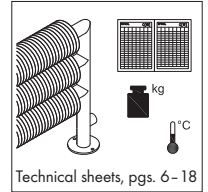
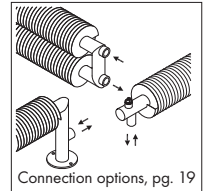




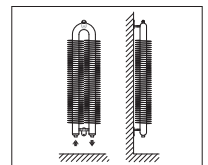
| | |
|---|----|
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| Table of heating outputs | 5 |
| Technical sheets of LOFT radiators | |
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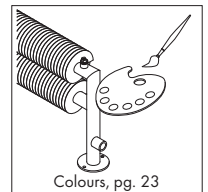
Technical sheets, pgs. 6-18



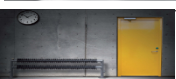
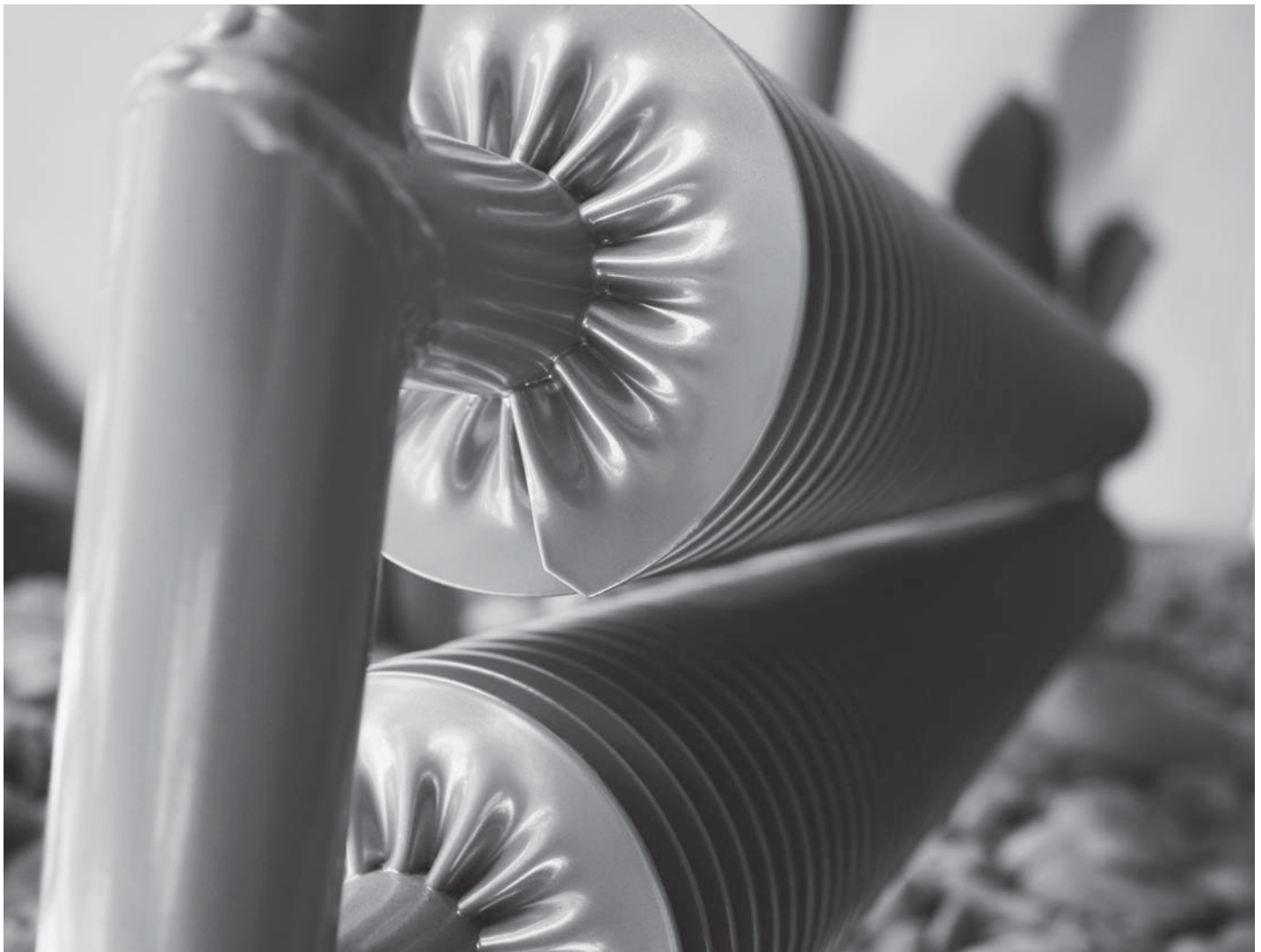
Connection options, pg. 19



Atypical designs, pgs. 19-20



Colours, pg. 23



OVERVIEW OF THE TYPES OF LOFT RADIATORS



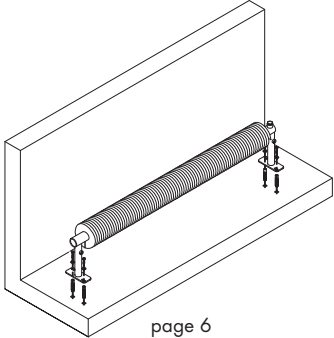
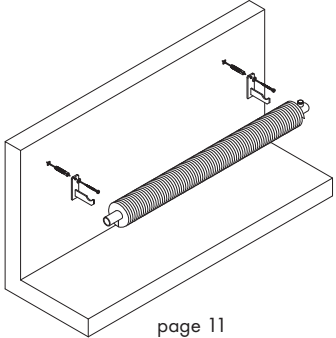
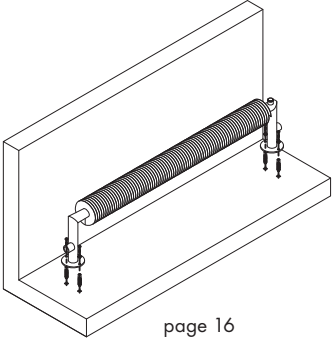
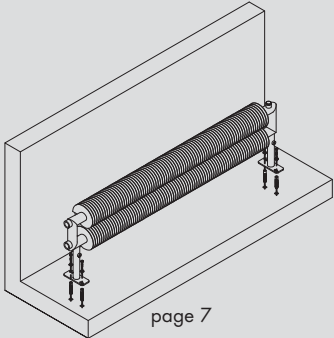
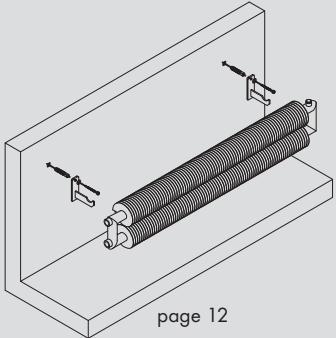
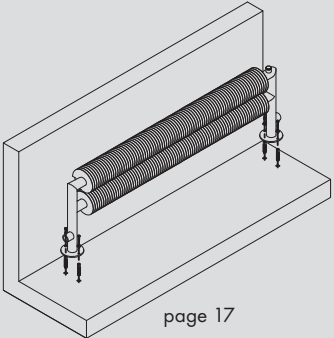
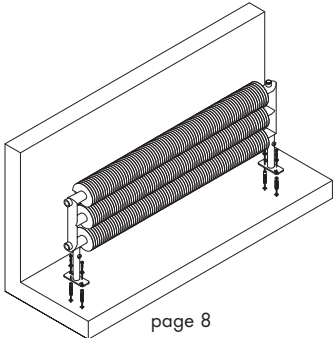
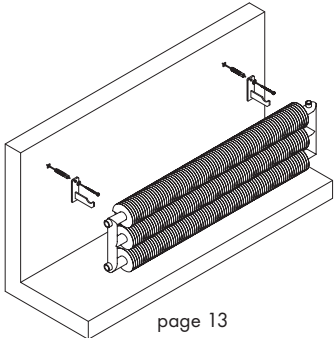
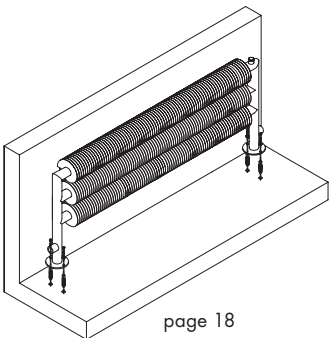
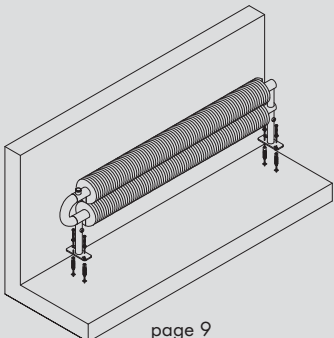
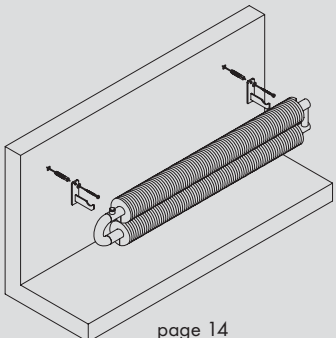
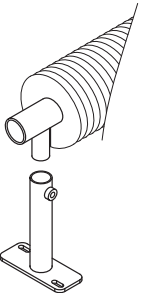
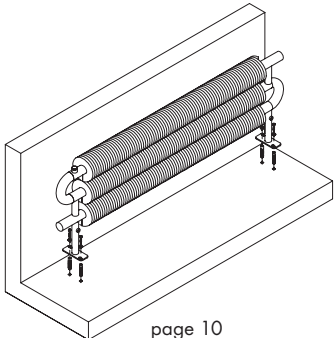
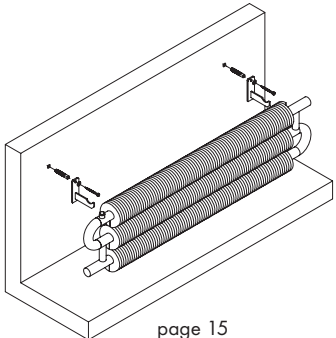
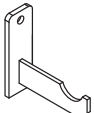
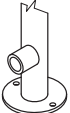
| | FLOOR-MOUNTED VERSION (F) | WALL-MOUNTED VERSION (W) | SELF-STANDING VERSION (S) |
|------|--|---|--|
| FAT1 |  page 6 |  page 11 |  page 16 |
| FAT2 |  page 7 |  page 12 |  page 17 |
| FAT3 |  page 8 |  page 13 |  page 18 |
| FAO2 |  page 9 |  page 14 |  floor-mounted legs |
| FAO3 |  page 10 |  page 15 |  wall-mounted consoles |
| | | |  self-standing version |



TABLE OF HEATING OUTPUTS



| TYPE OF LOFT RADIATORS on the floor • on the wall • self-standing | | TEMPERATURE GRADIENT [°C] | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|--|-----------------|------------------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| FA1 | ∅32×2,0×∅92 mm | 90/70/20 | 203 | 501 | 799 | 1058 | 1318 | 1578 | 2095 | 2628 | 3161 |
| | | 75/65/20 | 160 | 395 | 630 | 835 | 1040 | 1245 | 1653 | 2073 | 2494 |
| | | 70/55/20 | 130 | 320 | 510 | 676 | 842 | 1008 | 1338 | 1679 | 2019 |
| | | 55/45/20 | 82 | 203 | 324 | 430 | 535 | 641 | 851 | 1067 | 1284 |
| | ∅57×2,5×∅137 mm | 90/70/20 | 266 | 559 | 911 | 1240 | 1568 | 1919 | 2612 | 3292 | 3906 |
| | | 75/65/20 | 210 | 441 | 719 | 978 | 1237 | 1514 | 2061 | 2597 | 3082 |
| | | 70/55/20 | 170 | 357 | 582 | 792 | 1001 | 1226 | 1668 | 2102 | 2495 |
| | | 55/45/20 | 108 | 227 | 370 | 503 | 637 | 779 | 1061 | 1337 | 1586 |
| | ∅76×2,5×∅156 mm | 90/70/20 | 294 | 587 | 939 | 1260 | 1636 | 2046 | 2721 | 3366 | 3991 |
| | | 75/65/20 | 232 | 463 | 741 | 994 | 1291 | 1614 | 2147 | 2656 | 3149 |
| | | 70/55/20 | 188 | 375 | 600 | 805 | 1045 | 1307 | 1738 | 2150 | 2549 |
| | | 55/45/20 | 119 | 238 | 381 | 512 | 665 | 831 | 1105 | 1367 | 1621 |
| FAT2 | ∅32×2,0×∅92 mm | 90/70/20 | 361 | 887 | 1420 | 1882 | 2345 | 2769 | 3725 | 4672 | 5618 |
| | | 75/65/20 | 285 | 700 | 1120 | 1485 | 1850 | 2185 | 2939 | 3686 | 4433 |
| | | 70/55/20 | 231 | 567 | 907 | 1202 | 1498 | 1769 | 2379 | 2984 | 3589 |
| | | 55/45/20 | 147 | 360 | 577 | 764 | 952 | 1125 | 1513 | 1897 | 2282 |
| | ∅57×2,5×∅137 mm | 90/70/20 | 385 | 965 | 1527 | 2178 | 2769 | 3377 | 4586 | 5775 | 6848 |
| | | 75/65/20 | 304 | 761 | 1205 | 1718 | 2185 | 2664 | 3618 | 4556 | 5403 |
| | | 70/55/20 | 246 | 616 | 976 | 1391 | 1769 | 2157 | 2929 | 3688 | 4374 |
| | | 55/45/20 | 156 | 392 | 620 | 884 | 1125 | 1371 | 1862 | 2345 | 2781 |
| | ∅76×2,5×∅156 mm | 90/70/20 | 403 | 1003 | 1589 | 2235 | 2840 | 3422 | 4626 | 5846 | 6960 |
| | | 75/65/20 | 318 | 791 | 1254 | 1763 | 2241 | 2700 | 3650 | 4612 | 5491 |
| | | 70/55/20 | 257 | 640 | 1015 | 1427 | 1814 | 2186 | 2955 | 3734 | 4445 |
| | | 55/45/20 | 164 | 407 | 645 | 908 | 1154 | 1390 | 1879 | 2374 | 2826 |
| FAT3 | ∅32×2,0×∅92 mm | 90/70/20 | 539 | 1331 | 2129 | 2820 | 3511 | 4151 | 5581 | 7001 | 8420 |
| | | 75/65/20 | 425 | 1050 | 1680 | 2225 | 2770 | 3275 | 4404 | 5523 | 6643 |
| | | 70/55/20 | 344 | 850 | 1360 | 1801 | 2242 | 2651 | 3565 | 4471 | 5378 |
| | | 55/45/20 | 219 | 540 | 865 | 1145 | 1426 | 1686 | 2267 | 2843 | 3419 |
| | ∅57×2,5×∅137 mm | 90/70/20 | 584 | 1483 | 2382 | 3318 | 4171 | 5133 | 6990 | 8841 | 10449 |
| | | 75/65/20 | 461 | 1170 | 1879 | 2618 | 3291 | 4050 | 5515 | 6975 | 8244 |
| | | 70/55/20 | 373 | 947 | 1521 | 2119 | 2664 | 3279 | 4465 | 5647 | 6674 |
| | | 55/45/20 | 237 | 602 | 967 | 1348 | 1694 | 2085 | 2839 | 3590 | 4244 |
| | ∅76×2,5×∅156 mm | 90/70/20 | 607 | 1503 | 2399 | 3351 | 4265 | 5185 | 7066 | 9023 | 10567 |
| | | 75/65/20 | 479 | 1186 | 1893 | 2644 | 3365 | 4091 | 5575 | 7119 | 8337 |
| | | 70/55/20 | 388 | 960 | 1532 | 2140 | 2724 | 3312 | 4513 | 5763 | 6749 |
| | | 55/45/20 | 247 | 610 | 974 | 1361 | 1732 | 2106 | 2870 | 3665 | 4291 |
| FAO2 | ∅32×2,0×∅92 mm | 90/70/20 | 361 | 887 | 1420 | 1882 | 2345 | 2769 | 3725 | 4672 | 5618 |
| | | 75/65/20 | 285 | 700 | 1120 | 1485 | 1850 | 2185 | 2939 | 3686 | 4433 |
| | | 70/55/20 | 231 | 567 | 907 | 1202 | 1498 | 1769 | 2379 | 2984 | 3589 |
| | | 55/45/20 | 147 | 360 | 577 | 764 | 952 | 1125 | 1513 | 1897 | 2282 |
| | ∅57×2,5×∅137 mm | 90/70/20 | 385 | 965 | 1527 | 2178 | 2769 | 3377 | 4586 | 5775 | 6848 |
| | | 75/65/20 | 304 | 761 | 1205 | 1718 | 2185 | 2664 | 3618 | 4556 | 5403 |
| | | 70/55/20 | 246 | 616 | 976 | 1391 | 1769 | 2157 | 2929 | 3688 | 4374 |
| | | 55/45/20 | 156 | 392 | 620 | 884 | 1125 | 1371 | 1862 | 2345 | 2781 |
| | ∅76×2,5×∅156 mm | 90/70/20 | 403 | 1003 | 1589 | 2235 | 2840 | 3422 | 4626 | 5846 | 6960 |
| | | 75/65/20 | 318 | 791 | 1254 | 1763 | 2241 | 2700 | 3650 | 4612 | 5491 |
| | | 70/55/20 | 257 | 640 | 1015 | 1427 | 1814 | 2186 | 2955 | 3734 | 4445 |
| | | 55/45/20 | 164 | 407 | 645 | 908 | 1154 | 1390 | 1879 | 2374 | 2826 |
| FAO3 | ∅32×2,0×∅92 mm | 90/70/20 | 539 | 1331 | 2129 | 2820 | 3511 | 4151 | 5581 | 7001 | 8420 |
| | | 75/65/20 | 425 | 1050 | 1680 | 2225 | 2770 | 3275 | 4404 | 5523 | 6643 |
| | | 70/55/20 | 344 | 850 | 1360 | 1801 | 2242 | 2651 | 3565 | 4471 | 5378 |
| | | 55/45/20 | 219 | 540 | 865 | 1145 | 1426 | 1686 | 2267 | 2843 | 3419 |
| | ∅57×2,5×∅137 mm | 90/70/20 | 584 | 1483 | 2382 | 3318 | 4171 | 5133 | 6990 | 8841 | 10449 |
| | | 75/65/20 | 461 | 1170 | 1879 | 2618 | 3291 | 4050 | 5515 | 6975 | 8244 |
| | | 70/55/20 | 373 | 947 | 1521 | 2119 | 2664 | 3279 | 4465 | 5647 | 6674 |
| | | 55/45/20 | 237 | 602 | 967 | 1348 | 1694 | 2085 | 2839 | 3590 | 4244 |
| | ∅76×2,5×∅156 mm | 90/70/20 | 607 | 1503 | 2399 | 3351 | 4265 | 5185 | 7066 | 9023 | 10567 |
| | | 75/65/20 | 479 | 1186 | 1893 | 2644 | 3365 | 4091 | 5575 | 7119 | 8337 |
| | | 70/55/20 | 388 | 960 | 1532 | 2140 | 2724 | 3312 | 4513 | 5763 | 6749 |
| | | 55/45/20 | 247 | 610 | 974 | 1361 | 1732 | 2106 | 2870 | 3665 | 4291 |

