

PRESSURE LOSS

Heating capacity [kW] for the respective temperature differences ΔT [K]. (ΔT = the temperature difference between flow and return.
 Example: flow @ 80 °C and return @ 60°C => therefore ΔT = 20 K)

Pressure Loss

| Heating Capacity [kW] at a given ΔT [K] | | | | | | | Flow [l/sec] | Pressure drop Flow velocity | PE-Xa pipe SDR 11 / PN6: $d_{out} \times s$ [mm] | | | | | | | | |
|---|------|------|------|------|------|------|-----------------|--------------------------------|--|--------------|--------------|--------------|-------------|-------------|-------------|---------------|---------------|
| 5 K | 10 K | 15 K | 20 K | 25 K | 30 K | 40 K | | | 25 x 2,3 | 32 x 2,9 | 40 x 3,7 | 50 x 4,6 | 63 x 5,8 | 75 x 6,8 | 90 x 8,2 | 110 x 10,0 | 125 x 11,4 |
| 1 | 3 | 4 | 5 | 6 | 8 | 10 | 0,06 | [pa/m] [m/sec] | 27 0,18 | 9 0,11 | | | | | | | |
| 3 | 5 | 8 | 10 | 13 | 15 | 20 | 0,12 | [pa/m] [m/sec] | 91 0,37 | 27 0,22 | 9 0,14 | | | | | | |
| 4 | 8 | 11 | 15 | 19 | 23 | 30 | 0,18 | [pa/m] [m/sec] | 185 0,55 | 56 0,33 | 19 0,21 | | | | | | |
| 5 | 10 | 15 | 20 | 25 | 30 | 40 | 0,24 | [pa/m] [m/sec] | 306 0,73 | 93 0,44 | 33 0,29 | | | | | | |
| 6 | 13 | 19 | 25 | 31 | 38 | 50 | 0,30 | [pa/m] [m/sec] | 452 0,91 | 138 0,55 | 48 0,36 | | | | | | |
| 8 | 15 | 23 | 30 | 38 | 45 | 60 | 0,36 | [pa/m] [m/sec] | 622 1,10 | 190 0,66 | 67 0,43 | 23 0,27 | | | | | |
| 9 | 18 | 26 | 35 | 44 | 53 | 70 | 0,42 | [pa/m] [m/sec] | 815 1,28 | 248 0,78 | 88 0,50 | 30 0,32 | | | | | |
| 10 | 20 | 30 | 40 | 50 | 60 | 80 | 0,48 | [pa/m] [m/sec] | 1030 1,46 | 314 0,89 | 111 0,57 | 38 0,37 | 12 0,23 | | | | |
| 11 | 23 | 34 | 45 | 56 | 68 | 90 | 0,54 | [pa/m] [m/sec] | 1266 1,64 | 386 1,00 | 136 0,64 | 47 0,41 | 15 0,26 | | | | |
| 13 | 25 | 38 | 50 | 63 | 75 | 100 | 0,60 | [pa/m] [m/sec] | 1522 1,83 | 464 1,11 | 164 0,72 | 56 0,46 | 18 0,29 | | | | |
| 14 | 28 | 41 | 55 | 69 | 83 | 110 | 0,66 | [pa/m] [m/sec] | 1799 2,01 | 548 1,22 | 194 0,79 | 66 0,50 | 21 0,32 | | | | |
| 15 | 30 | 45 | 60 | 75 | 90 | 120 | 0,72 | [pa/m] [m/sec] | 2095 2,19 | 639 1,33 | 226 0,86 | 77 0,55 | 25 0,34 | | | | |
| 16 | 33 | 49 | 65 | 81 | 98 | 130 | 0,78 | [pa/m] [m/sec] | 2410 2,37 | 735 1,44 | 260 0,93 | 89 0,59 | 29 0,37 | | | | |
| 18 | 35 | 53 | 70 | 88 | 105 | 140 | 0,84 | [pa/m] [m/sec] | | 837 1,55 | 296 1,00 | 102 0,64 | 33 0,40 | | | | |
| 19 | 38 | 56 | 75 | 94 | 113 | 150 | 0,90 | [pa/m] [m/sec] | | 944 1,66 | 334 1,07 | 115 0,69 | 37 0,43 | | | | |
