

LINOVECTOR II

Bare Element "4"
Copper/Aluminum and
Steel Elements

Submittal

Specification

Bare Element "4"

ELEMENT:

TYPE: Cu/Al (Mechanically Expanded)
LENGTHS: 2'-0" thru 12'-6" in 1" Increments
3/4" Cu Tube Available up to 8'-0" MAX.
One end Flared Std.
See Catalog for Working Pressures

BRACKETS:

B.B. Hanger Wall Mounted

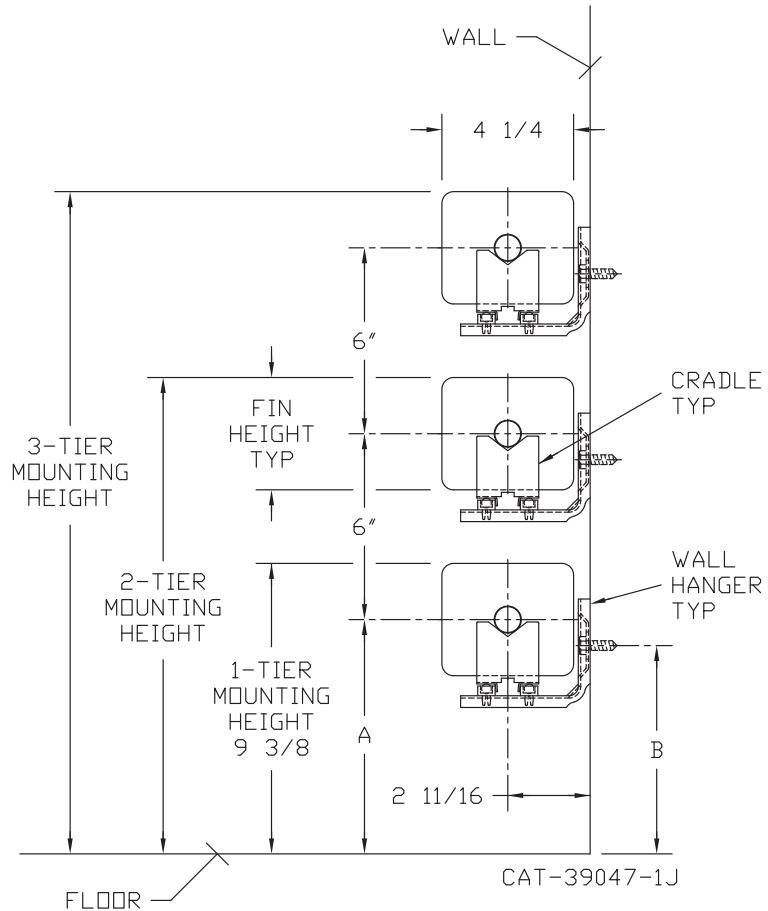
ELEMENT:

TYPE: Steel (Mechanically Expanded)
LENGTHS: 2'-0" thru 12'-6" in 1" Increments
 N.P.T. Threads Both Ends Std.
 Beveled Ends for Field Welded Fittings
See Catalog for Working Pressures

BRACKETS:

B.B. Hanger Wall Mounted

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



Vulcan
RADIATOR

260 North Elm St., Westfield, MA 01085
(413) 568-9571 Fax: (413) 564-5661
www.vulcanrad.com

PROJECT: _____ DATE: _____

LOCATION: _____

ARCHITECT: _____

ENGINEER: _____

CONTRACTOR: _____

PO NUMBER: _____

STYLE "4" BARE ELEMENT

COPPER/ALUMINUM ELEMENT RATINGS

All ratings are based on 3 FPS velocity

| TUBE SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FIN PER FT. | FIN THICKNESS 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° | 110° | 100° |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | | |
| | | | | | | | | 1.00 | .86 | .78 | .69 | .61 | .53 | .45 | .40 | .33 | .26 | .20 |
| 3/4" | VC3/4-433 | 3-5/8" X 4-1/4" | 32 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1210 2130 2880 | 1040 1830 2480 | 940 1660 2250 | 830 1470 1990 | 740 1300 1760 | 640 1130 1530 | 540 960 1300 | 480 850 1150 | 400 700 950 | 310 550 750 | 240 430 580 | 180 320 430 |
| 3/4" | VC3/4-434 | 3-5/8" X 4-1/4" | 40 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1450 2490 3300 | 1250 2140 2840 | 1130 1940 2570 | 1000 1720 2280 | 880 1520 2010 | 770 1320 1750 | 650 1120 1490 | 580 1000 1320 | 480 820 1090 | 380 650 860 | 290 500 660 | 220 370 500 |
| 3/4" | VC3/4-435 | 3-5/8" X 4-1/4" | 50 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1600 2650 3450 | 1380 2280 2970 | 1250 2070 2690 | 1100 1830 2380 | 980 1620 2100 | 850 1400 1830 | 720 1190 1550 | 640 1060 1380 | 530 870 1140 | 420 690 900 | 320 530 690 | 240 400 520 |
| 1" | VC433 | 3-5/8" X 4-1/4" | 32 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1260 2220 3000 | 1080 1910 2580 | 980 1730 2340 | 870 1530 2070 | 770 1350 1830 | 670 1180 1590 | 570 1000 1320 | 500 890 1200 | 420 730 990 | 330 580 780 | 250 440 600 | 190 330 450 |
| 1" | VC434 | 3-5/8" X 4-1/4" | 40 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1410 2420 3200 | 1210 2080 2750 | 1100 1890 2500 | 970 1670 2210 | 860 1480 1950 | 750 1280 1700 | 630 1090 1440 | 560 970 1280 | 470 800 1060 | 370 630 830 | 280 480 640 | 210 360 480 |
| 1" | VC435 | 3-5/8" X 4-1/4" | 50 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1600 2640 3450 | 1380 2270 2970 | 1250 2060 2690 | 1100 1820 2380 | 980 1610 2100 | 850 1400 1830 | 720 1190 1550 | 640 1060 1380 | 530 870 1140 | 420 690 900 | 320 530 690 | 240 400 520 |
| 1-1/4" | VC1433 | 3-5/8" X 4-1/4" | 32 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1310 2310 3130 | 1130 1990 2690 | 1020 1800 2440 | 900 1590 2160 | 800 1410 1910 | 690 1220 1660 | 590 1040 1410 | 520 920 1250 | 430 760 1030 | 340 600 810 | 260 460 630 | 200 350 470 |
| 1-1/4" | VC1434 | 3-5/8" X 4-1/4" | 40 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1440 2470 3260 | 1240 2120 2800 | 1120 1930 2540 | 990 1700 2250 | 880 1510 1990 | 760 1310 1730 | 650 1110 1470 | 580 990 1300 | 480 820 1080 | 370 640 850 | 290 490 650 | 220 370 490 |