Note: Temperature exponent n=1,3





TECHNICAL INFORMATION

| | | |
|--|--|--|
| Material | Standard: | steel tubes with air valve G 3/8" $\varnothing 32 \times 2,0 \times \varnothing 92$ mm, lead of spiral 10 mm $\varnothing 57 \times 2,5 \times \varnothing 137$ mm, lead of spiral 18 mm $\varnothing 76 \times 2,5 \times \varnothing 156$ mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm - 6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FA1-F | Dimensions [mm] | | | | | | | | | | | | |
|---|-----------------|-----|----|-----|----|-------|----|----|---|---|---|---|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 500-6000 | 192 | 32 | 92 | 10 | A-100 | 50 | 25 | - | - | - | - | ≥60 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 500-6000 | 237 | 57 | 137 | 18 | A-140 | 70 | 35 | - | - | - | - | ≥85 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 500-6000 | 256 | 76 | 156 | 20 | A-140 | 70 | 35 | - | - | - | - | ≥95 |

Note: $\varnothing 32 \times 2,0 \times \varnothing 92$ [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FA1-F | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|---|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 90/70/20 °C | 203 | 501 | 799 | 1058 | 1318 | 1578 | 2095 | 2628 | 3161 |
| | 75/65/20 °C | 160 | 395 | 630 | 835 | 1040 | 1245 | 1653 | 2073 | 2494 |
| | 70/55/20 °C | 130 | 320 | 510 | 676 | 842 | 1008 | 1338 | 1679 | 2019 |
| | 55/45/20 °C | 82 | 203 | 324 | 430 | 535 | 641 | 851 | 1067 | 1284 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 90/70/20 °C | 266 | 559 | 911 | 1240 | 1568 | 1919 | 2612 | 3292 | 3906 |
| | 75/65/20 °C | 210 | 441 | 719 | 978 | 1237 | 1514 | 2061 | 2597 | 3082 |
| | 70/55/20 °C | 170 | 357 | 582 | 792 | 1001 | 1226 | 1668 | 2102 | 2495 |
| | 55/45/20 °C | 108 | 227 | 370 | 503 | 637 | 779 | 1061 | 1337 | 1586 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 90/70/20 °C | 294 | 587 | 939 | 1260 | 1636 | 2046 | 2721 | 3366 | 3991 |
| | 75/65/20 °C | 232 | 463 | 741 | 994 | 1291 | 1614 | 2147 | 2656 | 3149 |
| | 70/55/20 °C | 188 | 375 | 600 | 805 | 1045 | 1307 | 1738 | 2150 | 2549 |
| | 55/45/20 °C | 119 | 238 | 381 | 512 | 665 | 831 | 1105 | 1367 | 1621 |

Note: Temperature exponent n=1,3
Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FA1-F | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|---|---------------|-----|------|------|------|------|------|------|------|------|
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | Weight [kg] | 2,3 | 5 | 7,8 | 10,5 | 13,2 | 15,9 | 18,6 | 21,3 | 24 |
| | Volume [l] | 0,3 | 0,7 | 1 | 1,3 | 1,6 | 1,9 | 2,5 | 3,1 | 3,7 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | Weight [kg] | 4,6 | 9,1 | 13,7 | 18,2 | 22,7 | 27,2 | 31,7 | 40,7 | 49,6 |
| | Volume [l] | 1,1 | 2,1 | 3,1 | 4,1 | 5,1 | 6,2 | 8,2 | 10,3 | 12,3 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | Weight [kg] | 5,4 | 10,7 | 16,1 | 21,5 | 26,9 | 32,3 | 37,7 | 46,7 | 56,9 |
| | Volume [l] | 2 | 3,9 | 5,8 | 7,7 | 9,7 | 11,6 | 15,4 | 19,3 | 23,1 |

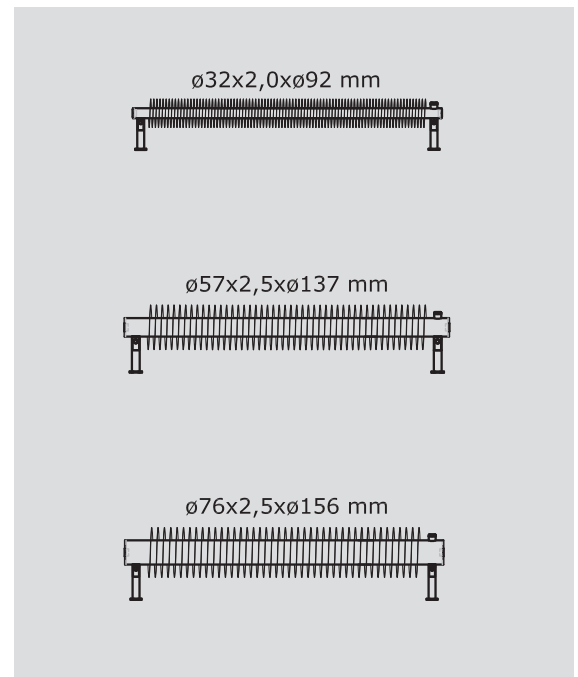
Note: Radiator weight without heating fluid

CODE EXAMPLE

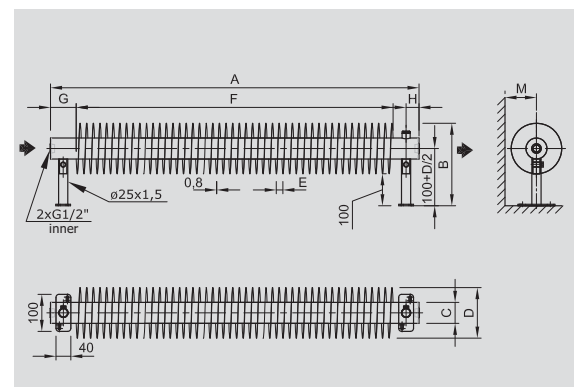
| | | | | | |
|-----------|-------------------------|----------------------------|-------------|--------------|-------------|
| ZFA-1 | 57 | 137 | 100 | F | 01 |
| LOFT type | \varnothing tube [mm] | \varnothing winding [mm] | length [cm] | on the floor | colour code |

Ordering, see the page 22

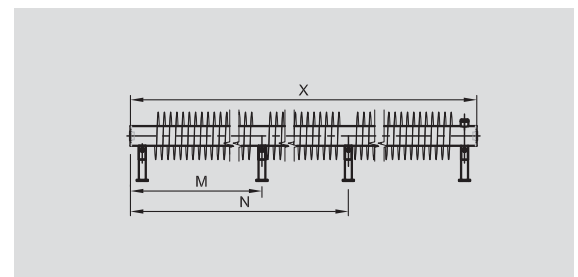
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FA1-F ($\varnothing 32$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

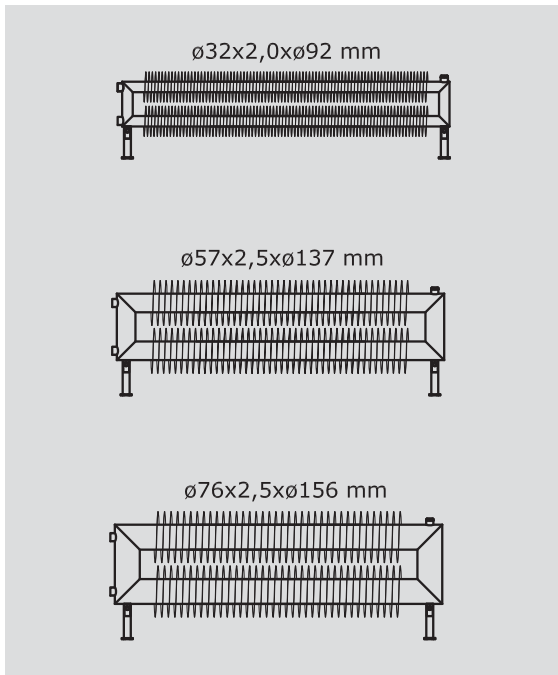
FA1-F ($\varnothing 57$ mm a $\varnothing 76$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

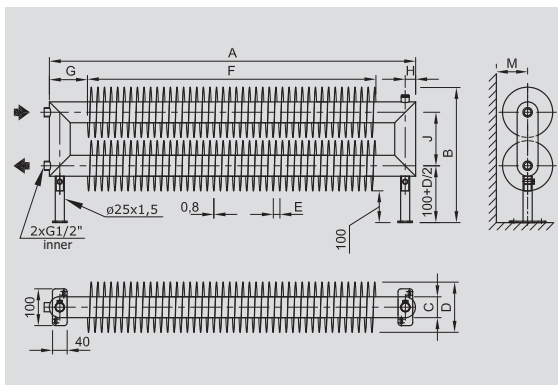




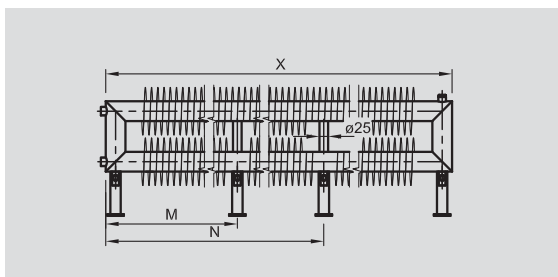
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAT2-F (ø 32 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

FAT2-F (ø 57 mm a ø 76 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

TECHNICAL INFORMATION

| | | |
|--------------------------------|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" ø 32 × 2,0 × ø 92 mm, lead of spiral 10 mm ø 57 × 2,5 × ø 137 mm, lead of spiral 18 mm ø 76 × 2,5 × ø 156 mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm-6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| | The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAT2-F | Dimensions [mm] | | | | | | | | | | | | |
|-----------------------|-----------------|-----|----|-----|----|-------|-----|----|---|-----|---|---|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| ø 32 × 2,0 × ø 92 mm | 500-6000 | 297 | 32 | 92 | 10 | A-130 | 65 | 16 | - | 103 | - | - | ≥60 |
| ø 57 × 2,5 × ø 137 mm | 500-6000 | 383 | 57 | 137 | 18 | A-220 | 110 | 28 | - | 146 | - | - | ≥85 |
| ø 76 × 2,5 × ø 156 mm | 500-6000 | 422 | 76 | 156 | 20 | A-240 | 120 | 38 | - | 166 | - | - | ≥95 |

Note: ø 32×2,0×ø92 [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FAT2-F | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|-------------------|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| ø 32×2,0×ø 92 mm | 90/70/20 °C | 361 | 887 | 1420 | 1882 | 2345 | 2769 | 3725 | 4672 | 5618 |
| | 75/65/20 °C | 285 | 700 | 1120 | 1485 | 1850 | 2185 | 2939 | 3686 | 4433 |
| | 70/55/20 °C | 231 | 567 | 907 | 1202 | 1498 | 1769 | 2379 | 2984 | 3589 |
| | 55/45/20 °C | 147 | 360 | 577 | 764 | 952 | 1125 | 1513 | 1897 | 2282 |
| ø 57×2,5×ø 137 mm | 90/70/20 °C | 385 | 965 | 1527 | 2178 | 2769 | 3377 | 4586 | 5775 | 6848 |
| | 75/65/20 °C | 304 | 761 | 1205 | 1718 | 2185 | 2664 | 3618 | 4556 | 5403 |
| | 70/55/20 °C | 246 | 616 | 976 | 1391 | 1769 | 2157 | 2929 | 3688 | 4374 |
| | 55/45/20 °C | 156 | 392 | 620 | 884 | 1125 | 1371 | 1862 | 2345 | 2781 |
| ø 76×2,5×ø 156 mm | 90/70/20 °C | 403 | 1003 | 1589 | 2235 | 2840 | 3422 | 4626 | 5846 | 6960 |
| | 75/65/20 °C | 318 | 791 | 1254 | 1763 | 2241 | 2700 | 3650 | 4612 | 5491 |
| | 70/55/20 °C | 257 | 640 | 1015 | 1427 | 1814 | 2186 | 2955 | 3734 | 4445 |
| | 55/45/20 °C | 164 | 407 | 645 | 908 | 1154 | 1390 | 1879 | 2374 | 2826 |

Note: Temperature exponent n=1,3

Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FAT2-F | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|-------------------|---------------|------|------|------|------|------|------|------|-------|-------|
| ø 32×2,0×ø 92 mm | Weight [kg] | 4,9 | 10,5 | 15,9 | 21,3 | 26,9 | 32,5 | 43,7 | 54,9 | 66,1 |
| | Volume [l] | 0,7 | 1,4 | 2 | 2,6 | 3,2 | 3,8 | 5,1 | 6,3 | 7,5 |
| ø 57×2,5×ø 137 mm | Weight [kg] | 9,5 | 19,8 | 29,2 | 40,3 | 50,0 | 59,8 | 80,3 | 100,9 | 121,2 |
| | Volume [l] | 2,4 | 4,5 | 6,5 | 8,6 | 10,6 | 12,7 | 16,7 | 20,8 | 24,9 |
| ø 76×2,5×ø 156 mm | Weight [kg] | 11,5 | 22,9 | 34,3 | 45,6 | 56,9 | 68,2 | 90,8 | 113,4 | 136 |
| | Volume [l] | 4,6 | 8,4 | 12,3 | 16,1 | 20 | 23,8 | 31,5 | 39,2 | 46,9 |

Note: Radiator weight without heating fluid

CODE EXAMPLE

| ZFAT2 | 57 | 137 | 100 | F | 01 |
|-----------|-------------|----------------|-------------|--------------|-------------|
| LOFT type | ø tube [mm] | ø winding [mm] | length [cm] | on the floor | colour code |

