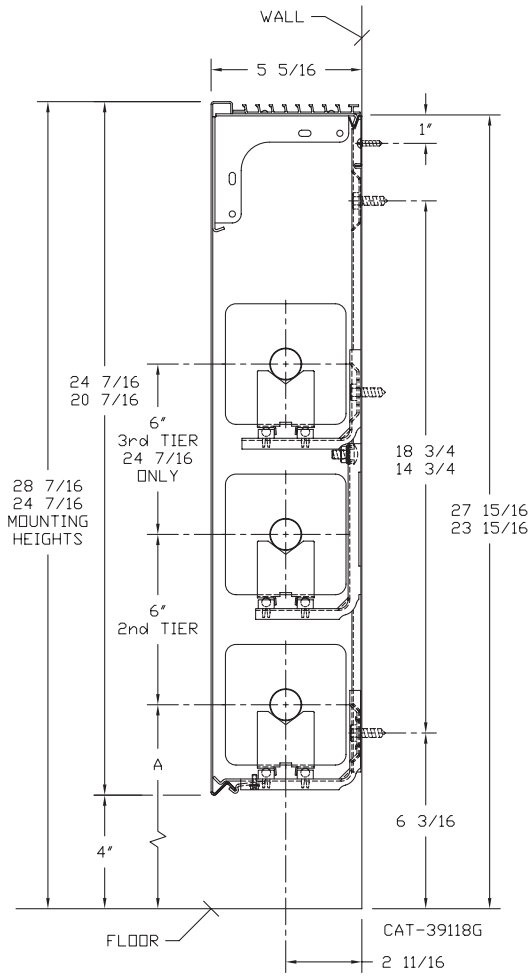
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	18-7/16	880	760	690	610	540	470	400	350	290	230
1"	VS34	3-1/4" SQ.	40	.032	14	1	18-7/16	970	830	760	670	590	510	440	390	320	250
1"	VS35	3-1/4" SQ.	50	.032	14	1	18-7/16	1040	890	810	720	630	550	470	420	340	270
1-1/4"	VS133	3-1/4" SQ.	32	.032	14	1	18-7/16	870	750	680	600	530	460	390	350	290	230
1-1/4"	VS134	3-1/4" SQ.	40	.032	14	1	18-7/16	980	840	760	680	600	520	440	390	320	250
1-1/4"	VS135	3-1/4" SQ.	50	.032	14	1	18-7/16	1020	880	800	700	620	540	460	410	340	270

STYLES V4 AND JV4 “AR” CLASSIC

Accessories
V4 — Underlapping Reveal Type
JV4 — Overlapping Type



Styles V4 and JV4-AR14



Styles V4 and JV4-AR20 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

STYLES JVB VB-AR14 20 24

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
3/4"	VC3/4-433	3-5/8" x 4-1/4"	32	.020	14	1	18-7/16	1360	1170	1060	940	830	720	610	540	450	350
					20	1	24-7/16	1400	1200	1090	970	850	740	630	560	460	360
					20	2-6 CL	24-7/16	2220	1910	1730	1530	1350	1180	1000	890	730	580
					24	1	28-7/16	1425	1230	1110	980	870	760	640	570	470	370
					24	2-6 CL	28-7/16	2270	1950	1770	1570	1380	1200	1020	910	750	590
					24	3-6 CL	28-7/16	2610	2240	2040	1800	1590	1380	1170	1040	860	680
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	14	1	18-7/16	1620	1390	1260	1120	990	860	730	650	530	420
					20	1	24-7/16	1710	1470	1330	1180	1040	910	770	680	560	440
					20	2-6 CL	24-7/16	2390	2060	1860	1650	1460	1270	1080	960	790	620
					24	1	28-7/16	1800	1550	1400	1240	1100	950	810	720	590	470
					24	2-6 CL	28-7/16	2490	2140	1940	1720	1520	1320	1120	1000	820	650
					24	3-6 CL	28-7/16	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	18-7/16	1780	1530	1390	1230	1090	940	800	710	590	460
					20	1	24-7/16	1940	1670	1510	1340	1180	1030	870	780	640	500
					20	2-6 CL	24-7/16	2400	2060	1870	1660	1460	1270	1080	960	790	620
					24	1	28-7/16	2080	1790	1620	1440	1270	1100	940	830	690	540
					24	2-6 CL	28-7/16	2530	2180	1970	1750	1540	1340	1140	1010	830	660
					24	3-6 CL	28-7/16	2860	2460	2230	1970	1740	1520	1290	1140	940	740
1"	VC433	3-5/8" x 4-1/4"	32	.020	14	1	18-7/16	1410	1210	1100	970	860	750	630	560	470	370
					20	1	24-7/16	1450	1250	1130	1000	880	770	650	580	480	380
					20	2-6 CL	24-7/16	2320	2000	1810	1600	1420	1230	1040	930	770	600
					24	1	28-7/16	1480	1270	1150	1020	900	780	670	590	490	380
					24	2-6 CL	28-7/16	2410	2070	1880	1660	1470	1280	1080	960	800	630
					24	3-6 CL	28-7/16	2770	2380	2160	1910	1690	1470	1250	1110	910	720
1"	VC434	3-5/8" x 4-1/4"	40	.020	14	1	18-7/16	1690	1450	1320	1170	1030	900	760	680	560	440
					20	1	24-7/16	1800	1550	1400	1240	1100	950	810	720	590	470
					20	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
					24	1	28-7/16	1890	1630	1470	1300	1150	1000	850	760	620	490
					24	2-6 CL	28-7/16	2660	2290	2070	1840	1620	1410	1200	1060	880	690
					24	3-6 CL	28-7/16	3030	2610	2360	2090	1850	1610	1360	1210	1000	790
1"	VC435	3-5/8" x 4-1/4"	50	.020	14	1	18-7/16	1850	1590	1440	1280	1130	980	830	740	610	480
					20	1	24-7/16	2030	1750	1580	1400	1240	1080	910	810	670	530
					20	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
					24	1	28-7/16	2170	1870	1690	1500	1320	1150	980	870	720	560
					24	2-6 CL	28-7/16	2660	2290	2070	1840	1620	1410	1200	1060	880	690
					24	3-6 CL	28-7/16	3010	2590	2350	2080	1840	1600	1350	1200	990	780
1-1/4"	VC1433	3-5/8" x 4-1/4"	32	.020	14	1	18-7/16	1380	1190	1080	950	840	730	620	550	460	360
					20	1	24-7/16	1420	1220	1110	980	870	750	640	570	470	370
					20	2 @ 6 CL	24-7/16	2280	1960	1780	1570	1390	1210	1030	910	750	590
					24	1	28-7/16	1450	1250	1130	1000	880	770	650	580	480	380
					24	2 @ 6 CL	28-7/16	2370	2040	1850	1640	1450	1260	1070	950	780	620
					24	3 @ 6 CL	28-7/16	2730	2350	2130	1880	1670	1450	1230	1090	900	710
1-1/4"	VC1434	3-5/8" x 4-1/4"	40	.020	14	1	18-7/16	1660	1430	1290	1150	1010	880	750	660	550	430
					20	1	24-7/16	1760	1510	1370	1210	1070	930	790	700	580	460
					20	2 @ 6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640
					24	1	28-7/16	1850	1590	1440	1280	1130	980	830	740	610	480
					24	2 @ 6 CL	28-7/16	2600	2240	2030	1790	1590	1380	1170	1040	860	680
					24	3 @ 6 CL	28-7/16	2960	2550	2310	2040	1810	1570	1330	1180	980	770
1-1/4"	VC1435	3-5/8" x 4-1/4"	50	.020	14	1	18-7/16	1760	1510	1370	1210	1070	930	790	700	580	460
					20	1	24-7/16	1920	1650	1500	1320	1170	1020	860	770	630	500
					20	2 @ 6 CL	24-7/16	2370	2040	1850	1640	1450	1260	1070	950	780	620
					24	1	28-7/16	2050	1760	1600	1410	1250	1090	920	820	680	530
					24	2 @ 6 CL	28-7/16	2500	2150	1950	1720	1530	1330	1130	1000	830	650
					24	3 @ 6 CL	28-7/16	2820	2430	2200	1950	1720	1490	1270	1130	930	730
3/4"	VC3/4-43	4-1/4" SQ.	32	.020	14	1	18-7/16	1470	1260	1150	1010	900	780	660	590	490	380
					20	1	24-7/16	1540	1320	1200	1060	940	820	690	620	510	400
					20	2-6 CL	24-7/16	2310	1990	1800	1590	1410	1220	1040	920	760	600
					24	1	28-7/16	1570	1350	1220	1080	960	830	710	630	520	410
					24	2-6 CL	28-7/16	2410	2070	1880	1660	1470	1280	1080	960	800	630
					24	3-6 CL	28-7/16	2770	2380	2160	1910	1690	1470	1250	1110	910	720

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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"	VC3/4-44	4-1/4" SQ.	40	.020	14	1	18-7/16	1840	1580	1440	1270	1120	980	830	740	610	480
					20	1	24-7/16	1950	1680	1520	1350	1190	1030	880	780	640	510
					20	2-6 CL	24-7/16	2360	2030	1840	1630	1440	1250	1060	940	780	610
					24	1	28-7/16	2070	1780	1610	1430	1260	1100	930	830	680	540
					24	2-6 CL	28-7/16	2550	2190	1990	1760	1560	1350	1150	1020	840	660
					24	3-6 CL	28-7/16	2910	2500	2270	2010	1780	1540	1310	1160	960	760
3/4"	VC3/4-45	4-1/4" SQ.	50	.020	14	1	18-7/16	1870	1610	1460	1290	1140	990	840	750	620	490
					20	1	24-7/16	2050	1760	1600	1410	1250	1090	920	820	680	530
					20	2-6 CL	24-7/16	2480	2130	1930	1710	1510	1310	1120	990	820	640
					24	1	28-7/16	2200	1890	1720	1520	1340	1170	990	880	730	570
					24	2-6 CL	28-7/16	2670	2300	2080	1840	1630	1420	1200	1070	880	690
					24	3-6 CL	28-7/16	3020	2600	2360	2080	1840	1600	1360	1210	1000	790
1"	VC43	4-1/4" SQ.	32	.020	14	1	18-7/16	1470	1260	1150	1010	900	780	660	590	490	380
					20	1	24-7/16	1540	1320	1200	1060	940	820	690	620	510	400
					20	2-6 CL	24-7/16	2340	2010	1830	1610	1430	1240	1050	940	770	610
					24	1	28-7/16	1580	1360	1230	1090	960	840	710	630	520	410
					24	2-6 CL	28-7/16	2440	2100	1900	1680	1490	1290	1100	980	810	630
					24	3-6 CL	28-7/16	2810	2420	2190	1940	1710	1490	1260	1120	930	730
1"	VC44	4-1/4" SQ.	40	.020	14	1	18-7/16	1720	1480	1340	1190	1050	910	770	690	570	450
					20	1	24-7/16	1810	1560	1410	1250	1100	960	810	720	600	470
					20	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
					24	1	28-7/16	1920	1650	1500	1320	1170	1020	860	770	630	500
					24	2-6 CL	28-7/16	2600	2240	2030	1790	1590	1380	1170	1040	860	680
					24	3-6 CL	28-7/16	2960	2550	2310	2040	1810	1570	1330	1180	980	770
1"	VC45	4-1/4" SQ.	50	.020	14	1	18-7/16	1900	1630	1480	1310	1160	1010	860	760	630	490
					20	1	24-7/16	2090	1800	1630	1440	1270	1110	940	840	690	540
					20	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
					24	1	28-7/16	2250	1940	1760	1550	1370	1190	1010	900	740	590
					24	2-6 CL	28-7/16	2710	2330	2110	1870	1650	1440	1220	1080	890	700
					24	3-6 CL	28-7/16	3060	2630	2390	2110	1870	1620	1380	1220	1010	800
1-1/4"	VC143	4-1/4" SQ.	32	.020	14	1	18-7/16	1440	1240	1120	990	880	760	650	580	480	370
					20	1	24-7/16	1510	1300	1180	1040	920	800	680	600	500	390
					20	2-6 CL	24-7/16	2300	1980	1790	1590	1400	1220	1040	920	760	600
					24	1	28-7/16	1550	1330	1210	1070	950	820	700	620	510	400
					24	2-6 CL	28-7/16	2390	2060	1860	1650	1460	1270	1080	960	790	620
					24	3-6 CL	28-7/16	2750	2370	2150	1900	1680	1460	1240	1100	910	720
1-1/4"	VC144	4-1/4" SQ.	40	.020	14	1	18-7/16	1690	1450	1320	1170	1030	900	760	680	560	440
					20	1	24-7/16	1780	1530	1390	1230	1090	940	800	710	590	460
					20	2-6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640
					24	1	28-7/16	1890	1630	1470	1300	1150	1000	850	760	620	490
					24	2-6 CL	28-7/16	2550	2190	1990	1760	1560	1350	1150	1020	840	660
					24	3-6 CL	28-7/16	2910	2500	2270	2010	1780	1540	1310	1160	960	760
1-1/4"	VC145	4-1/4" SQ.	50	.020	14	1	18-7/16	1870	1610	1460	1290	1140	990	840	750	620	490
					20	1	24-7/16	2050	1760	1600	1410	1250	1090	920	820	680	530
					20	2-6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640
					24	1	28-7/16	2210	1900	1720	1520	1350	1170	990	880	730	570
					24	2-6 CL	28-7/16	2650	2280	2070	1830	1620	1400	1190	1060	870	690
					24	3-6 CL	28-7/16	2990	2570	2330	2060	1820	1580	1350	1200	990	780

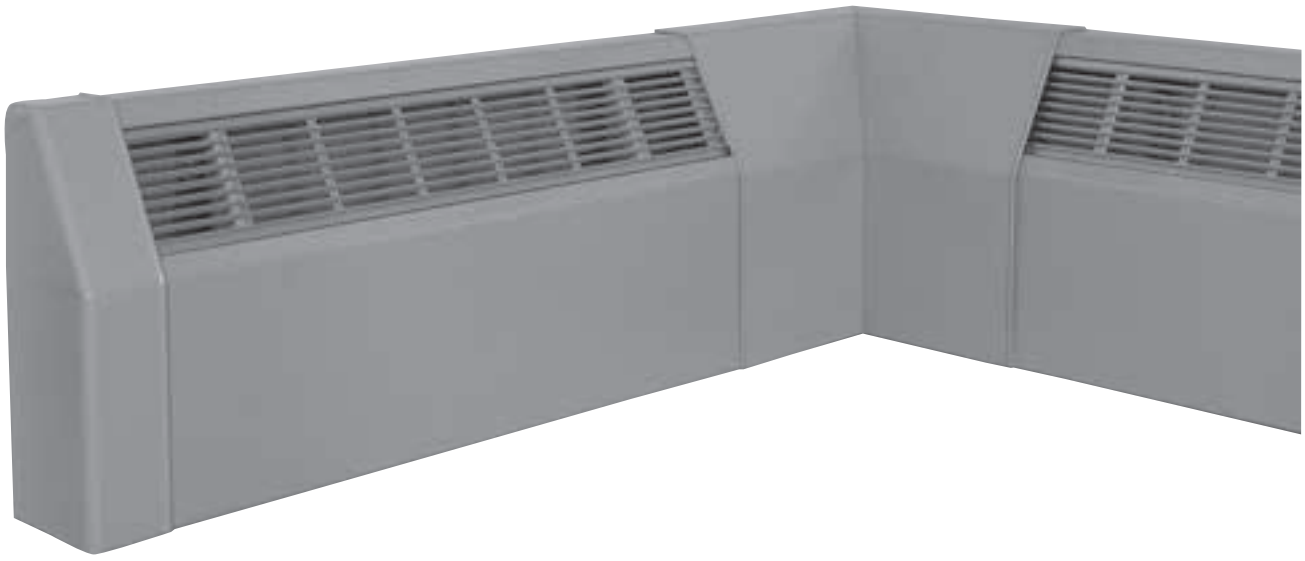
STYLES JV4 V4-AR14 20 24

STEEL ELEMENT RATINGS

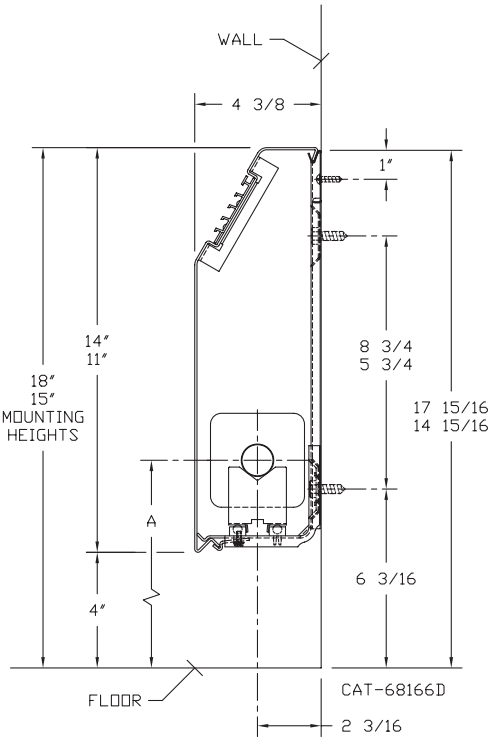
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

