

Cable and Conduit Placing Equipment

Cable placement techniques have advanced to include an air-assisted process that combines a mechanical push with a compressed air pull. Our Air-Trak™ HD Air-Assisted Cable System is an innovative, compact, dual-acting system that speeds cable installation, even in areas where turns and elevation changes are frequent.

Our Tension Master[™] product line of cable placing equipment is designed to be modular, work in all types of terrain, all types of weather conditions, and most importantly, they are rugged and reliable. Tension Master[™] combines the power and precision of hydraulic pulling with optional electronic tension monitoring and a continuous printout of pull tension.

 ${\sf ARNCO}^{\otimes}$ also offers a wide range of trailer products that can be customized to meet specific cable installation needs.

Air-Trak[™] Cable Blowing Equipment

- Air-Trak™ HD Air-Assisted Cable Push/Pull System Installs cable 2 to 3 times faster and further than conventional capstan methods allow—up to 90,000 feet of cable per day!
- Air-Trak[™] MD Air-Assisted Mini Duct/Micro Cable Placing System Installs today's micro technology products for broadband and last mile builds.

Tension Master™ Cable Pulling Equipment

- Tension Master[™] TM 300 Series Cable Pulling Systems Complete system includes pulling winch, foot-valve control and 9", 30" and 40" capstans, (tension controller and stripchart recorder available). Designed for optical and coaxial cable installation.
- Tension Master™ TM 362 Hydraulic Power Unit Designed to operate ARNCO hydraulic cable pulling equipment. Choose from a 9 H.P. Briggs & Stratton, 13 H.P. Honda, or 16 H.P. Briggs & Stratton engine.

Maxx-Trak[™]

• MT 800 Cable/Conduit Pusher — Powerful hydraulic tractor assembly to push URD power cables into HDPE or PVC conduit for high productivity. The unit can also be configured to push-assist one to three HDPE conduit in difficult placement situations.





Cable and Conduit Placing Trailers

- CM 4000 Coil Master™ Coil Deployment Trailer A self-contained coil handling trailer that provides the ultimate in fast and safe handling of large diameter coils that require straightening and re-rounding prior to placement of the duct or conduit. The CM 4000's coil capacity of 4,000 pounds and up to 142 inch in diameter exceeds all comparable models available today. The CM 4000 self-load model can load the coil in less than one minute. A manual load version is also available. The trailer is sold separately or with an optional Line-Tamer™* Duct Preparation Machine.
- UT 1000B Utility Trailer A single axle trailer that accepts special mounting kits for transporting and storing either a Tension Master[™], Air-Trak[™] or Maxx-Trak[™] placing system and a portable power unit. Features a unique swing-out boom for maximum curbside set up configurations with minimal set up time.
- **TM 2000 Series Cable Pulling Trailers** Feature storage cabinets, TM 300 Series Pulling System and a built-in hydraulic power supply. Many extras are standard on this model such as a slide-out mount for the winch, a 12 volt outlet for ventilation blower and a safety strobe.
- TM 3050 Series Cable/Conduit Reel Trailers Trailers are available in three standard cargo capacities ranging from 3,500 pounds to 10,000 pounds. These durable, galvanized, pin-less trailers feature 120" reel size capability to transport fiber optic, coax, electrical cables and coilable conduit.



- MT 8000 Series Maxx-Trak[™] Trailer A heavy-duty trailer that features a unique turret reel payout system and a Maxx-Trak[™] Cable/Conduit Pusher. The turret design provides the ultimate in set up ease and high production cable placement of power cables.
- AT 9000 Series Rapid Deployment Trailer A high production cable blowing trailer equipped with a 250 CFM compressor with an integrated hydraulic pump system and an Air-Trak™ Cable Blowing System. The trailer is loaded with user-friendly conveniences such as ample storage cabinets, safety package and slide out boom for rapid set ups.

Cable Pulling Accessories

Cable sheaves, capstans, puller stands, utility collars, and pole brackets to enhance the true versatility of the ARNCO[®] cable placing systems.

Other Cable Placing Accessories

- **Conduit Mandrel** For cleaning and proving conduit prior to installation.
- Pull Line Swivel High working load; compact design.
- Breakaway Swivel Stainless steel; color-coded for easy identification.
- Directional Bore Conduit Pulling Eye/DB Feature triple-stage sealing system.
- Conduit Pulling Eye Clevis & Lug End Conduit; Clevis Swivel End Conduit.
- Clevis Swivel End Pulling Eye For power cable applications.
- Wire Rope Bridle Sling Available in eight sizes.
- Link Connector Available in four sizes/working loads.
- Rapid-Link Connector Available in seven sizes/working loads.
- Wire Mesh Grip Styles available for both optical fiber and metallic cable applications.
- Katimex Rodders Kati-Blitz, Kati-Jet, Cable Max, and Pipe Eel models for virtually all rodding situations



The ARNCO® System makes cable installations faster and cost-efficient.

