

World Wide Metric

Tubing

WORLD  METRIC



Table of Contents

| | |
|--------------------------------------|---|
| Metric Stainless Steel Tubing | 1 |
| Metric Carbon Steel Tubing | 2 |
| Metric CrVI-Free Plated Tubing | 3 |
| SAE CrVI-Free Plated Tubing | 4 |
| Copper Tubing | 5 |
| Copper Nickel Tubing | 6 |
| Aluminum Brass Tubing | 7 |
| Tube Clamps | 8 |

Metric Stainless Steel Tubing

for Hydraulic and Pneumatic Applications

DIN EN 10216-5, ASTM A213 / A269

| Tube O.D. (mm) | Wall Thickness (mm) | Working Pressure (bar*) | Weight (kg/m) | Tolerances (+/- kg) | Item Number |
|----------------|---------------------|-------------------------|---------------|---------------------|-------------|
| 4 | 1.0 | 321 | 0.076 | ± 0.1 | 316S-04X1.0 |
| 6 | 1.0 | 406 | 0.125 | ± 0.1 | 316S-06X1.0 |
| | 1.5 | 572 | 0.169 | ± 0.1 | 316S-06X1.5 |
| | 2.0 | 721 | 0.200 | ± 0.1 | 316S-06X2.0 |
| 8 | 1.0 | 347 | 0.175 | ± 0.1 | 316S-08X1.0 |
| | 1.5 | 449 | 0.244 | ± 0.1 | 316S-08X1.5 |
| | 2.0 | 572 | 0.301 | ± 0.1 | 316S-08X2.0 |
| 10 | 1.0 | 294 | 0.225 | ± 0.1 | 316S-10X1.0 |
| | 1.5 | 389 | 0.319 | ± 0.1 | 316S-10X1.5 |
| | 2.0 | 498 | 0.401 | ± 0.1 | 316S-10X2.0 |
| 12 | 1.0 | 245 | 0.275 | ± 0.08 | 316S-12X1.0 |
| | 1.5 | 368 | 0.394 | ± 0.08 | 316S-12X1.5 |
| | 2.0 | 426 | 0.500 | ± 0.08 | 316S-12X2.0 |
| 14 | 1.5 | 315 | 0.469 | ± 0.08 | 316S-14X1.5 |
| | 2.0 | 420 | 0.601 | ± 0.08 | 316S-14X2.0 |
| 15 | 1.5 | 294 | 0.507 | ± 0.08 | 316S-15X1.5 |
| | 2.0 | 392 | 0.651 | ± 0.08 | 316S-15X2.0 |
| 16 | 1.5 | 275 | 0.544 | ± 0.08 | 316S-16X1.5 |
| | 2.0 | 368 | 0.702 | ± 0.08 | 316S-16X2.0 |
| | 2.5 | 402 | 0.845 | ± 0.08 | 316S-16X2.5 |
| | 3.0 | 471 | 0.977 | ± 0.08 | 316S-16X3.0 |
| 18 | 1.5 | 245 | 0.619 | ± 0.08 | 316S-18X1.5 |
| | 2.0 | 326 | 0.801 | ± 0.08 | 316S-18X2.0 |
| 20 | 2.0 | 294 | 0.902 | ± 0.08 | 316S-20X2.0 |
| | 2.5 | 368 | 1.095 | ± 0.08 | 316S-20X2.5 |
| | 3.0 | 389 | 1.277 | ± 0.08 | 316S-20X3.0 |
| 22 | 2.0 | 210 | 1.001 | ± 0.08 | 316S-22X2.0 |
| 25 | 2.0 | 236 | 1.151 | ± 0.08 | 316S-25X2.0 |
| | 2.5 | 294 | 1.408 | ± 0.08 | 316S-25X2.5 |
| | 3.0 | 352 | 1.653 | ± 0.08 | 316S-25X3.0 |
| 28 | 2.0 | 210 | 1.301 | ± 0.08 | 316S-28X2.0 |
| 30 | 3.0 | 294 | 2.028 | ± 0.08 | 316S-30X3.0 |
| 35 | 3.0 | 252 | 2.403 | ± 0.15 | 316S-35X3.0 |
| 38 | 3.0 | 232 | 2.628 | ± 0.15 | 316S-38X3.0 |
| | 4.0 | 310 | 3.405 | ± 0.15 | 316S-38X4.0 |
| 42 | 3.0 | 210 | 2.929 | ± 0.2 | 316S-42X3.0 |

Type

Seamless Stainless Steel
High Pressure Tubes

Material

316 / 316L Stainless Steel according to
ASTM A213 / A269 (No. 1.4435)

Safety Factor

1.5

Dimensions

OD: 4mm - 42mm

Wall Thickness: 1mm - 4mm

Length: 6m

Additional sizes available upon request.