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	MTG. 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	14	1	18-7/16	1210	1040	940	830	740	640	540	480	400	310
					20	1	24-7/16	1270	1090	990	880	770	670	570	510	420	330
					20	2-6 CL	24-7/16	2080	1790	1620	1440	1270	1100	940	830	690	540
					24	1	28-7/16	1310	1130	1020	900	800	690	590	520	430	340
					24	2-6 CL	28-7/16	2120	1820	1650	1460	1290	1120	950	850	700	550
					24	3-6 CL	28-7/16	2440	2100	1900	1680	1490	1290	1100	980	810	630
1"	VS44	4-1/4" SQ.	40	.032	14	1	18-7/16	1440	1240	1120	990	880	760	650	580	480	370
					20	1	24-7/16	1530	1320	1190	1060	930	810	690	610	500	400
					20	2-6 CL	24-7/16	2330	2000	1820	1610	1420	1230	1050	930	770	610
					24	1	28-7/16	1600	1380	1250	1100	980	850	720	640	530	420
					24	2-6 CL	28-7/16	2395	2060	1870	1650	1460	1270	1080	960	790	620
					24	3-6 CL	28-7/16	2730	2350	2130	1880	1670	1450	1230	1090	900	710
1"	VS45	4-1/4" SQ.	50	.032	14	1	18-7/16	1490	1280	1160	1030	910	790	670	600	490	390
					20	1	24-7/16	1565	1350	1220	1080	950	830	700	630	520	410
					20	2-6 CL	24-7/16	2285	1970	1780	1580	1390	1210	1030	910	750	590
					24	1	28-7/16	1620	1390	1260	1120	990	860	730	650	530	420
					24	2-6 CL	28-7/16	2320	2000	1810	1600	1420	1230	1040	930	770	600
					24	3-6 CL	28-7/16	2620	2250	2040	1810	1600	1390	1180	1050	860	680
1-1/4"	VS143	4-1/4" SQ.	32	.032	14	1	18-7/16	1110	950	870	770	680	590	500	440	370	290
					20	1	24-7/16	1170	1010	910	810	710	620	530	470	390	300
					20	2-6 CL	24-7/16	1910	1640	1490	1320	1170	1010	860	760	630	500
					24	1	28-7/16	1200	1030	940	830	730	640	540	480	400	310
					24	2-6 CL	28-7/16	1940	1670	1510	1340	1180	1030	870	780	640	500
					24	3-6 CL	28-7/16	2230	1920	1740	1540	1360	1180	1000	890	740	580
1-1/4"	VS144	4-1/4" SQ.	40	.032	14	1	18-7/16	1430	1230	1120	990	870	760	640	570	470	370
					20	1	24-7/16	1520	1310	1190	1050	930	810	680	610	500	400
					20	2-6 CL	24-7/16	2240	1930	1750	1550	1370	1190	1010	900	740	580
					24	1	28-7/16	1590	1370	1240	1100	970	840	720	640	520	410
					24	2-6 CL	28-7/16	2300	1980	1790	1590	1400	1220	1040	920	760	600
					24	3-6 CL	28-7/16	2620	2250	2040	1810	1600	1390	1180	1050	860	680
1-1/4"	VS145	4-1/4" SQ.	50	.032	14	1	18-7/16	1460	1260	1140	1010	890	770	660	580	480	380
					20	1	24-7/16	1535	1320	1200	1060	940	810	690	610	510	400
					20	2-6 CL	24-7/16	2240	1930	1750	1550	1370	1190	1010	900	740	580
					24	1	28-7/16	1595	1370	1240	1100	970	850	720	640	530	410
					24	2-6 CL	28-7/16	2275	1960	1770	1570	1390	1210	1020	910	750	590
					24	3-6 CL	28-7/16	2570	2210	2000	1770	1570	1360	1160	1030	850	670
2"	VS242	4-1/4" SQ.	25	.032	14	1	18-7/16	1090	940	850	750	660	580	490	440	360	280
					20	1	24-7/16	1130	970	880	780	690	600	510	450	370	290
					20	2-6 CL	24-7/16	1830	1570	1430	1260	1120	970	820	730	600	480
					24	1	28-7/16	1150	990	900	790	700	610	520	460	380	300
					24	2-6 CL	28-7/16	1850	1590	1440	1280	1130	980	830	740	610	480
					24	3-6 CL	28-7/16	2130	1830	1660	1470	1300	1130	960	850	700	550
2"	VS243	4-1/4" SQ.	32	.032	14	1	18-7/16	1290	1110	1010	890	790	680	580	520	430	340
					20	1	24-7/16	1330	1140	1040	920	810	700	600	530	440	350
					20	2-6 CL	24-7/16	2030	1750	1580	1400	1240	1080	910	810	670	530
					24	1	28-7/16	1380	1190	1080	950	840	730	620	550	460	360
					24	2-6 CL	28-7/16	2060	1770	1610	1420	1260	1090	930	820	680	540
					24	3-6 CL	28-7/16	2370	2040	1850	1640	1450	1260	1070	950	780	620

STYLE JV3 “ARS” CLASSIC SLOPE



JV3-ARS11 14



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 41 for element center line dimensions with water bracket installation.

STYLE JV3-ARS11 14 SLOPE TOP

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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	11	1	15	1000	860	780	690	610	530	450	400	330	260
					14		18	1080	930	840	750	660	570	490	430	360	280
3/4"	VC3/4-34	3-1/4" SQ.	40	.020	11	1	15	1180	1010	920	810	720	630	530	470	390	310
					14		18	1290	1110	1010	890	790	680	580	520	430	340
3/4"	VC3/4-35	3-1/4" SQ.	50	.020	11	1	15	1320	1140	1030	910	810	700	590	530	440	340
					14		18	1440	1240	1120	990	880	760	650	580	480	370
1"	VC33	3-1/4" SQ.	32	.020	11	1	15	980	840	760	680	600	520	440	390	320	250
					14		18	1060	910	830	730	650	560	480	420	350	280
1"	VC34	3-1/4" SQ.	40	.020	11	1	15	1150	990	900	790	700	610	520	460	380	300
					14		18	1250	1080	980	860	760	660	560	500	410	330
1"	VC35	3-1/4" SQ.	50	.020	11	1	15	1260	1080	980	870	770	670	570	500	420	330
					14		18	1370	1180	1070	950	840	730	620	550	450	360
1 1/4"	VC133	3-1/4" SQ.	32	.020	11	1	15	920	790	720	630	560	490	410	370	300	240
					14		18	1020	880	800	700	620	540	460	410	340	270
1 1/4"	VC134	3-1/4" SQ.	40	.020	11	1	15	1080	930	840	750	660	570	490	430	360	280
					14		18	1190	1020	930	820	730	630	540	480	390	310
1 1/4"	VC135	3-1/4" SQ.	50	.020	11	1	15	1190	1020	930	820	730	630	540	480	390	310
					14		18	1330	1140	1040	920	810	700	600	530	440	350

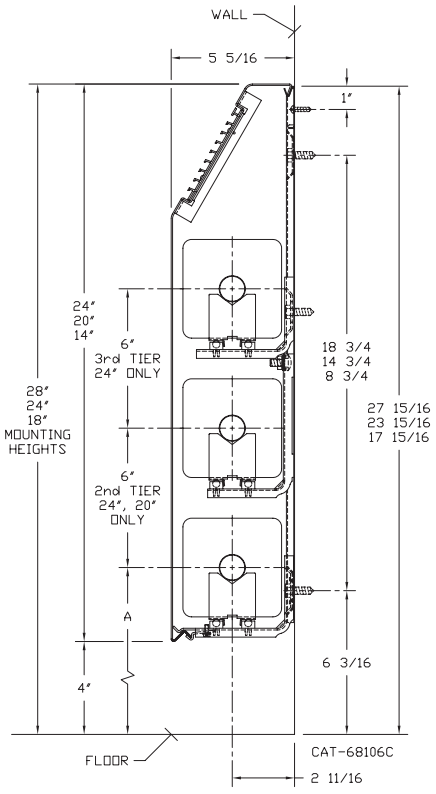
STEEL ELEMENT RATINGS

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	MTG. 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	11	1	15	930	800	730	640	570	490	420	370	310	240
					14	1	18	970	830	760	670	590	510	440	390	320	250
1"	VS34	3-1/4" SQ.	40	.032	11	1	15	990	850	770	680	600	520	450	400	330	260
					14	1	18	1110	950	870	770	680	590	500	440	370	290
1"	VS35	3-1/4" SQ.	50	.032	11	1	15	1055	910	820	730	640	560	470	420	350	270
					14	1	18	1180	1010	920	810	720	630	530	470	390	310
1-1/4"	VS133	3-1/4" SQ.	32	.032	11	1	15	920	790	720	630	560	490	410	370	300	240
					14	1	18	960	830	750	660	590	510	430	380	320	250
1-1/4"	VS134	3-1/4" SQ.	40	.032	11	1	15	1000	860	780	690	610	530	450	400	330	260
					14	1	18	1120	960	870	770	680	590	500	450	370	290
1-1/4"	VS135	3-1/4" SQ.	50	.032	11	1	15	1030	890	800	710	630	550	460	410	340	270
					14	1	18	1150	990	900	790	700	610	520	460	380	300

STYLE JV4 "ARS" CLASSIC SLOPE

JV4-ARS14 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 41 for element center line dimensions with water bracket installation.

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								1.00	0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26
3/4"	VC3/4-433	3-5/8" x 4-1/4"	32	.020	14	1	18	1520	1310	1190	1050	930	810	680	610	500	400
					20	1	24	1600	1380	1250	1100	980	850	720	640	530	420
					20	2-6 CL	24	2480	2130	1930	1710	1510	1310	1120	990	820	640
					24	1	28	1670	1440	1300	1150	1020	890	750	670	550	430
					24	2-6 CL	28	2570	2210	2000	1770	1570	1360	1160	1030	850	670
					24	3-6 CL	28	2960	2550	2310	2040	1810	1570	1330	1180	980	770
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	14	1	18	1700	1460	1330	1170	1040	900	770	680	560	440
					20	1	24	1820	1570	1420	1260	1110	960	820	730	600	470
					20	2-6 CL	24	2580	2220	2010	1780	1570	1370	1160	1030	850	670
					24	1	28	1910	1640	1490	1320	1170	1010	860	760	630	500
					24	2-6 CL	28	2700	2320	2110	1860	1650	1430	1220	1080	890	700
					24	3-6 CL	28	3080	2650	2400	2130	1880	1630	1390	1230	1020	800
3/4"	VC3/4-435	3-5/8" x 4-1/4"	50	.020	14	1	18	1840	1580	1440	1270	1120	980	830	740	610	480
					20	1	24	2090	1800	1630	1440	1270	1110	940	840	690	540
					20	2-6 CL	24	2820	2430	2200	1950	1720	1490	1270	1130	930	730
					24	1	28	2260	1940	1760	1560	1380	1200	1020	900	750	590
					24	2-6 CL	28	3110	2670	2430	2150	1900	1650	1400	1240	1030	810
					24	3-6 CL	28	3510	3020	2740	2420	2140	1860	1580	1400	1160	910
1"	VC433	3-5/8" x 4-1/4"	32	.020	14	1	18	1540	1320	1200	1060	940	820	690	620	510	400
					20	1	24	1620	1390	1260	1120	990	860	730	650	530	420
					20	2-6 CL	24	2500	2150	1950	1720	1530	1330	1130	1000	830	650
					24	1	28	1690	1450	1320	1170	1030	900	760	680	560	440
					24	2-6 CL	28	2590	2230	2020	1790	1580	1370	1170	1040	850	670
					24	3-6 CL	28	2980	2560	2320	2060	1820	1580	1340	1190	980	770

STYLE JV4-ARS14 20 24 SLOPE TOP

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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"	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
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	2200	1890	1720	1520	1340	1170	990	880	730	570
					20	2-6 CL	24	2910	2500	2270	2010	1780	1540	1310	1160	960	760
					24	1	28	2340	2010	1830	1610	1430	1240	1050	940	770	610
					24	2-6 CL	28	3200	2750	2500	2210	1950	1700	1440	1280	1060	830
					24	3-6 CL	28	3650	3140	2850	2520	2230	1930	1640	1460	1200	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

STYLE JV4-ARS14 20 24 SLOPE TOP

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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"	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

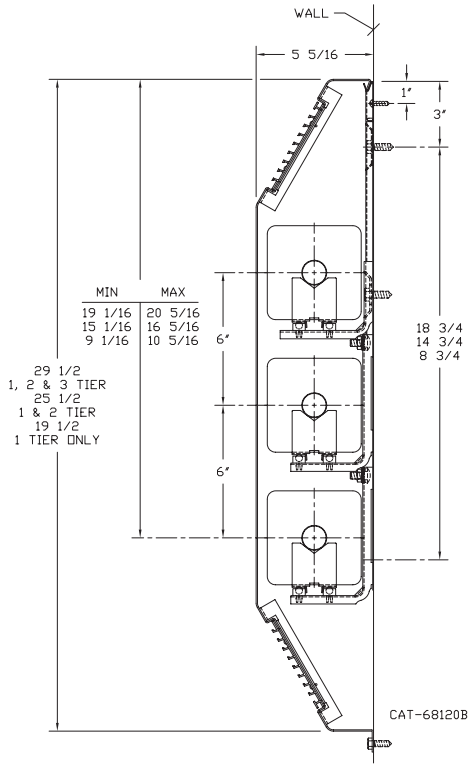
STYLE JV4-ARS14 20 24 SLOPE TOP

STEEL ELEMENT RATINGS

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	MTG. 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	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

STYLE JV4-ARDS - CLASSIC DOUBLE SLOPE



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

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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	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

STYLE JV4-ARDS - CLASSIC DOUBLE SLOPE

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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"	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	-	2430	2090	1900	1680	1480	1290	1090	970	800	630
					29-1/2	1	-	1800	1550	1400	1240	1100	950	810	720	590	470
					29-1/2	2-6 CL	-	2540	2180	1980	1750	1550	1350	1140	1020	840	660
					29-1/2	3-6 CL	-	2900	2490	2260	2000	1770	1540	1310	1160	960	750
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

STYLE JV4-ARDS - CLASSIC DOUBLE SLOPE

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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
1-1/4"	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

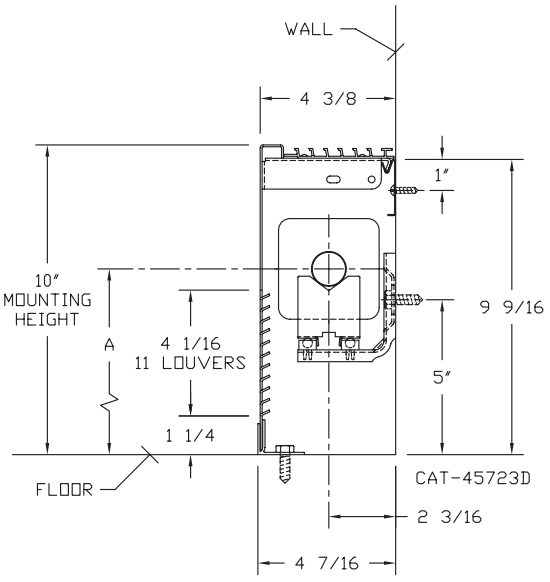
STYLE JV4-ARDS - CLASSIC DOUBLE SLOPE

STEEL ELEMENT RATINGS

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	MTG. 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	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	-	1190	1020	930	820	730	630	540	480	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

STYLES V3 JV3 “AR” CLASSIC LOUVERED INLET “LI”