ARNCO[®] created The System, as a synergistic approach to facing the challenges of cable installation. Using a system of customized products results in faster and further installations, completed safer and greater cost efficiency.

The System includes our four core product lines: cable placing equipment, cable conduit, pull tapes and chemicals. These products solve problems such as reducing friction, eliminating corrosion, compensating for expansion and contraction, fights crushing, and a myriad of other obstacles faced by cable installers.

ARNCO products used as a unified system increase your cable installation success. All of our products are designed to our Total Quality Management protocol.

If you need to place cable further and faster, or in short, tight places you can select from: Air-Trak[™], our air-assisted cable blowing system; Maxx-Trak[™] to push power cables or innerduct into a conduit system; or our rugged, reliable Tension Master[™] cable pulling system.

Additionally, ARNCO is the industry's leading supplier of conduit. We design and manufacture a superior-quality product, and offer innovations such as our patented "Wave-Rib[™]" design.

ARNCO's woven Bull-Line[™] Pull Tape maintains its flat shape so it is easier to blow into place. The flat shape disperses pull load over a larger area reducing frictional heat build-up and saw-through.

Formulated by our chemists to meet specific requirements, ARNCO chemical products are available in a wide range of formulations and materials. From our cleaners and sealants to our lubricants and accessories, we provide everything you need to make cable installation faster, easier and safer.

www.arncocorp.com

to download our detailed product bulletins. (PDF Files)



860 GARDEN STREET • ELYRIA, OHIO 44035 PHONE 440-322-1000 • FAX 440-322-1001 800-321-7914 • E-MAIL info@arncocorp.com WEB SITE www.arncocorp.com



ARNCO[®] – SOUTH 1164 Industrial Avenue Sage Mill Industrial Park Graniteville, SC 29829

ARNCO[®] – WEST 80 East Union Avenue North Salt Lake City, UT 84054

ARNCO® de MEXICO Carratera A Mexico y Periferico Sur Zona Inustrial San Luis Potosi 78090 San Luis Potosi, Mexico





Cable In Conduit (CIC) Products

ARNCO[®] CIC (Cable In Conduit) is a HDPE (high-density polyethylene) raceway/conduit system with factory-installed cables. Using CIC results in installation savings of 25-40% over traditional conduit systems by allowing the economical placement of both the cable and conduit in one easy operation.

Applications

- Power Utilities URD type power cables in both primary and secondarv designs.
- Lighting roadway, DOT, parking lot and airport applications.
- Irrigation control and power cable.
- CATV trunk or service cables.
- Telecommunications copper, fiber and service wire.

Economics

- · No 20-ft, sections of conduit to assemble.
- Minimizes the number of sweeps and bends needed.
- Eliminates pull line and cable installation steps.
- Allows multiple installation options; trenched, plowed or directionally drilled.
- Reduces replacement and upgrade costs.

Cable Protection

- During shipping storage and handling prior to installation.
- During installation the toughest day of a cable's life.
- During operation ground movement, pressure points, incidental shovel damage and stray currents.

Future Benefits

- Fast cable replacement at significantly lower cost than direct buried cables.
- Minimizes outage time and property damage, improving customer relationships.
- Allows for cable upgrades, should technological advances or system demand require improvements.

Specifications

- CIC is available in standard colors (black, gray, red, orange or terra-cotta), in striped, shell (co-extruded jacket) or solid wall versions
- Permanent factory lubrication facilitates future cable replacement.
- Standard wall thickness (ASTM D3485, Sch. 40 & 80, and SDR-13.5 per NEMA TC-7).
- UL Listed available.
- · Standard heavy-duty, returnable steel reels.
- Suitable for concrete encasement or direct burial.

Service And Support

- Factory technical installation support.
- Installation Guide.
- A wide range of accessory items like installation tools, couplers, box connectors, adapters and conduit pulling hardware.



HDPE Conduit Products

ARNCO[®] is the industry's leading supplier of HDPE conduit. We design and manufacture a superior-quality product, while offering innovations designed to make installation faster, easier and more productive.

HDPE Conduit

- Wave-Rib[™] (Oscillating Spiral) Greatly reduces friction; ideal for air-assisted placement. (U.S. Patent No. 5,087,153)
- Parallel Conduit 2, 3, or 4 conduits placed on a single reel.
- Perma-Guard[™]/SW Smooth. Solid-Wall Conduit Protects cable: less friction than PVC; multiple lengths, sizes and colors.
- Perma-Guard[™]/LD Large-Diameter Ideal for plowing or directional boring: available on coils, reels or sticks.