* Admissible working pressure according to DIN 2413

Metric Carbon Steel Tubing

for Hydraulic and Pneumatic Applications

DIN EN 10305-4, ASTM A822

| Tube O.D. (mm) | Wall Thickness (mm) | Working Pressure (bar*) | Weight (kg/m) | Tolerances (+/- kg) | Item Number |
|----------------|---------------------|-------------------------|---------------|---------------------|-------------|
| 6 | 1.0 | 377 | 0.123 | ± 0.8 | S006X1.0 |
| | 1.5 | 564 | 0.166 | ± 0.8 | S006X1.5 |
| | 2.0 | 644 | 0.197 | ± 0.8 | S006X2.0 |
| 8 | 1.0 | 282 | 0.173 | ± 0.8 | S008X1.0 |
| | 1.5 | 424 | 0.240 | ± 0.8 | S008X1.5 |
| | 2.0 | 565 | 0.296 | ± 0.8 | S008X2.0 |
| 10 | 1.0 | 245 | 0.222 | ± 0.8 | S010X1.0 |
| | 1.5 | 368 | 0.314 | ± 0.8 | S010X1.5 |
| | 2.0 | 426 | 0.395 | ± 0.8 | S010X2.0 |
| 12 | 1.0 | 199 | 0.271 | ± 0.8 | S012X1.0 |
| | 1.5 | 299 | 0.388 | ± 0.8 | S012X1.5 |
| | 2.0 | 399 | 0.493 | ± 0.8 | S012X2.0 |
| 14 | 1.5 | 256 | 0.462 | ± 0.8 | S014X1.5 |
| | 2.0 | 342 | 0.592 | ± 0.8 | S014X2.0 |
| | 2.5 | 403 | 0.709 | ± 0.8 | S014X2.5 |
| 15 | 1.0 | 129 | 0.345 | ± 0.8 | S015X1.0 |
| | 1.5 | 239 | 0.499 | ± 0.8 | S015X1.5 |
| | 2.0 | 319 | 0.641 | ± 0.8 | S015X2.0 |
| | 2.5 | 376 | 0.771 | ± 0.8 | S015X2.5 |
| 16 | 1.0 | 121 | 0.370 | ± 0.8 | S016X1.0 |
| | 1.5 | 224 | 0.536 | ± 0.8 | S016X1.5 |
| | 2.0 | 299 | 0.691 | ± 0.8 | S016X2.0 |
| | 2.5 | 374 | 0.832 | ± 0.8 | S016X2.5 |
| | 3.0 | 449 | 0.962 | ± 0.8 | S016X3.0 |
| 18 | 1.0 | 107 | 0.419 | ± 0.8 | S018X1.0 |
| | 1.5 | 199 | 0.610 | ± 0.8 | S018X1.5 |
| | 2.0 | 266 | 0.789 | ± 0.8 | S018X2.0 |
| | 2.5 | 313 | 0.956 | ± 0.8 | S018X2.5 |

