

Rigid Aluminum Conduit



 **INDALEX**
RIGID ALUMINUM CONDUIT

Why Rigid Aluminum Conduit?

Costs Less Than Rigid Steel Conduit

- Cost Per Foot Savings of 10-40% Versus Rigid Steel

Lower Installation Cost

- Labor Savings of 35-75% Versus Rigid Steel
- 1/3 the Weight of Rigid Steel Conduit
- Less Chance of a Workers Compensation Injury
- Easy Field Fabrication

Explosion Proof

- Replaces Rigid Steel in Virtually All Locations
- Non-Sparking
- Aluminum Conduit Meets All National Electrical Code – Article 500 Hazardous Area Requirements
- No Toxic Fumes

Superior Attractive Appearance

- Corrosion Resistant Oxide Film
- No Rust or Unsightly Discoloration or Streaking

Non-Magnetic

- Protection for Sensitive Environments
- Power Savings Over the Life of the Installation

Why Buy From Indalex?

Quality – QC Systems that Surpass Industry Standards

Cost – We Extrude and Thread In-House

Experience – Over 25 Years Manufacturing

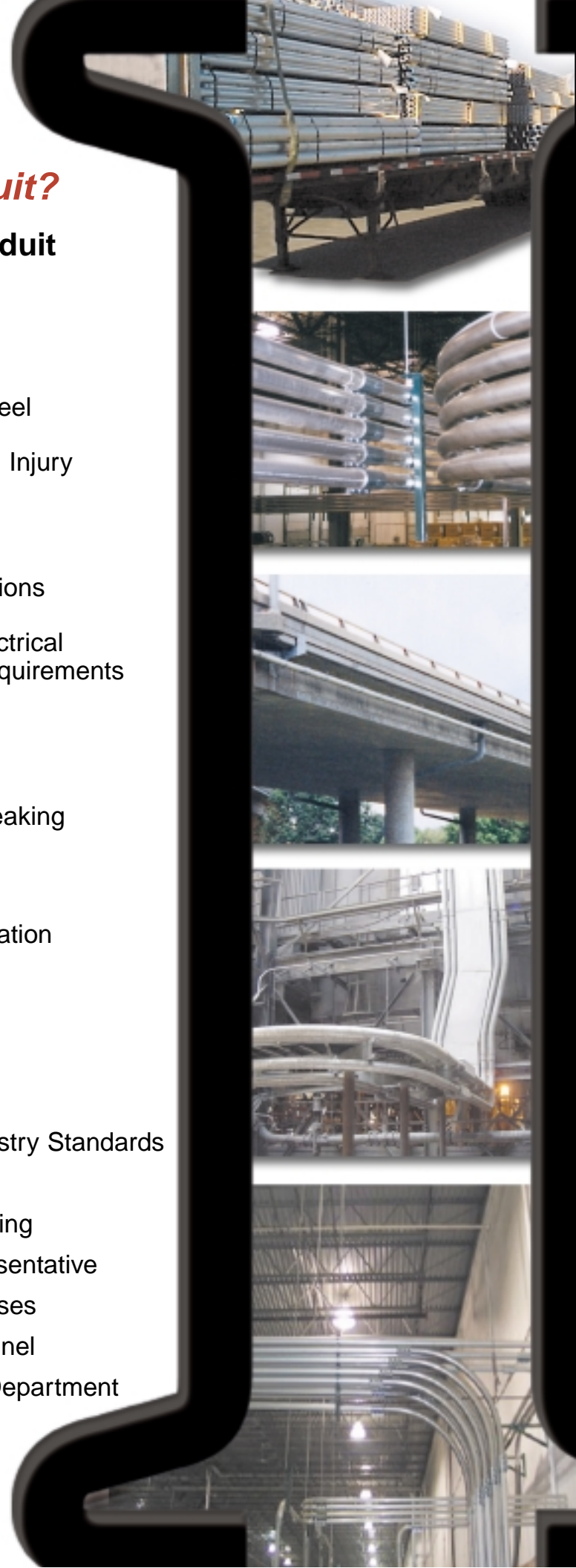
Nationwide Distribution – 31 Representative

