



This category includes wire ropes in sizes as small as 1/32" in diameter. They're used in a variety of applications, including control cables, window and door closures, different kinds of remote control systems, boat rigging and many others.

They can be made of galvanized or stainless steel aircraft wire.

Each of these products is carefully engineered and fabricated to uniform size and quality. For example, 1/16" 7 x 19 contains 133 separate wires, making the wires approximately the diameter of a

human hair. Yet the rope has high strength, bendability and fatigue resistance.

These ropes are produced for the most common applications in the market. Utility grade is made to RRW.410D. These cables have historically been called "aircraft" cable. Since most applications do not require that designation, we are changing the name to "utility" cable. We can provide these ropes to MIL-W-83420 "aircraft" specifications on request. They require special lubrication, internal marking and fatigue testing.

Nominal strengths and weights for 7x7 utility cable.

| GALVANIZED OR STAINLESS STEEL | | | |
|-------------------------------|------------------------------|-------------------------|-----------|
| Diameter (in.) | Approx. wt. / 100 ft. (lbs.) | Nominal strength (lbs.) | |
| | | Galvanized | Stainless |
| 1/32* | 0.16 | 110 | 110 |
| 3/64 | 0.42 | 270 | 270 |
| 1/16 | 0.75 | 480 | 480 |
| 5/64 | 1.1 | 650 | 650 |
| 3/32 | 1.6 | 920 | 920 |
| 7/64 | 2.2 | 1,260 | 1,260 |
| 1/8 | 2.8 | 1,700 | 1,700 |
| 5/32 | 4.3 | 2,600 | 2,400 |
| 3/16 | 6.2 | 3,700 | 3,700 |
| 7/32 | 8.3 | 4,800 | 4,800 |
| 1/4 | 10.6 | 6,100 | 6,100 |
| 9/32 | 13.4 | 7,600 | 7,600 |
| 5/16 | 16.7 | 9,200 | 9,000 |
| 3/8 | 23.6 | 13,100 | 12,000 |

Nominal strengths and weights for 7x19 utility cable.

| GALVANIZED OR STAINLESS STEEL | | | |
|-------------------------------|------------------------------|-------------------------|-----------|
| Diameter (in.) | Approx. wt. / 100 ft. (lbs.) | Nominal strength (lbs.) | |
| | | Galvanized | Stainless |
| 1/16 | 0.75 | 480 | 480 |
| 3/32 | 1.7 | 1,000 | 920 |
| 7/64 | 2.2 | 1,400 | 1,260 |
| 1/8 | 2.9 | 2,000 | 1,760 |
| 5/32 | 4.5 | 2,800 | 2,400 |
| 3/16 | 6.5 | 4,200 | 3,700 |
| 7/32 | 8.6 | 5,600 | 5,000 |
| 1/4 | 11.0 | 7,000 | 6,400 |
| 9/32 | 13.9 | 8,000 | 7,800 |
| 5/16 | 17.3 | 9,800 | 9,000 |
| 11/32 | 20.7 | 12,500 | — |
| 3/8 | 24.3 | 14,400 | 12,000 |

*1/32 is made in 3 x 7 construction.

Galvanized strand products.

Our galvanized strand products meet or exceed ASTM Specifications A475 and ASTM A363. Strands are tested for:

- Minimum breaking strength.
- Elongation (High Strength 5%; Extra High Strength and Utilities Grade 4%).
- Individual wire tolerances.
- Wire coating weight - ASTM Method A90.
- Wire wrap test for coating adherence.
- Wire wrap test for steel ductility.
- Preforming check.

Physical properties of zinc-coated steel wire strand.

| Nominal diameter of strand (in.) | Number of wires | Nominal diameter of coated wires (in.) | Approx. wt. of strand (lb. / 1000 ft.) | MINIMUM BREAKING STRENGTH OF STRAND (LBS.) | | |
|----------------------------------|-----------------|--|--|--|---------------------|---------------------------|
| | | | | Utilities Grade | High Strength Grade | Extra-High Strength Grade |
| 3/16 | 7 | .062 | 73 | — | 2,850 | 3,990 |
| 7/32 | 7 | .072 | 98 | — | 3,850 | 5,400 |
| 1/4 | 7 | .080 | 121 | — | 4,750 | 6,650 |
| 9/32 | 7 | .093 | 164 | — | 6,400 | 8,950 |
| 5/16 | 7 | .104 | 205 | — | 8,000* | 11,200* |
| 3/8 | 7 | .120 | 273 | 11,500* | 10,800* | 15,400* |
| 7/16 | 7 | .145 | 399 | 18,000 | 14,500* | 20,800* |
| 1/2 | 7 | .165 | 517 | 25,000 | 18,800* | 26,900* |
| 1/2 | 19 | .100 | 504 | — | 19,100 | 26,700 |
| 9/16 | 7 | .188 | 671 | — | 24,500 | 35,000 |
| 9/16 | 19 | .113 | 637 | — | 24,100 | 33,700 |
| 5/8 | 7 | .207 | 813 | — | 29,600 | 42,400 |
| 5/8 | 19 | .125 | 796 | — | 28,100 | 40,200 |
| 3/4 | 19 | .150 | 1,155 | — | 40,800 | 58,300 |
| 7/8 | 19 | .177 | 1,581 | — | 55,800 | 79,700 |
| 1 | 19 | .200 | 2,073 | — | 73,200 | 104,500 |
| 1 1/8 | 37 | .161 | 2,691 | — | 91,600 | 130,800 |
| 1 1/4 | 37 | .179 | 3,248 | — | 113,600 | 162,200 |

*ASTM A 363 (weldless) is also available in these sizes and grades upon request.