Styles V3 and JV3-AR10LI

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

STYLES V3 AND JV3-AR10LI

COPPER/ALUMINUM ELEMENT RATINGS

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

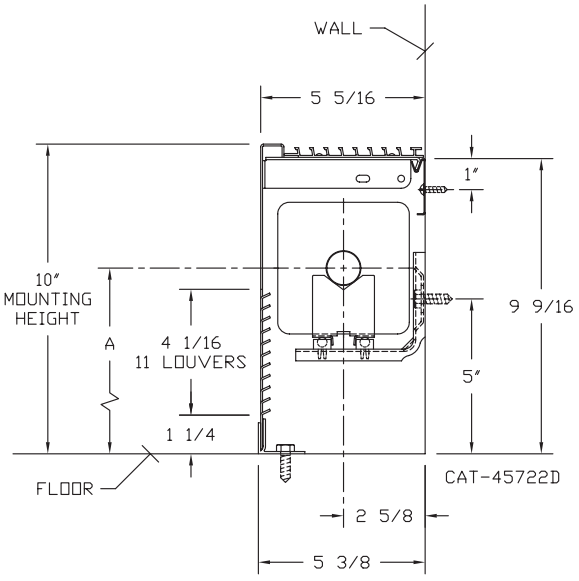
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	10	1	10	780	670	610	540	480	410	350	310	260	200
3/4"	VC3/4-34	3-1/4" SQ.	40	.020	10	1	10	950	820	740	660	580	500	430	380	310	250
3/4"	VC3/4-35	3-1/4" SQ.	50	.020	10	1	10	960	830	750	660	590	510	430	380	320	250
1"	VC33	3-1/4" SQ.	32	.020	10	1	10	800	690	620	550	490	420	360	320	260	210
1"	VC34	3-1/4" SQ.	40	.020	10	1	10	920	790	720	630	560	490	410	370	300	240
1"	VC35	3-1/4" SQ.	50	.020	10	1	10	930	800	730	640	570	490	420	370	310	240
1 1/4"	VC133	3-1/4" SQ.	32	.020	10	1	10	770	660	600	530	470	410	350	310	250	200
1 1/4"	VC134	3-1/4" SQ.	40	.020	10	1	10	880	760	690	610	540	470	400	350	290	230
1 1/4"	VC135	3-1/4" SQ.	50	.020	10	1	10	890	770	690	610	540	470	400	360	290	230

STEEL ELEMENT RATINGS

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	MTG. 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	10	1	10	740	640	580	510	450	390	330	300	240	190
1"	VS34	3-1/4" SQ.	40	.032	10	1	10	815	700	640	560	500	430	370	330	270	210
1"	VS35	3-1/4" SQ.	50	.032	10	1	10	855	740	670	590	520	450	380	340	280	220
1-1/4"	VS133	3-1/4" SQ.	32	.032	10	1	10	730	630	570	500	450	390	330	290	240	190
1-1/4"	VS134	3-1/4" SQ.	40	.032	10	1	10	825	710	640	570	500	440	370	330	270	210
1-1/4"	VS135	3-1/4" SQ.	50	.032	10	1	10	840	720	660	580	510	450	380	340	280	220

STYLES V4 AND JV4 "AR" CLASSIC LOUVERED INLET "LI"



Styles V4 and JV4-AR10LI

Accessories
V4 — Underlapping Reveal Type
JV4 — Overlapping Type

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

STYLES V4 AND JV4-AR10LI

COPPER/ALUMINUM ELEMENT RATINGS

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

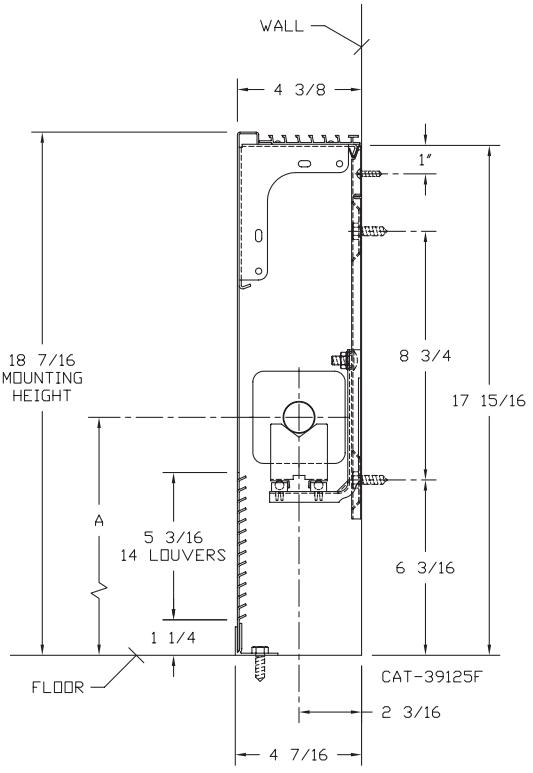
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	10	1	10	1020	880	800	700	620	540	460	410	340	270
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	10	1	10	1180	1010	920	810	720	630	530	470	390	310
3/4"	VC3/4-435	3-5/8" x 4-1/4"	50	.020	10	1	10	1255	1080	980	870	770	670	560	500	410	330
1"	VC433	3-5/8" x 4-1/4"	32	.020	10	1	10	1090	940	850	750	660	580	490	440	360	280
1"	VC434	3-5/8" x 4-1/4"	40	.020	10	1	10	1200	1030	940	830	730	640	540	480	400	310
1"	VC435	3-5/8" x 4-1/4"	50	.020	10	1	10	1290	1110	1010	890	790	680	580	520	430	340
1-1/4"	VC1433	3-5/8" x 4-1/4"	32	.020	10	1	10	1070	920	830	740	650	570	480	430	350	280
1-1/4"	VC1434	3-5/8" x 4-1/4"	40	.020	10	1	10	1180	1010	920	810	720	630	530	470	390	310
1-1/4"	VC1435	3-5/8" x 4-1/4"	50	.020	10	1	10	1270	1090	990	880	770	670	570	510	420	330
3/4"	VC3/4-43	4-1/4" SQ.	32	.020	10	1	10	1190	1020	930	820	730	630	540	480	390	310
3/4"	VC3/4-44	4-1/4" SQ.	40	.020	10	1	10	1290	1110	1010	890	790	680	580	520	430	340
3/4"	VC3/4-45	4-1/4" SQ.	50	.020	10	1	10	1310	1130	1020	900	800	690	590	520	430	340
1"	VC43	4-1/4" SQ.	32	.020	10	1	10	1200	1030	940	830	730	640	540	480	400	310
1"	VC44	4-1/4" SQ.	40	.020	10	1	10	1320	1140	1030	910	810	700	590	530	440	340
1"	VC45	4-1/4" SQ.	50	.020	10	1	10	1340	1150	1050	920	820	710	600	540	440	350
1-1/4"	VC143	4-1/4" SQ.	32	.020	10	1	10	1170	1010	910	810	710	620	530	470	390	300
1-1/4"	VC144	4-1/4" SQ.	40	.020	10	1	10	1300	1120	1010	900	790	690	590	520	430	340
1-1/4"	VC145	4-1/4" SQ.	50	.020	10	1	10	1320	1140	1030	910	810	700	590	530	440	340

STEEL ELEMENT RATINGS

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	MTG. 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	10	1	10	1045	900	820	720	640	550	470	420	340	270
1"	VS44	4-1/4" SQ.	40	.032	10	1	10	1140	980	890	790	700	600	510	460	380	300
1"	VS45	4-1/4" SQ.	50	.032	10	1	10	1225	1050	960	850	750	650	550	490	400	320
1-1/4"	VS143	4-1/4" SQ.	32	.032	10	1	10	960	830	750	660	590	510	430	380	320	250
1-1/4"	VS144	4-1/4" SQ.	40	.032	10	1	10	1150	990	900	790	700	610	520	460	380	300
1-1/4"	VS145	4-1/4" SQ.	50	.032	10	1	10	1210	1040	940	830	740	640	540	480	400	310
2"	VS242	4-1/4" SQ.	25	.032	10	1	10	905	780	710	620	550	480	410	360	300	240
2"	VS243	4-1/4" SQ.	32	.032	10	1	10	1075	920	840	740	660	570	480	430	350	280

STYLES V3 AND JV3-AR18LI



Styles V3 and JV3-AR18LI

Accessories

V3, V4 — Underlapping Reveal Type
V3, JV4 — Overlapping Type

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

COPPER/ALUMINUM ELEMENT RATINGS

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

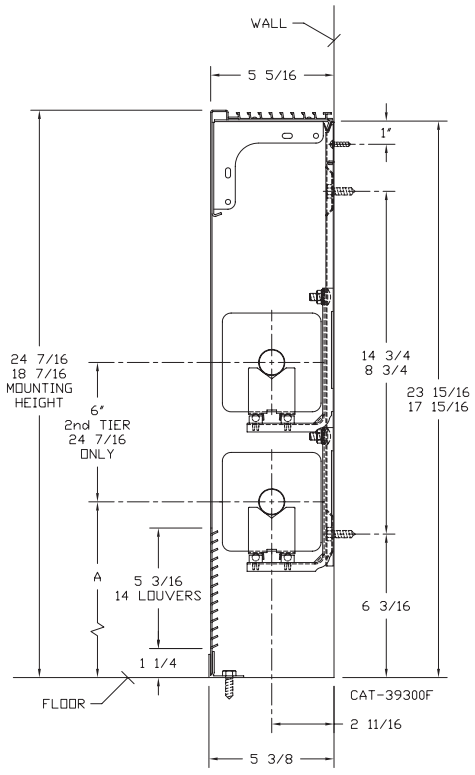
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	18-7/16	1	18-7/16	1050	900	820	720	640	560	470	420	350	270
3/4"	VC3/4-34	3-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1230	1060	960	850	750	650	550	490	410	320
3/4"	VC3/4-35	3-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1370	1180	1070	950	840	730	620	550	450	360
1"	VC33	3-1/4" SQ.	32	.020	18-7/16	1	18-7/16	1130	970	880	780	690	600	510	450	370	290
1"	VC34	3-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1270	1090	990	880	770	670	570	510	420	330
1"	VC35	3-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1320	1140	1030	910	810	700	590	530	440	340
1 1/4"	VC133	3-1/4" SQ.	32	.020	18-7/16	1	18-7/16	960	830	750	660	590	510	430	380	320	250
1 1/4"	VC134	3-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1130	970	880	780	690	600	510	450	370	290
1 1/4"	VC135	3-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1270	1090	990	880	770	670	570	510	420	330

STEEL ELEMENT RATINGS

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	MTG. 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	18-7/16	1	18-7/16	880	760	690	610	540	470	400	350	290	230
1"	VS34	3-1/4" SQ.	40	.032	18-7/16	1	18-7/16	970	830	760	670	590	510	440	390	320	250
1"	VS35	3-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1040	890	810	720	630	550	470	420	340	270
1-1/4"	VS133	3-1/4" SQ.	32	.032	18-7/16	1	18-7/16	870	750	680	600	530	460	390	350	290	230
1-1/4"	VS134	3-1/4" SQ.	40	.032	18-7/16	1	18-7/16	980	840	760	680	600	520	440	390	320	250
1-1/4"	VS135	3-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1020	880	800	700	620	540	460	410	340	270

STYLES V4 AND JV4-AR18 24LI



Styles V4 and JV4-AR18 24LI

Accessories

V3, V4 — Underlapping Reveal Type
JV3, JV4 — Overlapping Type

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	8"	8 11/16
3/4 COPPER	4 1/4 x 4 1/4	3A		9 1/16
1" COPPER	3 5/8 x 4 1/4	2		8 13/16
1" COPPER	4 1/4 x 4 1/4	2		8 13/16
1 1/4 COPPER	3 5/8 x 4 1/4	2		9"
1 1/4 COPPER	4 1/4 x 4 1/4	2		9"
1" STEEL	4 1/4 x 4 1/4	2		8 15/16
1 1/4 STEEL	4 1/4 x 4 1/4	2		9 3/16
2" STEEL	4 1/4 x 4 1/4	1		8 15/16

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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	18-7/16	1	18-7/16	1360	1170	1060	940	830	720	610	540	450	350
					24-7/16	1	24-7/16	1400	1200	1090	970	850	740	630	560	460	360
					24-7/16	2-6 CL	24-7/16	2220	1910	1730	1530	1350	1180	1000	890	730	580
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	18-7/16	1	18-7/16	1620	1390	1260	1120	990	860	730	650	530	420
					24-7/16	1	24-7/16	1710	1470	1330	1180	1040	910	770	680	560	440
					24-7/16	2-6 CL	24-7/16	2390	2060	1860	1650	1460	1270	1080	960	790	620
3/4"	VC3/4-435	3-5/8" x 4-1/4"	50	.020	18-7/16	1	18-7/16	1780	1530	1390	1230	1090	940	800	710	590	460
					24-7/16	1	24-7/16	1940	1670	1510	1340	1180	1030	870	780	640	500
					24-7/16	2-6 CL	24-7/16	2400	2060	1870	1660	1460	1270	1080	960	790	620
1"	VC433	3-5/8" x 4-1/4"	32	.020	18-7/16	1	18-7/16	1410	1210	1100	970	860	750	630	560	470	370
					24-7/16	1	24-7/16	1450	1250	1130	1000	880	770	650	580	480	380
					24-7/16	2-6 CL	24-7/16	2320	2000	1810	1600	1420	1230	1040	930	770	600
1"	VC434	3-5/8" x 4-1/4"	40	.020	18-7/16	1	18-7/16	1690	1450	1320	1170	1030	900	760	680	560	440
					24-7/16	1	24-7/16	1800	1550	1400	1240	1100	950	810	720	590	470
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1"	VC435	3-5/8" x 4-1/4"	50	.020	18-7/16	1	18-7/16	1850	1590	1440	1280	1130	980	830	740	610	480
					24-7/16	1	24-7/16	2030	1750	1580	1400	1240	1080	910	810	670	530
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1-1/4"	VC1433	3-5/8" x 4-1/4"	32	.020	18-7/16	1	18-7/16	1380	1190	1080	950	840	730	620	550	460	360
					24-7/16	1	24-7/16	1420	1220	1110	980	870	750	640	570	470	370
					24-7/16	2 @ 6 CL	24-7/16	2280	1960	1780	1570	1390	1210	1030	910	750	590
1-1/4"	VC1434	3-5/8" x 4-1/4"	40	.020	18-7/16	1	18-7/16	1660	1430	1290	1150	1010	880	750	660	550	430
					24-7/16	1	24-7/16	1760	1510	1370	1210	1070	930	790	700	580	460
					24-7/16	2 @ 6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640
1-1/4"	VC1435	3-5/8" x 4-1/4"	50	.020	18-7/16	1	18-7/16	1760	1510	1370	1210	1070	930	790	700	580	460
					24-7/16	1	24-7/16	1920	1650	1500	1320	1170	1020	860	770	630	500
					24-7/16	2 @ 6 CL	24-7/16	2370	2040	1850	1640	1450	1260	1070	950	780	620

STYLES V4 AND JV4-AR18 24LI

COPPER/ALUMINUM ELEMENT RATINGS

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

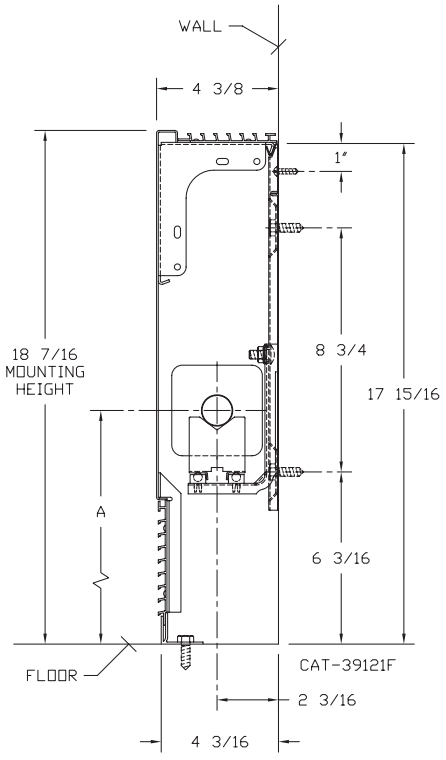
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	18-7/16	1	18-7/16	1470	1260	1150	1010	900	780	660	590	490	380
					24-7/16	1	24-7/16	1540	1320	1200	1060	940	820	690	620	510	400
					24-7/16	2-6 CL	24-7/16	2310	1990	1800	1590	1410	1220	1040	920	760	600
3/4"	VC3/4-44	4-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1840	1580	1440	1270	1120	980	830	740	610	480
					24-7/16	1	24-7/16	1950	1680	1520	1350	1190	1030	880	780	640	510
					24-7/16	2-6 CL	24-7/16	2360	2030	1840	1630	1440	1250	1060	940	780	610
3/4"	VC3/4-45	4-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1870	1610	1460	1290	1140	990	840	750	620	490
					24-7/16	1	24-7/16	2050	1760	1600	1410	1250	1090	920	820	680	530
					24-7/16	2-6 CL	24-7/16	2480	2130	1930	1710	1510	1310	1120	990	820	640
1"	VC43	4-1/4" SQ.	32	.020	18-7/16	1	18-7/16	1470	1260	1150	1010	900	780	660	590	490	380
					24-7/16	1	24-7/16	1540	1320	1200	1060	940	820	690	620	510	400
					24-7/16	2-6 CL	24-7/16	2340	2010	1830	1610	1430	1240	1050	940	770	610
1"	VC44	4-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1720	1480	1340	1190	1050	910	770	690	570	450
					24-7/16	1	24-7/16	1810	1560	1410	1250	1100	960	810	720	600	470
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1"	VC45	4-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1900	1630	1480	1310	1160	1010	860	760	630	490
					24-7/16	1	24-7/16	2090	1800	1630	1440	1270	1110	940	840	690	540
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1-1/4"	VC143	4-1/4" SQ.	32	.020	18-7/16	1	18-7/16	1440	1240	1120	990	880	760	650	580	480	370
					24-7/16	1	24-7/16	1510	1300	1180	1040	920	800	680	600	500	390
					24-7/16	2-6 CL	24-7/16	2300	1980	1790	1590	1400	1220	1040	920	760	600
1-1/4"	VC144	4-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1690	1450	1320	1170	1030	900	760	680	560	440
					24-7/16	1	24-7/16	1780	1530	1390	1230	1090	940	800	710	590	460
					24-7/16	2-6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640
1-1/4"	VC145	4-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1870	1610	1460	1290	1140	990	840	750	620	490
					24-7/16	1	24-7/16	2050	1760	1600	1410	1250	1090	920	820	680	530
					24-7/16	2-6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640