| Tube O.D. (mm) | Wall Thickness (mm) | Working Pressure (bar*) | Weight (kg/m) | Tolerances (+/- kg) | Item Number |
|----------------|---------------------|-------------------------|---------------|---------------------|-------------|
| 20 | 1.5 | 179 | 0.684 | ± 0.8 | S020X1.5 |
| | 2.0 | 239 | 0.888 | ± 0.8 | S020X2.0 |
| | 2.5 | 299 | 1.079 | ± 0.8 | S020X2.5 |
| | 3.0 | 359 | 1.258 | ± 0.8 | S020X3.0 |
| | 4.0 | 479 | 1.578 | ± 0.8 | S020X4.0 |
| 22 | 1.5 | 163 | 0.758 | ± 0.8 | S022X1.5 |
| | 2.0 | 217 | 0.986 | ± 0.8 | S022X2.0 |
| | 2.5 | 272 | 1.202 | ± 0.8 | S022X2.5 |
| | 3.0 | 326 | 1.406 | ± 0.8 | S022X3.0 |
| 25 | 2.0 | 191 | 1.134 | ± 0.8 | S025X2.0 |
| | 2.5 | 239 | 1.387 | ± 0.8 | S025X2.5 |
| | 3.0 | 287 | 1.628 | ± 0.8 | S025X3.0 |
| | 4.0 | 399 | 2.072 | ± 0.8 | S025X4.0 |
| 28 | 1.5 | 128 | 0.98 | ± 0.8 | S028X1.5 |
| | 2.0 | 171 | 1.282 | ± 0.8 | S028X2.0 |
| | 2.5 | 201 | 1.572 | ± 0.8 | S028X2.5 |
| | 3.0 | 256 | 1.850 | ± 0.8 | S028X3.0 |
| 30 | 4.0 | 302 | 2.368 | ± 0.8 | S028X4.0 |
| | 2.0 | 159 | 1.381 | ± 0.8 | S030X2.0 |
| | 3.0 | 239 | 1.988 | ± 0.8 | S030X3.0 |
| | 4.0 | 333 | 2.565 | ± 0.8 | S030X4.0 |
| | 5.0 | 416 | 3.083 | ± 0.8 | S030X5.0 |
| 35 | 3.0 | 214 | 2.367 | ± 0.15 | S035X3.0 |
| | 4.0 | 322 | 3.058 | ± 0.15 | S035X4.0 |
| | 5.0 | 403 | 3.699 | ± 0.15 | S035X5.0 |
| 38 | 3.0 | 197 | 2.589 | ± 0.15 | S038X3.0 |
| | 4.0 | 263 | 3.354 | ± 0.15 | S038X4.0 |
| | 5.0 | 328 | 4.069 | ± 0.15 | S038X5.0 |
| 42 | 3.0 | 171 | 2.885 | ± 0.20 | S042X3.0 |
| | 4.0 | 238 | 3.749 | ± 0.20 | S042X4.0 |
| | 5.0 | 297 | 4.562 | ± 0.20 | S042X5.0 |
| 50 | 5.0 | 249 | 5.549 | ± 0.20 | S050X5.0 |
| | 6.0 | 299 | 6.511 | ± 0.20 | S050X6.0 |

* Admissible working pressure according to DIN 2413

Type

Seamless Cold-Drawn Precision Steel Tubes

Material

St 35 and St 37.4 BK and NBK

Safety Factor

1.5

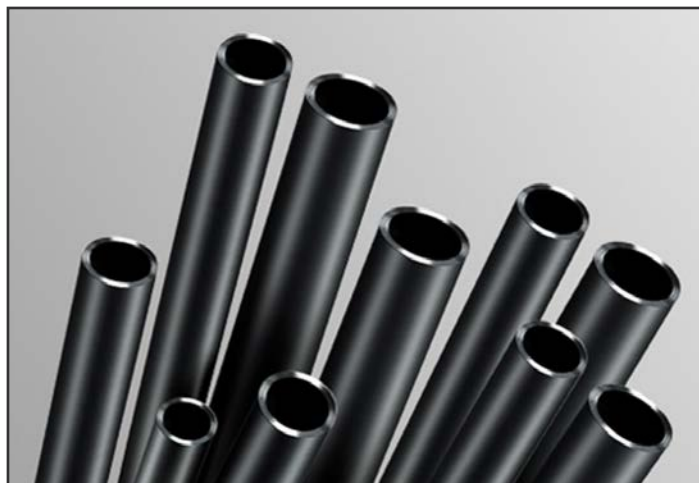
Dimensions

OD: 6mm - 50mm

Wall Thickness: 1mm - 6mm

Length: 6m

Additional sizes available upon request.