Organizations, 21 with Stocking Warehouses

Support – Training Programs and Personnel

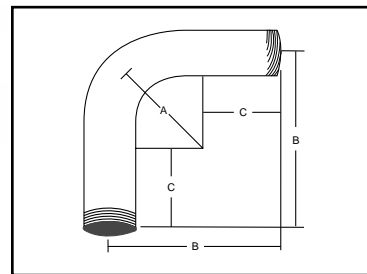
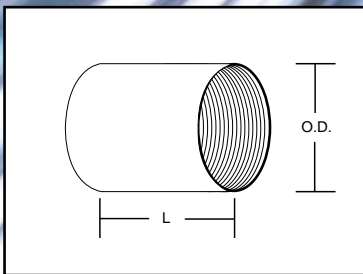
Service – Dedicated Customer Service Department

Technology – Online RFQ & Ordering



Tolerances and Specifications

| Size | Nominal Pipe Size O.D. X Wall | Outside Diameter | | Wall Thickness Minimum | Length +/- 1/4 Without Coupling | Couplings | | Conduit Weight / Packaging | | |
|--------|-------------------------------------|---------------------|--------|------------------------------|---------------------------------------|----------------|-----------------------------|----------------------------|--------------------------------|----------------------------|
| | | Min. | Max. | | | Min. Length | Nominal Wt. / 10 Pcs. | Wt/Cft. | Pcs/Bndl (Interior Bndl) | Wt. of Master Bundle |
| 1/2" | .840" x .109" | .809" | .855" | .095" | 9' 11.25" | 1.562 | .61 # | 28.1 | 250 (10) | 703 # |
| 3/4" | 1.050" x .113" | 1.019" | 1.065" | .099" | 9' 11.25" | 1.625 | .91 # | 37.4 | 250 (10) | 935 # |
| 1" | 1.315" x .133" | 1.284" | 1.330" | .116" | 9' 11.00" | 2.000 | 1.25 # | 54.5 | 200 (10) | 1090 # |
| 1-1/4" | 1.660" x .140" | 1.629" | 1.675" | .122" | 9' 11.00" | 2.062 | 1.89 # | 71.6 | 100 (5) | 716 # |
| 1-1/2" | 1.900" x .145" | 1.869" | 1.916" | .127" | 9' 11.00" | 2.062 | 2.33 # | 88.7 | 100 (5) | 887 # |
| 2" | 2.375" x .154" | 2.351" | 2.399" | .135" | 9' 11.00" | 2.125 | 3.46 # | 118.5 | 45 (5) | 533 # |
| 2-1/2" | 2.875" x .203" | 2.846" | 2.904" | .178" | 9' 10.50" | 3.125 | 6.83 # | 187.5 | 30 (0) | 562 # |
| 3" | 3.500 x .216" | 3.465" | 3.535" | .189" | 9' 10.50" | 3.250 | 9.14 # | 246.3 | 20 (0) | 492 # |
| 3-1/2" | 4.000 x .226" | 3.960" | 4.040" | .198" | 9' 10.25" | 3.375 | 10.8 # | 295.6 | 20 (0) | 591 # |
| 4" | 4.500 x .237" | 4.455" | 4.545" | .207" | 9' 10.25" | 3.500 | 14.2 # | 350.2 | 20 (0) | 700 # |
| 5" | 5.563" x .258" | 5.507" | 5.619" | .226" | 9' 10.00" | 3.750 | 24.2 # | 478.9 | 8 (0) | 383 # |
| 6" | 6.625" x .280" | 6.559" | 6.691" | .245" | 9' 10.00" | 4.0 | 32.1 # | 630.4 | 6 (0) | 378 # |