Ordering, see the page 22





TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" $\varnothing 32 \times 2,0 \times \varnothing 92$ mm, lead of spiral 10 mm $\varnothing 57 \times 2,5 \times \varnothing 137$ mm, lead of spiral 18 mm $\varnothing 76 \times 2,5 \times \varnothing 156$ mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm - 6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAT3-F | Dimensions [mm] | | | | | | | | | | | | |
|---|-----------------|-----|----|-----|----|-------|-----|----|---|-----|---|---|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 500-6000 | 402 | 32 | 92 | 10 | A-130 | 65 | 16 | - | 105 | - | - | ≥60 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 500-6000 | 529 | 57 | 137 | 18 | A-220 | 110 | 28 | - | 146 | - | - | ≥85 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 500-6000 | 588 | 76 | 156 | 20 | A-240 | 120 | 38 | - | 166 | - | - | ≥95 |

Note: $\varnothing 32 \times 2,0 \times \varnothing 92$ [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FAT3-F | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|---|----------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 90/70/20 °C | 539 | 1331 | 2129 | 2820 | 3511 | 4151 | 5581 | 7001 | 8420 |
| | 75/65/20 °C | 425 | 1050 | 1680 | 2225 | 2770 | 3275 | 4404 | 5523 | 6643 |
| | 70/55/20 °C | 344 | 850 | 1360 | 1801 | 2242 | 2651 | 3565 | 4471 | 5378 |
| | 55/45/20 °C | 219 | 540 | 865 | 1145 | 1426 | 1686 | 2267 | 2843 | 3419 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 90/70/20 °C | 584 | 1483 | 2382 | 3318 | 4171 | 5133 | 6990 | 8841 | 10449 |
| | 75/65/20 °C | 461 | 1170 | 1879 | 2618 | 3291 | 4050 | 5515 | 6975 | 8244 |
| | 70/55/20 °C | 373 | 947 | 1521 | 2119 | 2664 | 3279 | 4465 | 5647 | 6674 |
| | 55/45/20 °C | 237 | 602 | 967 | 1348 | 1694 | 2085 | 2839 | 3590 | 4244 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 90/70/20 °C | 607 | 1503 | 2399 | 3351 | 4265 | 5185 | 7066 | 9023 | 10567 |
| | 75/65/20 °C | 479 | 1186 | 1893 | 2644 | 3365 | 4091 | 5575 | 7119 | 8337 |
| | 70/55/20 °C | 388 | 960 | 1532 | 2140 | 2724 | 3312 | 4513 | 5763 | 6749 |
| | 55/45/20 °C | 247 | 610 | 974 | 1361 | 1732 | 2106 | 2870 | 3665 | 4291 |

Note: Temperature exponent n=1,3
Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FAT3-F | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|---|---------------|------|------|------|------|------|-------|-------|-------|-------|
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | Weight [kg] | 7,2 | 15,5 | 23,7 | 31,8 | 39,9 | 48 | 65,8 | 83,6 | 101,4 |
| | Volume [l] | 1,1 | 2,1 | 3 | 3,9 | 4,8 | 5,8 | 7,6 | 9,5 | 11,3 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | Weight [kg] | 14,9 | 28,9 | 44,9 | 66,8 | 75,8 | 90,8 | 120,9 | 150,9 | 180,9 |
| | Volume [l] | 3,7 | 6,8 | 9,9 | 13 | 16 | 19,1 | 25,2 | 31,3 | 37,5 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | Weight [kg] | 19,2 | 36,9 | 53,5 | 70,5 | 87,6 | 104,8 | 135,8 | 170,7 | 205,5 |
| | Volume [l] | 7,2 | 13,0 | 18,8 | 24,5 | 30,3 | 36 | 47,6 | 59,2 | 70,7 |

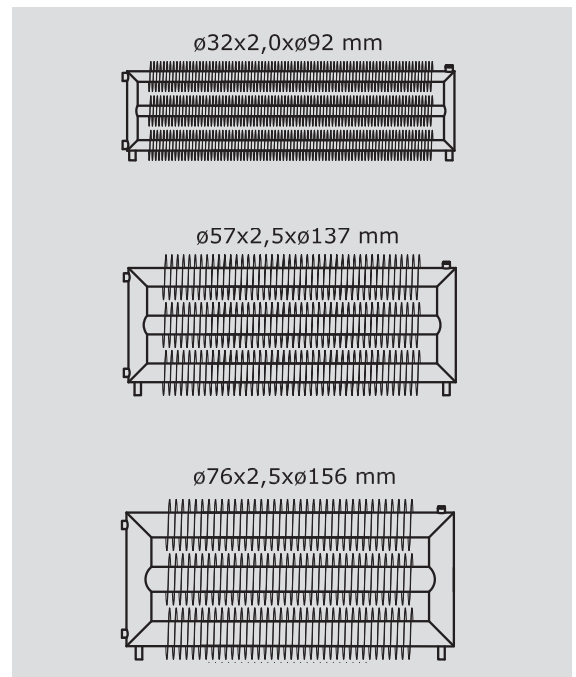
Note: Radiator weight without heating fluid

CODE EXAMPLE

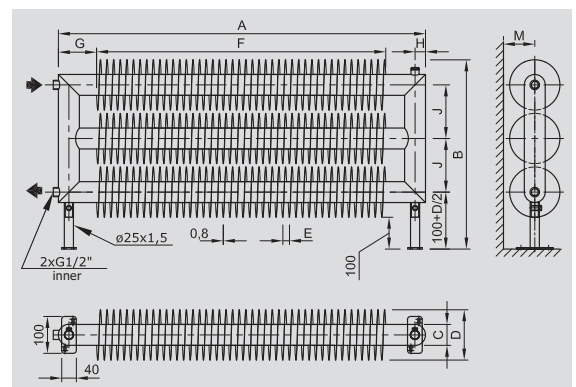
| | | | | | |
|-----------|-------------------------|----------------------------|-------------|--------------|-------------|
| ZFAT3 | 57 | 137 | 100 | F | 01 |
| LOFT type | \varnothing tube [mm] | \varnothing winding [mm] | length [cm] | on the floor | colour code |

Ordering, see the page 22

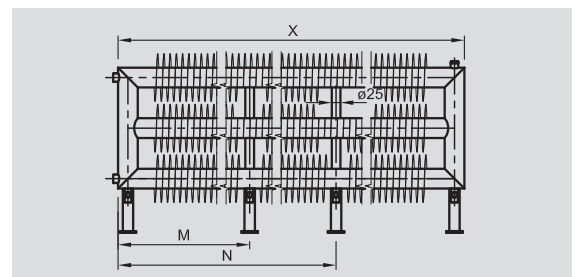
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS

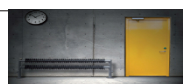


FAT3-F (ø 32 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

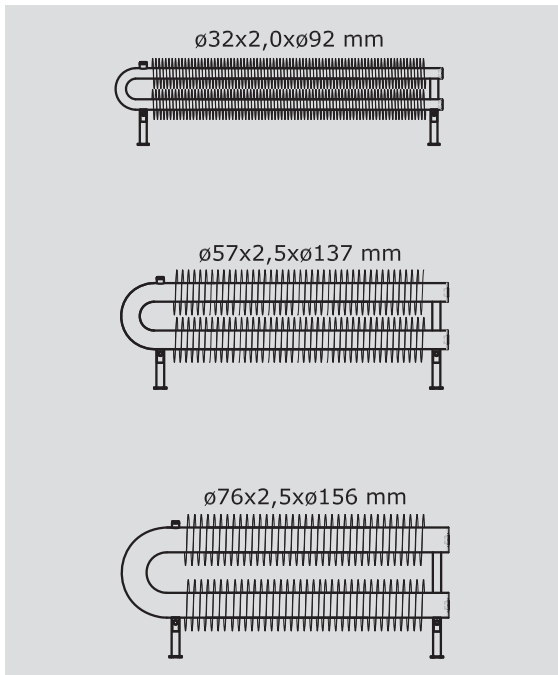
FAT3-F (ø 57 mm a ø 76 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

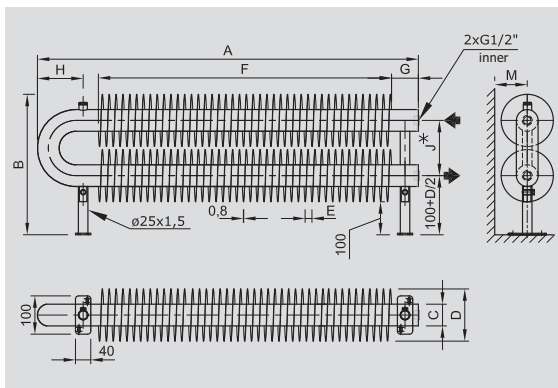




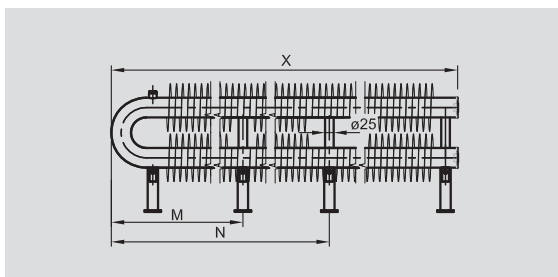
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAO2-F (ø 32 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

FAO2-F (ø 57 mm a ø 76 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" ø 32 × 2,0 × ø 92 mm, lead of spiral 10 mm ø 57 × 2,5 × ø 137 mm, lead of spiral 18 mm ø 76 × 2,5 × ø 156 mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm-6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAO2-F | Dimensions [mm] | | | | | | | | | | | | |
|-----------------------|-----------------|-----|----|-----|----|-------|----|-----|---|------------|---|---|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| ø 32 × 2,0 × ø 92 mm | 500-6000 | 287 | 32 | 92 | 10 | A-160 | 50 | 85 | - | 95 | - | - | ≥60 |
| ø 57 × 2,5 × ø 137 mm | 500-6000 | 382 | 57 | 137 | 18 | A-230 | 70 | 120 | - | 145 (175*) | - | - | ≥85 |
| ø 76 × 2,5 × ø 156 mm | 500-6000 | 456 | 76 | 156 | 20 | A-260 | 70 | 165 | - | 200 (195*) | - | - | ≥95 |

Note: ø 32 × 2,0 × ø 92 [mm] - diameter of tube × thickness × diameter of winding [mm]
* Dimensions valid for stainless steel design

HEATING OUTPUTS

| FAO2-F | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|-------------------|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| ø 32×2,0×ø 92 mm | 90/70/20 °C | 361 | 887 | 1420 | 1882 | 2345 | 2769 | 3725 | 4672 | 5618 |
| | 75/65/20 °C | 285 | 700 | 1120 | 1485 | 1850 | 2185 | 2939 | 3686 | 4433 |
| | 70/55/20 °C | 231 | 567 | 907 | 1202 | 1498 | 1769 | 2379 | 2984 | 3589 |
| | 55/45/20 °C | 147 | 360 | 577 | 764 | 952 | 1125 | 1513 | 1897 | 2282 |
| ø 57×2,5×ø 137 mm | 90/70/20 °C | 385 | 965 | 1527 | 2178 | 2769 | 3377 | 4586 | 5775 | 6848 |
| | 75/65/20 °C | 304 | 761 | 1205 | 1718 | 2185 | 2664 | 3618 | 4556 | 5403 |
| | 70/55/20 °C | 246 | 616 | 976 | 1391 | 1769 | 2157 | 2929 | 3688 | 4374 |
| | 55/45/20 °C | 156 | 392 | 620 | 884 | 1125 | 1371 | 1862 | 2345 | 2781 |
| ø 76×2,5×ø 156 mm | 90/70/20 °C | 403 | 1003 | 1589 | 2235 | 2840 | 3422 | 4626 | 5846 | 6960 |
| | 75/65/20 °C | 318 | 791 | 1254 | 1763 | 2241 | 2700 | 3650 | 4612 | 5491 |
| | 70/55/20 °C | 257 | 640 | 1015 | 1427 | 1814 | 2186 | 2955 | 3734 | 4445 |
| | 55/45/20 °C | 164 | 407 | 645 | 908 | 1154 | 1390 | 1879 | 2374 | 2826 |

Note: Temperature exponent n=1,3
Hot-dip galvanized surface treatment reduces heating output by ~ 10 %, stainless steel by ~ 35 %.

VOLUME OF WATER AND WEIGHT

| FAO2-F | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|-------------------|---------------|------|------|------|------|------|------|------|-------|-------|
| ø 32×2,0×ø 92 mm | Weight [kg] | 4,7 | 10,2 | 15,6 | 21,1 | 27,2 | 32,8 | 44,1 | 55,2 | 66,3 |
| | Volume [l] | 0,6 | 1,3 | 1,9 | 2,5 | 3,1 | 3,71 | 4,9 | 6,2 | 7,4 |
| ø 57×2,5×ø 137 mm | Weight [kg] | 9,2 | 19,5 | 29,7 | 40,0 | 49,7 | 59,5 | 80,0 | 100,5 | 120,9 |
| | Volume [l] | 2,1 | 4,1 | 6,2 | 8,2 | 10,3 | 12,3 | 16,4 | 20,5 | 24,6 |
| ø 76×2,5×ø 156 mm | Weight [kg] | 11,3 | 22,6 | 33,8 | 45 | 56,4 | 67,9 | 88,5 | 113,4 | 135 |
| | Volume [l] | 4 | 7,8 | 11,7 | 15,5 | 19,4 | 23,2 | 30,9 | 38,6 | 46,3 |

Note: Radiator weight without heating fluid

CODE EXAMPLE

| ZFAO2 | 57 | 137 | 100 | F | 01 |
|-----------|-------------|----------------|-------------|--------------|-------------|
| LOFT type | ø tube [mm] | ø winding [mm] | length [cm] | on the floor | colour code |

Ordering, see the page 22





TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" $\varnothing 32 \times 2,0 \times \varnothing 92$ mm, lead of spiral 10 mm $\varnothing 57 \times 2,5 \times \varnothing 137$ mm, lead of spiral 18 mm $\varnothing 76 \times 2,5 \times \varnothing 156$ mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm - 6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAO3-F | Dimensions [mm] | | | | | | | | | | | | |
|---|-----------------|-----|----|-----|----|-------|-----|-----|---|------------|---|---|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 500-6000 | 382 | 32 | 92 | 10 | A-220 | 110 | 85 | - | 190 | - | - | ≥60 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 500-6000 | 527 | 57 | 137 | 18 | A-300 | 150 | 120 | - | 290 (350*) | - | - | ≥85 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 500-6000 | 656 | 76 | 156 | 20 | A-380 | 190 | 165 | - | 400 (390*) | - | - | ≥95 |

Note: $\varnothing 32 \times 2,0 \times \varnothing 92$ [mm] - diameter of tube × thickness × diameter of winding [mm]
 * Dimensions valid for stainless steel design

HEATING OUTPUTS

| FAO3-F | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|---|----------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 90/70/20 °C | 539 | 1331 | 2129 | 2820 | 3511 | 4151 | 5581 | 7001 | 8420 |
| | 75/65/20 °C | 425 | 1050 | 1680 | 2225 | 2770 | 3275 | 4404 | 5523 | 6643 |
| | 70/55/20 °C | 344 | 850 | 1360 | 1801 | 2242 | 2651 | 3565 | 4471 | 5378 |
| | 55/45/20 °C | 219 | 540 | 865 | 1145 | 1426 | 1686 | 2267 | 2843 | 3419 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 90/70/20 °C | 584 | 1483 | 2382 | 3318 | 4171 | 5133 | 6990 | 8841 | 10449 |
| | 75/65/20 °C | 461 | 1170 | 1879 | 2618 | 3291 | 4050 | 5515 | 6975 | 8244 |
| | 70/55/20 °C | 373 | 947 | 1521 | 2119 | 2664 | 3279 | 4465 | 5647 | 6674 |
| | 55/45/20 °C | 237 | 602 | 967 | 1348 | 1694 | 2085 | 2839 | 3590 | 4244 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 90/70/20 °C | 607 | 1503 | 2399 | 3351 | 4265 | 5185 | 7066 | 9023 | 10567 |
| | 75/65/20 °C | 479 | 1186 | 1893 | 2644 | 3365 | 4091 | 5575 | 7119 | 8337 |
| | 70/55/20 °C | 388 | 960 | 1532 | 2140 | 2724 | 3312 | 4513 | 5763 | 6749 |
| | 55/45/20 °C | 247 | 610 | 974 | 1361 | 1732 | 2106 | 2870 | 3665 | 4291 |