Metric Carbon Steel CrVI-Free Tubing

for Hydraulic and Pneumatic Applications

DIN EN 10305-4, ASTM A822

| Tube O.D. (mm) | Wall Thickness (mm) | Working Pressure (bar*) | Weight (kg/m) | Tolerances (+/- kg) | Item Number |
|----------------|---------------------|-------------------------|---------------|---------------------|-------------|
| 4 | 1.0 | 269 | 0.074 | ± 0.08 | S004X1.0CF |
| 6 | 1.0 | 377 | 0.123 | ± 0.08 | S006X1.0CF |
| | 1.5 | 564 | 0.166 | ± 0.08 | S006X1.5CF |
| | 2.0 | 644 | 0.197 | ± 0.08 | S006X2.0CF |
| 8 | 1.0 | 282 | 0.173 | ± 0.08 | S008X1.0CF |
| | 1.5 | 424 | 0.240 | ± 0.08 | S008X1.5CF |
| | 2.5 | 565 | 0.296 | ± 0.08 | S008X2.5CF |
| 10 | 1.0 | 239 | 0.222 | ± 0.08 | S010X1.0CF |
| | 1.5 | 359 | 0.314 | ± 0.08 | S010X1.5CF |
| 12 | 1.0 | 199 | 0.271 | ± 0.08 | S012X1.0CF |
| | 1.5 | 299 | 0.388 | ± 0.08 | S012X1.5CF |
| | 2.0 | 399 | 0.493 | ± 0.08 | S012X2.0CF |
| 14 | 2.0 | 342 | 0.592 | ± 0.08 | S014X2.0CF |
| 15 | 1.5 | 239 | 0.499 | ± 0.08 | S015X1.5CF |
| | 2.0 | 319 | 0.641 | ± 0.08 | S015X2.0CF |
| 16 | 1.5 | 224 | 0.536 | ± 0.08 | S016X1.5CF |
| | 2.0 | 299 | 0.691 | ± 0.08 | S016X2.0CF |
| | 3.0 | 449 | 0.962 | ± 0.08 | S016X3.0CF |
| 18 | 1.5 | 199 | 0.610 | ± 0.08 | S018X1.5CF |
| | 2.0 | 266 | 0.789 | ± 0.08 | S018X2.0CF |
| 20 | 2.0 | 239 | 0.888 | ± 0.08 | S020X2.0CF |
| | 2.5 | 299 | 1.079 | ± 0.08 | S022X2.5CF |
| | 3.0 | 359 | 1.258 | ± 0.08 | S022X3.0CF |
| 22 | 1.5 | 163 | 0.758 | ± 0.08 | S022X1.5CF |
| | 2.0 | 217 | 0.986 | ± 0.08 | S022X2.0CF |
| | 2.5 | 272 | 1.202 | ± 0.08 | S022X2.5CF |
| 25 | 2.0 | 191 | 1.134 | ± 0.08 | S025X2.0CF |
| | 3.0 | 287 | 1.628 | ± 0.08 | S025X3.0CF |
| | 4.0 | 399 | 2.072 | ± 0.08 | S025X4.0CF |
| 28 | 2.0 | 171 | 1.282 | ± 0.08 | S028X2.0CF |
| | 2.5 | 201 | 1.572 | ± 0.08 | S028X2.5CF |
| 30 | 3.0 | 239 | 1.988 | ± 0.08 | S030X3.0CF |
| | 4.0 | 333 | 2.565 | ± 0.08 | S030X4.0CF |
| 35 | 2.0 | 197 | 1.628 | ± 0.15 | S035X2.0CF |
| | 3.0 | 214 | 2.367 | ± 0.15 | S035X3.0CF |
| 38 | 3.0 | 171 | 2.589 | ± 0.15 | S038X3.0CF |
| | 4.0 | 238 | 3.354 | ± 0.15 | S038X4.0CF |
| 42 | 2.0 | 96 | 1.973 | ± 0.20 | S042X2.0CF |
| | 3.0 | 158 | 2.885 | ± 0.20 | S042X3.0CF |
| 60 | 4.0 | 188 | 5.524 | ± 0.25 | S060X4.0CF |

Type

Seamless Cold-Drawn Precision Steel Tubes

Material

St 35 and St 37.4, BK and NBK

Surface Treatment

Inside oiled, outside galvanized and passivated CrVI-free

Safety Factor

1.5

Dimensions

OD: 4mm - 60mm

Wall Thickness: 1mm - 4mm

Length: 6m

Additional sizes available upon request.