| 20 | 40 | 60 | 80 | 100 | 120 | 160 | 0,96 | [pa/m] [m/sec] | | 1057 1,77 | 374 1,14 | 128 0,73 | 42 0,46 | 18 0,32 | | | |
| 21 | 43 | 64 | 85 | 106 | 128 | 170 | 1,02 | [pa/m] [m/sec] | | 1175 1,88 | 415 1,22 | 143 0,78 | 46 0,49 | 20 0,34 | | | |
| 23 | 45 | 68 | 90 | 113 | 135 | 180 | 1,07 | [pa/m] [m/sec] | | 1299 1,99 | 459 1,29 | 158 0,82 | 51 0,51 | 23 0,36 | | | |
| 25 | 50 | 75 | 100 | 125 | 150 | 200 | 1,19 | [pa/m] [m/sec] | | 1562 2,22 | 552 1,43 | 190 0,91 | 62 0,57 | 27 0,40 | | | |
| 28 | 55 | 83 | 110 | 138 | 165 | 220 | 1,31 | [pa/m] [m/sec] | | 1846 2,44 | 653 1,57 | 225 1,01 | 73 0,63 | 32 0,44 | | | |
| 30 | 60 | 90 | 120 | 150 | 180 | 240 | 1,43 | [pa/m] [m/sec] | | 2149 2,66 | 760 1,72 | 262 1,10 | 85 0,69 | 37 0,48 | | | |
| 33 | 65 | 98 | 130 | 163 | 195 | 260 | 1,55 | [pa/m] [m/sec] | | 2472 2,88 | 874 1,86 | 301 1,19 | 98 0,74 | 43 0,52 | | | |
| 35 | 70 | 105 | 140 | 175 | 210 | 280 | 1,67 | [pa/m] [m/sec] | | | 995 2,00 | 343 1,28 | 112 0,80 | 49 0,56 | | | |
| 38 | 75 | 113 | 150 | 188 | 225 | 300 | 1,79 | [pa/m] [m/sec] | | | 1123 2,15 | 387 1,37 | 126 0,86 | 55 0,60 | | | |
| 40 | 80 | 120 | 160 | 200 | 240 | 320 | 1,91 | [pa/m] [m/sec] | | | 1258 2,29 | 433 1,46 | 142 0,91 | 62 0,65 | 26 0,45 | | |
| 43 | 85 | 128 | 170 | 213 | 255 | 340 | 2,03 | [pa/m] [m/sec] | | | 1398 2,43 | 482 1,55 | 158 0,97 | 69 0,69 | 29 0,48 | | |
| 45 | 90 | 135 | 180 | 225 | 270 | 360 | 2,15 | [pa/m] [m/sec] | | | 1546 2,57 | 533 1,64 | 174 1,03 | 76 0,73 | 32 0,51 | | |
| 50 | 100 | 150 | 200 | 250 | 300 | 400 | 2,39 | [pa/m] [m/sec] | | | 1859 2,86 | 641 1,83 | 210 1,14 | 91 0,81 | 38 0,56 | | |
| 56 | 113 | 169 | 225 | 281 | 338 | 450 | 2,69 | [pa/m] [m/sec] | | | | 788 2,06 | 258 1,29 | 113 0,91 | 48 0,63 | | |
| 63 | 125 | 188 | 250 | 313 | 375 | 500 | 2,99 | [pa/m] [m/sec] | | | | 947 2,28 | 310 1,43 | 135 1,01 | 57 0,70 | | |
| 69 | 138 | 206 | 275 | 344 | 413 | 550 | 3,28 | [pa/m] [m/sec] | | | | 1120 2,52 | 367 1,57 | 161 1,11 | 68 0,77 | | |
| 75 | 150 | 225 | 300 | 375 | 450 | 600 | 3,58 | [pa/m] [m/sec] | | | | | 427 1,71 | 186 1,21 | 79 0,84 | 30 0,56 | |
| 81 | 163 | 244 | 325 | 406 | 488 | 650 | 3,88 | [pa/m] [m/sec] | | | | | 497 1,85 | 217 1,31 | 92 0,91 | 35 0,61 | |
| 88 | 175 | 263 | 350 | 438 | 525 | 700 | 4,18 | [pa/m] [m/sec] | | | | | 567 2,00 | 248 1,41 | 105 0,98 | 40 0,66 | 22 0,51 |