Note: Temperature exponent n=1,3
 Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FAO3-F | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|---|---------------|------|------|------|------|------|-------|-------|-------|-------|
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | Weight [kg] | 7 | 15,2 | 23,4 | 31,5 | 39,6 | 47,7 | 65,5 | 83,3 | 101,1 |
| | Volume [l] | 1,0 | 1,9 | 2,8 | 3,8 | 4,7 | 5,6 | 7,5 | 9,3 | 11,2 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | Weight [kg] | 14,0 | 28,0 | 44,0 | 60,0 | 75,0 | 90,0 | 120,0 | 150,0 | 180,0 |
| | Volume [l] | 3,4 | 6,4 | 9,5 | 12,6 | 15,6 | 18,7 | 24,8 | 31,0 | 37,1 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | Weight [kg] | 17,1 | 32,6 | 49,6 | 66,5 | 83,3 | 100,1 | 130,0 | 167 | 197,6 |
| | Volume [l] | 6,6 | 12,4 | 18,1 | 23,9 | 29,7 | 35,5 | 47,0 | 58,6 | 70,1 |

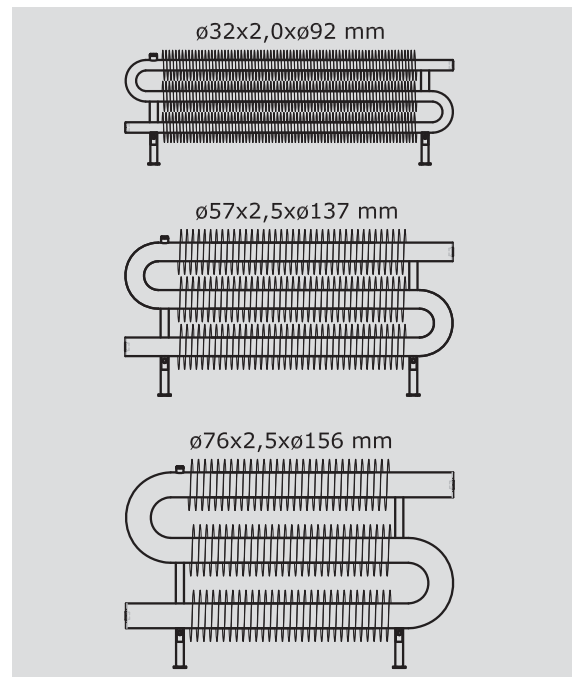
Note: Radiator weight without heating fluid

CODE EXAMPLE

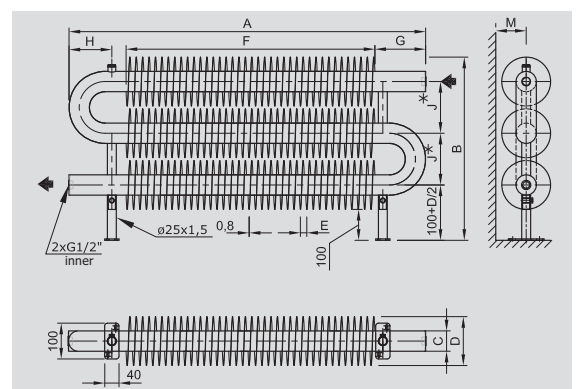
| ZFAO3 | 57 | 137 | 100 | F | 01 |
|-----------|-------------------------|----------------------------|-------------|--------------|-------------|
| LOFT type | \varnothing tube [mm] | \varnothing winding [mm] | length [cm] | on the floor | colour code |

Ordering, see the page 22

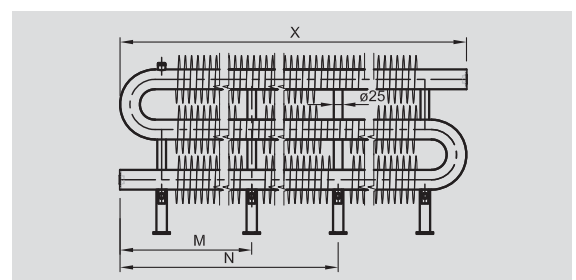
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAO3-F ($\varnothing 32$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

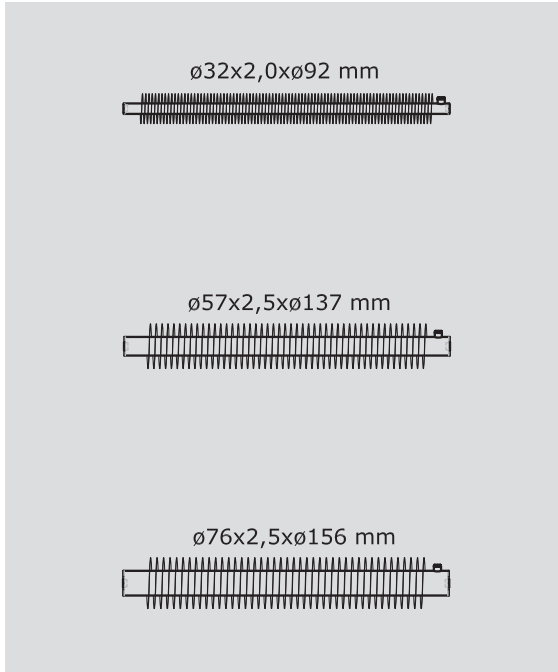
FAO3-F ($\varnothing 57$ mm a $\varnothing 76$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

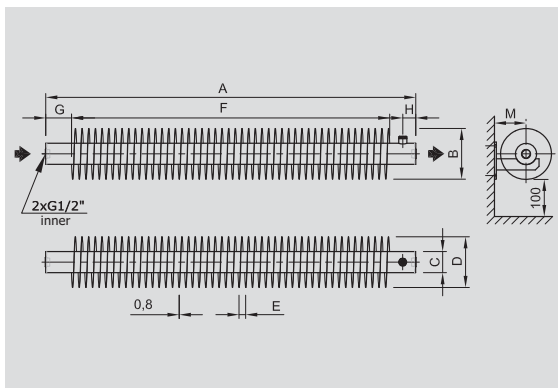




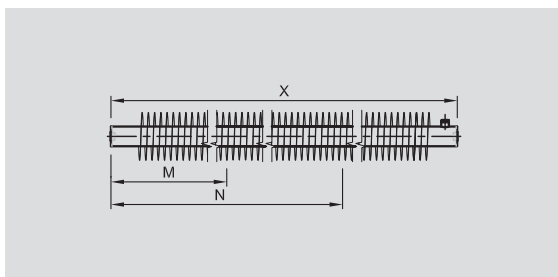
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FA1-W (ø 32 mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

FA1-W (ø 57 mm a ø 76 mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

TECHNICAL INFORMATION

| | | |
|--------------------------------|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" ø 32 × 2,0 × ø 92 mm, lead of spiral 10 mm ø 57 × 2,5 × ø 137 mm, lead of spiral 18 mm ø 76 × 2,5 × ø 156 mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm-6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| | The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| RA1-W | Dimensions [mm] | | | | | | | | | | | | |
|-----------------------|-----------------|---|----|-----|----|-------|----|----|---|---|---|---|----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| ø 32 × 2,0 × ø 92 mm | 500-6000 | D | 32 | 92 | 10 | A-100 | 50 | 25 | - | - | - | - | 60 |
| ø 57 × 2,5 × ø 137 mm | 500-6000 | D | 57 | 137 | 18 | A-140 | 70 | 35 | - | - | - | - | 85 |
| ø 76 × 2,5 × ø 156 mm | 500-6000 | D | 76 | 156 | 20 | A-140 | 70 | 35 | - | - | - | - | 95 |

Note: ø 32 × 2,0 × ø 92 [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FA1-W | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|-------------------|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| ø 32×2,0×ø 92 mm | 90/70/20 °C | 203 | 501 | 799 | 1058 | 1318 | 1578 | 2095 | 2628 | 3161 |
| | 75/65/20 °C | 160 | 395 | 630 | 835 | 1040 | 1245 | 1653 | 2073 | 2494 |
| | 70/55/20 °C | 130 | 320 | 510 | 676 | 842 | 1008 | 1338 | 1679 | 2019 |
| | 55/45/20 °C | 82 | 203 | 324 | 430 | 535 | 641 | 851 | 1067 | 1284 |
| ø 57×2,5×ø 137 mm | 90/70/20 °C | 266 | 559 | 911 | 1240 | 1568 | 1919 | 2612 | 3292 | 3906 |
| | 75/65/20 °C | 210 | 441 | 719 | 978 | 1237 | 1514 | 2061 | 2597 | 3082 |
| | 70/55/20 °C | 170 | 357 | 582 | 792 | 1001 | 1226 | 1668 | 2102 | 2495 |
| | 55/45/20 °C | 108 | 227 | 370 | 503 | 637 | 779 | 1061 | 1337 | 1586 |
| ø 76×2,5×ø 156 mm | 90/70/20 °C | 294 | 587 | 939 | 1260 | 1636 | 2046 | 2721 | 3366 | 3991 |
| | 75/65/20 °C | 232 | 463 | 741 | 994 | 1291 | 1614 | 2147 | 2656 | 3149 |
| | 70/55/20 °C | 188 | 375 | 600 | 805 | 1045 | 1307 | 1738 | 2150 | 2549 |
| | 55/45/20 °C | 119 | 238 | 381 | 512 | 665 | 831 | 1105 | 1367 | 1621 |

Note: Temperature exponent n=1,3

Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

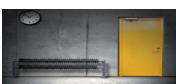
| FA1-W | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|-------------------|---------------|-----|------|------|------|------|------|------|------|------|
| ø 32×2,0×ø 92 mm | Weight [kg] | 2,3 | 5 | 7,8 | 10,5 | 13,2 | 15,9 | 18,6 | 21,3 | 24 |
| | Volume [l] | 0,3 | 0,7 | 1 | 1,3 | 1,6 | 1,9 | 2,5 | 3,1 | 3,7 |
| ø 57×2,5×ø 137 mm | Weight [kg] | 4,6 | 9,1 | 13,7 | 18,2 | 22,7 | 27,2 | 31,7 | 40,7 | 49,6 |
| | Volume [l] | 1,1 | 2,1 | 3,1 | 4,1 | 5,1 | 6,2 | 8,2 | 10,3 | 12,3 |
| ø 76×2,5×ø 156 mm | Weight [kg] | 5,4 | 10,7 | 16,1 | 21,5 | 26,9 | 32,3 | 37,7 | 46,7 | 56,9 |
| | Volume [l] | 2 | 3,9 | 5,8 | 7,7 | 9,7 | 11,6 | 15,4 | 19,3 | 23,1 |

Note: Radiator weight without heating fluid

CODE EXAMPLE

| ZFA-1 | 57 | 137 | 100 | W | 01 |
|-----------|-------------|----------------|-------------|-------------|-------------|
| LOFT type | ø tube [mm] | ø winding [mm] | length [cm] | on the wall | colour code |

Ordering, see the page 22





TECHNICAL INFORMATION

| | | |
|--------------------------------|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" $\varnothing 32 \times 2,0 \times \varnothing 92$ mm, lead of spiral 10 mm $\varnothing 57 \times 2,5 \times \varnothing 137$ mm, lead of spiral 18 mm $\varnothing 76 \times 2,5 \times \varnothing 156$ mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm - 6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| | The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| RAT2-W | Dimensions [mm] | | | | | | | | | | | | |
|---|-----------------|-----|----|-----|----|-------|-----|----|---|-----|---|---|----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 500-6000 | 197 | 32 | 92 | 10 | A-130 | 65 | 16 | - | 105 | - | - | 60 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 500-6000 | 283 | 57 | 137 | 18 | A-220 | 110 | 28 | - | 146 | - | - | 85 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 500-6000 | 322 | 76 | 156 | 20 | A-240 | 120 | 38 | - | 166 | - | - | 95 |

Note: $\varnothing 32 \times 2,0 \times \varnothing 92$ [mm] - diameter of tube \times thickness \times diameter of winding [mm]

HEATING OUTPUTS

| FAT2-W | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|---|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 90/70/20 °C | 361 | 887 | 1420 | 1882 | 2345 | 2769 | 3725 | 4672 | 5618 |
| | 75/65/20 °C | 285 | 700 | 1120 | 1485 | 1850 | 2185 | 2939 | 3686 | 4433 |
| | 70/55/20 °C | 231 | 567 | 907 | 1202 | 1498 | 1769 | 2379 | 2984 | 3589 |
| | 55/45/20 °C | 147 | 360 | 577 | 764 | 952 | 1125 | 1513 | 1897 | 2282 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 90/70/20 °C | 385 | 965 | 1527 | 2178 | 2769 | 3377 | 4586 | 5775 | 6848 |
| | 75/65/20 °C | 304 | 761 | 1205 | 1718 | 2185 | 2664 | 3618 | 4556 | 5403 |
| | 70/55/20 °C | 246 | 616 | 976 | 1391 | 1769 | 2157 | 2929 | 3688 | 4374 |
| | 55/45/20 °C | 156 | 392 | 620 | 884 | 1125 | 1371 | 1862 | 2345 | 2781 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 90/70/20 °C | 403 | 1003 | 1589 | 2235 | 2840 | 3422 | 4626 | 5846 | 6960 |
| | 75/65/20 °C | 318 | 791 | 1254 | 1763 | 2241 | 2700 | 3650 | 4612 | 5491 |
| | 70/55/20 °C | 257 | 640 | 1015 | 1427 | 1814 | 2186 | 2955 | 3734 | 4445 |
| | 55/45/20 °C | 164 | 407 | 645 | 908 | 1154 | 1390 | 1879 | 2374 | 2826 |

Note: Temperature exponent $n=1,3$
Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FAT2-W | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|---|---------------|------|------|------|------|------|------|------|-------|-------|
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | Weight [kg] | 4,9 | 10,5 | 15,9 | 21,3 | 26,9 | 32,5 | 43,7 | 54,9 | 66,1 |
| | Volume [l] | 0,7 | 1,4 | 2 | 2,6 | 3,2 | 3,8 | 5,1 | 6,3 | 7,5 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | Weight [kg] | 9,5 | 19,8 | 29,2 | 40,3 | 50,0 | 59,8 | 80,3 | 100,9 | 121,2 |
| | Volume [l] | 2,4 | 4,5 | 6,5 | 8,6 | 10,6 | 12,7 | 16,7 | 20,8 | 24,9 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | Weight [kg] | 11,5 | 22,9 | 34,3 | 45,6 | 56,9 | 68,2 | 90,8 | 113,4 | 136 |
| | Volume [l] | 4,6 | 8,4 | 12,3 | 16,1 | 20 | 23,8 | 31,5 | 39,2 | 46,9 |

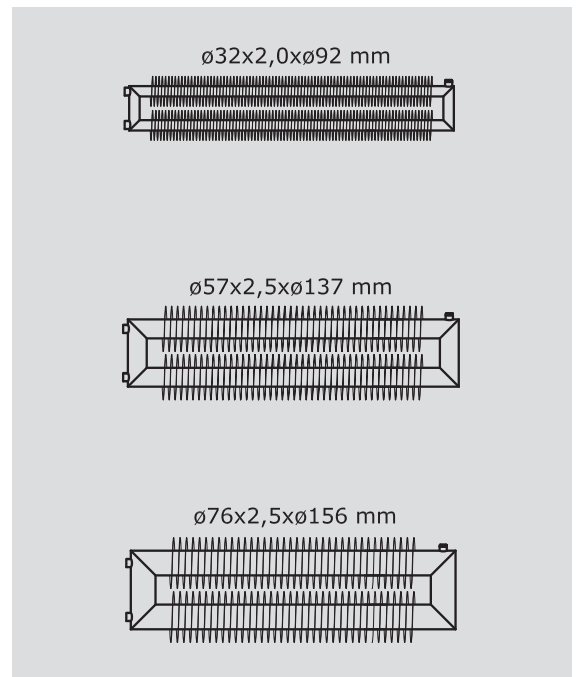
Note: Radiator weight without heating fluid

CODE EXAMPLE

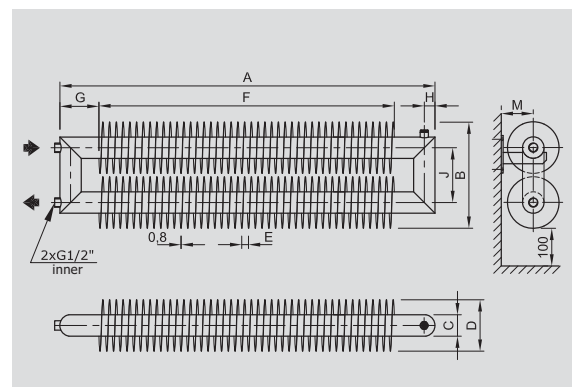
| | | | | | |
|-----------|-------------------------|----------------------------|-------------|-------------|-------------|
| ZFAT2 | 57 | 137 | 100 | W | 01 |
| LOFT type | \varnothing tube [mm] | \varnothing winding [mm] | length [cm] | on the wall | colour code |