STEEL ELEMENT RATINGS

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	MTG. 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	18-7/16	1	18-7/16	1210	1040	940	830	740	640	540	480	400	310
					24-7/16	1	24-7/16	1270	1090	990	880	770	670	570	510	420	330
					24-7/16	2-6 CL	24-7/16	2080	1790	1620	1440	1270	1100	940	830	690	540
1"	VS44	4-1/4" SQ.	40	.032	18-7/16	1	18-7/16	1440	1240	1120	990	880	760	650	580	480	370
					24-7/16	1	24-7/16	1530	1320	1190	1060	930	810	690	610	500	400
					24-7/16	2-6 CL	24-7/16	2330	2000	1820	1610	1420	1230	1050	930	770	610
1"	VS45	4-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1490	1280	1160	1030	910	790	670	600	490	390
					24-7/16	1	24-7/16	1565	1350	1220	1080	950	830	700	630	520	410
					24-7/16	2-6 CL	24-7/16	2285	1970	1780	1580	1390	1210	1030	910	750	590
1-1/4"	VS143	4-1/4" SQ.	32	.032	18-7/16	1	18-7/16	1110	950	870	770	680	590	500	440	370	290
					24-7/16	1	24-7/16	1170	1010	910	810	710	620	530	470	390	300
					24-7/16	2-6 CL	24-7/16	1910	1640	1490	1320	1170	1010	860	760	630	500
1-1/4"	VS144	4-1/4" SQ.	40	.032	18-7/16	1	18-7/16	1430	1230	1120	990	870	760	640	570	470	370
					24-7/16	1	24-7/16	1520	1310	1190	1050	930	810	680	610	500	400
					24-7/16	2-6 CL	24-7/16	2240	1930	1750	1550	1370	1190	1010	900	740	580
1-1/4"	VS145	4-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1460	1260	1140	1010	890	770	660	580	480	380
					24-7/16	1	24-7/16	1535	1320	1200	1060	940	810	690	610	510	400
					24-7/16	2-6 CL	24-7/16	2240	1930	1750	1550	1370	1190	1010	900	740	580
2"	VS242	4-1/4" SQ.	25	.032	18-7/16	1	18-7/16	1090	940	850	750	660	580	490	440	360	280
					24-7/16	1	24-7/16	1130	970	880	780	690	600	510	450	370	290
					24-7/16	2-6 CL	24-7/16	1830	1570	1430	1260	1120	970	820	730	600	480
2"	VS243	4-1/4" SQ.	32	.032	18-7/16	1	18-7/16	1290	1110	1010	890	790	680	580	520	430	340
					24-7/16	1	24-7/16	1330	1140	1040	920	810	700	600	530	440	350
					24-7/16	2-6 CL	24-7/16	2030	1750	1580	1400	1240	1080	910	810	670	530

STYLES V3 AND JV3 "AR" CLASSIC EXTRUDED INLET "EI"



Styles V3 and JV3-AR18EI

Accessories
V3, V4 — Underlapping Reveal Type
JV3, JV4 — Overlapping Type

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

COPPER/ALUMINUM ELEMENT RATINGS

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

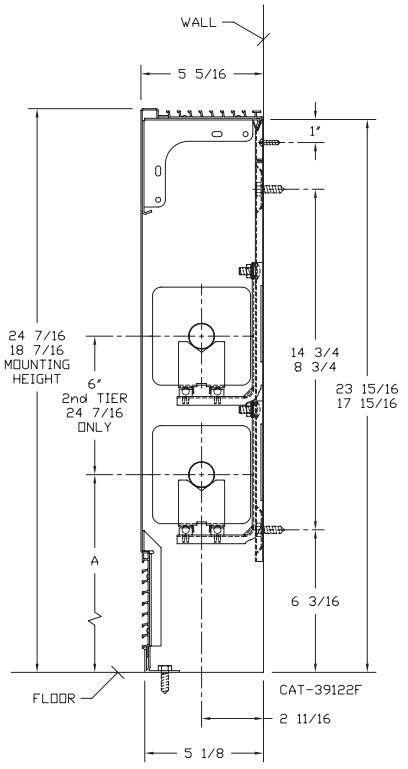
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	18-7/16	1	18-7/16	1050	900	820	720	640	560	470	420	350	270
3/4"	VC3/4-34	3-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1230	1060	960	850	750	650	550	490	410	320
3/4"	VC3/4-35	3-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1370	1180	1070	950	840	730	620	550	450	360
1"	VC33	3-1/4" SQ.	32	.020	18-7/16	1	18-7/16	1130	970	880	780	690	600	510	450	370	290
1"	VC34	3-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1270	1090	990	880	770	670	570	510	420	330
1"	VC35	3-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1320	1140	1030	910	810	700	590	530	440	340
1 1/4"	VC133	3-1/4" SQ.	32	.020	18-7/16	1	18-7/16	960	830	750	660	590	510	430	380	320	250
1 1/4"	VC134	3-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1130	970	880	780	690	600	510	450	370	290
1 1/4"	VC135	3-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1270	1090	990	880	770	670	570	510	420	330

STEEL ELEMENT RATINGS

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	MTG. 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	18-7/16	1	18-7/16	880	760	690	610	540	470	400	350	290	230
1"	VS34	3-1/4" SQ.	40	.032	18-7/16	1	18-7/16	970	830	760	670	590	510	440	390	320	250
1"	VS35	3-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1040	890	810	720	630	550	470	420	340	270
1-1/4"	VS133	3-1/4" SQ.	32	.032	18-7/16	1	18-7/16	870	750	680	600	530	460	390	350	290	230
1-1/4"	VS134	3-1/4" SQ.	40	.032	18-7/16	1	18-7/16	980	840	760	680	600	520	440	390	320	250
1-1/4"	VS135	3-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1020	880	800	700	620	540	460	410	340	270

STYLES V4 AND JV4 "AR" CLASSIC EXTRUDED INLET "EI"



Styles V4 and JV4-AR18 24EI

Accessories
V3, V4 — Underlapping Reveal Type
JV3, JV4 — Overlapping Type

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		8 11/16
3/4 COPPER	4 1/4 x 4 1/4	3A		9 1/16
1" COPPER	3 5/8 x 4 1/4	2		8 13/16
1" COPPER	4 1/4 x 4 1/4	2		8 13/16
1 1/4 COPPER	3 5/8 x 4 1/4	2	8"	9"
1 1/4 COPPER	4 1/4 x 4 1/4	2		9"
1" STEEL	4 1/4 x 4 1/4	2		8 15/16
1 1/4 STEEL	4 1/4 x 4 1/4	2		9 3/16
2" STEEL	4 1/4 x 4 1/4	1		8 15/16

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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	18-7/16	1	18-7/16	1360	1170	1060	940	830	720	610	540	450	350
					24-7/16	1	24-7/16	1400	1200	1090	970	850	740	630	560	460	360
					24-7/16	2-6 CL	24-7/16	2220	1910	1730	1530	1350	1180	1000	890	730	580
3/4"	VC3/4-434	3-5/8" x 4-1/4"	40	.020	18-7/16	1	18-7/16	1620	1390	1260	1120	990	860	730	650	530	420
					24-7/16	1	24-7/16	1710	1470	1330	1180	1040	910	770	680	560	440
					24-7/16	2-6 CL	24-7/16	2390	2060	1860	1650	1460	1270	1080	960	790	620
3/4"	VC3/4-435	3-5/8" x 4-1/4"	50	.020	18-7/16	1	18-7/16	1780	1530	1390	1230	1090	940	800	710	590	460
					24-7/16	1	24-7/16	1940	1670	1510	1340	1180	1030	870	780	640	500
					24-7/16	2-6 CL	24-7/16	2400	2060	1870	1660	1460	1270	1080	960	790	620
1"	VC433	3-5/8" x 4-1/4"	32	.020	18-7/16	1	18-7/16	1410	1210	1100	970	860	750	630	560	470	370
					24-7/16	1	24-7/16	1450	1250	1130	1000	880	770	650	580	480	380
					24-7/16	2-6 CL	24-7/16	2320	2000	1810	1600	1420	1230	1040	930	770	600
1"	VC434	3-5/8" x 4-1/4"	40	.020	18-7/16	1	18-7/16	1690	1450	1320	1170	1030	900	760	680	560	440
					24-7/16	1	24-7/16	1800	1550	1400	1240	1100	950	810	720	590	470
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1"	VC435	3-5/8" x 4-1/4"	50	.020	18-7/16	1	18-7/16	1850	1590	1440	1280	1130	980	830	740	610	480
					24-7/16	1	24-7/16	2030	1750	1580	1400	1240	1080	910	810	670	530
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1-1/4"	VC1433	3-5/8" x 4-1/4"	32	.020	18-7/16	1	18-7/16	1380	1190	1080	950	840	730	620	550	460	360
					24-7/16	1	24-7/16	1420	1220	1110	980	870	750	640	570	470	370
					24-7/16	2 @ 6 CL	24-7/16	2280	1960	1780	1570	1390	1210	1030	910	750	590
1-1/4"	VC1434	3-5/8" x 4-1/4"	40	.020	18-7/16	1	18-7/16	1660	1430	1290	1150	1010	880	750	660	550	430
					24-7/16	1	24-7/16	1760	1510	1370	1210	1070	930	790	700	580	460
					24-7/16	2 @ 6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640
1-1/4"	VC1435	3-5/8" x 4-1/4"	50	.020	18-7/16	1	18-7/16	1760	1510	1370	1210	1070	930	790	700	580	460
					24-7/16	1	24-7/16	1920	1650	1500	1320	1170	1020	860	770	630	500
					24-7/16	2 @ 6 CL	24-7/16	2370	2040	1850	1640	1450	1260	1070	950	780	620

STYLES V4 AND JV4-AR 18 24EI

COPPER/ALUMINUM ELEMENT RATINGS

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

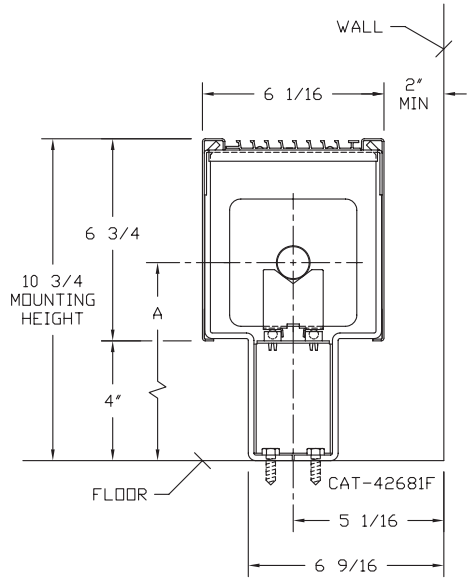
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MTG. HEIGHT IN INCHES	STEAM 215° FACTOR	HOT WATER (AVG.) 200°	190°	180°	170°	160°	150°	140°	130°	120°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES								
								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	18-7/16	1	18-7/16	1470	1260	1150	1010	900	780	660	590	490	380
					24-7/16	1	24-7/16	1540	1320	1200	1060	940	820	690	620	510	400
					24-7/16	2-6 CL	24-7/16	2310	1990	1800	1590	1410	1220	1040	920	760	600
3/4"	VC3/4-44	4-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1840	1580	1440	1270	1120	980	830	740	610	480
					24-7/16	1	24-7/16	1950	1680	1520	1350	1190	1030	880	780	640	510
					24-7/16	2-6 CL	24-7/16	2360	2030	1840	1630	1440	1250	1060	940	780	610
3/4"	VC3/4-45	4-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1870	1610	1460	1290	1140	990	840	750	620	490
					24-7/16	1	24-7/16	2050	1760	1600	1410	1250	1090	920	820	680	530
					24-7/16	2-6 CL	24-7/16	2480	2130	1930	1710	1510	1310	1120	990	820	640
1"	VC43	4-1/4" SQ.	32	.020	18-7/16	1	18-7/16	1470	1260	1150	1010	900	780	660	590	490	380
					24-7/16	1	24-7/16	1540	1320	1200	1060	940	820	690	620	510	400
					24-7/16	2-6 CL	24-7/16	2340	2010	1830	1610	1430	1240	1050	940	770	610
1"	VC44	4-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1720	1480	1340	1190	1050	910	770	690	570	450
					24-7/16	1	24-7/16	1810	1560	1410	1250	1100	960	810	720	600	470
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1"	VC45	4-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1900	1630	1480	1310	1160	1010	860	760	630	490
					24-7/16	1	24-7/16	2090	1800	1630	1440	1270	1110	940	840	690	540
					24-7/16	2-6 CL	24-7/16	2510	2160	1960	1730	1530	1330	1130	1000	830	650
1-1/4"	VC143	4-1/4" SQ.	32	.020	18-7/16	1	18-7/16	1440	1240	1120	990	880	760	650	580	480	370
					24-7/16	1	24-7/16	1510	1300	1180	1040	920	800	680	600	500	390
					24-7/16	2-6 CL	24-7/16	2300	1980	1790	1590	1400	1220	1040	920	760	600
1-1/4"	VC144	4-1/4" SQ.	40	.020	18-7/16	1	18-7/16	1690	1450	1320	1170	1030	900	760	680	560	440
					24-7/16	1	24-7/16	1780	1530	1390	1230	1090	940	800	710	590	460
					24-7/16	2-6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640
1-1/4"	VC145	4-1/4" SQ.	50	.020	18-7/16	1	18-7/16	1870	1610	1460	1290	1140	990	840	750	620	490
					24-7/16	1	24-7/16	2050	1760	1600	1410	1250	1090	920	820	680	530
					24-7/16	2-6 CL	24-7/16	2460	2120	1920	1700	1500	1300	1110	980	810	640

STEEL ELEMENT RATINGS

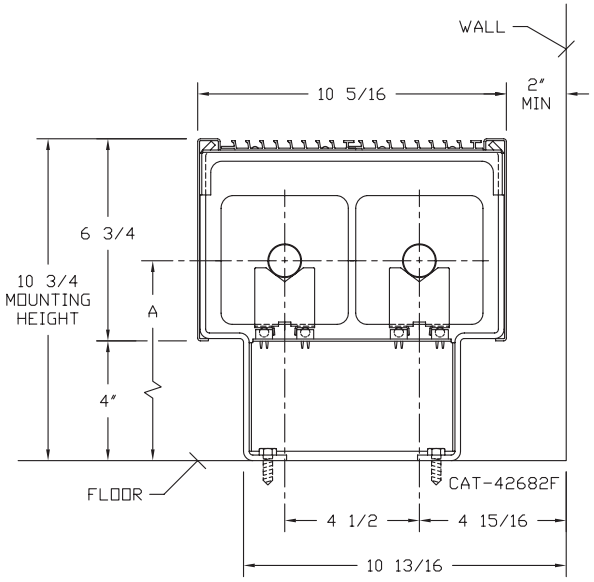
ALL RATINGS ARE IN BTU/HR/LIN FT AND BASED ON 3 FPS VELOCITY, 65° EAT

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	MTG. 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	18-7/16	1	18-7/16	1210	1040	940	830	740	640	540	480	400	310
					24-7/16	1	24-7/16	1270	1090	990	880	770	670	570	510	420	330
					24-7/16	2-6 CL	24-7/16	2080	1790	1620	1440	1270	1100	940	830	690	540
1"	VS44	4-1/4" SQ.	40	.032	18-7/16	1	18-7/16	1440	1240	1120	990	880	760	650	580	480	370
					24-7/16	1	24-7/16	1530	1320	1190	1060	930	810	690	610	500	400
					24-7/16	2-6 CL	24-7/16	2330	2000	1820	1610	1420	1230	1050	930	770	610
1"	VS45	4-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1490	1280	1160	1030	910	790	670	600	490	390
					24-7/16	1	24-7/16	1565	1350	1220	1080	950	830	700	630	520	410
					24-7/16	2-6 CL	24-7/16	2285	1970	1780	1580	1390	1210	1030	910	750	590
1-1/4"	VS143	4-1/4" SQ.	32	.032	18-7/16	1	18-7/16	1110	950	870	770	680	590	500	440	370	290
					24-7/16	1	24-7/16	1170	1010	910	810	710	620	530	470	390	300
					24-7/16	2-6 CL	24-7/16	1910	1640	1490	1320	1170	1010	860	760	630	500
1-1/4"	VS144	4-1/4" SQ.	40	.032	18-7/16	1	18-7/16	1430	1230	1120	990	870	760	640	570	470	370
					24-7/16	1	24-7/16	1520	1310	1190	1050	930	810	680	610	500	400
					24-7/16	2-6 CL	24-7/16	2240	1930	1750	1550	1370	1190	1010	900	740	580
1-1/4"	VS145	4-1/4" SQ.	50	.032	18-7/16	1	18-7/16	1460	1260	1140	1010	890	770	660	580	480	380
					24-7/16	1	24-7/16	1535	1320	1200	1060	940	810	690	610	510	400
					24-7/16	2-6 CL	24-7/16	2240	1930	1750	1550	1370	1190	1010	900	740	580
2"	VS242	4-1/4" SQ.	25	.032	18-7/16	1	18-7/16	1090	940	850	750	660	580	490	440	360	280
					24-7/16	1	24-7/16	1130	970	880	780	690	600	510	450	370	290
					24-7/16	2-6 CL	24-7/16	1830	1570	1430	1260	1120	970	820	730	600	480
2"	VS243	4-1/4" SQ.	32	.032	18-7/16	1	18-7/16	1290	1110	1010	890	790	680	580	520	430	340
					24-7/16	1	24-7/16	1330	1140	1040	920	810	700	600	530	440	350
					24-7/16	2-6 CL	24-7/16	2030	1750	1580	1400	1240	1080	910	810	670	530

STYLES JV4 V4-AR PM AND JV4 V4-AR PM2 CLASSIC



Style V4-AR PM
JV4-AR PM



Style V4-AR PM2
JV4-AR PM2

Accessories
V4 — Underlapping Reveal Type
JV4 — Overlapping Wrapper Type

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

See page 32 for supply or return pipe in enclosure.