* Admissible working pressure according to DIN 2413

SAE Carbon Steel CrVI-Free Tubing

for Hydraulic and Pneumatic Power Systems

SAE J524, EN 10305-4

| Tube O.D. (in) | Wall Thickness (in) | Working Pressure (psi*) | Weight (lb/ft) | Item Number | |
|-------------------|---------------------------|-------------------------------|-------------------|----------------|-------------------|
| 3/16 | 0.190 | 0.035 | 5450 | 0.06 | STIM-0.19X0.035CF |
| 1/4 | 0.250 | 0.035 | 4288 | 0.08 | STIM-0.25X0.035CF |
| | | 0.049 | 6495 | 0.11 | STIM-0.25X0.049CF |
| | | 0.065 | 9581 | 0.13 | STIM-0.25X0.065CF |
| 5/16 | 0.310 | 0.035 | 3100 | 0.10 | STIM-0.31X0.035CF |
| 3/8 | 0.375 | 0.035 | 2697 | 0.13 | STIM-0.37X0.035CF |
| | | 0.049 | 3954 | 0.17 | STIM-0.37X0.049CF |
| | | 0.065 | 5556 | 0.22 | STIM-0.37X0.065CF |
| 1/2 | 0.500 | 0.035 | 1969 | 0.17 | STIM-0.50X0.035CF |
| | | 0.049 | 2848 | 0.24 | STIM-0.50X0.049CF |
| | | 0.065 | 3931 | 0.30 | STIM-0.50X0.065CF |
| | | 0.083 | 5267 | 0.37 | STIM-0.50X0.083CF |
| | | 0.095 | 6240 | 0.41 | STIM-0.50X0.095CF |
| 5/8 | 0.625 | 0.049 | 2226 | 0.30 | STIM-0.62X0.049CF |
| | | 0.065 | 3044 | 0.39 | STIM-0.62X0.065CF |
| | | 0.083 | 4030 | 0.48 | STIM-0.62X0.083CF |
| 3/4 | 0.750 | 0.035 | 1279 | 0.27 | STIM-0.75X0.035CF |
| | | 0.049 | 1828 | 0.37 | STIM-0.75X0.049CF |
| | | 0.065 | 2485 | 0.48 | STIM-0.75X0.065CF |
| | | 0.083 | 3266 | 0.59 | STIM-0.75X0.083CF |
| | | 0.095 | 3813 | 0.67 | STIM-0.75X0.095CF |
| | | 0.120 | 5034 | 0.81 | STIM-0.75X0.120CF |
| 1 | 1.000 | 0.035 | 947 | 0.36 | STIM-1.00X0.035CF |
| | | 0.049 | 1346 | 0.50 | STIM-1.00X0.049CF |
| | | 0.065 | 1818 | 0.65 | STIM-1.00X0.065CF |
| | | 0.083 | 2370 | 0.81 | STIM-1.00X0.083CF |
| | | 0.095 | 2751 | 0.92 | STIM-1.00X0.095CF |
| | | 0.109 | 3210 | 1.04 | STIM-1.00X0.109CF |
| | | 0.120 | 3582 | 1.13 | STIM-1.00X0.120CF |
| 1-¼ | 1.250 | 0.065 | 1434 | 0.82 | STIM-1.25X0.065CF |
| | | 0.095 | 2152 | 1.17 | STIM-1.25X0.095CF |
| | | 0.109 | 2502 | 1.33 | STIM-1.25X0.109CF |
| | | 0.120 | 2783 | 1.45 | STIM-1.25X0.120CF |
| 1-½ | 1.500 | 0.095 | 1768 | 1.43 | STIM-1.50X0.095CF |
| | | 0.120 | 2276 | 1.77 | STIM-1.50X0.120CF |

Type

Seamless Cold-Drawn Precision Steel Tubes
Annealed for Bending and Flaring

Material

E235 +N (St. 37.4 NBK)

Surface Treatment

Inside oiled, outside galvanized and
passivated CrVI-free

Safety Factor

4:1

Dimensions

OD: 0.19" - 1.5"

Wall Thickness: 0.035" - 0.120"

Length: 6m (19' 8-¼")

Additional sizes available upon request.



* Working Pressures at 4:1 Design Factor (psi/MPa)

Metric Copper Tubing

for General Plumbing and Steam Piping

DIN EN 12449, ASTM B280

Straight Tubes

Seamless drawn copper tubes according to:

DIN EN 12449, ASTM B280, BS EN 1057, and JIS H33UU (C1220)

Dimensions

OD: 4mm - 89mm

Wall Thickness: 1mm - 2mm

Length: 6m

Larger sizes available upon request, up to 419mm.

| Tube O.D. (mm) | Wall Thickness (mm) | Weight (kg/m) | Item Number |
|-------------------|------------------------|------------------|----------------|
| 4 | 1.0 | 0.08 | TC-04X1.0 |
| 6 | 1.0 | 0.14 | TC-06X1.0 |
| 8 | 1.0 | 0.20 | TC-08X1.0 |
| 10 | 1.0 | 0.25 | TC-10X1.0 |
| 12 | 1.0 | 0.31 | TC-12X1.0 |
| | 1.5 | 0.47 | TC-12X1.5 |
| 14 | 1.5 | 0.52 | TC-14X1.5 |
| 15 | 1.0 | 0.39 | TC-15X1.0 |
| | 1.5 | 0.55 | TC-15X1.5 |
| 16 | 1.5 | 0.63 | TC-16X1.5 |
| 18 | 1.5 | 0.69 | TC-18X1.5 |
| | 2.0 | 0.89 | TC-18X2.0 |
| 20 | 2.0 | 1.06 | TC-20X2.0 |
| 22 | 1.5 | 0.84 | TC-22X1.5 |
| | 2.0 | 1.12 | TC-22X2.0 |
| 25 | 2.0 | 1.26 | TC-25X2.0 |
| 28 | 1.5 | 1.09 | TC-28X1.5 |
| | 2.0 | 1.42 | TC-28X2.0 |
| 30 | 2.0 | 1.53 | TC-30X2.0 |
| 35 | 1.5 | 1.37 | TC-35X1.5 |
| | 2.0 | 1.84 | TC-35X2.0 |
| 42 | 1.5 | 1.70 | TC-42X1.5 |
| | 2.0 | 2.19 | TC-42X2.0 |
| 54 | 2.0 | 2.84 | TC-54X2.0 |
| 76 | 2.0 | 4.04 | TC-76X2.0 |
| 89 | 2.0 | 4.75 | TC-89X2.0 |

