

LC-209



LIGHT COMMERCIAL ENCLOSURE
FOR TO-THE-FLOOR INSTALLATIONS

Vulcan
RADIATOR

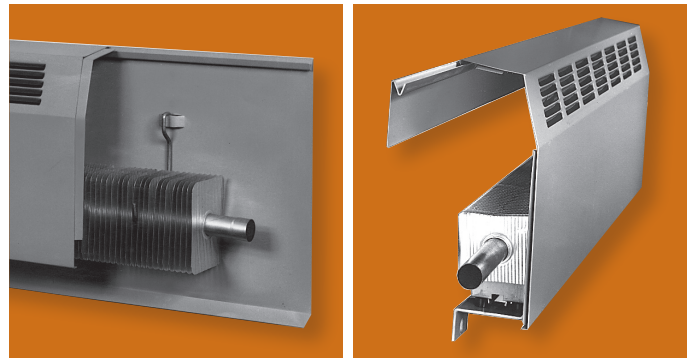
LC-209

A RUGGEDLY BUILT, HEAVY GAUGE & EASY TO INSTALL BASEBOARD RADIATION SYSTEM FOR THE INSTITUTIONAL MARKET

- **FRONTS OF HEAVY GAUGE STEEL**
16 or 18 Gauge available.
(Consult factory for 14 Gauge availability.)
- **DESIRABLE CHOICE FOR HIGH DENSITY INSTITUTIONAL USE**
student dorms, military housing, nursing homes, apartment houses and the replacement market.
- **LABOR SAVING ROD HANGERS**
are suspended from prepunched slots in the full backplate. No screws or bolts to fasten.
- **NEAT-APPEARING SLIP JOINTED ENCLOSURES**
no sheet metal screws required.
- **OFF-THE-WALL BACKPLATE**
allows enclosures to be installed or removed without damage to finished wall.
- **OPTIONAL DAMPERS**
rugged commercial, fully-modulating damper assembly with durable satin finish knob operator.
(Also available with TAMPER-RESISTANT socket head.)
- **ANCHOR-TYPE ACCESSORIES**
all accessories return and attach to wall at bottom of enclosure. This eliminates the need for screws while it adds rigidity to the enclosure.
- **PENCIL-PROOF LOUVERED OPENINGS**
prevents trash accumulation on element.

- **BROAD CHOICE OF ELEMENTS**
Available in both copper and steel. Wide variety of sizes and outputs. All elements completely enclosed within the enclosure.
- **DURABLE FINISH**
all enclosures are chemically phosphatized before application of baked primer or baked powder.
(See Vulcan Color Selector for standard finishes.)