| 1-1/4" | VC1435 | 3-5/8" X 4-1/4" | 50 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1600 2650 3460 | 1380 2280 2980 | 1250 2070 2700 | 1100 1830 2390 | 980 1620 2110 | 850 1400 1830 | 720 1190 1560 | 640 1060 1380 | 530 870 1140 | 420 690 900 | 320 530 690 | 240 400 520 |
| 3/4" | VC3/4 43 | 4-1/4" SQ. | 32 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1280 2260 3060 | 1100 1940 2630 | 1000 1760 2390 | 880 1560 2110 | 780 1380 1870 | 680 1200 1620 | 580 900 1220 | 510 750 1010 | 420 590 800 | 330 450 610 | 260 340 460 | 190 340 460 |
| 3/4" | VC3/4 44 | 4-1/4" SQ. | 40 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1460 2390 3230 | 1260 2060 2780 | 1140 1860 2520 | 1010 1460 2230 | 890 1270 1970 | 770 1080 1710 | 660 960 1450 | 580 790 1290 | 480 620 1070 | 380 480 840 | 290 360 650 | 220 360 480 |
| 3/4" | VC3/4 45 | 4-1/4" SQ. | 50 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1640 2620 3430 | 1410 2250 2950 | 1280 2040 2680 | 1130 1810 2370 | 1000 1600 2090 | 870 1390 1820 | 740 1180 1540 | 660 1050 1370 | 540 860 1130 | 430 680 890 | 330 520 690 | 250 390 510 |
| 1" | VC43 | 4-1/4" SQ. | 32 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1340 2370 3230 | 1150 2040 2780 | 1050 1850 2520 | 920 1640 2230 | 820 1450 1970 | 710 1260 1710 | 600 1070 1450 | 540 950 1290 | 440 780 1070 | 350 620 840 | 270 470 650 | 200 360 480 |
| 1" | VC44 | 4-1/4" SQ. | 40 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1490 2490 3320 | 1280 2140 2860 | 1160 1940 2590 | 1030 1720 2290 | 910 1520 2030 | 790 1320 1760 | 670 1120 1490 | 600 1000 1330 | 490 820 1100 | 390 650 860 | 300 500 660 | 220 370 500 |
| 1" | VC45 | 4-1/4" SQ. | 50 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1680 2650 3460 | 1440 2280 2980 | 1310 2070 2700 | 1160 1830 2390 | 1020 1620 2110 | 890 1400 1830 | 760 1190 1560 | 670 1060 1380 | 550 870 1140 | 440 690 900 | 340 530 690 | 250 400 520 |
| 1-1/4" | VC143 | 4-1/4" SQ. | 32 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1400 2470 3360 | 1200 2120 2890 | 1090 1930 2620 | 970 1700 2320 | 850 1510 2050 | 740 1310 1780 | 630 1110 1510 | 560 990 1340 | 460 820 1110 | 360 640 870 | 280 490 670 | 210 370 500 |
| 1-1/4" | VC144 | 4-1/4" SQ. | 40 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1660 2680 3490 | 1430 2300 3000 | 1290 2090 2720 | 1150 1850 2410 | 1010 1630 2130 | 880 1420 1850 | 750 1210 1570 | 660 1070 1400 | 550 880 1150 | 430 700 910 | 330 540 700 | 250 400 520 |
| 1-1/4" | VC145 | 4-1/4" SQ. | 50 | .020 | 1 2 @ 6 CL 3 @ 6 CL | 9-3/8 15-3/8 21-3/8 | 1710 2460 3200 | 1470 2120 2750 | 1330 1920 2500 | 1180 1700 2210 | 1040 1500 1950 | 910 1310 1700 | 770 1110 1440 | 680 980 1280 | 560 810 1060 | 440 640 830 | 340 490 640 | 260 370 480 |