Soft Pancake Coils

Seamless drawn copper tubes according to:

DIN EN 12449, ASTM B280, BS EN 1057, and JIS H33UU (C1220)

Dimensions

OD: 4mm - 18mm

Wall Thickness: 0.6mm - 2mm

Length: 6m

Larger sizes available upon request, up to 28mm.

| Tube O.D. (mm) | Wall Thickness (mm) | Weight (kg/m) | Item Number |
|-------------------|------------------------|------------------|----------------|
| 4 | 0.6 | 0.08 | TC400-004B |
| 6 | 0.8 | 0.14 | TC400-006B |
| 8 | 0.8 | 0.20 | TC400-008A |
| 10 | 0.8 | 0.25 | TC400-010A |
| 12 | 0.8 | 0.31 | TC400-012A |
| 14 | 1.0 | 0.47 | TC400-014A |
| 15 | 1.0 | 0.52 | TC400-015A |
| 16 | 1.0 | 0.63 | TC400-016A |
| 18 | 1.0 | 1.06 | TC400-018A |



Metric Copper Nickel Tubing

for Offshore, Shipbuilding and other Marine Applications
DIN 86019 / EN 12449, ASTM B466

| Tube O.D. (mm) | Wall Thickness (mm) | Operating Pressure (bar) | Weight (kg/m) | Item Number |
|----------------|---------------------|--------------------------|---------------|-------------|
| 12 | 1.0 | 10 | 0.31 | YCN-012 |
| 15 | 1.0 | 10 | 0.39 | YCN-015 |
| 18 | 1.5 | 10 | 0.69 | YCN-018 |
| 20 | 1.5 | 10 | 0.80 | YCN-020 |
| 22 | 1.0 | 10 | 0.59 | YCN-022 |
| 25 | 2.0 | 16 | 1.32 | YCN-025 |
| 28 | 1.5 | 10 | 1.11 | YCN-028 |
| 30 | 1.5 | 14 | 1.19 | YCN-030 |
| 35 | 1.5 | 10 | 1.37 | YCN-035 |
| 38 | 1.5 | 14 | 1.53 | YCN-038 |
| 42 | 1.5 | 10 | 1.68 | YCN-042 |
| 44.5 | 1.5 | 14 | 1.80 | YCN-044 |
| 54 | 1.5 | 10 | 2.20 | YCN-054 |
| 57 | 1.5 | 14 | 2.33 | YCN-057 |
| 76 | 2.0 | 14 | 4.14 | YCN-076 |
| 88.9 | 2.0 | 10 | 4.86 | YCN-088 |
| 108 | 2.5 | 14 | 7.37 | YCN-108 |
| 133 | 2.5 | 14 | 9.12 | YCN-133 |
| 159 | 2.5 | 14 | 10.93 | YCN-159 |
| 194 | 3.0 | 10 | 16.01 | YCN-194 |
| 219 | 3.0 | 10 | 18.11 | YCN-219 |
| 267 | 3.0 | 10 | 22.13 | YCN-267 |
| 324 | 4.0 | 10 | 35.77 | YCN-324 |
| 368 | 4.0 | 10 | 40.69 | YCN-368 |

Type

Seamless Copper Nickel Tubes

Material

CuNi 90/10 according to DIN 86019 / EN 12449 (CuNi10Fe1,6Mn), ASTM B466 (C70600), BS 2871 (CS 102), JIS H3300 (C7060T)

Dimensions

OD: 12mm - 368mm

Wall Thickness: 1mm - 4mm

Length: 6m

Additional sizes available upon request.