| 94 | 188 | 281 | 375 | 469 | 563 | 750 | 4,48 | [pa/m] [m/sec] | | | | | 636 2,14 | 278 1,51 | 117 1,05 | 45 0,70 | 25 0,55 |

Pressure Loss

| Heating Capacity [kW] at a given ΔT [K] | | | | | | | Flow | Pressure drop | PE-Xa pipe SDR 11 / PN6: d _{out} x s [mm] | | | | | | | | | | |
|---|------|------|-------------|------|------|------|--------------|-------------------|--|---------------|----------|----------|----------|--------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 5 K | 10 K | 15 K | 20 K | 25 K | 30 K | 40 K | | | [l/sec] | Flow velocity | 25 x 2,3 | 32 x 2,9 | 40 x 3,7 | 50 x 4,6 | 63 x 5,8 | 75 x 6,8 | 90 x 8,2 | 110 x 10,0 | 125 x 11,4 |
| 100 | 200 | 300 | 400 | 500 | 600 | 800 | 4,78 | [pa/m] [m/sec] | | | | | | 706 2,28 | 309 1,61 | 130 1,12 | 50 0,75 | 28 0,58 | |
| 106 | 213 | 319 | 425 | 531 | 638 | 850 | 5,08 | [pa/m] [m/sec] | | | | | | 791 2,43 | 346 1,71 | 146 1,19 | 56 0,80 | 32 0,62 | |
| 113 | 225 | 338 | 450 | 563 | 675 | 900 | 5,37 | [pa/m] [m/sec] | | | | | | 875 2,57 | 383 1,82 | 162 1,26 | 62 0,85 | 35 0,66 | |
| 119 | 238 | 356 | 475 | 594 | 713 | 950 | 5,67 | [pa/m] [m/sec] | | | | | | 960 2,72 | 420 1,92 | 177 1,33 | 68 0,89 | 38 0,69 | |
| 125 | 250 | 375 | 500 | 625 | 750 | 1000 | 5,97 | [pa/m] [m/sec] | | | | | | 1044 2,86 | 457 2,02 | 193 1,40 | 74 0,94 | 42 0,73 | |
| 131 | 263 | 394 | 525 | 656 | 788 | 1050 | 6,27 | [pa/m] [m/sec] | | | | | | | 500 2,12 | 211 1,47 | 81 0,99 | 46 0,76 | |
| 138 | 275 | 413 | 550 | 688 | 825 | 1100 | 6,57 | [pa/m] [m/sec] | | | | | | | 543 2,22 | 229 1,54 | 88 1,04 | 49 0,80 | |
| 144 | 288 | 431 | 575 | 719 | 863 | 1150 | 6,87 | [pa/m] [m/sec] | | | | | | | 585 2,32 | 247 1,61 | 95 1,09 | 53 0,84 | |
| 150 | 300 | 450 | 600 | 750 | 900 | 1200 | 7,17 | [pa/m] [m/sec] | | | | | | | 628 2,42 | 265 1,68 | 102 1,13 | 58 0,87 | |
| 156 | 313 | 469 | 625 | 781 | 938 | 1250 | 7,46 | [pa/m] [m/sec] | | | | | | | 677 2,52 | 286 1,75 | 110 1,18 | 62 0,91 | |
| 163 | 325 | 488 | 650 | 813 | 975 | 1300 | 7,76 | [pa/m] [m/sec] | | | | | | | 726 2,62 | 307 1,83 | 117 1,22 | 66 0,95 | |
| 169 | 338 | 506 | 675 | 844 | 1013 | 1350 | 8,06 | [pa/m] [m/sec] | | | | | | | 774 2,72 | 327 1,90 | 125 1,27 | 71 0,98 | |
| 175 | 350 | 525 | 700 | 875 | 1050 | 1400 | 8,36 | [pa/m] [m/sec] | | | | | | | 823 2,82 | 348 1,97 | 133 1,31 | 75 1,02 | |
| 181 | 363 | 544 | 725 | 906 | 1088 | 1450 | 8,66 | [pa/m] [m/sec] | | | | | | | 877 2,92 | 371 2,04 | 142 1,36 | 80 1,06 | |