STYLES V4-AR PM AND V4-AR PM2

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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	"	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	"	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	"	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	"	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	"	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	"	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	"	2250	1940	1760	1550	1370	1190	1010	900	740	590

STYLES JV4 V4-ARPM AND JV4 V4-ARPM PM2

COPPER/ALUMINUM ELEMENT RATINGS

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	MTG. 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
1-1/4"	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	"	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	"	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	"	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	"	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	"	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	"	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	"	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	"	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	"	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	"	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	"	2940	2530	2290	2030	1790	1560	1320	1180	970	760

STEEL ELEMENT RATINGS

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

I.P.S. SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCL DEPTH IN INCHES	ROWS AND CENTERS IN INCHES	MTG. 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	"	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	"	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	"	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	"	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	"	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	"	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	"	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	1280	1100	1000	880	780	680	580	510	420	330
					10 5/16	2 - 4 1/2	"	2560	2200	2000	1770	1560	1360	1150	1020	840	670

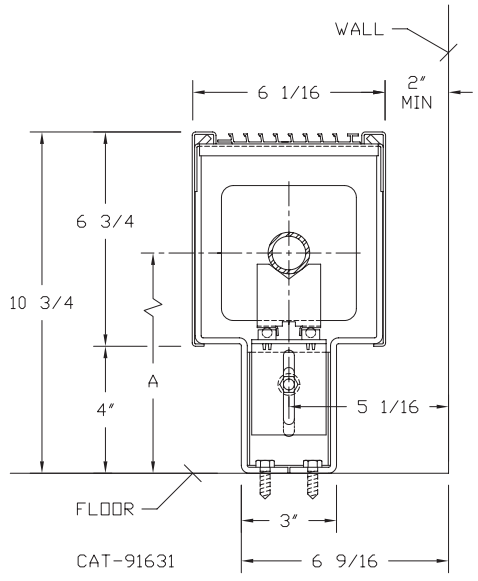
ELEMENT ORDERING INFORMATION

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

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.

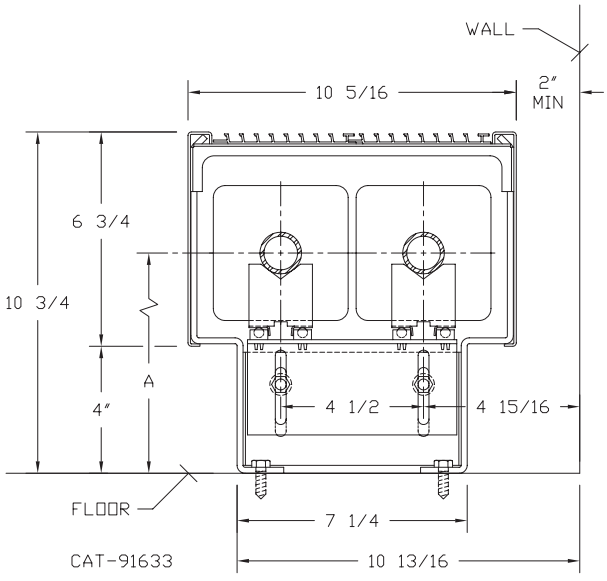
OPTIONAL ADJUSTABLE PEDESTAL BRACKET ASSEMBLIES FOR 2-PIPE STEAM

JV4-ARPM OR V4-ARPM



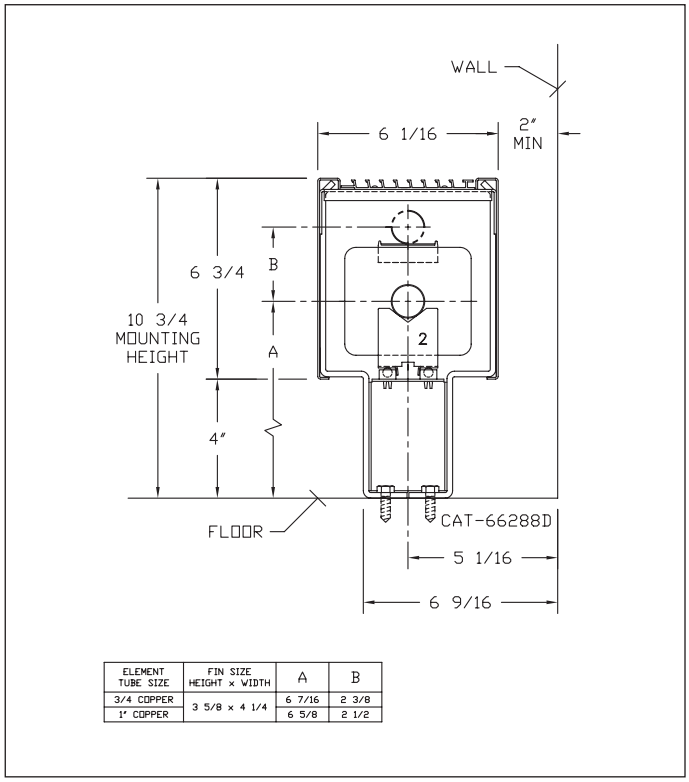
ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A MIN	A MAX
3/4 COPPER	3 5/8 x 4 1/4	2	6 1/2	7 13/16
3/4 COPPER	4 1/4 x 4 1/4	3A	6 11/16	
1" COPPER	3 5/8 x 4 1/4	2	6 1/2	
1" COPPER	4 1/4 x 4 1/4	2		
1 1/4 COPPER	3 5/8 x 4 1/4	2	6 5/8	
1 1/4 COPPER	4 1/4 x 4 1/4	2		
1" STEEL	4 1/4 x 4 1/4	2	6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

JV4-ARPM2 OR V4-ARPM2

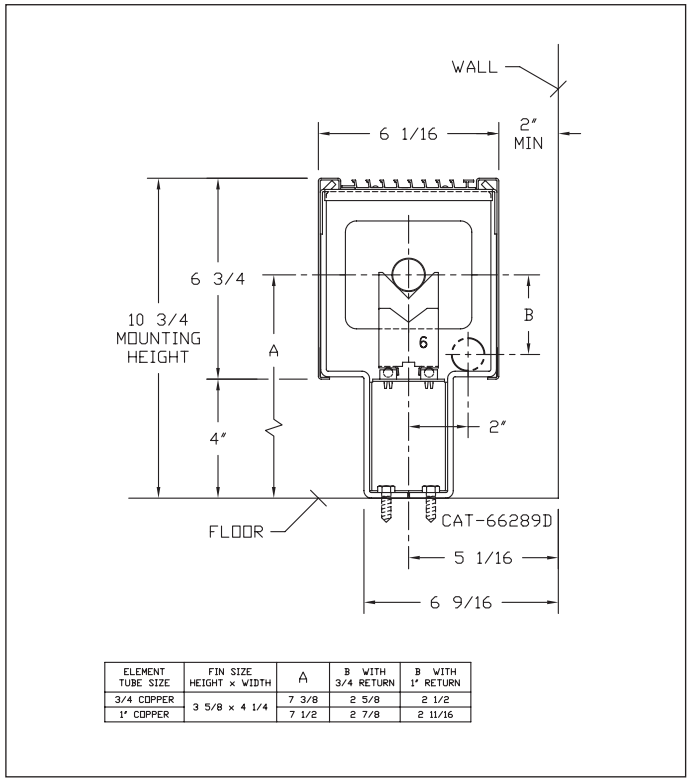


ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A MIN	A MAX
3/4 COPPER	3 5/8 x 4 1/4	2	6 1/2	7 13/16
3/4 COPPER	4 1/4 x 4 1/4	3A	6 11/16	
1" COPPER	3 5/8 x 4 1/4	2	6 1/2	
1" COPPER	4 1/4 x 4 1/4	2		
1 1/4 COPPER	3 5/8 x 4 1/4	2	6 5/8	
1 1/4 COPPER	4 1/4 x 4 1/4	2		
1" STEEL	4 1/4 x 4 1/4	2	6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

RETURN PIPING OPTIONS WITH 3/4" & 1" COPPER TUBE ELEMENTS

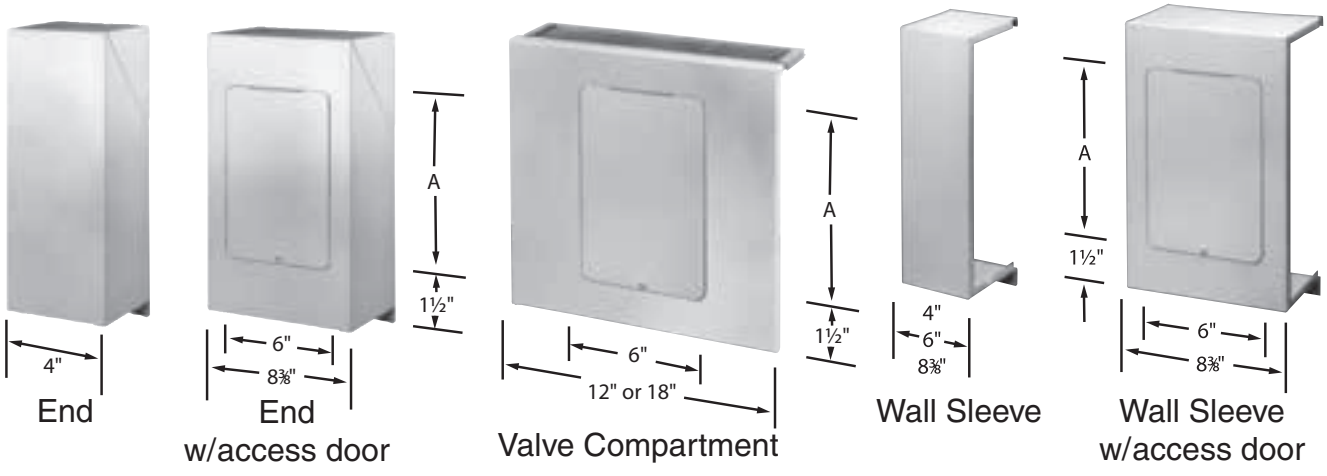


ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	A	B
3/4 COPPER	3 5/8 x 4 1/4	6 7/16	2 3/8
1" COPPER		6 5/8	2 1/2

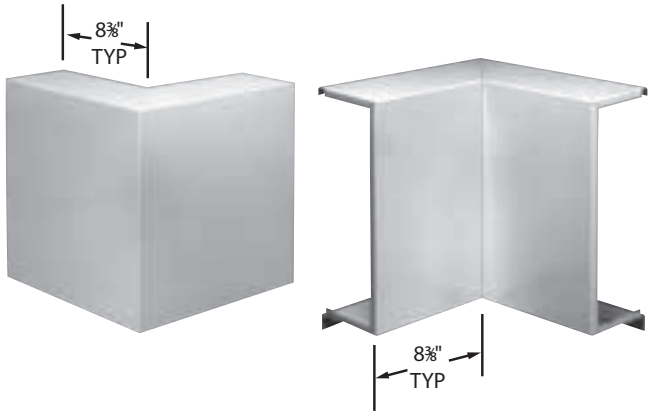


ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	A	B WITH 3/4 RETURN	B WITH 1" RETURN
3/4 COPPER	3 5/8 x 4 1/4	7 3/8	2 5/8	2 1/2
1" COPPER		7 1/2	2 7/8	2 11/16

CLASSIC STYLE ACCESSORIES



End | End w/access door | Valve Compartment | Wall Sleeve | Wall Sleeve w/access door



Outside Corner | Inside Corner

ACCESS DOOR LOCATION			
PRODUCT	"A" DIMENSION		
	END	WALL SLEEVE	VALVE COMPARTMENT
V2/JV2-AR11	5"	5"	5"
V3/JV3-AR14	9"	9"	5"
V4/JV4-AR14	9"	9"	5"
V4/JV4-AR20	9"	9"	9"
V4/JV4-AR24	9"	9"	9"

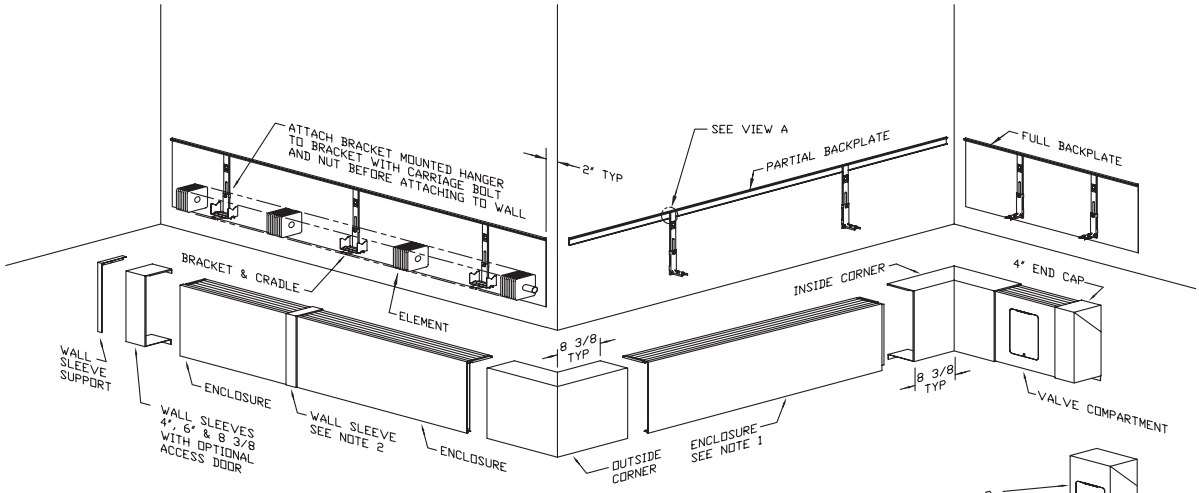
CAT-78739-1

NOTES:
UNDERLAPPING ACCESSORIES WILL EXTEND 4" MAXIMUM UNDER ENCLOSURE.
AR-7 ACCESSORIES WITH ACCESS DOOR ARE PROVIDED WITH 6" WIDE BY 5" HIGH DOORS.
ALTERNATE ACCESS DOOR LOCATIONS ARE AVAILABLE, CONSULT FACTORY.

Accessories

V2, V3, V4 – Underlapping Reveal Type
JV2, JV3, JV4 – Overlapping Type

INSTALLATION LAYOUT TYPICAL FOR "J" CLASSIC WITH SLIP-JOINTED EDGES, OVERLAPPING ACCESSORIES.