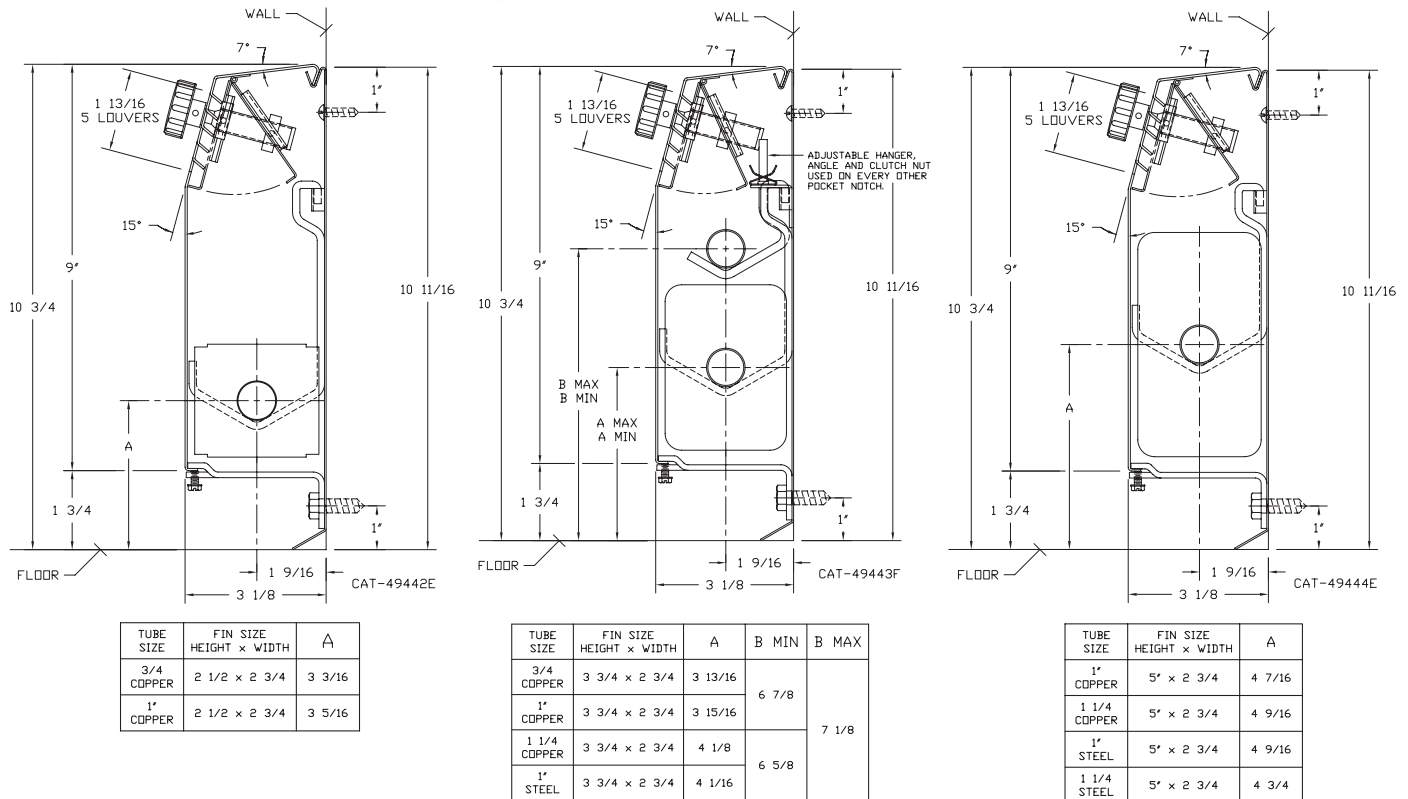
All Vulcan commercial hydronic products are made from recycled materials. Recycled material contents can be obtained from your local Vulcan representative or by viewing the www.vulcanrad.com website. Vulcan is a participating member of USGBC-LEEDS.



Full Backplate

Partial Backplate

FULL BACKPLATE INSTALLATION



DATA CHARTS					
WATER FLOW RATE CORRECTION FACTORS					
LB/HR	GPM	FACTOR	PRES. DROP - MILLINCHES/FT. COPPER ELEMENT TUBE SIZE		
			3/4"	1"	1-1/4"
500	1.0	1.000	47	13	6
750	1.5	1.016	96	26	12
1000	2.0	1.028	157	43	20
1250	2.5	1.038	230	63	28
1500	3.0	1.045	320	87	39
1750	3.5	1.051	420	114	50
2000	4.0	1.057	525	145	63
2250	4.5	1.062	650	178	77
2500	5.0	1.067	775	216	93
3000	6.0	1.074	1060	290	124

These are water ratings plus 15% for heating effect. Ratings are based on active length- active finned length is over-all length minus 4" (2" stubs). Ratings are with damper installed. The use of ratings at 4 GPM is limited to installations (usually loop) where the flow rate is 4 GPM or greater. When the flow rate is not known the standard flow rate of 1 GPM must be used.