Metric Aluminum Brass Tubing

for Condenser & Heating Coil Systems

DIN 1785, ASTM B111

| Tube O.D. (mm) | Wall Thickness (mm) | Working Pressure (bar*) | Weight (kg/m) | Item Number |
|----------------|---------------------|-------------------------|---------------|-------------|
| 10 | 1.0 | 6.9 | 0.24 | YAB-010 |
| 12 | 1.0 | 5.7 | 0.31 | YAB-012 |
| 14 | 1.0 | 6.2 | 0.33 | YAB-014 |
| 15.14 | 1.2 | 42.5 | 0.45 | YAB-015.14 |
| 16 | 1.0 | 21 | 0.39 | YAB-016 |
| | 1.2 | 59 | 0.48 | YAB-016X1.2 |
| | 2.0 | 99.2 | 0.73 | YAB-016X2 |
| 19 | 1.0 | 48 | 0.48 | YAB-019X1.0 |
| | 1.2 | 52 | 0.59 | YAB-019 |
| 20 | 1.0 | 17.1 | 0.53 | YAB-020 |
| 25 | 1.5 | 47.6 | 0.92 | YAB-025 |
| 28.25 | 1.4 | 32.5 | 1.00 | YAB-028.25 |
| 30 | 1.5 | 31.8 | 1.12 | YAB-030 |
| 38 | 1.5 | 27 | 1.43 | YAB-038 |
| 40.95 | 1.4 | 22.4 | 1.48 | YAB-040.95 |
| 44.50 | 1.5 | 23.1 | 1.69 | YAB-044 |
| 54.05 | 1.6 | 22.3 | 2.24 | YAB-054.05 |
| 57 | 1.5 | 18 | 2.18 | YAB-057 |
| 76.1 | 2.0 | 22.5 | 3.88 | YAB-076 |
| 88.9 | 2.5 | 27 | 5.66 | YAB-088 |
| 108 | 2.5 | 22.2 | 6.91 | YAB-108 |



Type

Seamless Drawn Aluminum Brass Tubes

Material

Aluminum Brass according to DIN 1785 (CuZn20A12), ASTM B111 (C68700), BS 2871 (CZ110), JIS H3300 (C6870)

Safety Factor

1.5

Dimensions

OD: 10mm - 108mm

Wall Thickness: 1mm - 2.5mm

Length: 6m

Additional sizes available upon request.

Tube Clamps

for General Hydraulic Applications
DIN 3015/1, DIN 3015/2, DIN 3015/3

Beta clamps provide reliable dampening support for tubes, pipes and hoses. Simple to operate and easy to install, beta clamps make for quick, easy pipe installations and layouts.

World Wide Metric offers three series of tube clamps: standard, heavy and twin. Each series is manufactured to international standards and features a full line of individual components, so that you can assemble the configuration that best meets the needs of your application. Clamps can be ordered as complete kits or individual components. **For more details and information on ordering, please refer to our complete Tube Clamp Catalog.**



Benefits

- Prevent the loosening of joints and welds by:
 - Absorbing shock
 - Dampening vibration
 - Reducing noise
- Simple to operate and easy to install
- Provide high-impact resistance
- Can accommodate various temperature ranges
- Suitable for a wide range of applications

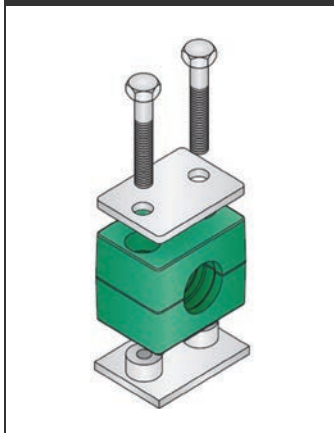
Applications

- General industrial
- Mobile and marine hydraulics
- Process industries
- Electrical construction
- Instrumentation and control technology

Clamp Series

STANDARD SERIES CLAMPS

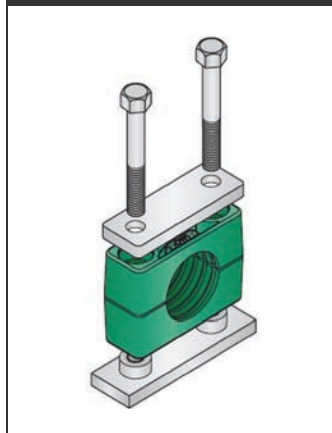
According to DIN 3015/1



For installations with average load and moderate vibration. Available for tube and pipe sizes from 1/4" - 4" (6mm - 101.6mm) O.D.

HEAVY SERIES CLAMPS

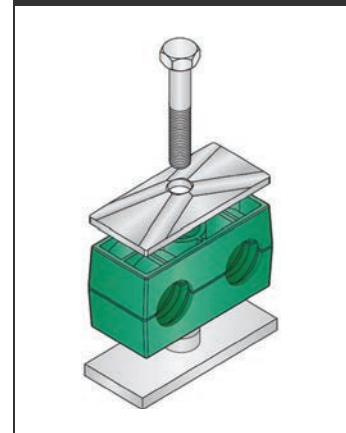
According to DIN 3015/2



For installations with heavier load and higher vibration. Available for tube and pipe sizes from 1/4" - 16" (6mm - 406.4mm) O.D.