| Rigid Aluminum Couplings | | | | |
|---------------------------------|--------------------|------------------|----------------|------------------|
| Size | Standard Packaging | Nom. Wt/100 Pcs. | O.D. in Inches | Length in Inches |
| 1/2" | 100 | 6 | 1 - 5/64 | 1 - 9/16 |
| 3/4" | 50 | 9 | 1 - 21/64 | 1 - 5/8 |
| 1" | 50 | 12 | 1 - 9/16 | 2 - |
| 1-1/4" | 50 | 18 | 1 - 61/64 | 2 - 1/16 |
| 1-1/2" | 50 | 23 | 2 - 7/32 | 2 - 1/16 |
| 2" | 50 | 33 | 2 - 3/4 | 2 - 1/8 |
| 2-1/2" | 25 | 69 | 3 - 9/32 | 3 - 1/8 |
| 3" | 25 | 92 | 3 - 15/16 | 3 - 1/4 |
| 3-1/2" | 10 | 105 | 4 - 7/16 | 3 - 3/8 |
| 4" | 10 | 142 | 5 - | 3 - 1/2 |
| 5" | 5 | 234 | 6 - 19/64 | 3 - 3/4 |
| 6" | BULK | 318 | 7 - 25/64 | 4 - |

| Rigid Aluminum Elbows (standard radius only) | | | | | |
|---|--------------------|------------------|----------|----------|----------|
| Size | Standard Packaging | Nom. Wt/100 Pcs. | A Inches | B Inches | C Inches |
| 1/2" | 50 | 26 | 4 - | 6 - 1/2 | 2 - 1/2 |
| 3/4" | 50 | 38 | 4 - 1/2 | 7 - 1/4 | 2 - 3/4 |
| 1" | 25 | 64 | 5 - 3/4 | 8 - 3/8 | 2 - 7/8 |
| 1-1/4" | 20 | 100 | 7 - 1/4 | 10 - 1/4 | 3 - |
| 1-1/2" | 10 | 140 | 8 - 1/4 | 11 - 7/8 | 3 - 5/8 |
| 2" | 10 | 236 | 9 - 1/2 | 14 - | 4 - 1/2 |
| 2-1/2" | 10 | 400 | 10 - 1/2 | 15 - 3/4 | 5 - 1/4 |
| 3" | 10 | 644 | 13 - | 18 - 3/4 | 5 - 3/4 |
| 3-1/2" | 5 | 844 | 15 - | 21 - 3/4 | 6 - 3/4 |
| 4" | 5 | 1055 | 16 - | 23 - | 7 - |
| 5" | BULK | 2350 | 24 - | 36 - | 11 - |
| 6" | BULK | 3700 | 30 - | 42 - 1/2 | 12 - 1/2 |

Composition of Aluminum Alloy

Decision-maker—use the obvious choice for a code approved, UL listed, lightweight, lower cost rigid metal conduit ALUMINUM !

| | Percentage Limits per Industry Standards | Aluminum conduit, Typical Percentages | | Percentage Limits per Industry Standards | Aluminum conduit, Typical Percentages |
|------------------|--|---------------------------------------|-----------------|--|---------------------------------------|
| Copper | 0.10 max * | 0.02 | Chromium | 0.10 max. | 0.01 |
| Silicon | 0.20 to 0.6 | 0.40 | Titanium | 0.10 max. | 0.01 |
| Iron | 0.35 max. | 0.20 | Zinc | 0.10 max. | 0.02 |
| Magnesium | 0.45 to 0.9 | 0.70 | Others | 0.15 max | Trace |
| Manganese | .010 max. | 0.01 | Aluminum | Remainder | Remainder |

* Maximum limit set by the Aluminum Association. Alloys with up to 0.40% copper are acceptable to Underwriters Laboratories, Inc. for use in rigid aluminum conduit; typical conduit uses only 0.02, or 95% less. Indalex conduit is around 0.004%, which is just a trace and considered to be copperfree.

Specification Data

Alloy: 6063 Aluminum Alloy, T-1 temper. (Former designation T-42)

Specification Compliance:

- Federal Specification WW-C-540c.
- Underwriters' Laboratories UL-6, latest revision
- American National Standards Institute (ANSI) C80.5
- Canadian Standard Association CSA C 22.2 No. 45

Thread Protectors: Rigid Aluminum Conduit is shipped with color coded thread protectors, which shield threads, and simplify size selection.