Note: Copper tube furnished flared one end standard.

STYLE "4" BARE ELEMENT

STEEL ELEMENT RATINGS

All ratings are based on 3 FPS velocity

| I.P.S. SIZE | CATALOG DESIGNATION | FIN SIZE HEIGHT X WIDTH | FIN PER FT. | FIN THICKNESS 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° | 110° | 100° | | |
| | | | | | | | | CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES | | | | | | | | | | | | |
| | | | | | | | | 1.00 | .86 | .78 | .69 | .61 | .53 | .45 | .40 | .33 | .26 | .20 | .15 | |
| 1" | VS43 | 4-1/4" SQ. | 32 | .032 | 1 | 9-3/8" | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 | 260 | 200 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2320 | 2000 | 1810 | 1600 | 1420 | 1230 | 1040 | 930 | 770 | 600 | 460 | 350 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 3050 | 2620 | 2380 | 2100 | 1860 | 1620 | 1370 | 1220 | 1010 | 790 | 610 | 460 | | |
| 1" | VS44 | 4-1/4" SQ. | 40 | .032 | 1 | 9-3/8" | 1490 | 1280 | 1160 | 1030 | 910 | 790 | 670 | 600 | 490 | 390 | 300 | 220 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2450 | 2110 | 1910 | 1690 | 1490 | 1300 | 1100 | 980 | 810 | 640 | 490 | 370 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 3180 | 2730 | 2480 | 2190 | 1940 | 1690 | 1430 | 1270 | 1050 | 830 | 640 | 480 | | |
| 1" | VS45 | 4-1/4" SQ. | 50 | .032 | 1 | 9-3/8" | 1580 | 1360 | 1230 | 1090 | 960 | 840 | 710 | 630 | 520 | 410 | 320 | 240 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2510 | 2160 | 1960 | 1730 | 1530 | 1330 | 1130 | 1000 | 830 | 650 | 500 | 380 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 3230 | 2780 | 2520 | 2230 | 1970 | 1710 | 1450 | 1290 | 1070 | 840 | 650 | 480 | | |
| 1-1/4" | VS143 | 4-1/4" SQ. | 32 | .032 | 1 | 9-3/8" | 1310 | 1130 | 1020 | 900 | 800 | 690 | 590 | 520 | 430 | 340 | 260 | 200 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2300 | 1980 | 1790 | 1590 | 1400 | 1220 | 1040 | 920 | 760 | 600 | 460 | 350 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 3030 | 2610 | 2360 | 2090 | 1850 | 1610 | 1360 | 1210 | 1000 | 790 | 610 | 450 | | |
| 1-1/4" | VS144 | 4-1/4" SQ. | 40 | .032 | 1 | 9-3/8" | 1480 | 1270 | 1150 | 1020 | 900 | 780 | 670 | 590 | 490 | 380 | 300 | 220 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2440 | 2100 | 1900 | 1680 | 1490 | 1290 | 1100 | 980 | 810 | 630 | 490 | 370 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 3170 | 2730 | 2470 | 2190 | 1930 | 1680 | 1430 | 1270 | 1050 | 820 | 630 | 480 | | |
| 1-1/4" | VS145 | 4-1/4" SQ. | 50 | .032 | 1 | 9-3/8" | 1550 | 1330 | 1210 | 1070 | 950 | 820 | 700 | 620 | 510 | 400 | 310 | 230 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2460 | 2120 | 1920 | 1700 | 1500 | 1300 | 1110 | 980 | 810 | 640 | 490 | 370 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 3170 | 2730 | 2470 | 2190 | 1930 | 1680 | 1430 | 1270 | 1050 | 820 | 630 | 480 | | |
| 2" | VS242 | 4-1/4" SQ. | 25 | .032 | 1 | 9-3/8" | 1140 | 980 | 890 | 790 | 700 | 600 | 510 | 460 | 380 | 300 | 230 | 170 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2030 | 1750 | 1580 | 1400 | 1240 | 1080 | 910 | 810 | 670 | 530 | 410 | 300 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 2700 | 2320 | 2110 | 1860 | 1650 | 1430 | 1220 | 1080 | 890 | 700 | 540 | 410 | | |
| 2" | VS243 | 4-1/4" SQ. | 32 | .032 | 1 | 9-3/8" | 1320 | 1140 | 1030 | 910 | 810 | 700 | 590 | 530 | 440 | 340 | 260 | 200 | | |
| | | | | | 2 @ 6 CL | 15-3/8" | 2230 | 1920 | 1740 | 1540 | 1360 | 1180 | 1000 | 890 | 740 | 580 | 450 | 330 | | |
| | | | | | 3 @ 6 CL | 21-3/8" | 2910 | 2500 | 2270 | 2010 | 1780 | 1540 | 1310 | 1160 | 960 | 760 | 580 | 440 | | |

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

► **Bold, italicized units are**  **rated** ◀