TWIN SERIES CLAMPS

According to DIN 3015/3



For installations with closely placed lines / moderate vibration. Available for tube and pipe sizes from 1/4" - 1.65" (6mm - 42mm) O.D.

Piping Chart

Outside Diameter Comparison

| Nominal Size | | Carbon Steel Pipe - Ø (mm) | | | | CuNi Pipe - Ø (mm) | | |
|--------------|--------|----------------------------|-------|----------|-------|--------------------|--------|------------------------|
| Inch | Metric | KS/JIS (Standard) | ASTM | ISO Rule | DIN | Metric | Inch | Other European Size |
| 1/8 | 3.2 | 10.5 | 10.3 | 10.2 | 10.2 | | | |
| 1/4 | 6.4 | 13.8 | 13.7 | 13.5 | 13.5 | | | |
| 3/8 | 9.5 | 17.3 | 17.1 | 17.2 | 17.2 | | | |
| 1/2 | 12.7 | 21.7 | 21.3 | 21.3 | 21.3 | | | |
| 3/4 | 20 | 27.2 | 26.7 | 26.9 | 26.9 | | | 26.9 |
| 1 | 25 | 34 | 33.4 | 33.7 | 33.7 | 30 | 28.24 | 33.7 |
| 1-¼ | 32 | 42.7 | 42.2 | 42.4 | 42.4 | 38 | 34.59 | 38 |
| 1-½ | 40 | 48.6 | 48.3 | 48.3 | 48.3 | 44.5 | 40.94 | 44.5 |
| | 50 | | | | | | | 54 |
| | 50 | | | | | | | 57 |
| 2 | 50 | 60.5 | 60.3 | 60.3 | 60.3 | 57 | 54.05 | 60.3 |
| | 65 | | | | | | | 69 |
| 2-½ | 65 | 76.3 | 73 | 76.1 | 76.1 | 76.1 | 66.75 | 76.1 |
| | | | | | | | | 84 |
| 3 | 80 | 89.1 | 88.9 | 88.9 | 88.9 | 88.9 | 79.85 | 88.9 |
| 3-½ | 90 | 101.6 | 101.6 | 101.6 | | | | |
| 4 | 100 | | | | | | | 104 |
| | | | | | | | | 108 |
| 4 | 100 | 114.3 | 114.3 | 114.3 | 114.3 | 108 | 106.27 | 114.3 |
| | | | | | | | | 129 |
| 5 | 125 | 139.8 | 141.3 | 139.7 | 139.7 | 133 | 131.67 | 139.7 |
| | | | | | | | | 154 |
| 6 | 150 | 165.2 | 168.3 | 168.3 | 168.3 | 159 | 157.68 | 168.3 |
| | | | | | | | | 204 |
| 8 | 200 | 216.3 | 219.1 | 219.1 | 219.1 | 219 | 208.48 | 219 |
| | | | | | | | | 254 |
| | | | | | | | | 267 |
| 10 | 250 | 267.4 | 273.1 | 273 | 273 | 267 | 260.5 | 273 |
| | | | | | | | | 304 |
| 12 | 300 | 318.5 | 323.9 | 323.9 | 323.9 | 323.9 | 312.11 | 323.9 |
| 14 | 350 | 355.6 | 355.6 | 355.6 | 355.6 | 368 | 363.72 | |
| 16 | 400 | 406.4 | 406.4 | 406.4 | 406.4 | 419 | 414.52 | |
| 18 | 450 | 457.2 | 457.2 | 457.2 | 457.2 | 457.2 | 465.32 | |
| 20 | 500 | 508 | 508 | 508 | 508 | 508 | 516.94 | |

About World Wide Metric

World Wide Metric is an ISO-9001 certified global supplier serving the maritime, offshore, industrial and fluid power markets. With over 50,000 quality products stocked in five convenient locations across North America, customers count on us for product availability, speed of service, and technical expertise.

Serving North and South American ports and exporting products around the world, World Wide Metric works closely with engineering and purchasing departments to provide comprehensive technical support that includes engineering data and logistics handling. We provide material test reports for all of our products, as well as class certifications from international agencies including LRS, DNV-GL, ABS, BV and RINA.

Our extensive in-stock selection includes a broad range of marine valves, flanges, hydraulic tubing and fittings, as well as other flow control and fluid transfer products. We also offer specialty products such as bulk bags, protective tapes, and repair clamps.

World Wide Metric stocks the largest inventory of metric products in all of our five strategically located facilities in North America. Since 1970, we have proudly served our customers with expert product advice, same-day quotations and on-time deliveries.

For more information on World Wide Metric and our complete line of products, please visit www.worldwidemetric.com or email us at: sales@worldwidemetric.com.



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