Manufacturer's ID/Part#

| Size | Part # | Size | Part # | Size | Part # |
|----------------------|-------------|------------------------|--------|---------------------|--------|
| 1/2 Conduit | 1-012-10-00 | 1/2 Couplings | 2-012 | 1/2 Elbows | 3-012 |
| 3/4 Conduit | 1-034-10-00 | 3/4 Couplings | 2-034 | 3/4 Elbows | 3-034 |
| 1 Conduit | 1-100-10-00 | 1 Couplings | 2-100 | 1 Elbows | 3-100 |
| 1-1/4 Conduit | 1-114-10-00 | 1-1/4 Couplings | 2-114 | 1-1/4 Elbows | 3-114 |
| 1-1/2 Conduit | 1-112-10-00 | 1-1/2 Couplings | 2-112 | 1-1/2 Elbows | 3-112 |
| 2 Conduit | 1-200-10-00 | 2 Couplings | 2-200 | 2 Elbows | 3-200 |
| 2-1/2 Conduit | 1-212-10-00 | 2-1/2 Couplings | 2-212 | 2-1/2 Elbows | 3-212 |
| 3 Conduit | 1-300-10-00 | 3 Couplings | 2-300 | 3 Elbows | 3-300 |
| 3-1/2 Conduit | 1-312-10-00 | 3-1/2 Couplings | 2-312 | 3-1/2 Elbows | 3-312 |
| 4 Conduit | 1-400-10-00 | 4 Couplings | 2-400 | 4 Elbows | 3-400 |
| 5 Conduit | 1-500-10-00 | 5 Couplings | 2-500 | 5 Elbows | 3-500 |
| 6 Conduit | 1-600-10-00 | 6 Couplings | 2-600 | 6 Elbows | 3-600 |