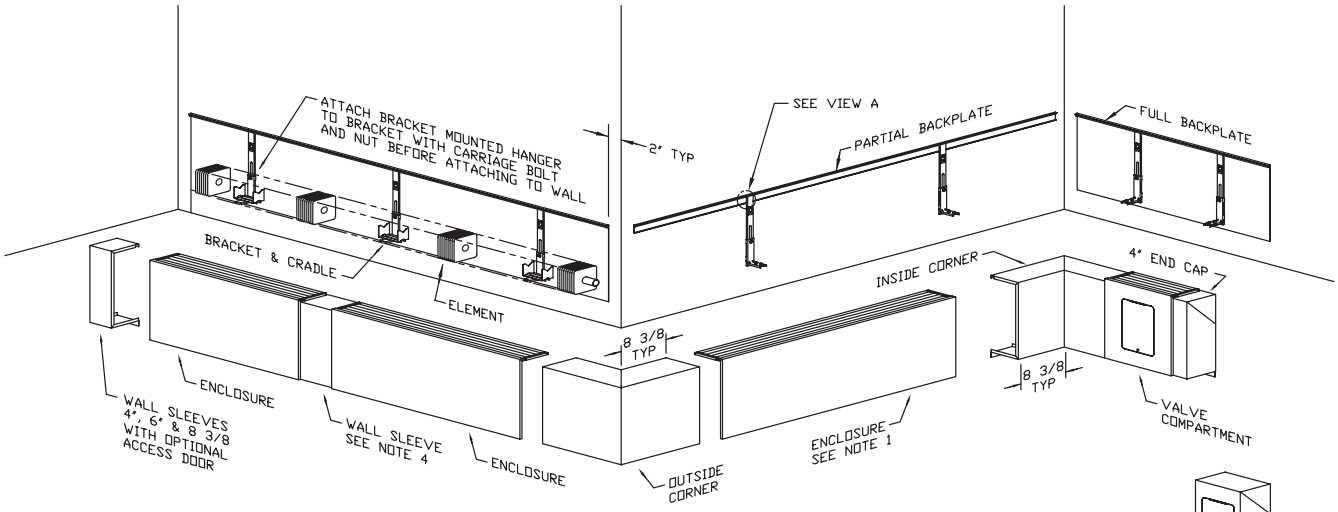


NOTES:

1. ENCLOSURE SECTIONS AVAILABLE IN FOLLOWING STANDARD LENGTHS: 2' THRU 8' IN 6" INCREMENTS. CONSULT FACTORY FOR SPECIAL LENGTHS.
2. WALL SLEEVES MAY BE AT ENDS OR PLACED IN RUN FOR DIMENSIONAL MAKE-UP.
3. FOR DAMPER INTALLATION SEE DAMPER INSTRUCTION SHEET.

CAT-38925D

INSTALLATION LAYOUT TYPICAL FOR STANDARD CLASSIC WITH WIPED EDGE, UNDERLAPPING ACCESSORIES.

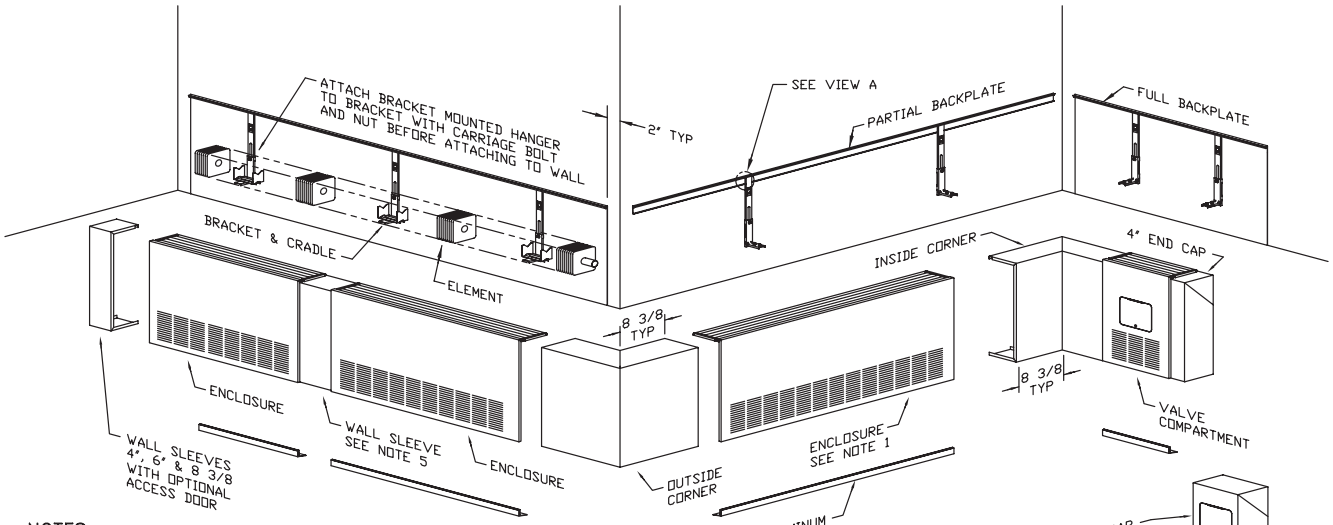


NOTES:

1. ENCLOSURE SECTIONS AVAILABLE IN FOLLOWING STANDARD LENGTHS: 2' THRU 8' IN 6" INCREMENTS. CONSULT FACTORY FOR SPECIAL LENGTHS.
2. SCHEDULE ENCLOSURE TO OVERLAP ACCESSORIES 1" TO 3" BACKPLATE MUST COVER AT LEAST THIS PORTION OF WALL FOR HANGING ACCESSORIES. HOWEVER, IT MAY EXTEND BEYOND THE ENCLOSURE.
3. WHEN AN END IS USED FOR SHORT-OF-WALL INSTALLATIONS THE BACKPLATE CAN NOT EXTEND MORE THAN 1/2".
4. WALL SLEEVES MAY BE AT ENDS OR PLACED IN RUN FOR DIMENSIONAL MAKE-UP.
5. FOR DAMPER INSTALLATION SEE DAMPER INSTRUCTION SHEET.

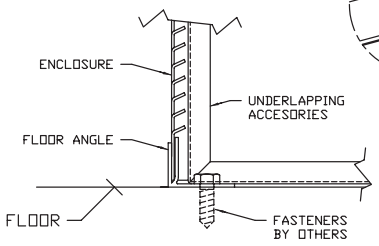
CAT-38926E

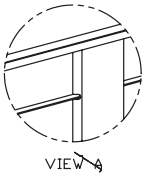
INSTALLATION LAYOUT FOR FLOOR MOUNTED ENCLOSURES V3 & V4

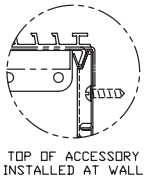


NOTES:

1. ENCLOSURE SECTIONS AVAILABLE IN FOLLOWING STANDARD LENGTHS: 2' THRU 8' IN 6" INCREMENTS. CONSULT FACTORY FOR SPECIAL LENGTHS.
2. SCHEDULE ENCLOSURE TO OVERLAP ACCESSORIES 1" TO 3". BACKPLATE MUST COVER AT LEAST THIS PORTION OF WALL FOR HANGING ACCESSORIES. HOWEVER, IT MAY EXTEND BEYOND THE ENCLOSURE.
3. WHEN AN END IS USED FOR SHORT - OF - WALL INSTALLATIONS THE BACKPLATE CAN NOT EXTEND MORE THAN 1/2".
4. BRACKETS MAY EXTEND TO FLOOR (IF REQ'D ON INSTALLATION) INSTALLATION DETAILS MAY VARY.
5. WALL SLEEVES MAY BE AT ENDS OR PLACED IN RUN FOR BI-DIMENSIONAL MAKE-UP.
6. FOR DAMPER INSTALLATION SEE DAMPER INSTRUCTION SHEET.

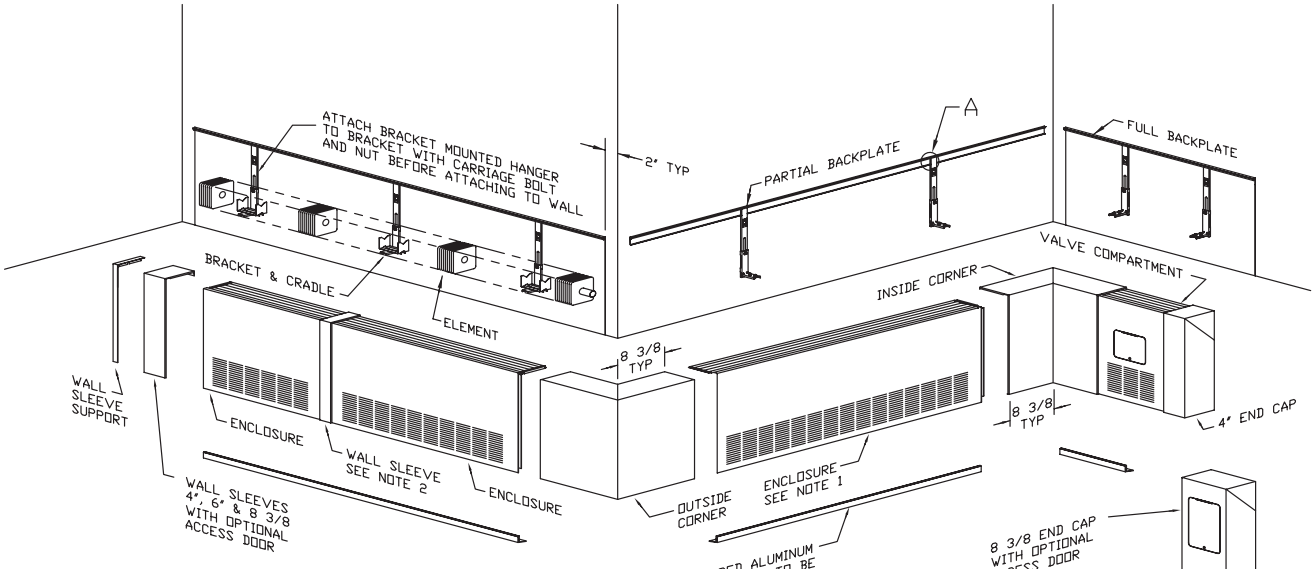






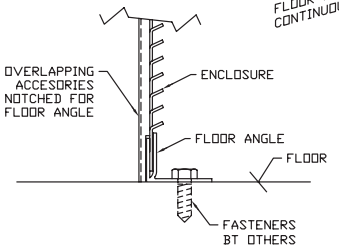
CAT-38927E

INSTALLATION LAYOUT FOR FLOOR MOUNTED ENCLOSURES JV3 & JV4



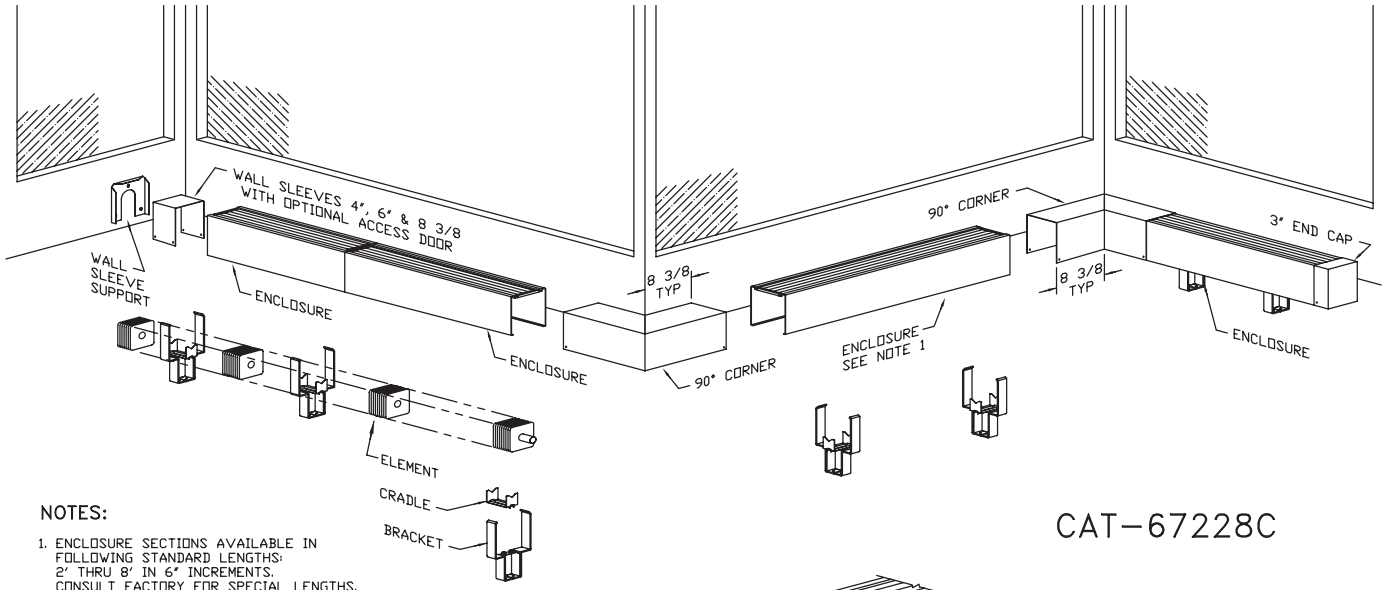
NOTES:

1. ENCLOSURE SECTIONS AVAILABLE IN FOLLOWING STANDARD LENGTHS: 2' THRU 8' IN 6" INCREMENTS. CONSULT FACTORY FOR SPECIAL LENGTHS.
2. WALL SLEEVES MAY BE AT ENDS OR PLACED IN RUN FOR DIMENSIONAL MAKE-UP.
3. FOR DAMPER INTALLATION SEE DAMPER INSTRUCTION SHEET.



CAT-64444C

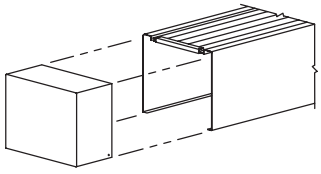
INSTALLATION LAYOUT FOR PEDESTAL MOUNT JV4-ARPM ENCLOSURE



CAT–67228C

NOTES:

1. ENCLOSURE SECTIONS AVAILABLE IN FOLLOWING STANDARD LENGTHS: 2' THRU 8' IN 6" INCREMENTS. CONSULT FACTORY FOR SPECIAL LENGTHS.
2. LAYOUT JOB SELECTING ENCLOSURE LENGTHS WITH SLIP JOINT AT EACH END OF ENCLOSURE SPACE ENCLOSURES TO SUIT. AT EACH END OF RUN USE WALL SLEEVE OR 3" END TO SUIT JOB.
3. LAY OUT PEDESTAL BRACKET LOCATIONS SO THE BRACKETS ARE 6" TO 12" FROM THE END OF ENCLOSURE. FOR ENCLOSURES OVER 5 FT LONG, LOCATE AN ADDITIONAL BRACKET AT THE CENTER OF THAT ENCLOSURE.
4. SCHEDULE ACCESSORIES TO OVERLAP ENCLOSURES 1"–3" EXCEPT ENDS 1"–2". WITH ACCESS DOOR OVERLAP MAX. 1". FOR MOST INSTALLATIONS, THE USE OF A TWO FOOT ENCLOSURE SECTION FOR A REMOVABLE ACCESS SECTION IS ACCEPTABLE.



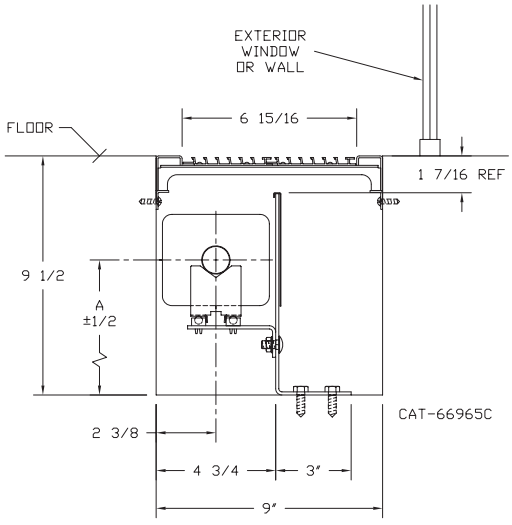
NOTE: FASTEN ACCESSORIES WITH SHEET METAL SCREW THRU SOLID PART OF ENCLOSURE.

STYLE TR TROUGH

TRC

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

Notes: 1. Shown with C3/4-435 element.
2. Trough liner optional (not shown).