If the calculated water flow rate through a baseboard unit in a completely designed hot water heating system is greater than the standard flow rate (500 lb./hr.), the rating of that unit may be increased by multiplying the standard water rating at 500 lb./hr. by the factor shown for the calculated flow rate. See chart for correction factors.

NOTE: NPT Threads furnished on steel elements, please use domestic fittings for their proper installation.

STYLE Light Commercial "LC-209"						COPPER/ALUMINUM ELEMENT RATINGS						
						ALL RATINGS ARE BASED ON 65° EAT						
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FIN PER FT.	FIN THICKNESS IN INCHES	WATER RATE IN GPM	HOT WATER (AVG.)						
						215°	200°	190°	180°	170°	160°	150°
3/4"	VR02	2-1/2" x 2-3/4"	60	.010	1	1010	890	800	720	630	550	470
					4	1070	940	850	760	670	580	500
1"	VR03	2-1/2" x 2-3/4"	55	.011	1	990	870	790	710	620	540	460
					4	1050	920	840	750	660	570	490
3/4"	VR04	3-3/4" x 2-3/4"	50	.014	1	1070	950	850	770	680	590	510
					4	1130	1000	900	810	720	620	530
1"	VR05	3-3/4" x 2-3/4"	50	.014	1	1080	960	860	780	690	600	520
					4	1140	1010	910	820	730	630	540
1"	VR07	5" x 2-3/4"	50	.020	1	1060	930	840	740	650	560	470
					4	1120	980	890	780	680	590	500
1-1/4"	VR08	2-1/2" x 2-3/4"	50	.02	1	1070	930	840	740	650	560	470
					4	1130	980	890	780	680	590	500
1-1/4"	VR10	5" x 2-3/4"	50	.020	1	1080	940	840	750	660	560	470
					4	1140	990	890	790	690	590	500

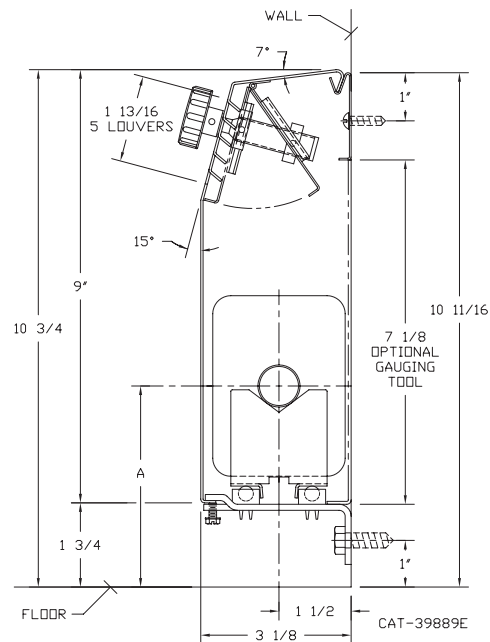
NOTE: Copper/Aluminum Elements are unpainted. There is no change in output without a damper or with a damper installed in open position

► Bold, italicized units are rated ◀

STYLE Light Commercial "LC-209"						STEEL ELEMENT RATINGS						
						ALL RATINGS ARE BASED ON 65° EAT						
TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FIN PER FT.	FIN THICKNESS IN INCHES	WATER RATE IN GPM	HOT WATER (AVG.)						
						215°	200°	190°	180°	170°	160°	150°
1"	VR12	5" x 2-3/4"	50	.024	1	1000	880	800	720	630	550	470
					4	1060	930	850	760	670	580	500
1-1/4"	VR13	5" x 2-3/4"	50	.024	1	1020	900	810	730	640	560	480
					4	1080	960	860	770	680	590	510