Rigid Aluminum Conduit Weight Chart

| FEET | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | 2-1/2" | 3" | 3-1/2" | 4" | 5" | 6" |
|-------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| 100 | 28.1 | 37.4 | 54.5 | 71.6 | 88.7 | 118.5 | 187.5 | 246.3 | 295.6 | 350.2 | 478.9 | 630.4 |
| 200 | 56.2 | 74.8 | 109.0 | 143.2 | 177.4 | 237.0 | 375.0 | 492.5 | 591.2 | 700.4 | 957.8 | 1,260.8 |
| 300 | 84.3 | 112.2 | 163.5 | 214.8 | 266.1 | 355.5 | 562.5 | 738.9 | 886.8 | 1,050.6 | 1,436.7 | 1,891.2 |
| 400 | 112.4 | 149.6 | 218.0 | 286.4 | 354.8 | 474.0 | 750.0 | 985.2 | 1,182.4 | 1,400.8 | 1,915.6 | 2,521.6 |
| 500 | 140.5 | 187.0 | 272.5 | 358.0 | 443.5 | 592.5 | 937.5 | 1,231.5 | 1,478.0 | 1,751.0 | 2,394.5 | 3,152.0 |
| 600 | 168.6 | 224.4 | 327.0 | 429.6 | 532.2 | 711.0 | 1,125.0 | 1,477.8 | 1,773.6 | 2,101.2 | 2,873.4 | 3,782.4 |
| 700 | 196.7 | 261.8 | 381.5 | 501.2 | 620.9 | 829.5 | 1,312.5 | 1,724.1 | 2,069.2 | 2,451.4 | 3,352.3 | 4,412.8 |
| 800 | 224.8 | 299.2 | 436.0 | 572.8 | 709.6 | 948.0 | 1,500.0 | 1,970.4 | 2,364.8 | 2,801.6 | 3,831.3 | 5,043.2 |
| 900 | 252.9 | 336.6 | 490.5 | 644.4 | 798.3 | 1,066.5 | 1,687.5 | 2,216.7 | 2,660.4 | 3,151.8 | 4,310.1 | 5,673.6 |
| 1000 | 281.0 | 374.0 | 545.0 | 716.0 | 887.0 | 1,185.0 | 1,875.0 | 2,463.0 | 2,956.0 | 3,502.0 | 4,789.0 | 6,304.0 |
| 1100 | 309.1 | 411.4 | 599.5 | 787.6 | 975.7 | 1,303.5 | 2,062.5 | 2,709.3 | 3,251.6 | 3,852.2 | 5,267.9 | 6,934.4 |
| 1200 | 337.2 | 448.8 | 654.0 | 859.2 | 1,064.4 | 1,422.0 | 2,250.0 | 2,955.6 | 3,547.2 | 4,202.4 | 5,746.8 | 7,564.8 |
| 1300 | 365.3 | 486.2 | 708.5 | 930.8 | 1,153.1 | 1,540.5 | 2,437.5 | 3,201.9 | 3,842.8 | 4,552.6 | 6,225.7 | 8,195.2 |
| 1400 | 393.4 | 523.6 | 763.0 | 1,002.4 | 1,241.8 | 1,659.0 | 2,625.0 | 3,448.2 | 4,138.4 | 4,902.8 | 6,704.6 | 8,825.6 |
| 1500 | 421.5 | 561.0 | 817.5 | 1,074.0 | 1,330.5 | 1,777.5 | 2,812.5 | 3,694.5 | 4,434.0 | 5,253.0 | 7,183.5 | 9,456.0 |
| 1600 | 449.6 | 598.4 | 872.0 | 1,145.6 | 1,419.2 | 1,896.0 | 3,000.0 | 3,940.8 | 4,729.6 | 5,603.2 | 7,662.4 | 10,086.4 |
| 1700 | 477.7 | 635.8 | 926.5 | 1,217.2 | 1,507.9 | 2,014.5 | 3,187.5 | 4,187.1 | 5,025.2 | 5,953.4 | 8,141.3 | 10,716.8 |
| 1800 | 505.8 | 673.2 | 981.0 | 1,288.8 | 1,596.0 | 2,133.0 | 3,375.0 | 4,433.4 | 5,320.8 | 6,303.6 | 8,620.2 | 11,347.2 |
| 1900 | 533.9 | 710.6 | 1,035.5 | 1,360.4 | 1,685.3 | 2,251.5 | 3,562.5 | 4,679.7 | 5,616.4 | 6,653.8 | 9,099.1 | 11,977.6 |
| 2000 | 582.0 | 748.0 | 1,090.0 | 1,432.0 | 1,774.0 | 2,370.0 | 3,750.0 | 4,926.0 | 5,912.0 | 7,004.0 | 9,578.0 | 12,608.0 |
| 2500 | 702.5 | 935.0 | 1,362.5 | 1,790.0 | 2,217.5 | 2,962.5 | 4,687.5 | 6,157.5 | 7,390.0 | 8,755.0 | 11,972.5 | 15,760.0 |
| 3000 | 843.0 | 1,122.0 | 1,635.0 | 2,148.0 | 2,661.0 | 3,555.0 | 5,625.0 | 7,389.0 | 8,868.0 | 10,506.0 | 14,367.0 | 18,912.0 |
| 3500 | 983.5 | 1,309.0 | 1,907.5 | 2,506.0 | 3,104.5 | 4,147.5 | 6,562.5 | 8,620.0 | 10,346.0 | 12,257.0 | 16,761.5 | 22,064.0 |
| 4000 | 1,124.0 | 1,496.0 | 2,180.0 | 2,864.0 | 3,548.0 | 4,740.0 | 7,500.0 | 9,852.0 | 11,824.0 | 14,008.0 | 19,156.0 | 25,216.0 |