COPPER/ALUMINUM ELEMENT RATINGS

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	"	"	1340	1150	1050	920	820	710	600	540	440	350
	VC3/4-435		50	"	"	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	"	"	1300	1120	1010	900	790	690	590	520	430	340
	VC435		50	"	"	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	"	"	1330	1140	1040	920	810	700	600	530	440	350
	VC1435		50	"	"	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	"	"	1480	1270	1150	1020	900	780	670	590	490	380
	VC3/4-45		50	"	"	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	"	"	1380	1190	1080	950	840	730	620	550	460	360
	VC45		50	"	"	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	"	"	1540	1320	1200	1060	940	820	690	620	510	400
	VC145		50	"	"	1580	1360	1230	1090	960	840	710	630	520	410

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

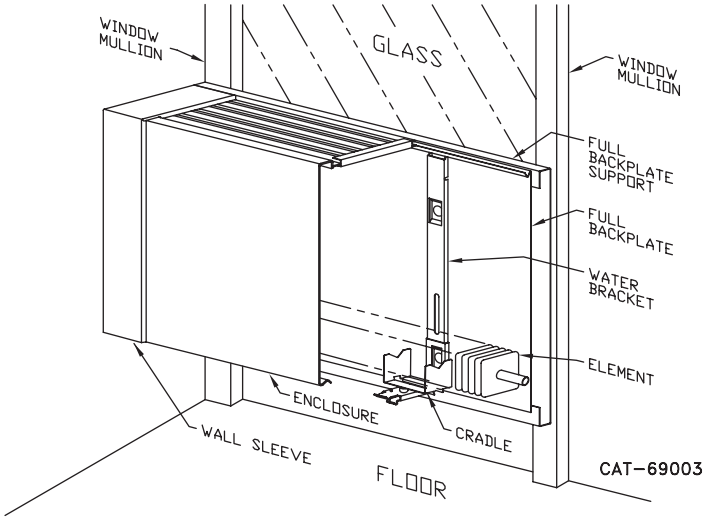
STEEL ELEMENT RATINGS

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

I.P.S. 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		"	1380	1190	1080	950	840	730	620	550	460	360
	VS45		50		"	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		"	1370	1180	1070	950	840	730	620	550	450	360
	VS145		50		"	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		"	1380	1190	1080	950	840	730	620	550	460	360

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

BACKPLATE SUPPORTS FOR WINDOW MULLIONS

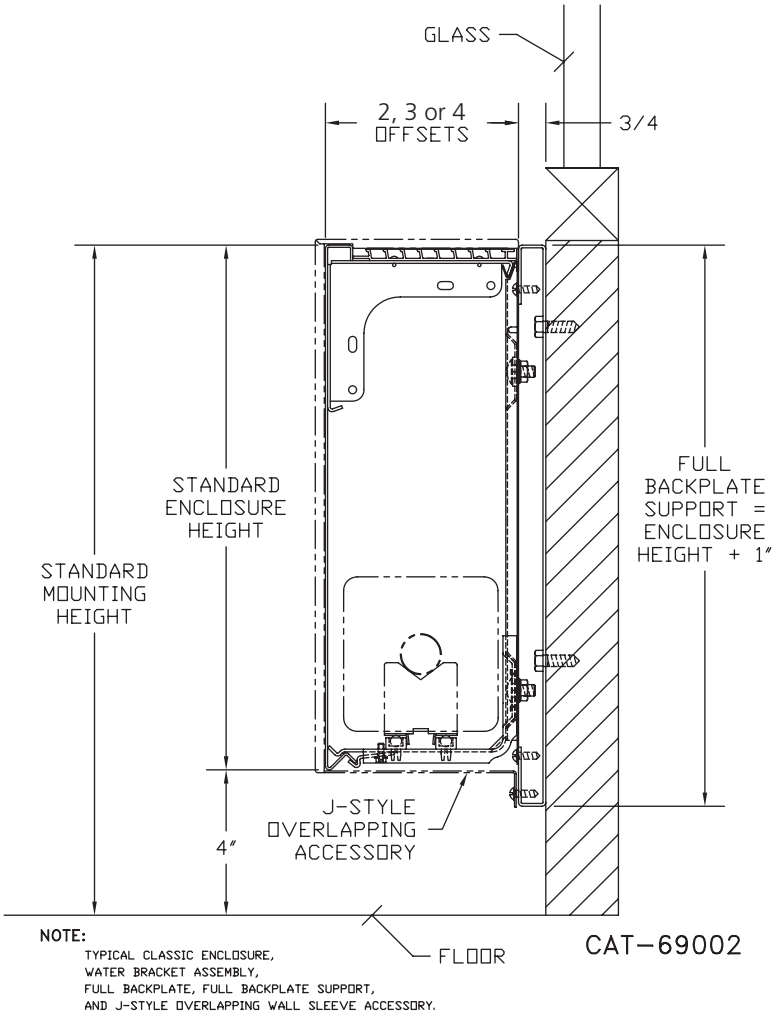


Classic Radiation is easily adaptable to panel wall, curtain wall and window wall construction.

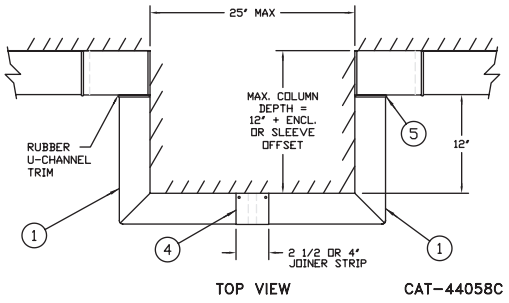
All that is necessary for the full support of the Classic assemblies are the mullions used in this type of construction.

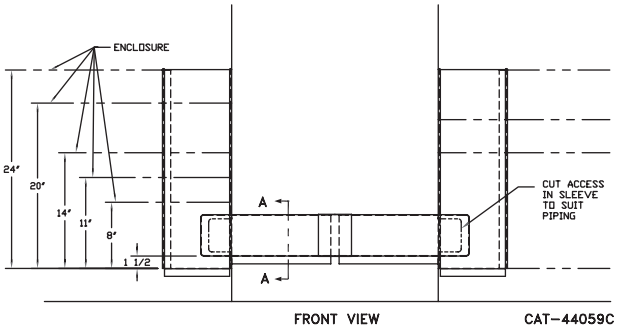
The assemblies are just as easily installed as in any other type of construction. Consult factory for unusual dimensional applications. (7¼" min. ht.)

Typical panel-wall installation using the Vulcan bracket with ball-bearing cradle, and full backplate. Note how the backplate suppport lag to the mullions and the backplate to the backplate support. The brackets are attached to the backplate. Consult factory for variations.



COLUMN ENCLOSURES

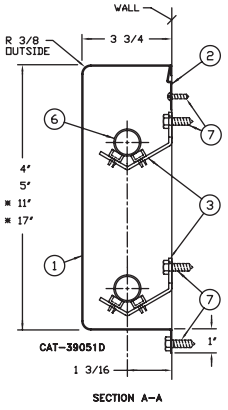




NOTE –
ALL PARTS SUPPLIED TO MAXIMUM DIMENSIONS, AS SHOWN TO BE CUT ON THE JOB TO SUIT INDIVIDUAL COLUMN SIZES.

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

SEE PAGE 40 FOR STRAIGHT PIECES 4", 5", 11" OR 17"



VULCAN COLUMN ENCLOSURES

Column Enclosures can give an installation that finished, custom-made look.

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

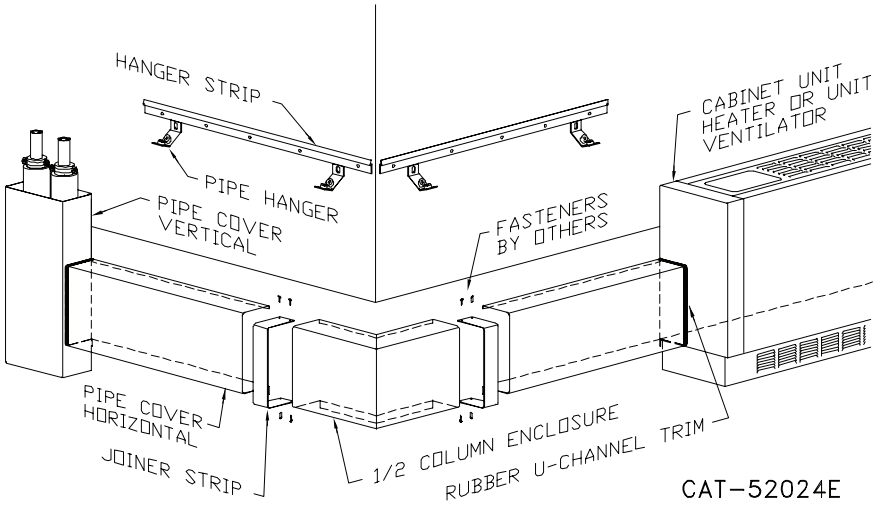
This picture shows the smooth contours and precision fabrication. The drawing at left gives full details and dimensions.

DETAILS AND DIMENSIONS

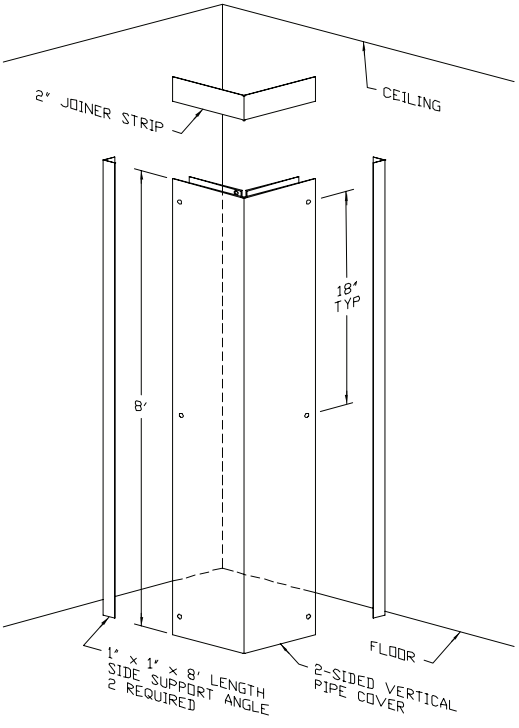
1. Column Enclosure — 18 Gauge CRS (SRP-15820)
2. Hanger Strip — 18 Gauge CRS
3. Roll Pipe Hanger
4. Joiner Strip — $2^{1}/_{2}$" or 4" wide (SRP-15821) with #8 x 1/2 Truss Head Screws
5. Rubber U-Channel Trim $^{1}/_{16}$ x $^{3}/_{16}$ x $^{5}/_{16}$
6. Pipe By Others
7. Fasteners By Others Unless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

METAL 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-2	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 FA	1 x 1 Side Support Angle - 8' Lengths (2 per Vertical Pipe Enclosure)
1 x 1 FAB	1 x 1 Side Support Angle - 8' Lengths (2 per Vertical Pipe Enclosure)



See page 39 for cross section view.

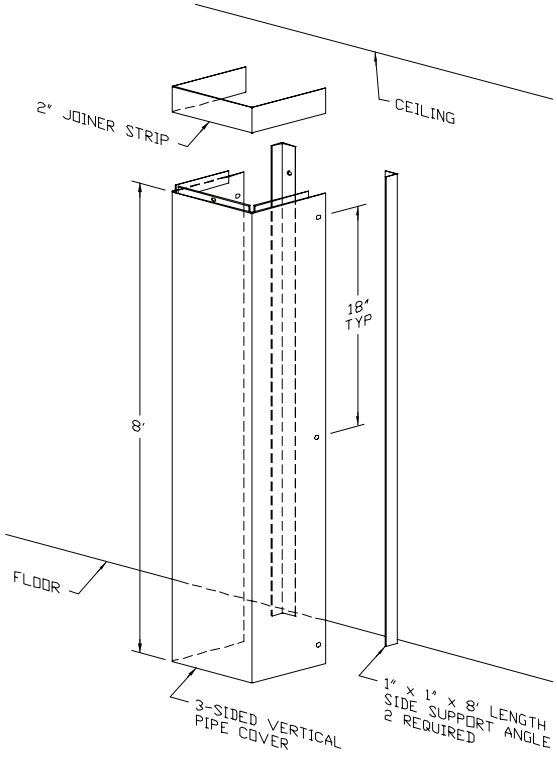


FASTENERS ARE BY OTHERS.

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

VERTICAL 2 SIDED -52 5' x 5' x 8' LENGTHS
VERTICAL 2 SIDED -82 8' x 8' x 8' LENGTHS

CAT-68234



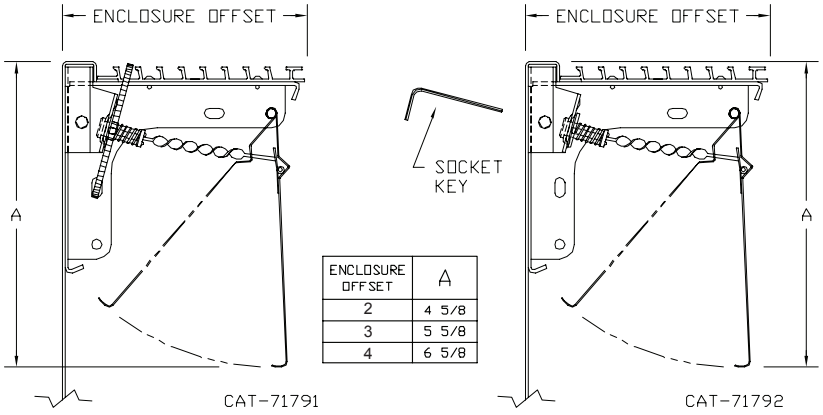
FASTENERS ARE BY OTHERS.

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

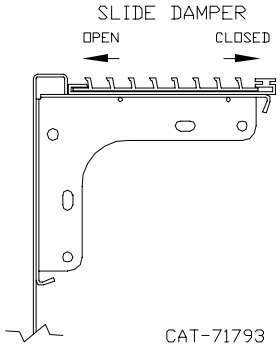
VERTICAL 3 SIDED -53 5' x 5' x 8' LENGTHS
VERTICAL 3 SIDED -83 8' x 8' x 8' LENGTHS

CAT-68235

OPTIONAL DAMPER ASSEMBLIES



ENCLOSURE OFFSET	A
2	4 5/8
3	5 5/8
4	6 5/8



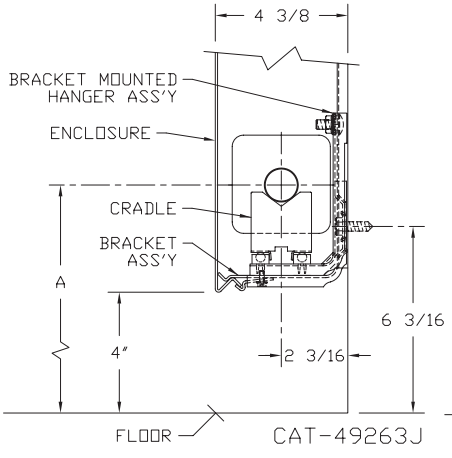
Dial (D) – Optional
The damper assembly option is provided with a neatly concealed dial operated, fully modulating damper blade assembly. The damper blade is manufactured with rolled edges for lateral rigidity.

Tamper Resistant (TP) – Optional
The damper assembly option is provided with a concealed operator requiring a specialty tool to position fully modulating damper blade.

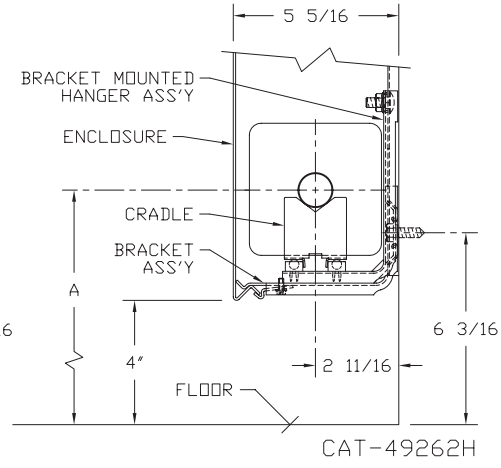
Slide Damper (SD) – Optional
The slide damper assembly consisting of two integrated extruded aluminum clear anodized grille plates provide air discharge control by front to back positioning which requires no mechanical actuating parts. Available in “4” offset enclosures. Not recommended to be painted.

VERTICAL ELEMENT CENTERLINE DIMENSIONS FOR INSTALLATIONS USING STEAM BRACKETS WITH BRACKET MOUNTED HANGERS

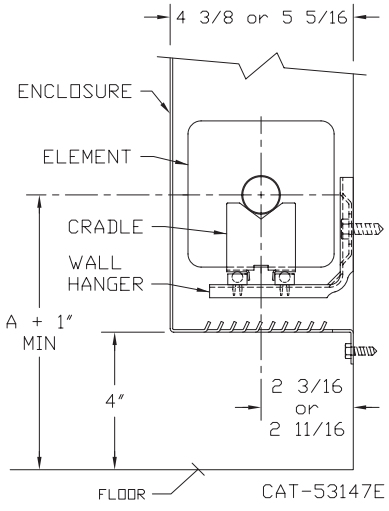
“3” OFFSET



“4” OFFSET



LOUVERED INLET RETURN TO WALL 'J' CLASSIC ONLY



ELEMENT TUBE SIZE	CRADLE NUMBER	A MIN	A MAX
3/4" COPPER	2	7-3/8	9-5/8
1" COPPER	2	7-1/2	9-3/4
1-1/4" STEEL	1	7	9-1/4
2" STEEL	1	7-7/8	10-1/8

ELEMENT TUBE SIZE	CRADLE NUMBER	A MIN	A MAX
3/4" COPPER	2	7-3/8	8-3/4
1" COPPER	2	7-1/2	8-7/8
1-1/4" COPPER	2	7-5/8	9
1-1/4" STEEL	2	7-7/8	9-1/4
2" STEEL	1	7-5/8	9

Standard brackets with bracket mounted hangers are required for single or multiple tier installations where pitch adjustment is necessary. The hangers are to incorporate ball bearings/nylon inserts for smooth element travel during expansion and contraction.