Ordering, see the page 22

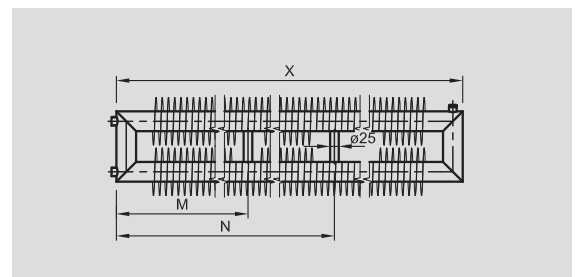
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS

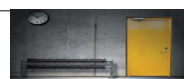


FAT2-W ($\varnothing 32$ mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

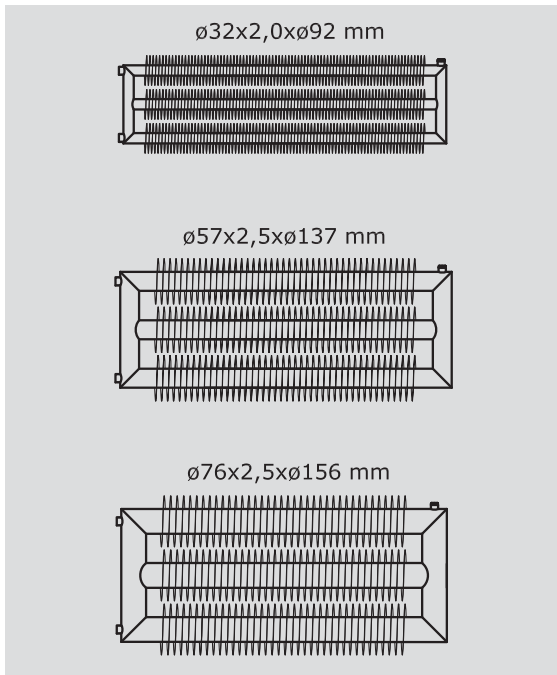
FAT2-W ($\varnothing 57$ mm a $\varnothing 76$ mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

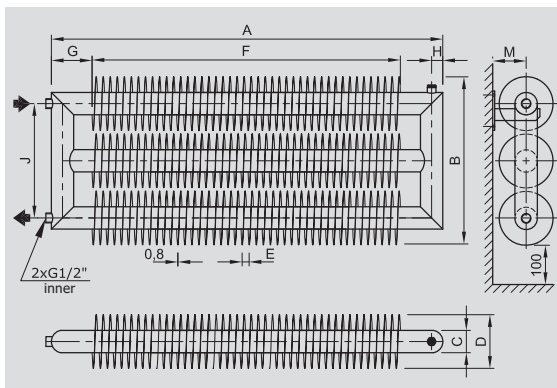




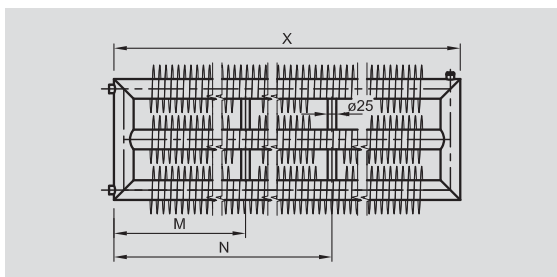
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAT3-W (ø 32 mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

FAT3-W (ø 57 mm a ø 76 mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" ø 32 × 2,0 × ø 92 mm, lead of spiral 10 mm ø 57 × 2,5 × ø 137 mm, lead of spiral 18 mm ø 76 × 2,5 × ø 156 mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm-6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAT3-W | Dimensions [mm] | | | | | | | | | | | | |
|-----------------------|-----------------|-----|----|-----|----|-------|-----|----|---|-----|---|---|----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| ø 32 × 2,0 × ø 92 mm | 500-6000 | 302 | 32 | 92 | 10 | A-130 | 65 | 16 | - | 208 | - | - | 60 |
| ø 57 × 2,5 × ø 137 mm | 500-6000 | 429 | 57 | 137 | 18 | A-220 | 110 | 28 | - | 292 | - | - | 85 |
| ø 76 × 2,5 × ø 156 mm | 500-6000 | 488 | 76 | 156 | 20 | A-240 | 120 | 38 | - | 332 | - | - | 95 |

Note: ø 32 × 2,0 × ø 92 [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FAT3-W | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|-------------------|----------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| ø 32×2,0×ø 92 mm | 90/70/20 °C | 539 | 1331 | 2129 | 2820 | 3511 | 4151 | 5581 | 7001 | 8420 |
| | 75/65/20 °C | 425 | 1050 | 1680 | 2225 | 2770 | 3275 | 4404 | 5523 | 6643 |
| | 70/55/20 °C | 344 | 850 | 1360 | 1801 | 2242 | 2651 | 3565 | 4471 | 5378 |
| | 55/45/20 °C | 219 | 540 | 865 | 1145 | 1426 | 1686 | 2267 | 2843 | 3419 |
| ø 57×2,5×ø 137 mm | 90/70/20 °C | 584 | 1483 | 2382 | 3318 | 4171 | 5133 | 6990 | 8841 | 10449 |
| | 75/65/20 °C | 461 | 1170 | 1879 | 2618 | 3291 | 4050 | 5515 | 6975 | 8244 |
| | 70/55/20 °C | 373 | 947 | 1521 | 2119 | 2664 | 3279 | 4465 | 5647 | 6674 |
| | 55/45/20 °C | 237 | 602 | 967 | 1348 | 1694 | 2085 | 2839 | 3590 | 4244 |
| ø 76×2,5×ø 156 mm | 90/70/20 °C | 607 | 1503 | 2399 | 3351 | 4265 | 5185 | 7066 | 9023 | 10567 |
| | 75/65/20 °C | 479 | 1186 | 1893 | 2644 | 3365 | 4091 | 5575 | 7119 | 8337 |
| | 70/55/20 °C | 388 | 960 | 1532 | 2140 | 2724 | 3312 | 4513 | 5763 | 6749 |
| | 55/45/20 °C | 247 | 610 | 974 | 1361 | 1732 | 2106 | 2870 | 3665 | 4291 |

Note: Temperature exponent n=1,3

Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

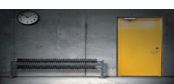
| FAT3-W | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|-------------------|---------------|------|------|------|------|------|-------|-------|-------|-------|
| ø 32×2,0×ø 92 mm | Weight [kg] | 7,2 | 15,5 | 23,7 | 31,8 | 39,9 | 48 | 65,8 | 83,6 | 101,4 |
| | Volume [l] | 1,1 | 2,1 | 3 | 3,9 | 4,8 | 5,8 | 7,6 | 9,5 | 11,3 |
| ø 57×2,5×ø 137 mm | Weight [kg] | 14,9 | 28,9 | 44,9 | 66,8 | 75,8 | 90,8 | 120,9 | 150,9 | 180,9 |
| | Volume [l] | 3,7 | 6,8 | 9,9 | 13 | 16 | 19,1 | 25,2 | 31,3 | 37,5 |
| ø 76×2,5×ø 156 mm | Weight [kg] | 19,2 | 36,9 | 53,5 | 70,5 | 87,6 | 104,8 | 135,8 | 170,7 | 205,5 |
| | Volume [l] | 7,2 | 13,0 | 18,8 | 24,5 | 30,3 | 36 | 47,6 | 59,2 | 70,7 |

Note: Radiator weight without heating fluid

CODE EXAMPLE

| ZRAT3 | 57 | 137 | 100 | W | 01 |
|-----------|-------------|----------------|-------------|-------------|-------------|
| LOFT type | ø tube [mm] | ø winding [mm] | length [cm] | on the wall | colour code |

Ordering, see the page 22





TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" $\varnothing 32 \times 2,0 \times \varnothing 92$ mm, lead of spiral 10 mm $\varnothing 57 \times 2,5 \times \varnothing 137$ mm, lead of spiral 18 mm $\varnothing 76 \times 2,5 \times \varnothing 156$ mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm - 6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAO2-W | Dimensions [mm] | | | | | | | | | | | | |
|---|-----------------|-----|----|-----|----|-------|----|-----|---|------------|---|---|----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 500-6000 | 187 | 32 | 92 | 10 | A-160 | 50 | 85 | - | 95 | - | - | 60 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 500-6000 | 282 | 57 | 137 | 18 | A-230 | 70 | 120 | - | 145 (175*) | - | - | 85 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 500-6000 | 356 | 76 | 156 | 20 | A-260 | 70 | 165 | - | 200 (195*) | - | - | 95 |

Note: $\varnothing 32 \times 2,0 \times \varnothing 92$ [mm] - diameter of tube \times thickness \times diameter of winding [mm]
 * Dimensions valid for stainless steel design

HEATING OUTPUTS

| FAO2-W | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|---|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 90/70/20 °C | 361 | 887 | 1420 | 1882 | 2345 | 2769 | 3725 | 4672 | 5618 |
| | 75/65/20 °C | 285 | 700 | 1120 | 1485 | 1850 | 2185 | 2939 | 3686 | 4433 |
| | 70/55/20 °C | 231 | 567 | 907 | 1202 | 1498 | 1769 | 2379 | 2984 | 3589 |
| | 55/45/20 °C | 147 | 360 | 577 | 764 | 952 | 1125 | 1513 | 1897 | 2282 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 90/70/20 °C | 385 | 965 | 1527 | 2178 | 2769 | 3377 | 4586 | 5775 | 6848 |
| | 75/65/20 °C | 304 | 761 | 1205 | 1718 | 2185 | 2664 | 3618 | 4556 | 5403 |
| | 70/55/20 °C | 246 | 616 | 976 | 1391 | 1769 | 2157 | 2929 | 3688 | 4374 |
| | 55/45/20 °C | 156 | 392 | 620 | 884 | 1125 | 1371 | 1862 | 2345 | 2781 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 90/70/20 °C | 403 | 1003 | 1589 | 2235 | 2840 | 3422 | 4626 | 5846 | 6960 |
| | 75/65/20 °C | 318 | 791 | 1254 | 1763 | 2241 | 2700 | 3650 | 4612 | 5491 |
| | 70/55/20 °C | 257 | 640 | 1015 | 1427 | 1814 | 2186 | 2955 | 3734 | 4445 |
| | 55/45/20 °C | 164 | 407 | 645 | 908 | 1154 | 1390 | 1879 | 2374 | 2826 |

Note: Temperature exponent $n=1,3$
 Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FAO2-W | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|---|---------------|------|------|------|------|------|------|------|-------|-------|
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | Weight [kg] | 4,7 | 10,2 | 15,6 | 21,1 | 27,2 | 32,8 | 44,1 | 55,2 | 66,3 |
| | Volume [l] | 0,63 | 1,25 | 1,86 | 2,5 | 3,1 | 3,71 | 4,9 | 6,2 | 7,4 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | Weight [kg] | 9,2 | 19,5 | 29,7 | 40,0 | 49,7 | 59,5 | 80,0 | 100,5 | 120,9 |
| | Volume [l] | 2,1 | 4,1 | 6,2 | 8,2 | 10,3 | 12,3 | 16,4 | 20,5 | 24,6 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | Weight [kg] | 11,3 | 22,6 | 33,8 | 45 | 56,4 | 67,9 | 88,5 | 113,4 | 135 |
| | Volume [l] | 4 | 7,8 | 11,7 | 15,5 | 19,4 | 23,2 | 30,9 | 38,6 | 46,3 |

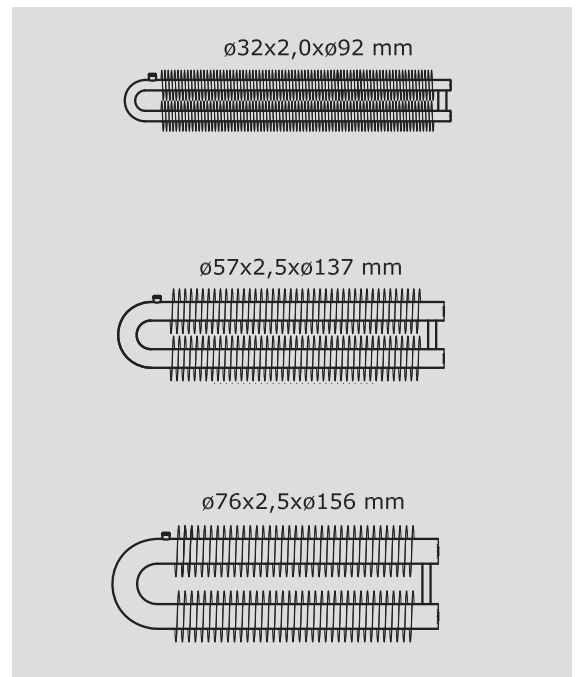
Note: Radiator weight without heating fluid

CODE EXAMPLE

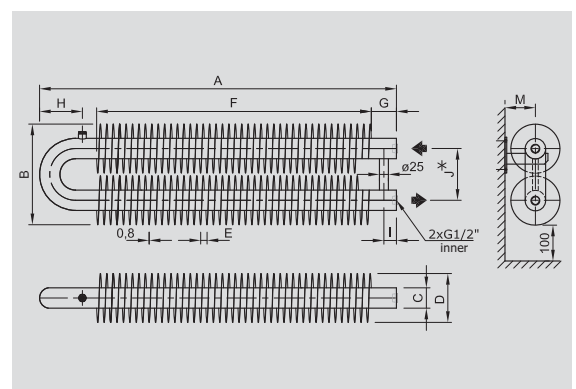
| | | | | | |
|-----------|-------------------------|----------------------------|-------------|-------------|-------------|
| ZFAO2 | 57 | 137 | 100 | W | 01 |
| LOFT type | \varnothing tube [mm] | \varnothing winding [mm] | length [cm] | on the wall | colour code |

Ordering, see the page 22

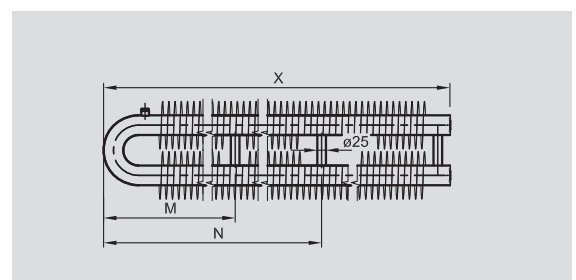
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAO2-W ($\varnothing 32$ mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

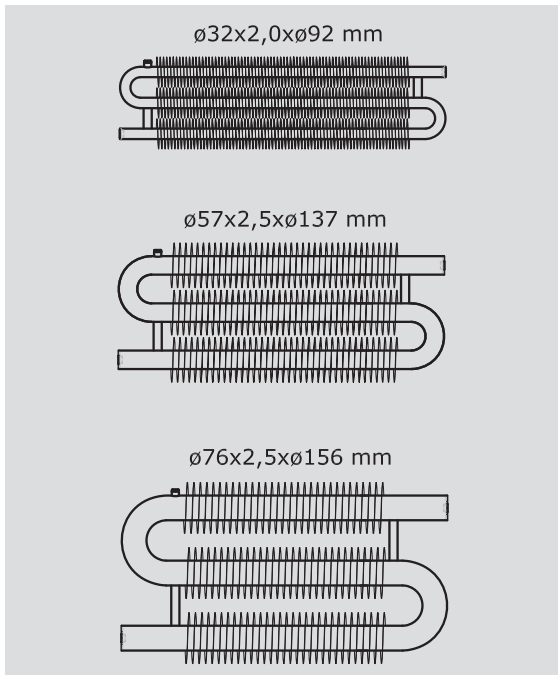
FAO2-W ($\varnothing 57$ mm a $\varnothing 76$ mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

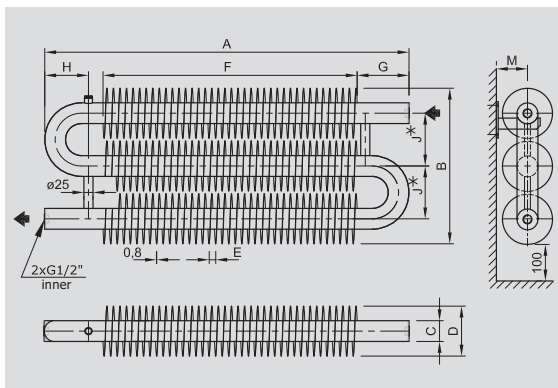




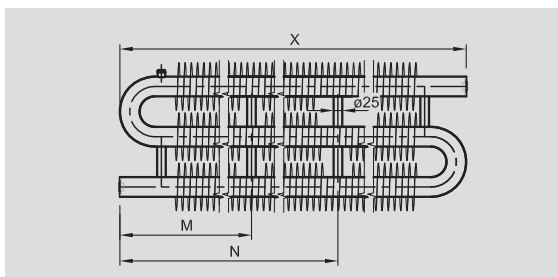
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAO3-W (ø 32 mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

