

METAIS NÃO FERROSOS | TUBOS NÃO FERROSOS

| | | ESPESSURA DA PAREDE | | | | | |
|------------------|--------|---------------------|-------|-------|----------|-------|-------|
| DIÂMETRO EXTERNO | | 1/32" - 0,79 m/m | | | 1,00 m/m | | |
| Poleg. | Milim. | Aluminio | Cobre | Latão | Aluminio | Cobre | Latão |
| 1/8" | 3,17 | 0,016 | 0,053 | 0,050 | 0,018 | 0,061 | 0,059 |
| 5/32" | 3,96 | 0,021 | 0,070 | 0,067 | 0,025 | 0,083 | 0,080 |
| 3/16" | 4,76 | 0,027 | 0,088 | 0,084 | 0,032 | 0,105 | 0,101 |
| 1/4" | 6,35 | 0,037 | 0,123 | 0,118 | 0,045 | 0,150 | 0,143 |
| 5/16" | 7,93 | 0,048 | 0,158 | 0,151 | 0,059 | 0,194 | 0,186 |
| 3/8" | 9,52 | 0,059 | 0,193 | 0,185 | 0,072 | 0,238 | 0,228 |
| 7/16" | 11,11 | 0,069 | 0,228 | 0,218 | 0,086 | 0,283 | 0,271 |
| 1/2" | 12,70 | 0,080 | 0,263 | 0,252 | 0,099 | 0,327 | 0,314 |
| 9/16" | 14,28 | 0,090 | 0,298 | 0,286 | 0,113 | 0,372 | 0,356 |
| 5/8" | 15,87 | 0,101 | 0,333 | 0,319 | 0,126 | 0,416 | 0,399 |
| 3/4" | 19,05 | 0,122 | 0,403 | 0,387 | 0,153 | 0,505 | 0,484 |
| 7/8" | 22,22 | 0,144 | 0,473 | 0,454 | 0,180 | 0,593 | 0,569 |
| 1" | 25,40 | 0,165 | 0,544 | 0,521 | 0,207 | 0,682 | 0,654 |
| 1.1/8" | 28,57 | 0,186 | 0,614 | 0,588 | 0,234 | 0,771 | 0,739 |
| 1.1/4" | 31,75 | 0,207 | 0,684 | 0,655 | 0,261 | 0,860 | 0,824 |
| 1.3/8" | 34,92 | 0,229 | 0,754 | 0,723 | 0,288 | 0,948 | 0,909 |
| 1.1/2" | 38,10 | 0,250 | 0,824 | 0,790 | 0,315 | 1,040 | 0,994 |
| 1.5/8" | 41,27 | 0,271 | 0,893 | 0,857 | 0,342 | 1,130 | 1,080 |
| 1.3/4" | 44,45 | 0,293 | 0,964 | 0,924 | 0,369 | 1,210 | 1,160 |
| 1.7/8" | 47,62 | 0,314 | 1,030 | 0,991 | 0,395 | 1,300 | 1,250 |
| 2" | 50,80 | 0,335 | 1,100 | 1,060 | 0,422 | 1,390 | 1,330 |
| 2.1/8" | 53,97 | 0,356 | 1,170 | 1,130 | 0,449 | 1,480 | 1,420 |
| 2.1/4" | 57,15 | 0,378 | 1,240 | 1,190 | 0,476 | 1,570 | 1,500 |
| 2.3/8" | 60,33 | 0,399 | 1,310 | 1,260 | 0,503 | 1,660 | 1,590 |
| 2.1/2" | 63,50 | 0,420 | 1,390 | 1,330 | 0,530 | 1,750 | 1,670 |
| 2.5/8" | 66,67 | 0,442 | 1,460 | 1,390 | 0,557 | 1,840 | 1,760 |
| 2.3/4" | 69,85 | 0,463 | 1,530 | 1,460 | 0,584 | 1,930 | 1,850 |
| 3" | 76,20 | 0,505 | 1,670 | 1,600 | 0,638 | 2,100 | 2,020 |