| 4500 | 1,264.5 | 1,683.0 | 2,452.5 | 3,222.0 | 3,991.5 | 5,332.5 | 8,437.5 | 11,083.5 | 13,302.0 | 15,759.0 | 21,550.5 | 28,368.0 |
| 5000 | 1,405.0 | 1,870.0 | 2,725.0 | 3,580.0 | 4,435.0 | 5,925.0 | 9,375.0 | 12,315.0 | 14,780.0 | 17,510.0 | 23,945.0 | 31,520.0 |
| 6000 | 1,686.0 | 2,244.0 | 3,270.0 | 4,296.0 | 5,322.0 | 7,110.0 | 11,250.0 | 14,778.0 | 17,736.0 | 21,012.0 | 28,734.0 | 37,824.0 |
| 7000 | 1,967.0 | 2,618.0 | 3,815.0 | 5,012.0 | 6,209.0 | 8,295.0 | 13,125.0 | 17,241.0 | 20,692.0 | 24,514.0 | 33,523.0 | 44,128.0 |
| 8000 | 2,248.0 | 2,992.0 | 4,360.0 | 5,728.0 | 7,096.0 | 9,480.0 | 15,000.0 | 19,704.0 | 23,648.0 | 28,016.0 | 38,312.0 | 50,432.0 |
| 9000 | 2,529.0 | 3,366.0 | 4,905.0 | 6,444.0 | 7,983.0 | 10,665.0 | 16,875.0 | 22,167.0 | 26,604.0 | 31,518.0 | 43,101.0 | 56,736.0 |
| 10000 | 2,810.0 | 3,740.0 | 5,450.0 | 7,160.0 | 8,870.0 | 11,850.0 | 18,750.0 | 24,630.0 | 29,560.0 | 35,020.0 | 47,890.0 | 63,040.0 |
| 15000 | 4,215.0 | 5,610.0 | 8,175.0 | 10,740.0 | 13,305.0 | 17,775.0 | 28,125.0 | 36,945.0 | 44,340.0 | 52,530.0 | 71,835.0 | 94,560.0 |
| 20000 | 5,620.0 | 7,480.0 | 10,900.0 | 14,320.0 | 17,740.0 | 23,700.0 | 37,500.0 | 49,260.0 | 59,120.0 | 70,040.0 | 95,780.0 | 126,080.0 |
| 25000 | 7,025.0 | 9,350.0 | 13,625.0 | 17,900.0 | 22,175.0 | 29,625.0 | 46,875.0 | 61,575.0 | 73,900.0 | 87,550.0 | 119,725.0 | 157,600.0 |
| 30000 | 8,430.0 | 11,220.0 | 16,350.0 | 21,480.0 | 26,610.0 | 35,550.0 | 56,250.0 | 73,890.0 | 88,680.0 | 105,060.0 | 143,670.0 | 189,120.0 |
| 35000 | 9,835.0 | 13,090.0 | 19,075.0 | 25,060.0 | 31,045.0 | 41,475.0 | 65,625.0 | 86,205.0 | 103,460.0 | 122,570.0 | 167,615.0 | 220,640.0 |
| 40000 | 11,240.0 | 14,960.0 | 21,800.0 | 28,640.0 | 35,480.0 | 47,400.0 | 75,000.0 | 98,520.0 | 118,240.0 | 140,080.0 | 191,560.0 | 252,160.0 |

Recommended Installation Practices

Cutting – A hacksaw is recommended for trade sizes 1^{1/4} and smaller. Power cut-off equipment is recommended for larger trade sizes.

Bending – Standard EMT benders, one size larger than the size of the conduit, should be used on conduit trade sizes 1 and smaller. Conventional equipment is recommended for larger trade sizes.

Threading – Sharp dies and conventional cutting oil should be used.

Fittings – Aluminum fittings are recommended, but cadmium-plated or galvanized fittings are satisfactory for most installations.

Fishing and Wire Pulling

Small Conduit – In trade sizes 1^{1/2} and smaller and on shorter runs (up to 100 feet), polyethylene fish tapes and round, flexible, speedometer-type steel cables are recommended. Use of flat steel tapes should be avoided.

Large Conduit – For larger conduit or longer runs, polypropylene rope is recommended.

Soil or Concrete Installation – Underwriters' Laboratories Electrical Construction Equipment Directory (UL Green Book) states that aluminum conduit used in concrete or in contact with soil requires supplemental corrosion protection. Examples are paints and tape wraps approved for the purpose, or PVC coated conduit.

Nationwide Distribution Network