FAO3-W (ø 57 mm a ø 76 mm)

| length of spiral X [mm] | M | N | Number of consoles |
|-------------------------|-------|-------|--------------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" ø 32 × 2,0 × ø 92 mm, lead of spiral 10 mm ø 57 × 2,5 × ø 137 mm, lead of spiral 18 mm ø 76 × 2,5 × ø 156 mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm-6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAO3-W | Dimensions [mm] | | | | | | | | | | | | |
|-----------------------|-----------------|-----|----|-----|----|-------|-----|-----|---|------------|---|---|----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| ø 32 × 2,0 × ø 92 mm | 500-6000 | 282 | 32 | 92 | 10 | A-220 | 110 | 85 | - | 190 | - | - | 60 |
| ø 57 × 2,5 × ø 137 mm | 500-6000 | 427 | 57 | 137 | 18 | A-300 | 150 | 120 | - | 290 (350*) | - | - | 85 |
| ø 76 × 2,5 × ø 156 mm | 500-6000 | 556 | 76 | 156 | 20 | A-380 | 190 | 165 | - | 400 (390*) | - | - | 95 |

Note: ø 32 × 2,0 × ø 92 [mm] - diameter of tube × thickness × diameter of winding [mm]

* Dimensions valid for stainless steel design

HEATING OUTPUTS

| FAO3-W | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|-------------------|----------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| ø 32×2,0×ø 92 mm | 90/70/20 °C | 539 | 1331 | 2129 | 2820 | 3511 | 4151 | 5581 | 7001 | 8420 |
| | 75/65/20 °C | 425 | 1050 | 1680 | 2225 | 2770 | 3275 | 4404 | 5523 | 6643 |
| | 70/55/20 °C | 344 | 850 | 1360 | 1801 | 2242 | 2651 | 3565 | 4471 | 5378 |
| | 55/45/20 °C | 219 | 540 | 865 | 1145 | 1426 | 1686 | 2267 | 2843 | 3419 |
| ø 57×2,5×ø 137 mm | 90/70/20 °C | 584 | 1483 | 2382 | 3318 | 4171 | 5133 | 6990 | 8841 | 10449 |
| | 75/65/20 °C | 461 | 1170 | 1879 | 2618 | 3291 | 4050 | 5515 | 6975 | 8244 |
| | 70/55/20 °C | 373 | 947 | 1521 | 2119 | 2664 | 3279 | 4465 | 5647 | 6674 |
| | 55/45/20 °C | 237 | 602 | 967 | 1348 | 1694 | 2085 | 2839 | 3590 | 4244 |
| ø 76×2,5×ø 156 mm | 90/70/20 °C | 607 | 1503 | 2399 | 3351 | 4265 | 5185 | 7066 | 9023 | 10567 |
| | 75/65/20 °C | 479 | 1186 | 1893 | 2644 | 3365 | 4091 | 5575 | 7119 | 8337 |
| | 70/55/20 °C | 388 | 960 | 1532 | 2140 | 2724 | 3312 | 4513 | 5763 | 6749 |
| | 55/45/20 °C | 247 | 610 | 974 | 1361 | 1732 | 2106 | 2870 | 3665 | 4291 |

Note: Temperature exponent n=1,3

Hot-dip galvanized surface treatment reduces heating output by ~ 10 %, stainless steel by ~ 35 %.

VOLUME OF WATER AND WEIGHT

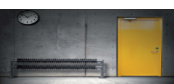
| FAO3-W | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|-------------------|---------------|------|------|------|------|------|-------|-------|-------|-------|
| ø 32×2,0×ø 92 mm | Weight [kg] | 7 | 15,2 | 23,4 | 31,5 | 39,6 | 47,7 | 65,5 | 83,3 | 101,1 |
| | Volume [l] | 1,0 | 1,9 | 2,8 | 3,8 | 4,7 | 5,6 | 7,5 | 9,3 | 11,2 |
| ø 57×2,5×ø 137 mm | Weight [kg] | 14,0 | 28,0 | 44,0 | 60,0 | 75,0 | 90,0 | 120,0 | 150,0 | 180,0 |
| | Volume [l] | 3,4 | 6,4 | 9,5 | 12,6 | 15,6 | 18,7 | 24,8 | 31,0 | 37,1 |
| ø 76×2,5×ø 156 mm | Weight [kg] | 17,1 | 32,6 | 49,6 | 66,5 | 83,8 | 100,1 | 130,0 | 167 | 197,6 |
| | Volume [l] | 6,6 | 12,4 | 18,1 | 23,9 | 29,7 | 35,5 | 47,0 | 58,6 | 70,1 |

Note: Radiator weight without heating fluid

CODE EXAMPLE

| ZFAO3 | 57 | 137 | 100 | W | 01 |
|-----------|-------------|----------------|-------------|-------------|-------------|
| LOFT type | ø tube [mm] | ø winding [mm] | length [cm] | on the wall | colour code |

Ordering, see the page 22





TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" $\varnothing 32 \times 2,0 \times \varnothing 92$ mm, lead of spiral 10 mm $\varnothing 57 \times 2,5 \times \varnothing 137$ mm, lead of spiral 18 mm $\varnothing 76 \times 2,5 \times \varnothing 156$ mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm - 6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FA1 - S | Dimensions [mm] | | | | | | | | | | | | |
|---|-----------------|-----|----|-----|----|-------|-----|----|-----|---|-----|-----|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 500-6000 | 192 | 32 | 92 | 10 | A-130 | 65 | 16 | 146 | - | 76 | 56 | ≥60 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 500-6000 | 237 | 57 | 137 | 18 | A-220 | 110 | 28 | 169 | - | 130 | 110 | ≥85 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 500-6000 | 256 | 76 | 156 | 20 | A-240 | 120 | 38 | 178 | - | 130 | 110 | ≥95 |

Note: $\varnothing 32 \times 2,0 \times \varnothing 92$ [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FA1-S | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|---|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 90/70/20 °C | 203 | 501 | 799 | 1058 | 1318 | 1578 | 2095 | 2628 | 3161 |
| | 75/65/20 °C | 160 | 395 | 630 | 835 | 1040 | 1245 | 1653 | 2073 | 2494 |
| | 70/55/20 °C | 130 | 320 | 510 | 676 | 842 | 1008 | 1338 | 1679 | 2019 |
| | 55/45/20 °C | 82 | 203 | 324 | 430 | 535 | 641 | 851 | 1067 | 1284 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 90/70/20 °C | 266 | 559 | 911 | 1240 | 1568 | 1919 | 2612 | 3292 | 3906 |
| | 75/65/20 °C | 210 | 441 | 719 | 978 | 1237 | 1514 | 2061 | 2597 | 3082 |
| | 70/55/20 °C | 170 | 357 | 582 | 792 | 1001 | 1226 | 1668 | 2102 | 2495 |
| | 55/45/20 °C | 108 | 227 | 370 | 503 | 637 | 779 | 1061 | 1337 | 1586 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 90/70/20 °C | 294 | 587 | 939 | 1260 | 1636 | 2046 | 2721 | 3366 | 3991 |
| | 75/65/20 °C | 232 | 463 | 741 | 994 | 1291 | 1614 | 2147 | 2656 | 3149 |
| | 70/55/20 °C | 188 | 375 | 600 | 805 | 1045 | 1307 | 1738 | 2150 | 2549 |
| | 55/45/20 °C | 119 | 238 | 381 | 512 | 665 | 831 | 1105 | 1367 | 1621 |

Note: Temperature exponent n=1,3
Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FA1-S | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|---|---------------|-----|------|------|------|------|------|------|------|------|
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | Weight [kg] | 2,4 | 5,1 | 7,9 | 10,6 | 13,3 | 16 | 18,7 | 21,4 | 24,1 |
| | Volume [l] | 0,5 | 0,8 | 1,1 | 1,5 | 1,8 | 2,1 | 2,7 | 3,3 | 3,9 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | Weight [kg] | 4,8 | 9,3 | 13,9 | 18,4 | 22,9 | 27,4 | 31,9 | 40,9 | 49,8 |
| | Volume [l] | 1,7 | 2,7 | 3,7 | 4,7 | 5,8 | 6,8 | 8,8 | 10,9 | 12,9 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | Weight [kg] | 5,6 | 10,9 | 16,3 | 21,7 | 27,1 | 32,5 | 37,9 | 46,9 | 57,1 |
| | Volume [l] | 3,1 | 5,0 | 7 | 8,9 | 10,8 | 12,7 | 16,6 | 20,4 | 24,3 |

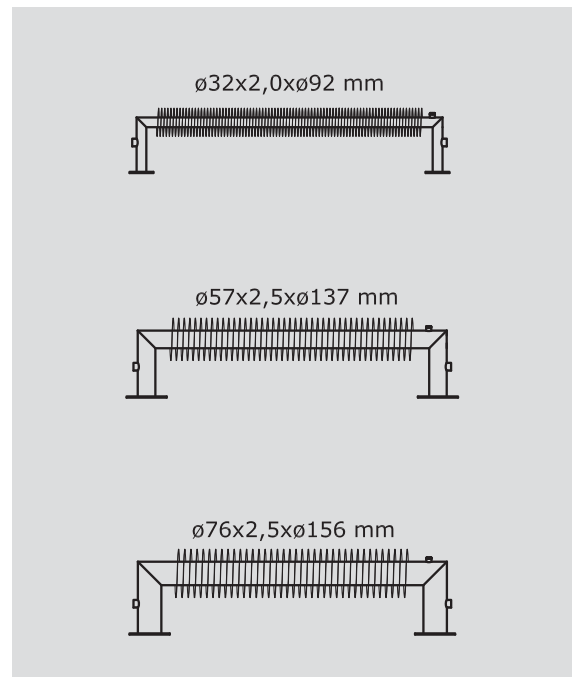
Note: Radiator weight without heating fluid

CODE EXAMPLE

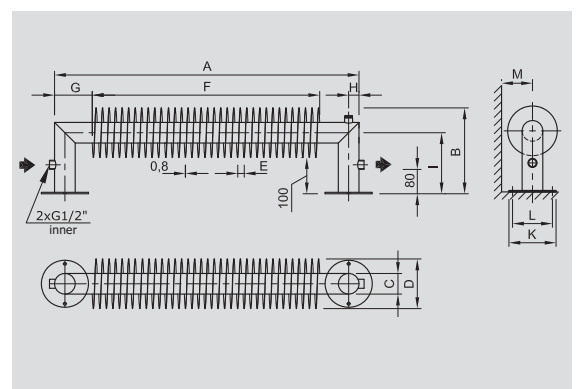
| | | | | | |
|-----------|-------------------------|----------------------------|-------------|---------------|-------------|
| ZFA-1 | 57 | 137 | 100 | S | 01 |
| LOFT type | \varnothing tube [mm] | \varnothing winding [mm] | length [cm] | self-standing | colour code |

Ordering, see the page 22

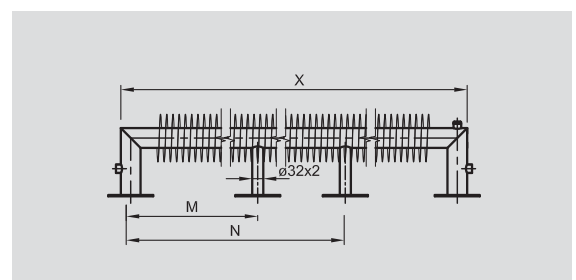
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FA1-S ($\varnothing 32$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

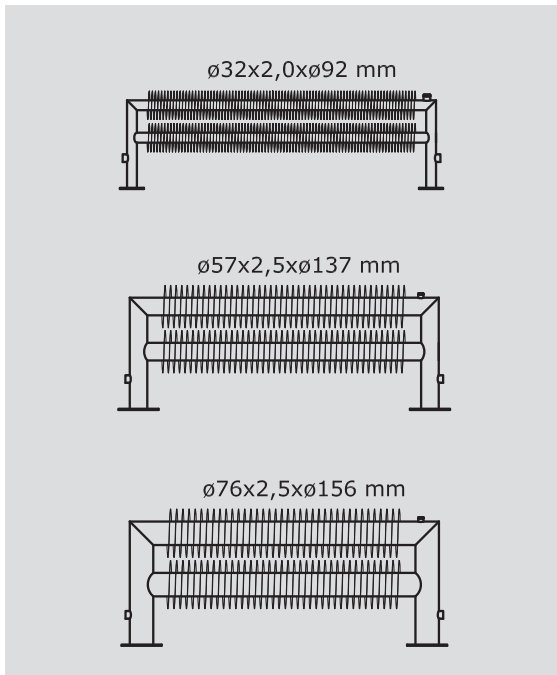
FA1-S ($\varnothing 57$ mm a $\varnothing 76$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

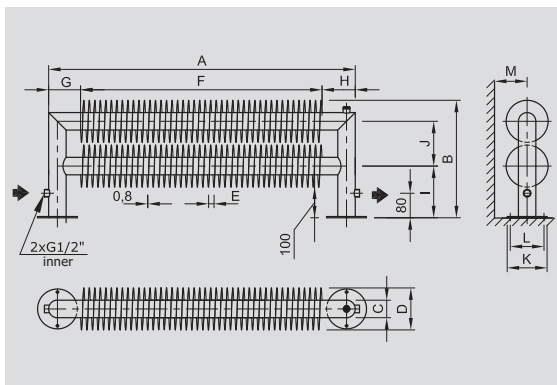




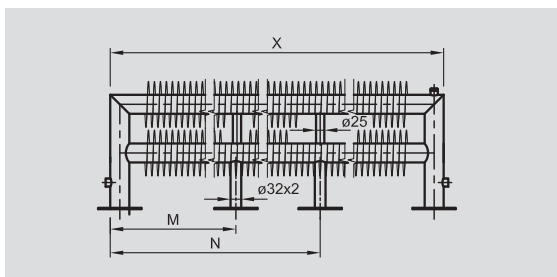
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAT2-S (ø 32 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

FAT2-S (ø 57 mm a ø 76 mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

TECHNICAL INFORMATION

| | | |
|--------------------------------|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" ø 32 × 2,0 × ø 92 mm, lead of spiral 10 mm ø 57 × 2,5 × ø 137 mm, lead of spiral 18 mm ø 76 × 2,5 × ø 156 mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm-6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| | The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAT2 - S | Dimensions [mm] | | | | | | | | | | | | |
|-----------------------|-----------------|-----|----|-----|----|-------|-----|----|-----|-----|-----|-----|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| ø 32 × 2,0 × ø 92 mm | 500-6000 | 297 | 32 | 92 | 10 | A-130 | 65 | 16 | 146 | 105 | 76 | 56 | ≥60 |
| ø 57 × 2,5 × ø 137 mm | 500-6000 | 383 | 57 | 137 | 18 | A-220 | 110 | 28 | 169 | 146 | 130 | 110 | ≥85 |
| ø 76 × 2,5 × ø 156 mm | 500-6000 | 422 | 76 | 156 | 20 | A-240 | 120 | 38 | 178 | 166 | 130 | 110 | ≥95 |

Note: ø 32 × 2,0 × ø 92 [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FAT2-S | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|-------------------|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| ø 32×2,0×ø 92 mm | 90/70/20 °C | 361 | 887 | 1420 | 1882 | 2345 | 2769 | 3725 | 4672 | 5618 |
| | 75/65/20 °C | 285 | 700 | 1120 | 1485 | 1850 | 2185 | 2939 | 3686 | 4433 |
| | 70/55/20 °C | 231 | 567 | 907 | 1202 | 1498 | 1769 | 2379 | 2984 | 3589 |
| | 55/45/20 °C | 147 | 360 | 577 | 764 | 952 | 1125 | 1513 | 1897 | 2282 |
| ø 57×2,5×ø 137 mm | 90/70/20 °C | 385 | 965 | 1527 | 2178 | 2769 | 3377 | 4586 | 5775 | 6848 |
| | 75/65/20 °C | 304 | 761 | 1205 | 1718 | 2185 | 2664 | 3618 | 4556 | 5403 |
| | 70/55/20 °C | 246 | 616 | 976 | 1391 | 1769 | 2157 | 2929 | 3688 | 4374 |
| | 55/45/20 °C | 156 | 392 | 620 | 884 | 1125 | 1371 | 1862 | 2345 | 2781 |
| ø 76×2,5×ø 156 mm | 90/70/20 °C | 403 | 1003 | 1589 | 2235 | 2840 | 3422 | 4626 | 5846 | 6960 |
| | 75/65/20 °C | 318 | 791 | 1254 | 1763 | 2241 | 2700 | 3650 | 4612 | 5491 |
| | 70/55/20 °C | 257 | 640 | 1015 | 1427 | 1814 | 2186 | 2955 | 3734 | 4445 |
| | 55/45/20 °C | 164 | 407 | 645 | 908 | 1154 | 1390 | 1879 | 2374 | 2826 |