COMMERCIAL FINNED TUBE RATING CORRECTION CHARTS

CATALOG FINNED TUBE RATINGS ARE BASED UPON THE FOLLOWING CONDITIONS:

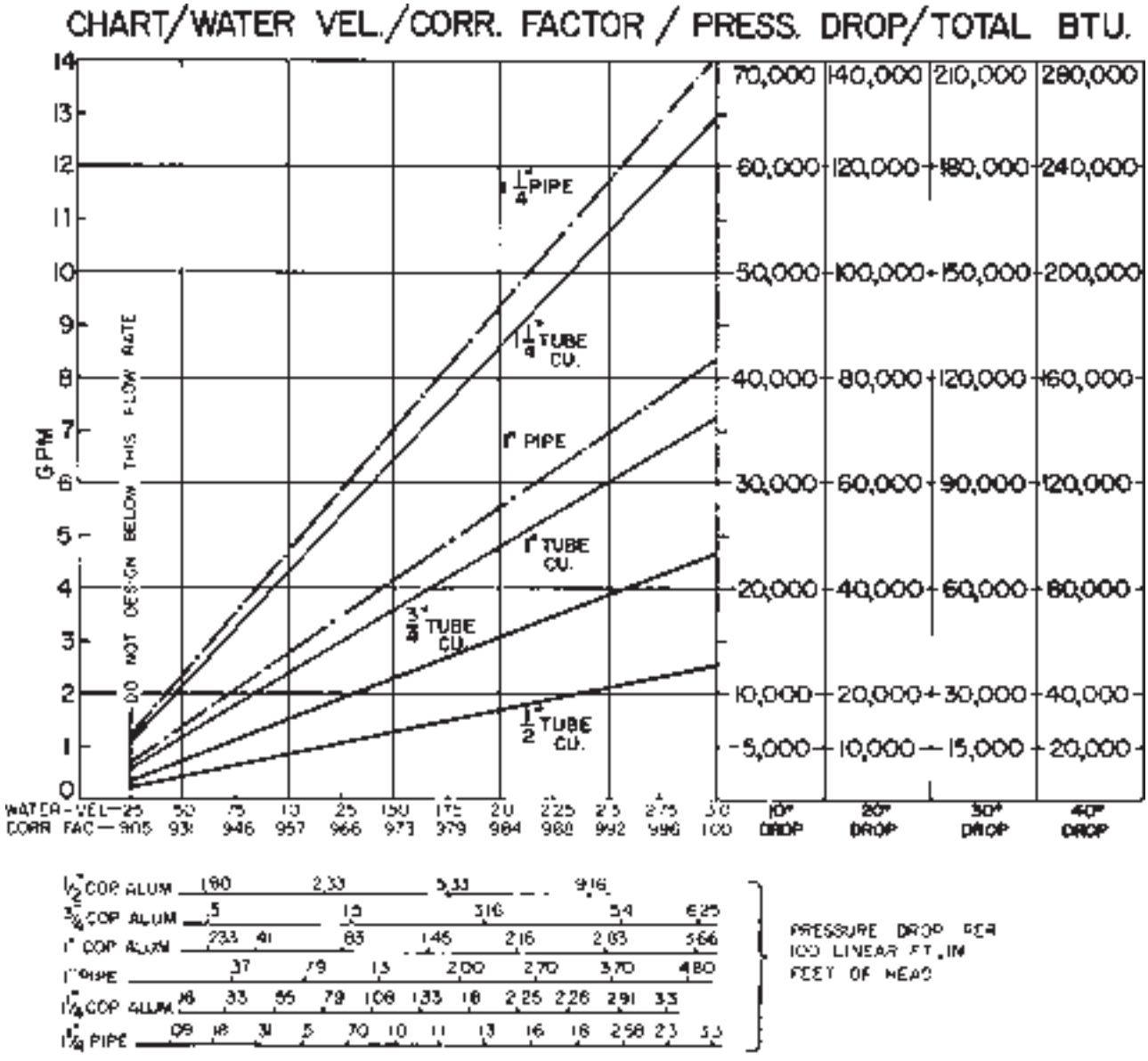
- **215°F AVERAGE WATER OR STEAM TEMPERATURE**
- **65°F ENTERING AIR TEMPERATURE**
- **3 FEET PER SECOND WATER FLOW RATE**
- **CATALOG MOUNTING HEIGHT**

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

CORRECTED RATING = (215°F CATALOG RATING) X (CORRECTION FACTOR FOR STEAM OR WATER AND AVERAGE AIR TEMP.)

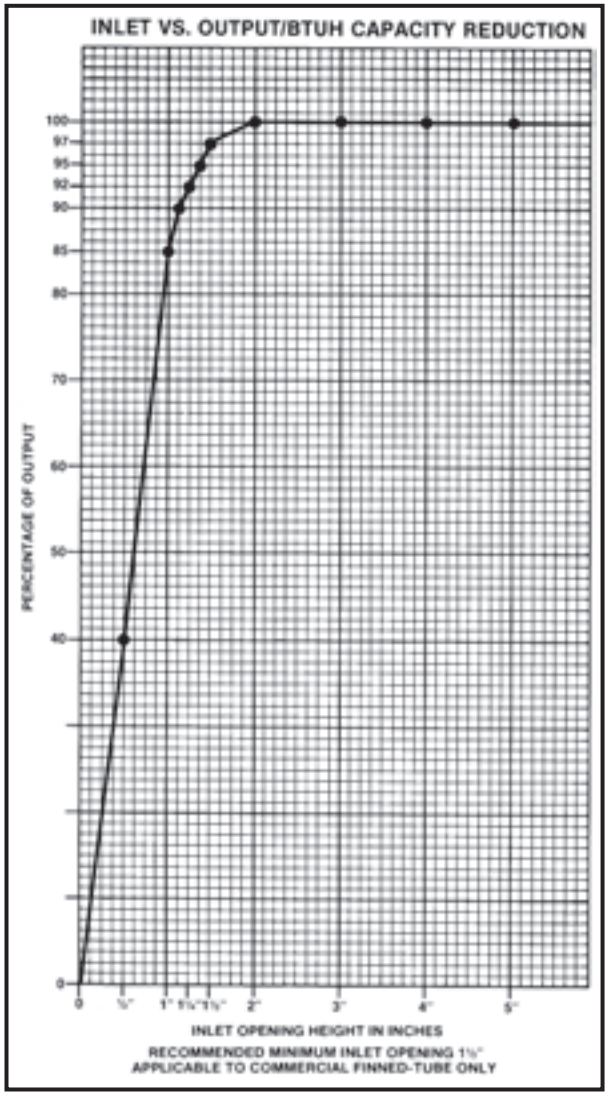
X (CORRECTION FACTOR FOR FLOW RATE) X (CORRECTION FOR MOUNTING HTG.-SEE CATALOG RATING)

USE THE FOLLOWING CHARTS TO SELECT CORRECTION FACTORS



DESIGN DATA

INLET AIR CORRECTION FACTOR



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

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.

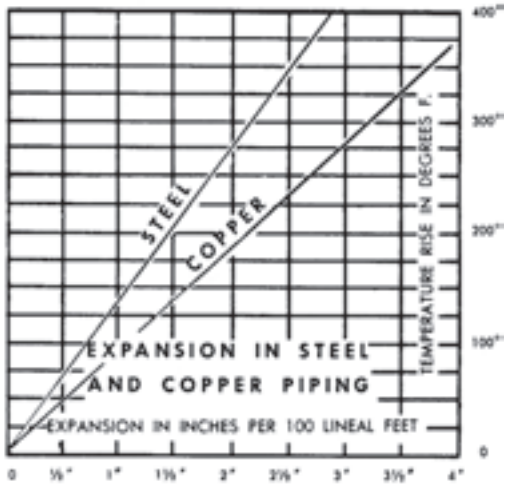
RATE OF PITCH FOR STEAM 1/2" DROP OVER 20 FT. RUN.

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.

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



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

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

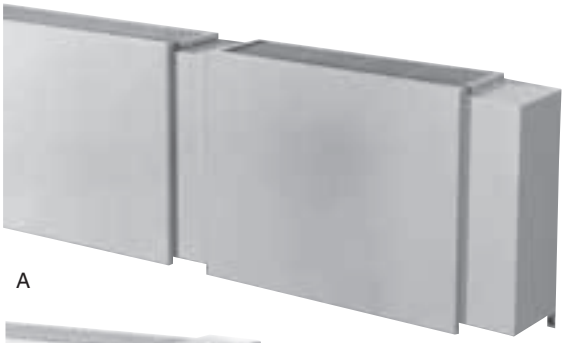
From Keenan and Keyes — Linear Interpolation. **Note: Gauge pressure should be corrected for altitude.**

CORRECTION FACTORS FOR WATER TEMPERATURES AND AIR TEMPERATURES OTHER THAN STANDARD

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

Enclosures

Both the standard wiped edge Classic and the "J" slip-jointed Classic incorporate durable extruded aluminum, clear anodized, **pencil proof grilles**, attached to rugged 14 gauge internal gussets. The grille/gusset design provides for concealed engagement with backplate, yet allows for easy installation without marking or scratching of the wall surface. The Classic line offers both internally telescoping accessories or the "J" style overlapping accessories (See photos A and B). All accessories engage between backplate and the wall at the top and return to wall at the bottom. Pre-punched holes are provided to allow for anchoring with fasteners by others. Both of the Classic styles utilize either full or partial backplate. Brackets and hangers are interchangeable between both types. The aesthetically pleasing enclosures are available in a wide range of material thickness and types with a selection of standard baked powder colors. Special colors are available with approved paint chips.



A

B

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 the enclosureand element available anywhere. The standard bracket (D) is used with an adjustable bracket mounted element support. This will allow vertical movement of the element 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 on the nylon material creates an optimum noise deadening condition and therefore, element expansion noise is virtually eliminated. (See photo D.)

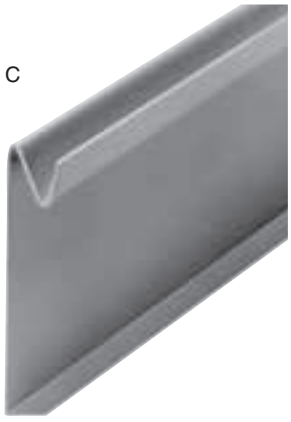
The water brackets (E) (F) are also available with the silent glide ball bearing assembly directly mounted so that the element support hanger is eliminated when pitch is not required. These water brackets allow an even faster installation.

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 D and E.) Lateral movement up to 3″ is available for expansion and contraction.

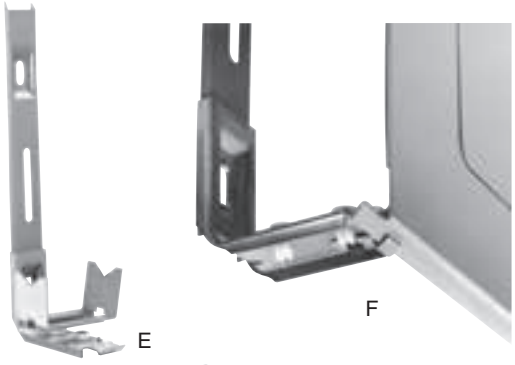
Enclosure brackets are formed at the top to engage the top inside bend of either the partial or full backplate. This automatic locating design simplifies installation and helps keep costs down. (See photos C, D and E.)

All enclosure brackets (standard or water type) are provided with posi-lock enclosures 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 F.)

C

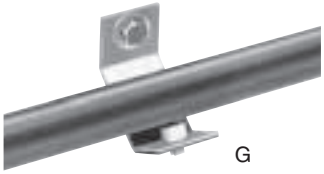


D



E

F



G

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 G.)

CLASSIC SPECIAL GENERAL SPECIFICATIONS

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

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 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 fins shall be pre-painted black with an enamel based black paint.

BACKPLATE

All full backplates will be one piece construction, 20 gauge galvannealed steel (18 gauge optional) with a die-formed mounting channel into which the enclosure shall self-locate and secure. Self-adhesive closed cell neoprene air seal gasket to be provided when requested to prevent dirt streaking (specify factory or field installed).

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 as galvannealed finish. Self-adhesive closed cell neoprene air seal gasket to be provided when requested to prevent dirt streaking (specify factory or field installed).

BRACKET HANGERS

All brackets and hangers are to be die-formed 14 gauge galvannealed 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 galvannealed 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. Bracket locations are recommended to be 2′6″ to 4′0″ on center located not more than 12″ in from ends of enclosure based on individual design applications.

ENCLOSURE AND ACCESSORIES

"Standard Classic" Finned Tube Enclosures are to be of style and size as shown on plans. Material will be 16 gauge standard, 14 gauge optional, cold rolled steel with a baked powder finish. Internally welded 14 gauge gussets shall occur at regular intervals to which the "pencil proof" clear anodized extruded aluminum grille with be affixed. The 14 gauge gussets are designed to engage the backplate at installation, and at the same time provide location and support for damper pivot pins when required. All enclosure ends shall have a wiped edge perpendicular to the vertical skirt, allowing the edge to rest upon the underlapping accessories or provide a clean, smooth seam when mounted with adjacent cover.

Accessories will be internally telescoping within the standard Classic enclosure. The top rear flange shall mount between the backplate and wall, while the bottom flange with pre-punched holes will be secured to the wall after location. All accessories can be mounted prior to cover to allow for adjustments.

"J Classic" Finned Tube Enclosures are to be of style and size as shown on plans. Material will be 16 gauge standard, 14 gauge optional, cold rolled steel with a baked powder finish. Internally welded 14 gauge gussets shall occur at regular intervals to which the "pencil proof" clear anodized extruded aluminum grille will be affixed. The gussets are designed to engage the backplate at installation and, at the same time, provide location and support for damper pivot pins when required. All enclosures will be manufactured with male and female slip joints at opposing ends, providing positive engagement and alignment of adjoining enclosures at installation. The slip joints are to be of such design and form that they will provide vertical stiffening for the front skirt.

Accessories will be overlapping design and will provide a raised border appearance resulting from the wiped edge on both sides. The wiped edge flange of the accessories provides vertical stiffening action. The top rear flange shall mount between the backplate and the wall, while the bottom flange with pre-punched holes will be secured to the wall after location. All accessories will be mounted after the enclosure is set and adjustments made.

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 be of tamper resistant type.

DAMPERS

Dampers will be provided where indicated on plans. Damper blades will have rolled edges for rigidity Damper actuation will be controlled by dial or tamper resistant operator. "4" offset enclosure can be provided with optional slide damper.

OTHER PRODUCTS FOR COMMERCIAL APPLICATIONS

LINOVECTOR II

Linovector II Finned Tube Radiation is Vulcan's most versatile and flexible, multi-purpose commercial hydronic heating enclosure line. It provides users an outstanding BTU output/ penny of cost. Linovector II offers contractors and engineers 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.

ASK FOR LINOVECTOR II CATALOG

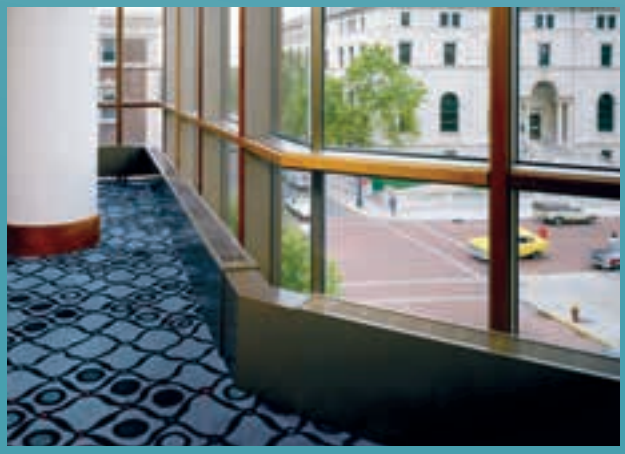
"SPECIALS" — CUSTOM ENCLOSURES

When you cannot find exactly what you want in any of the Commercial Finned Tube catalogs, it does not mean that it cannot be made. Vulcan Radiator has been providing specially designed enclosures, cabinets, sills, stools, curtain pockets and anything that you would associate with sheet metal for decades. From curved wall conditions to fan coil enclosures, Vulcan's quality engineering and manufacturing is combined to yield the highest quality products available. No challenge is too great for us. We like to think that Vulcan can build a better mousetrap. Call your Vulcan representative and discuss your innovative ideas with them.

CONSULT YOUR REPRESENTATIVE

LIMITED WARRANTY COMMERCIAL FINNED TUBE RADIATION

1. 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.
2. 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.
3. This limited warranty is conditional upon:
   (a) shipment, to 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.
4. 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
5. 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
RADIATOR

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