Speciallty Duct

- Strand-Guard[®]/FC Flexible, Corrugated, Figure-8 Conduit For aerial applications; compensates for expansion and contraction. (U.S. Patent No. 5.678.609)
- Signal-Guard Locateable wire permanently attached to conduit.
- Flex-Cor™/CJ Flexible, Corrugated, Jacketed Conduit Compensates for expansion and contraction: for bridge and other above ground applications.
- Flex-Cor™/Flexible Corrugated Conduit Highly flexible for protecting cable services to the house.
- Armor-Guard[™] Armored Conduit For superior rodent and mechanical cable damage.
- Fiber-Guard[®]/PL Plenum Conduit Protects plenum-rated cable.
- **Fiber-Guard**[®]/**RI** UL Riser rated conduit ideal for indoor riser applications.
- Fiber-Guard[®] Slit Corrugated Conduit Pre-slit: easily snaps over fiber or cable. (U.S. Patent No. 5.087.153)
- Fiber-Guard[®]/CR Corrugated Conduit Crush resistant; excellent flexibility. (U.S. Patent No. 5.722.702)
- Flex Conduit/FD Flexible PVC Conduit Ideal for outdoor riser applications.
- Smooth-Cor[®] Flexible Conduit Corrugated exterior, smooth interior; excellent crush resistance; snaps together. For use as a flexible main conduit

Flame Retardent/Low Smoke

• LSZH Conduit — (Low smoke zero halogen) Ideal for tunnel applications. Patent Pending

Conduit Accessories

- Reusable Coil Loader (RCL) Made of steel; lightweight, durable and reusable; eliminates need for reels.
- Rotary Conduit Cutters For squarley cutting polyethylene conduit.
- **Conduit Slitter** For making longitudinal cuts in polyethylene conduit; for removing surplus conduit material and cable sheath.
- Ratchet Cutter For shear-cutting polyethylene conduit.
- **Deburring Tool** For making inside and outside beveled edges on polyethylene conduit: improves cable placement.
- Plasticaps and Vinylcaps For sealing HDPE conduit from foreign materials
- Rechargeable Electric Chamfer Tool Easily chamfers larger diameter conduits
- UL Listed Conduit For concrete encased and direct buried applications.



Couplers

Superior sealing performance no matter what conduit you use.

- Shur-Lock[™] II Patented^{*}. UL Listed^{**} for coupling HDPE. PVC or metallic conduit to HDPE conduit. Made of durable HDPE with stainless steel lock rings and band clamps. O-ring joints pressure-tested to over 125 psi. Easy assembly and removal
- Split-Lock[™] UL Listed coupling for various external geometries of conduit (Strand-Guard®/FC, Smoothwall, Ribbed, etc.). Made of die-cast, corrosion-resistant aluminum (e-coated version available for additional corrosion protection). Provides excellent seal around conduit interface. Split design allows re-entry after cable installation. (Patent) (UL Listed Versions)
- PVC Compression For coupling SDR and schedule sizes of polyethylene conduit. Made of durable PVC. Internal doublecompression, watertight.
- High Performance Aluminum Precision machined, reverse threaded couplers for maximum pull out strength. The extra sharp buttress thread design and gradual tapered profile ensures the highest performance available
- Universal Aluminum This economical reverse threaded coupler is easy to install and will fit a wide range of diameter variances within a aiven size conduit.
- MOR Clamp MOR clamps are ideal for joining conduit, or used as a repair clamp, in sizes ranging from 2" to 12" I.D. diameter. The sturdy stainless steel body, rubber gasket and multiple-bolt design provide exceptional pull out strength.
- Electrofusion A premium coupler system for trenchless installations that fuses to the conduit for maximum air tightness and pull out strength.
- Butt Fusion An effective method for fusing conduit ends together without the need for a coupler. This process provides a high strength joint that is air and water tight.

Coupler Accessories

- Conduit Assembly Vise The double-clamp design securely holds both conduit ends in alignment to allow one operator to guickly and efficiently install ARNCO's Split-Lock couplers.
- Palm Ratchet The palm ratchet is ideal for securing Shur-Lock II and Split-Lock couplers in confined areas.
- Service Box Connector The connector's female end is glued to the incoming Perma-Guard/FD. The male threaded end is inserted into the box or meter base opening and secured with a threaded plastic lock ring. Available in threaded aluminium for use on HDPE Ducts.
- · Beveling tools for chamfering the duct ends.
- Re-rounding tools to assemble.



Service Box Connector





Pull Tapes

ARNCO[®] weaves polyester or aramid yarn fibers into a flat pull tape that disperses pull load over a larger surface area of conduit, thus reducing frictional heat buildup and conduit burn-through, especially at sweeps or bends. ARNCO Bull-Line[™] maintains its flat shape making it easier to blow into place, improving pulling performance. Bull-Line[™] has a special coating to protect marking quality and legibility, with footage markings to verify cable installation lengths.