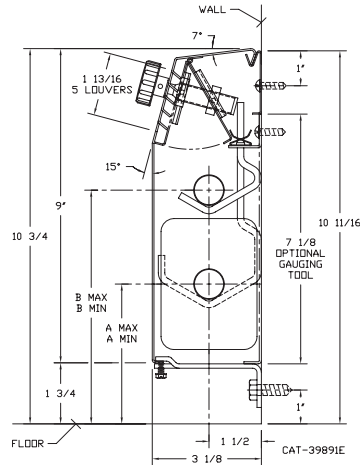
PARTIAL BACKPLATE INSTALLATION

ELEMENT CRADLE WITH BALL BEARING INSTALLATION

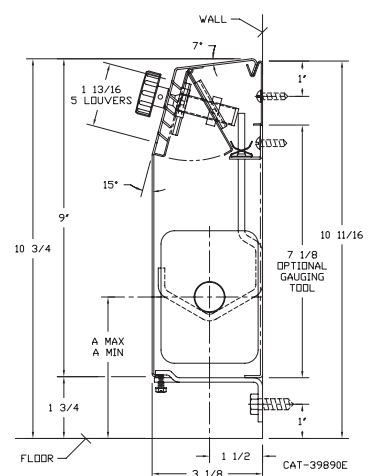
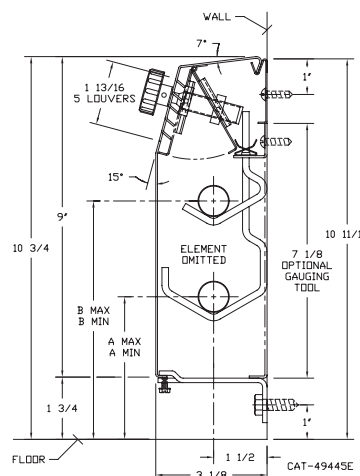


TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A
3/4" COPPER	2 1/2" x 2 1/4"	1	3 1/2
	2 1/2" x 2 3/4"	2	4 3/16
	3 3/4" x 2 3/4"	2	4 7/8
1" COPPER	2 1/2" x 2 3/4"	1	3 5/8
	3 3/4" x 2 3/4"	2	4 5/16
1 1/4" COPPER	5" x 2 3/4"	3A	4 3/4
	3 3/4" x 2 3/4"	2	4 1/2
1" STEEL	5" x 2 3/4"	3A	4 7/8
	3 3/4" x 2 3/4"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