| 188 | 375 | 563 | 750 | 938 | 1125 | 1500 | 8,96 | [pa/m] [m/sec] | | | | | | | 932 3,03 | 394 2,11 | 151 1,41 | 85 1,09 | |
| 194 | 388 | 581 | 775 | 969 | 1163 | 1550 | 9,25 | [pa/m] [m/sec] | | | | | | | 986 3,13 | 416 2,18 | 160 1,46 | 90 1,13 | |
| 200 | 400 | 600 | 800 | 1000 | 1200 | 1600 | 9,55 | [pa/m] [m/sec] | | | | | | | 1040 3,23 | 439 2,25 | 169 1,50 | 95 1,16 | |
| 213 | 425 | 638 | 850 | 1063 | 1275 | 1700 | 10,15 | [pa/m] [m/sec] | | | | | | | | 490 2,39 | 188 1,60 | 106 1,24 | |
| 225 | 450 | 675 | 900 | 1125 | 1350 | 1800 | 10,75 | [pa/m] [m/sec] | | | | | | | | 540 2,53 | 207 1,69 | 117 1,31 | |
| 238 | 475 | 713 | 950 | 1188 | 1425 | 1900 | 11,34 | [pa/m] [m/sec] | | | | | | | | 595 2,67 | 228 1,79 | 129 1,38 | |
| 250 | 500 | 750 | 1000 | 1250 | 1500 | 2000 | 11,94 | [pa/m] [m/sec] | | | | | | | | 650 2,81 | 249 1,88 | 141 1,46 | |
| 263 | 525 | 788 | 1050 | 1313 | 1575 | 2100 | 12,54 | [pa/m] [m/sec] | | | | | | | | | 490 2,35 | 188 1,53 | 106 1,53 |
| 275 | 550 | 825 | 1100 | 1375 | 1650 | 2200 | 13,14 | [pa/m] [m/sec] | | | | | | | | | 295 2,06 | 166 1,60 | 166 1,60 |
| 288 | 575 | 863 | 1150 | 1438 | 1725 | 2300 | 13,73 | [pa/m] [m/sec] | | | | | | | | | 319 2,16 | 180 1,67 | 180 1,67 |
| 300 | 600 | 900 | 1200 | 1500 | 1800 | 2400 | 14,33 | [pa/m] [m/sec] | | | | | | | | | 343 2,25 | 194 1,75 | 194 1,75 |
| 313 | 625 | 938 | 1250 | 1563 | 1875 | 2500 | 14,93 | [pa/m] [m/sec] | | | | | | | | | 369 2,35 | 208 1,82 | 208 1,82 |
| 325 | 650 | 975 | 1300 | 1625 | 1950 | 2600 | 15,52 | [pa/m] [m/sec] | | | | | | | | | 395 2,44 | 223 1,89 | 223 1,89 |
| 338 | 675 | 1013 | 1350 | 1688 | 2025 | 2700 | 16,12 | [pa/m] [m/sec] | | | | | | | | | | 238 1,97 | 238 1,97 |
| 350 | 700 | 1050 | 1400 | 1750 | 2100 | 2800 | 16,72 | [pa/m] [m/sec] | | | | | | | | | | 254 2,04 | 254 2,04 |
| 363 | 725 | 1088 | 1450 | 1813 | 2175 | 2900 | 17,32 | [pa/m] [m/sec] | | | | | | | | | | 270 2,11 | 270 2,11 |
| 375 | 750 | 1125 | 1500 | 1875 | 2250 | 3000 | 17,91 | [pa/m] [m/sec] | | | | | | | | | | 286 2,18 | 286 2,18 |
| 388 | 775 | 1163 | 1550 | 1938 | 2325 | 3100 | 18,51 | [pa/m] [m/sec] | | | | | | | | | | | |
| 400 | 800 | 1200 | 1600 | 2000 | 2400 | 3200 | 19,11 | [pa/m] [m/sec] | | | | | | | | | | | |
| 413 | 825 | 1238 | 1650 | 2063 | 2475 | 3300 | 19,70 | [pa/m] [m/sec] | | | | | | | | | | | |
| 425 | 850 | 1275 | 1700 | 2125 | 2550 | 3400 | 20,30 | [pa/m] [m/sec] | | | | | | | | | | | |