Note: Temperature exponent n=1,3

Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FAT2-S | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|-------------------|---------------|------|------|------|------|------|------|------|-------|-------|
| ø 32×2,0×ø 92 mm | Weight [kg] | 5 | 10,6 | 16 | 21,4 | 27,0 | 32,6 | 43,8 | 55 | 66,2 |
| | Volume [l] | 0,9 | 1,5 | 2,1 | 2,8 | 3,4 | 4 | 5,2 | 6,5 | 7,7 |
| ø 57×2,5×ø 137 mm | Weight [kg] | 9,7 | 20,0 | 30,1 | 40,5 | 50,2 | 60,0 | 80,5 | 101,1 | 121,4 |
| | Volume [l] | 3 | 5,1 | 7,1 | 9,1 | 11,2 | 13,2 | 17,3 | 21,4 | 25,5 |
| ø 76×2,5×ø 156 mm | Weight [kg] | 11,7 | 23,1 | 34,5 | 45,8 | 57,1 | 68,4 | 91,0 | 113,6 | 136,2 |
| | Volume [l] | 5,9 | 9,8 | 13,6 | 17,5 | 21,3 | 25,2 | 32,9 | 40,6 | 48,3 |

Note: Radiator weight without heating fluid

CODE EXAMPLE

| ZFAT2 | 57 | 137 | 100 | S | 01 |
|-----------|-------------|----------------|-------------|---------------|-------------|
| LOFT type | ø tube [mm] | ø winding [mm] | length [cm] | self-standing | colour code |

Ordering, see the page 22





TECHNICAL INFORMATION

| | | |
|--|--|---|
| Material | Standard: | steel tubes with air-relief valve G 3/8" $\varnothing 32 \times 2,0 \times \varnothing 92$ mm, lead of spiral 10 mm $\varnothing 57 \times 2,5 \times \varnothing 137$ mm, lead of spiral 18 mm $\varnothing 76 \times 2,5 \times \varnothing 156$ mm, lead of spiral 20 mm width of steel fins 0,8mm |
| | Stainless steel, Hot-dip galvanized: | per order, see page 21 |
| Connection threads | inner G1/2" | |
| Lengths | 500 mm - 6 000 mm (with step of 100 mm) | |
| Operating conditions | Hot water system: | forced circulation |
| | Max. operating temperature: | 120 °C |
| | Operating overpressure: | 1,0 MPa |
| | Test overpressure: | 1,3 MPa |
| The radiator is designed for ambient temperature from 2 to 40 °C and relative humidity from 20 to 70 °C. | | |
| Colour | snow white RAL 9016, white RAL 9010; colours based on the RAL colour card (extra charge) | |
| Atypical design options | Connection threads G3/4", G3/8", G1" | |
| | Lead of spiral from 10-30 mm (12-30 mm) with step 2 mm | |
| | Loose ends can also be used for gravity circulation. Everything based on the customer's approved technical documentation. | |

TABLE OF DIMENSIONS

| FAT3 - S | Dimensions [mm] | | | | | | | | | | | | |
|---|-----------------|-----|----|-----|----|-------|-----|----|-----|-----|-----|-----|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 500-6000 | 402 | 32 | 92 | 10 | A-130 | 65 | 16 | 146 | 105 | 76 | 56 | ≥60 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 500-6000 | 489 | 57 | 137 | 18 | A-220 | 110 | 28 | 169 | 146 | 130 | 110 | ≥85 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 500-6000 | 588 | 76 | 156 | 20 | A-240 | 120 | 38 | 178 | 166 | 130 | 110 | ≥95 |

Note: $\varnothing 32 \times 2,0 \times \varnothing 92$ [mm] - diameter of tube × thickness × diameter of winding [mm]

HEATING OUTPUTS

| FAT3-S | TEMPERATURE GRADIENT | LENGTH [mm] / OUTPUT Q [W] | | | | | | | | |
|---|----------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | 90/70/20 °C | 539 | 1331 | 2129 | 2820 | 3511 | 4151 | 5581 | 7001 | 8420 |
| | 75/65/20 °C | 425 | 1050 | 1680 | 2225 | 2770 | 3275 | 4404 | 5523 | 6643 |
| | 70/55/20 °C | 344 | 850 | 1360 | 1801 | 2242 | 2651 | 3565 | 4471 | 5378 |
| | 55/45/20 °C | 219 | 540 | 865 | 1145 | 1426 | 1686 | 2267 | 2843 | 3419 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | 90/70/20 °C | 584 | 1483 | 2382 | 3318 | 4171 | 5133 | 6990 | 8841 | 10449 |
| | 75/65/20 °C | 461 | 1170 | 1879 | 2618 | 3291 | 4050 | 5515 | 6975 | 8244 |
| | 70/55/20 °C | 373 | 947 | 1521 | 2119 | 2664 | 3279 | 4465 | 5647 | 6674 |
| | 55/45/20 °C | 237 | 602 | 967 | 1348 | 1694 | 2085 | 2839 | 3590 | 4244 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | 90/70/20 °C | 607 | 1503 | 2399 | 3351 | 4265 | 5185 | 7066 | 9023 | 10567 |
| | 75/65/20 °C | 479 | 1186 | 1893 | 2644 | 3365 | 4091 | 5575 | 7119 | 8337 |
| | 70/55/20 °C | 388 | 960 | 1532 | 2140 | 2724 | 3312 | 4513 | 5763 | 6749 |
| | 55/45/20 °C | 247 | 610 | 974 | 1361 | 1732 | 2106 | 2870 | 3665 | 4291 |

Note: Temperature exponent $n=1,3$
Hot-dip galvanized surface treatment reduces heating output by ~10 %, stainless steel by ~35 %.

VOLUME OF WATER AND WEIGHT

| FAT3-S | Length X [mm] | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 | 6000 |
|---|---------------|------|------|------|------|------|-------|-------|-------|-------|
| $\varnothing 32 \times 2,0 \times \varnothing 92$ mm | Weight [kg] | 7,3 | 15,6 | 23,8 | 31,9 | 40,0 | 48,1 | 65,9 | 83,7 | 101,5 |
| | Volume [l] | 1,3 | 2,2 | 3,2 | 4,0 | 5,0 | 5,9 | 7,8 | 9,6 | 11,5 |
| $\varnothing 57 \times 2,5 \times \varnothing 137$ mm | Weight [kg] | 15,0 | 29,0 | 45,0 | 67,0 | 76,0 | 91,0 | 121,0 | 151,0 | 181,0 |
| | Volume [l] | 4,3 | 7,4 | 10,5 | 13,5 | 16,6 | 19,7 | 25,8 | 31,9 | 38,0 |
| $\varnothing 76 \times 2,5 \times \varnothing 156$ mm | Weight [kg] | 19,4 | 36,8 | 53,7 | 70,7 | 87,8 | 105,0 | 136,0 | 170,9 | 205,7 |
| | Volume [l] | 8,3 | 14,0 | 19,8 | 25,6 | 31,4 | 37,2 | 48,7 | 60,3 | 71,8 |

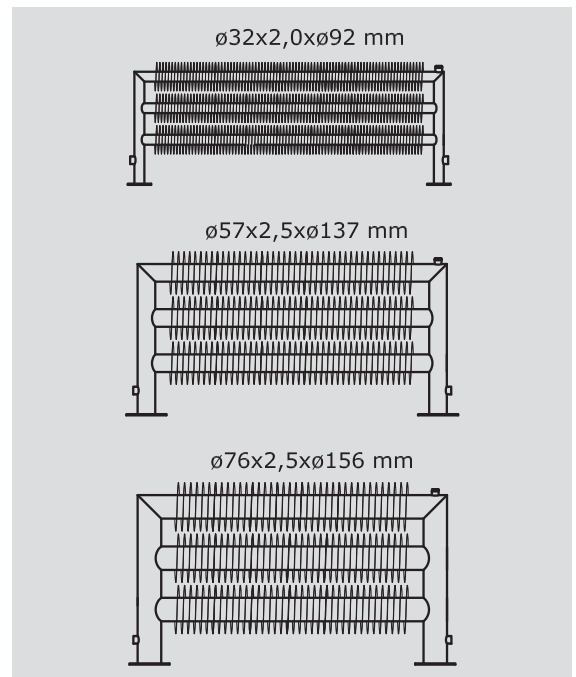
Note: Radiator weight without heating fluid

CODE EXAMPLE

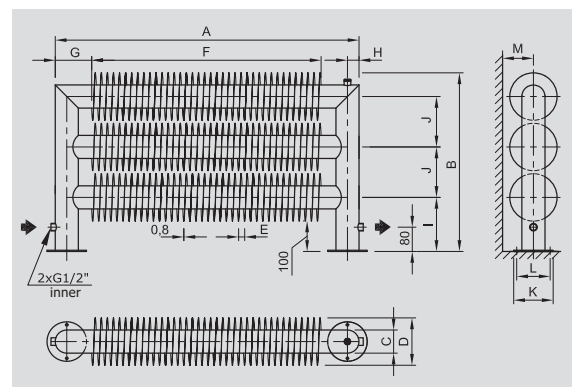
| ZFAT3 | 57 | 137 | 100 | S | 01 |
|-----------|-------------------------|----------------------------|-------------|---------------|-------------|
| LOFT type | \varnothing tube [mm] | \varnothing winding [mm] | length [cm] | self-standing | colour code |

Ordering, see the page 22

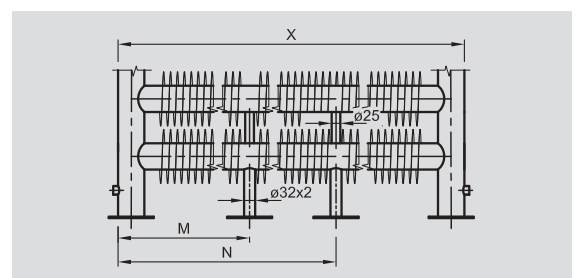
BASIC TYPES



SKETCH



SUPPORTING ELEMENTS



FAT3-S ($\varnothing 32$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-2900 | 0 | 0 | 2 pcs |
| 2901-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

FAT3-S ($\varnothing 57$ mm a $\varnothing 76$ mm)

| length of spiral X [mm] | M | N | Number of legs |
|-------------------------|-------|-------|----------------|
| 500-3000 | 0 | 0 | 2 pcs |
| 3001-4500 | X/2 | 0 | 3 pcs |
| 4501-6000 | 1/3 X | 2/3 X | 4 pcs |

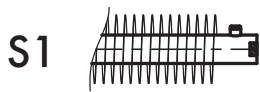


CONNECTION OPTIONS FOR LOFT RADIATORS

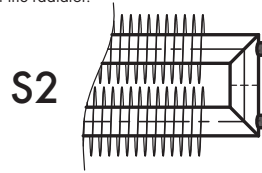


STANDARD WAYS OF CONNECTING LOFT RADIATORS

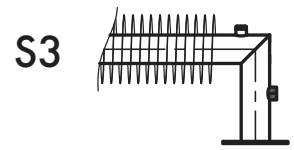
Standard connection S1, S2, S3 with no additional charge on top of the price of the radiator.



Standard connection for FA1 and FAO radiators.



Standard connection for FAT radiators.



Standard connection for FA1 and FAT self-standing radiators.

ATYPICAL WAYS OF CONNECTING LOFT RADIATORS - (ADDITIONAL CHARGE FOR CHANGE IN CONNECTION)

Atypical ways of connection can be combined with changes in the connection threads (G 3/8", G 1/2", G 3/4", G 1") after consultation with the commercial department.



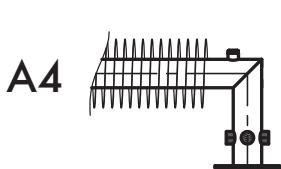
Atypical connection for FA1, FAO and FAO radiators.



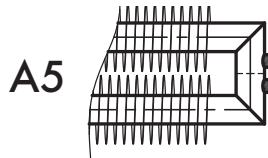
Atypical connection for FA1 and FAO radiators with a diameter of 57 and 76 mm.



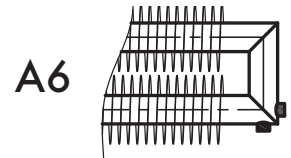
Atypical connection for FA1 radiators with a diameter of 57 and 76 mm.



Atypical connection for self-standing FA1 and FAT radiators. Any movement of the connection must always be only by an angle of 90°.



Atypical connection for FAT radiators. Min. pitch of the connection 50 mm.



Atypical connection for FAT radiators.

Should you be interested in special connections please contact the commercial department of AG GRZEJNIKI DESIGN for a specification of the technical parameters. Should it not be stated otherwise, the atypical connections are valid for all of the manufactured diameters 32, 57 and 76 mm.

LOFT IN ATYPICAL DESIGN - SMOOTH TUBES

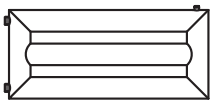


Other variation of Loft radiators is a version without winding - smooth tubes. They are delivered in versions for floor, on wall and self-standing, the same as standard models.

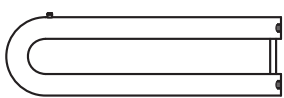
EXAMPLES:

WALL-MOUNTED VERSION

FAT3

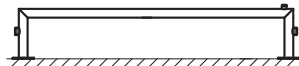


FAO2



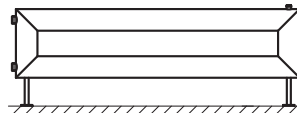
SELF-STANDING VERSION

FA1

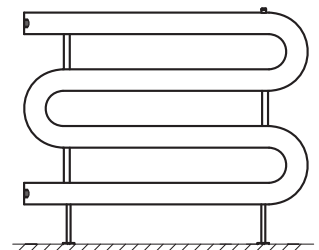


FLOOR-MOUNTED VERSION

FAT2



FAO4



CODE EXAMPLE

| | | | | | |
|-----------|-------------|----------------|-------------|--------------|--------|
| HFAT2 | 57 | - | 100 | F | 01 |
| LOFT type | ∅ tube [mm] | ∅ winding [mm] | length [cm] | on the floor | colour |

Atypical solutions are delivered only based on drawings; for specification of technical parameters and heating outputs please contact commercial department of AG GRZEJNIKI DESIGN
Ordering, see the page 22



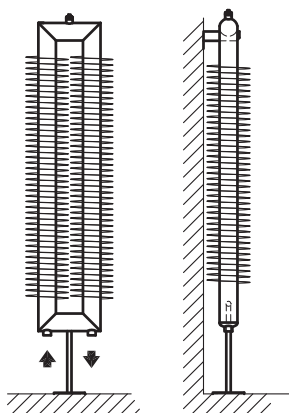
NEXT ATYPICAL DESIGNS OF RADIATORS



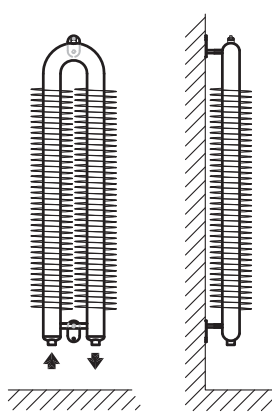
PROJECT EXAMPLES:

VERTICAL VARIANT

FAT2 57×3×137

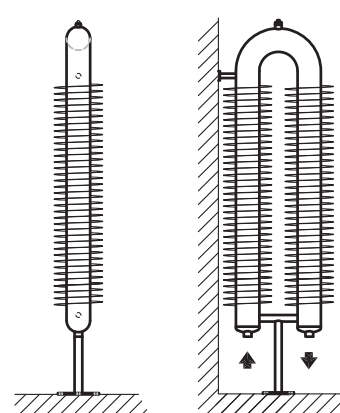


FAO2 57×3×137



VERTICAL VARIANT - INTO SPACE

FAO2 76×3×156

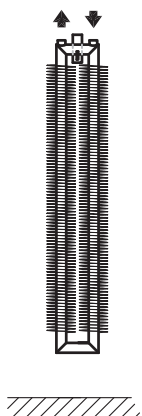


NEXT VERTICAL VARIANTS

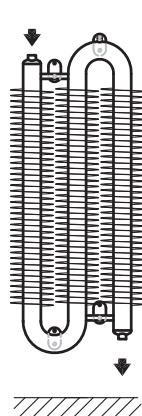
FA1 76×3×156



FAT2 32×2×92



FAO3 57×3×137

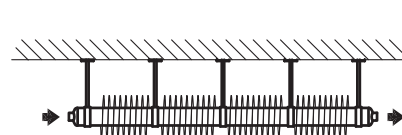


FAT3 32×2×92



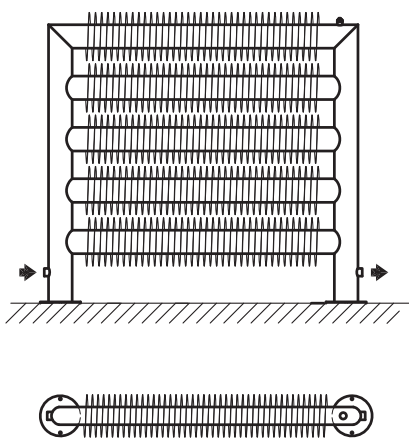
MOUNTING UNDER CEILING

FA1 57×3×137



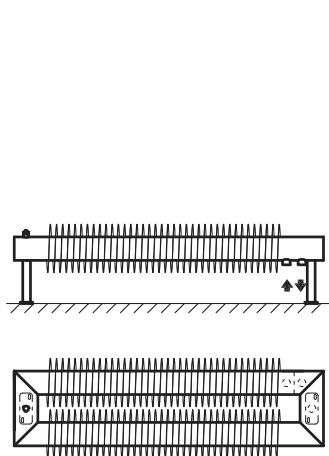
SELF-STANDING VERSION

FAT5 57×3×137



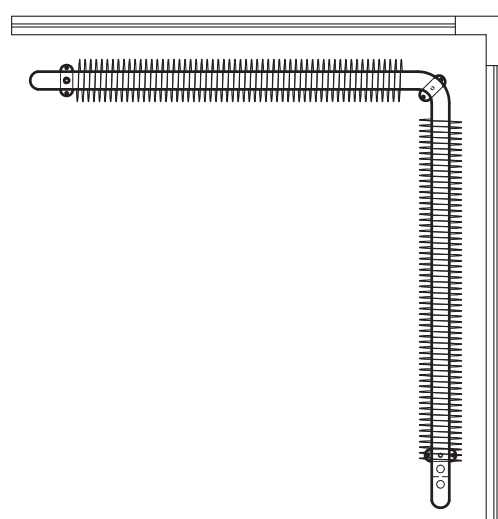
FLOOR-MOUNTED VERSION

FAT2 76×3×156



FLOOR-MOUNTED VERSION - BROKEN LINE SHAPE

FAO2 57×3×137



Atypical solutions are delivered only based on drawings; for specification of technical parameters please contact commercial department of AG GRZEJNIKI DESIGN.



For applications of LOFT finned tube radiators in environment with increased requirements for resistance to outside influences (humidity, aggressive surrounding), we offer two alternative designs:

- **STAINLESS STEEL SPIRALS** radiator is made of stainless steel
- **HOT-DIP GALVANIZED SPIRALS** radiator is provided with hot dip galvanizing surface treatment

Technical parameters of these radiators are consulted with customers; approval of the technical documentation is necessary in some cases.

STAINLESS STEEL SPIRALS

If standard surface treatment (powder coating) is not suitable from the viewpoint of application in wet or another corrosive environment, it is possible to choose the radiator made of stainless steel. The advantages are durability and resistance of surface, easy maintenance and cleaning.

Material:

Radiator is made of stainless steel

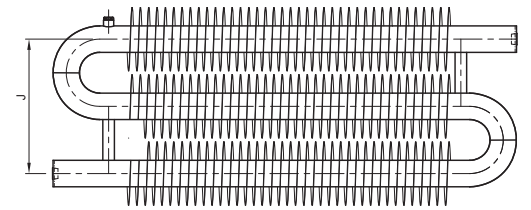
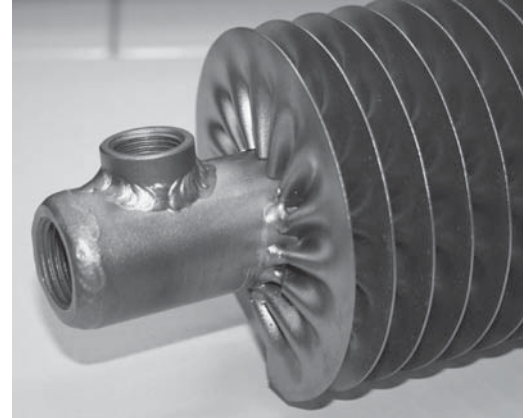
Advantages:

- high mechanical strength
- resistance to dampness, water, water steam
- resistance to damage and abrasion
- surface durability
- long-term lifetime

Warning:

- stainless steel reduces heating output by ~35 %
- type of radiators FAO2, FAO3 have in stainless steel design different distance between finned tubes "J" against standard version, see table:

| Distance J [mm] of types FAO2, FAO3 | | |
|-------------------------------------|--------|-----------------|
| Type of Spiral | STEEL | STAINLESS STEEL |
| FAO2 Ø57 mm | 145 mm | 175 mm |
| FAO2 Ø76 mm | 200 mm | 195 mm |
| FAO3 Ø57 mm | 290 mm | 350 mm |
| FAO3 Ø76 mm | 400 mm | 390 mm |



HOT-DIP GALVANIZED SURFACE TREATMENT

Hot-dip galvanizing represents one of modern trends in a field of steel constructions surface treatment. To its advantages in the first place long-term lifetime, good resistance against mechanical influences, creation of quality and even coating belong, also on inner surfaces and surfaces accessible with difficulties; and that all meet all criteria of standard norms towards environment. Suitable for aggressive atmosphere and for open outside spaces.

Material:

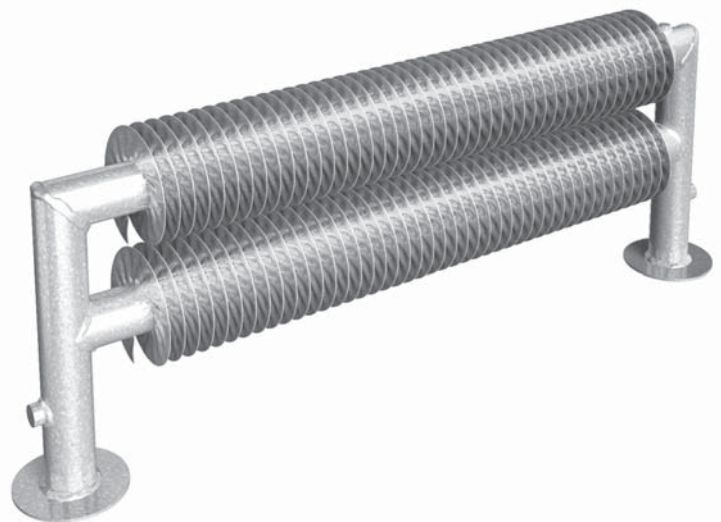
Steel radiator with hot-dip galvanizing surface treatment

Advantages:

- aggressive ambience (farm buildings, hoggeries, ...)
- open spaces (halls, stadiums, ...)
- exposed spaces (boiler rooms, shop floors)
- resistance to damage and abrasion
- non-porous even surface

Warning:

- hot-dip galvanized surface treatment reduces heating output by ~10 %
- necessary modifications of construction (provision of inlet, outlet and air-relief holes)



ORDERING FORM



| | | | | | | | | | | | | | | | |
|-----------------------|----------|----------|----------|------------------------------|----------|----------|---------------------------------|----------|----------|----------------------|----------|----------|-----------------|--------------------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Z | R | A | T | 2 | 3 | 2 | 0 | 9 | 2 | 1 | 0 | 0 | W | 0 | 1 |
| TYPE OF SPIRAL | | | | Diameter of tube [mm] | | | Diameter of winding [mm] | | | Length L [cm] | | | Mounting | Colour code | |

LOFT WITH WINDING FAT2 Ø32x2,0xØ92 mm, LENGTH 1000 mm, WALL-MOUNTED VERSION, SNOW-WHITE COLOUR RAL 9016.

LEGEND

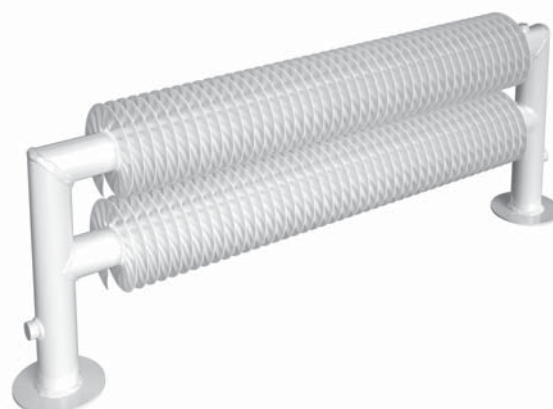
| Position 1, 2, 3, 4, 5 | TYPE OF SPIRAL RADIATOR | |
|------------------------|-------------------------------|---|
| ZFA1 [HFA1] | SPIRAL TYPE WITH WINDING FA1 | [HFA1 - SPIRAL TYPE - SMOOTH TUBES FA1] |
| ZFAT2 [HFAT2] | SPIRAL TYPE WITH WINDING FAT2 | [HFAT2 - SPIRAL TYPE - SMOOTH TUBES FAT2] |
| ZFAT3 [HFAT3] | SPIRAL TYPE WITH WINDING FAT3 | [HFAT3 - SPIRAL TYPE - SMOOTH TUBES FAT3] |
| ZFAO2 [HFAO2] | SPIRAL TYPE WITH WINDING FAO2 | [HFAO2 - SPIRAL TYPE - SMOOTH TUBES FAO2] |
| ZFAO3 [HFAO3] | SPIRAL TYPE WITH WINDING FAO3 | [HFAO3 - SPIRAL TYPE - SMOOTH TUBES FAO3] |

| Position 6, 7, 8, 9, 10 | DIAMETER OF TUBE AND WINDING | |
|-------------------------|--|------------------------------------|
| 32 092 [32 ---] | DIAMETER OF TUBE 32 mm WITH DIAMETER OF WINDING 92 mm | [SMOOTH TUBES WITH DIAMETER 32 mm] |
| 57 137 [57 ---] | DIAMETER OF TUBE 57 mm WITH DIAMETER OF WINDING 137 mm | [SMOOTH TUBES WITH DIAMETER 57 mm] |
| 76 156 [76 ---] | DIAMETER OF TUBE 76 mm WITH DIAMETER OF WINDING 156 mm | [SMOOTH TUBES WITH DIAMETER 76 mm] |

| Position 11, 12, 13 | LENGTH OF RADIATOR L [cm] |
|---------------------|--------------------------------|
| 050 | LENGTH OF RADIATOR L = 500 mm |
| 100 | LENGTH OF RADIATOR L = 1000 mm |
| 150 | LENGTH OF RADIATOR L = 1500 mm |
| 200 | LENGTH OF RADIATOR L = 2000 mm |
| 250 | LENGTH OF RADIATOR L = 2500 mm |
| 300 | LENGTH OF RADIATOR L = 3000 mm |
| 400 | LENGTH OF RADIATOR L = 4000 mm |
| 500 | LENGTH OF RADIATOR L = 5000 mm |
| 600 | LENGTH OF RADIATOR L = 6000 mm |
| 265 | INTER-LENGTH L = 2650 mm |

| Position 14 | MOUNTING |
|-------------|---|
| W | WALL-MOUNTED |
| F | FLOOR-MOUNTED |
| S | SELF-STANDING VERSION (CANNOT BE DONE FOR TYPE RAO) |

| Position 15, 16 | COLOUR CODE |
|--|--------------------|
| 01 | COLOUR RAL 9016 |
| 02 | COLOUR RAL 9010 |
| 81 | STAINLESS STEEL |
| 90 | HOT-DIP GALVANIZED |
| OTHER COLOURS CAN BE SELECTED BASED ON THE RAL COLOUR CARD | |



GENERAL INFORMATION



Radiators from the LOFT range are by default manufactured from finned tubes with a diameter of 32 mm and wall thickness of 2,0 mm or diameter of 57 mm and 76 mm with wall thicknesses of 2,5 mm. These radiators are intended for operation in all hot water systems which use heating (treated) water with a forced circulation only. After consultation with the manufacturer it is possible to use several types of radiators in gravitational systems or steam distribution systems. The maximum operating temperature of these radiators is 120 °C and the operational overpressure is 1 MPa. The connection is supplied with a G1/2" internal thread as standard. Radiators from the Spiral range are manufactured in basic types: wall-mounted, floor-mounted or self-standing.

SURFACE TREATMENT

Surface treatment is carried out with a maximal regard to the environment. It renders the product hygienically safe and provides long-term corrosion and mechanical resistance. Baked-on powder epoxy-polyester paint is used for the surface treatment. Selection of color shades Ref. "Orientation colour card" with an additional charge based on the type of paint. Spiral radiators are also supplied in a stainless steel and hot-dip galvanized design.

PACKAGING AND MOUNTING

Radiators from finned tubes are packed together with polystyrene filling into cardboard and then they are sealed with a shrink foil. The legs or consoles and air-outlet valves are included in the packing. Mounting set includes stated number of consoles / legs with mounting kit (screws, wall plugs, etc.).

ADVANTAGES

A wide range of uses in residential and public buildings and for industrial purposes. Low prices and longer lifespan compared with classic radiators. Three possible types of mounting (wall, floor and self-standing versions), a wide range of colours and modifications based on the requirements of the customer.

WARRANTEE PERIOD

The warrantee is related to failures and faults which come to light during the warrantee period due to manufacturing faults or defects in the materials used. The warrantee period for finned tube radiators is 2 years from the date of transferring the product to the purchaser.

WARRANTY CONDITIONS

Customer loses any claim for warranty service in case that the heating body was:

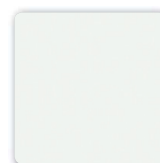
- installed in a building, facility or room with high humidity, such as public WC, car washing room, stable, cowshed, indoor swimming pool and the like;
- stored outdoor or under a temperature lower than -5 °C;
- damaged by inside corrosion due to unsuitable chemical composition of the heating medium, having caused a leaking;
- deformed due to inappropriate transport or exceeding of working pressure maximum;
- damaged mechanically or due to inappropriate handling by customer or carrier;
- damaged willingly or when defaults appeared due to a natural disaster or other impact;
- used and kept in operation in spite of the claimed default, whereas the usage of so faulty product has inflicted the state thereof in so far that the claimed default cannot be assessed accordingly;
- unprofessionally installed or when a modification has followed without prior seller's consent;
- used for other than the intended purpose, such as for drying of wet textiles directly on the convector body, which has lead to damage of the surface treatment;
- damaged by using of unsuitable cleaners, not recommended for the given radiator surface;
- purchased against a reduced price due to a default, the customer was noticed of.

Any warranty claim shall be refused, if the Warranty Certificate is not filled in, shows unauthorized changes or is not available. The warranty does not apply to unordinary wear and tear. If no default caused by the manufacturer is found out, the warranty conditions are taken as unfulfilled and costs connected with experts' travel shall be borne by customer. Products being the objects of claim and sent to manufacturer by postal service shall be possibly delivered in original packing or dully packed, to eliminate any further damage due to transportation. Damages caused by such transportation of a claimed product shall not be taken in consideration.

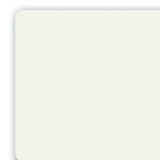
COLOURS



| | |
|----------------|------------|
| colour line: | RAL 9016 |
| tint: | snow-white |
| surface: | - |
| extra charge: | - |
| ordering code: | 01 |



| | |
|----------------|----------|
| colour line: | RAL 9010 |
| tint: | white |
| surface: | - |
| extra charge: | - |
| ordering code: | 02 |



All prices are calculated for the basic colour RAL 9016 snow white or RAL 9010 white. LOFT finned tube radiators are only supplied in RAL colour card shades. If you are interested in other RAL colour card colours, please contact the commercial department of AG Grzejniki Design for a specification of the technical parameters and additional charges for special surface treatment.