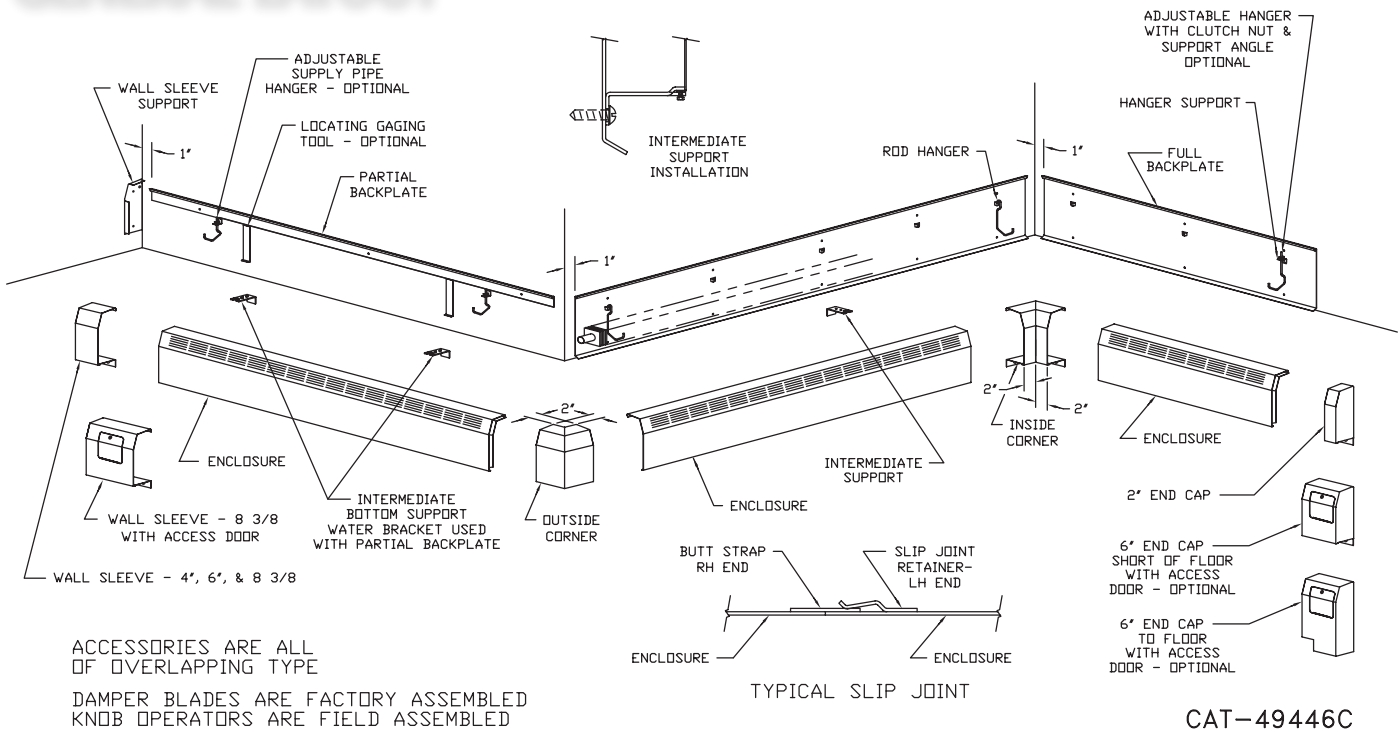
ROD HANGER INSTALLATION



TUBE SIZE	FIN SIZE HEIGHT x WIDTH	A MIN	A MAX	B MIN	B MAX
3/4" COPPER	2 1/2" x 2 1/4"	3 1/4	5 1/4	6 1/8	7 1/8
	2 1/2" x 2 3/4"	3 7/8	5 3/8	6 5/8	7 1/8
	3 3/4" x 2 3/4"	3 1/4	5 1/4	6 1/8	7 1/8
1" COPPER	2 1/2" x 2 3/4"	3 7/8	5 3/8	6 5/8	7 1/8
	3 3/4" x 2 3/4"	4 1/2	5 1/4	N/A	N/A
1 1/4" COPPER	3 3/4" x 2 3/4"	3 7/8	5 3/8	6 5/8	7 1/8
1" STEEL	5" x 2 3/4"	4 1/2	5 1/4	N/A	N/A
	3 3/4" x 2 3/4"	3 7/8	5 3/8	6 5/8	7 1/8
1 1/4" STEEL	5" x 2 3/4"	4 1/2	5 1/4	N/A	N/A



GENERAL LAYOUT



ACCESSORIES



SPECIFICATIONS

Furnish and install where shown on plans, Vulcan LC 209 Finned Tube Radiation as described in the following specification or approved quality and capacity equal.

Enclosure shall be one piece manufactured of 18 gauge standard (optional 16 or 14 gauge CRS) steel with pencil proof louvered discharge grille. Damper shall be fully-modulating type with satin finish knob or (optional) tamper-resistant socket head operator. Enclosures shall be joined by means of slip joint.

Full back panel (20 gauge) shall be die formed for rigidity and will have prepunched slots for rod hangers. It shall be off-the-

wall type allowing for removal of enclosure without damage to finished wall. Partial back plate (20 gauge) shall be pre-painted steel and roll formed. Installations with full backplate will incorporate fixed and/or adjustable element rod hangers.

Installations with partial backplate will incorporate intermediate bottom supports with ball bearings and slide cradles when no pitch is required. Wall-mounted adjustable rod hangers will be used with partial backplate when pitch is required for steam jobs.

All accessories shall be anchor type providing additional support of enclosures.