| | | ESPESSURA DA PAREDE | | | | | |
|------------------|--------|---------------------|-------|-------|------------------|-------|-------|
| DIÂMETRO EXTERNO | | 1/16" - 1,58 m | | | 3/32" - 2,38 m/m | | |
| Poleg. | Milim. | Aluminio | Cobre | Latão | Aluminio | Cobre | Latão |
| 1/8" | 3,17 | | | | | | |
| 5/32" | 3,96 | 0,032 | 0,105 | 0,101 | | | |
| 3/16" | 4,76 | 0,043 | 0,141 | 0,135 | | | |
| 1/4" | 6,35 | 0,064 | 0,212 | 0,203 | 0,080 | 0,264 | 0,253 |
| 5/16" | 7,93 | 0,086 | 0,282 | 0,271 | 0,112 | 0,370 | 0,355 |
| 3/8" | 9,52 | 0,107 | 0,353 | 0,338 | 0,144 | 0,475 | 0,455 |
| 7/16" | 11,11 | 0,128 | 0,423 | 0,406 | 0,176 | 0,581 | 0,557 |
| 1/2" | 12,70 | 0,150 | 0,494 | 0,473 | 0,208 | 0,687 | 0,658 |
| 9/16" | 14,28 | 0,171 | 0,565 | 0,541 | 0,240 | 0,793 | 0,760 |
| 5/8" | 15,87 | 0,193 | 0,635 | 0,609 | 0,272 | 0,898 | 0,860 |
| 3/4" | 19,05 | 0,235 | 0,776 | 0,744 | 0,337 | 1,110 | 1,060 |
| 7/8" | 22,22 | 0,278 | 0,918 | 0,879 | 0,401 | 1,320 | 1,270 |
| 1" | 25,40 | 0,321 | 1,060 | 1,010 | 0,465 | 1,530 | 1,470 |
| 1.1/8" | 28,57 | 0,374 | 1,200 | 1,150 | 0,553 | 1,740 | 1,670 |
| 1.1/4" | 31,75 | 0,407 | 1,340 | 1,290 | 0,593 | 1,950 | 1,870 |
| 1.3/8" | 34,92 | 0,450 | 1,480 | 1,420 | 0,657 | 2,170 | 2,080 |
| 1.1/2" | 38,10 | 0,492 | 1,620 | 1,560 | 0,721 | 2,380 | 2,280 |
| 1.5/8" | 41,27 | 0,535 | 1,760 | 1,690 | 0,785 | 2,590 | 2,480 |
| 1.3/4" | 44,45 | 0,578 | 1,910 | 1,830 | 0,849 | 2,800 | 2,680 |
| 1.7/8" | 47,62 | 0,621 | 2,050 | 1,960 | 0,913 | 3,010 | 2,890 |
| 2" | 50,80 | 0,664 | 2,190 | 2,100 | 0,977 | 3,220 | 3,090 |
| 2.1/8" | 53,97 | 0,706 | 2,330 | 2,230 | 1,040 | 3,430 | 3,290 |
| 2.1/4" | 57,15 | 0,749 | 2,470 | 2,370 | 1,110 | 3,640 | 3,490 |
| 2.3/8" | 60,33 | 0,792 | 2,610 | 2,500 | 1,170 | 3,860 | 3,700 |
| 2.1/2" | 63,50 | 0,835 | 2,750 | 2,640 | 1,230 | 4,060 | 3,900 |
| 2.5/8" | 66,67 | 0,878 | 2,890 | 2,770 | 1,300 | 4,280 | 4,100 |
| 2.3/4" | 69,85 | 0,921 | 3,030 | 2,910 | 1,360 | 4,490 | 4,300 |
| 3" | 76,20 | 1,010 | 3,320 | 3,180 | 1,490 | 4,910 | 4,710 |

| | | | | | | | |
|--------|--------|--|--|--|-------|-------|-------|
| 3.1/4" | 82,55 | | | | 1,619 | 5,392 | 5,212 |
| 3.1/2" | 88,90 | | | | 1,800 | 5,910 | 5,680 |
| 3.3/4" | 95,25 | | | | 1,974 | 6,243 | 6,038 |
| 4" | 101,60 | | | | 2,020 | 6,673 | 6,451 |

| | | ESPESSURA DA PAREDE | | |
|------------------|--------|---------------------|-------|-------|
| DIÂMETRO EXTERNO | | 1/8" - 3,17 m/m | | |
| Poleg. | Milim. | Aluminio | Cobre | Latão |
| 1/8" | 3,17 | | | |
| 5/32" | 3,96 | | | |
| 3/16" | 4,76 | | | |
| 1/4" | 6,35 | | | |
| 5/16" | 7,93 | 0,128 | 0,422 | 0,400 |
| 3/8" | 9,52 | 0,171 | 0,563 | 0,510 |
| 7/16" | 11,11 | 0,213 | 0,704 | 0,590 |
| 1/2" | 12,70 | 0,256 | 0,844 | 0,825 |
| 9/16" | 14,28 | 0,299 | 0,985 | 0,962 |
| 5/8" | 15,87 | 0,341 | 1,130 | 1,100 |
| 3/4" | 19,05 | 0,427 | 1,410 | 1,350 |
| 7/8" | 22,22 | 0,512 | 1,609 | 1,620 |
| 1" | 25,40 | 0,597 | 1,970 | 1,890 |
| 1.1/8" | 28,57 | 0,683 | 2,250 | 2,160 |
| 1.1/4" | 31,75 | 0,768 | 2,530 | 2,430 |
| 1.3/8" | 34,92 | 0,854 | 2,810 | 2,700 |
| 1.1/2" | 38,10 | 0,939 | 3,100 | 2,970 |
| 1.5/8" | 41,27 | 1,020 | 3,380 | 3,240 |
| 1.3/4" | 44,45 | 1,110 | 3,660 | 3,510 |
| 1.7/8" | 47,62 | 1,200 | 3,940 | 3,780 |
| 2" | 50,80 | 1,280 | 4,220 | 4,050 |
| 2.1/8" | 53,97 | 1,370 | 4,500 | 4,320 |
| 2.1/4" | 57,15 | 1,450 | 4,780 | 4,580 |
| 2.3/8" | 60,33 | 1,540 | 5,070 | 4,850 |
| 2.1/2" | 63,50 | 1,620 | 5,350 | 5,120 |
| 2.5/8" | 66,67 | 1,710 | 5,630 | 5,390 |
| 2.3/4" | 69,85 | 1,790 | 5,910 | 5,660 |
| 3" | 76,20 | 1,960 | 6,470 | 6,200 |
| 3.1/4" | 82,55 | 2,133 | 7,111 | 6,874 |
| 3.1/2" | 88,90 | 2,250 | 7,830 | 7,450 |
| 3.3/4" | 95,25 | 2,550 | 8,300 | 7,969 |
| 4" | 101,60 | 2,610 | 7,719 | 8,250 |