Bull-Line[™] Pull Tapes

The widest range of pull tapes available in the industry; choice of polyester or aramid fiber. All ARNCO pull tape is a high strength, lowfriction tape that is designed to be blown farther into innerducts. Our Bull-Line[™] lubrication technology provides the lowest coefficient of friction of any pull tape available

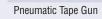
- Woven Polyester From 500 to 6,000 pound pull strength.
- Woven Aramid Fiber From 500 to 4,000 pound pull strength.
- **Tone-Tape™** Woven pull tape incorporates a tracer wire for signal locating. Available in Polyester or Aramid Fiber.

Pull Tape Accessories

- Pneumatic Tape Gun For blowing dart/pull line assembly into conduit or conduit.
- Tape Gun Seal-Offs Rubberized: for use with Pneumatic Tape Gun.
- Pull Line Darts Available in sizes from 1/2" to 3".
- Foam Line Carriers Ideal for short runs and runs with multiple bends.
- Missile Line Carriers For fast, efficient pneumatic placement of pull lines into larger conduits (2" to 6").
- Inflatable Pull Line Carriers Adjust to fit the diameter of a variety of conduit sizes.









Foam Line Carriers

Missile Line Carriers







Hydralube[™] Cable Lubricants

Formulated by our chemists to meet specific requirements, our Hydralube[™] lubricants are available in a wide range of polymer and silicone-modified formulations in gel. creamy gel or pourable forms. ARNCO Hydralube is designed to match the type and weight of cable to be placed and is UL Listed. Winter and summer formulations available.

- F-100i A high-performance liquid for fiber optic, coaxial and communication cables, as well as 600-volt and higher power cables.
- F-150i A silicone-modified liquid for the longest, toughest pulls.
- F-200i A high-performance gel for electric and communication cables; ideal where pooling or running are unacceptable.
- AT-500 A silicone-based liquid that resists drying for cable-blowing applications

Cable Lubricant Accessories

- Lubricant Pumps Hand-operated pumps for both liquid and geltype lubricants
- Hose/Cap/Valve Assembly For gravity-feed dispensing of lowerviscosity lubricants.
- Lubrication Collars For lubricant application with no waste or mess.
- Intermediate Lubricator Split lubricator fits over conduit and clamps together when adding lubricant to intermediate locations during pulling.
- **Guide Tube** Protects heavy cable or innerduct during placement into underground conduit.
- Conduit Adapters Connect feeder guide tube to main conduit; split desian
- Manhole Ring Holds lubricating collar and guide tube assembly in place.
- Lubricant Feed System Pack includes: one pump, one manhole ring, one lube collar, one conduit adapter and three coils of guide tube.

Cleaners

ARNCO® offers a complete line of general-purpose and specialty cleaning products. Cleaners are available in a variety of packages to replace environmentally hazardous CFC and ozone-depleting cleaners.

- C-200 Solvent cleaner for electrical and telecommunications applications.
- C-300 True 1, 1, 1-trichloroethane replacement, ideal for cleaning cable insulation, transformer coils, tools and more; (no CFCs),
- C-500 A citrus-based multi-purpose solvent blend for electrical and telecommunications applications.

Hydraseal[™] Sealants

Our Hydraseal[™] Sealants feature high-performance properties, yet very user-friendly

- S-50 Putty Sealant An asbestos-free, multi-purpose pliable thumb grade putty sealant specifically formulated for use in the construction. telecommunication, and electrical industries.
- S-60 WTF Twin Cylinder Conduit Foam Sealant A wide temperature foam sealant made of a two-part polyurethane material specially developed for the construction, telecommunications, and electrical industries to prevent the intrusion of water and gases through conduits in manholes, cable vaults, and handholes. Requires twin cvlinder dispensing gun.
- S-60 WTF Single Cylinder Conduit Foam Sealant A wide temperature foam sealant made of a two-part polyurethane material specially developed for the construction, telecommunications, and electrical industries to prevent the intrusion of water and gases through conduits in manholes, cable vaults, and handholes. Requires a standard caulking gun.
- Hydra Seal Handi-Foam A one component polyurethane foam, moisture cured for filling, sealing, bonding and insulating.



Pressure Pipe & Service Tubing

Installations—such as gas, water and sewer lines—require high-quality, pressure-rated pipe and service tubing. For such applications, you can't do better than ARNCO's E Pipe and Tubing Products. All of our HDPE and MDPE pipe and tubing have excellent Environmental Stress Crack Resistance (ESCR) properties and a proven track record for long-term. pressure-rated strength and performance. They are lightweight and flexible for easy handling, offer superior chemical resistance, and there is no need for expensive cathodic protection because the materials are noncorrosive. We place a high priority on quality and performance. The result is a line of pressure-rated pipe and tubing made to exceed your long term performance and service reliability requirements.

• Pressure-Guard[™] G2406 and G3408

MDPE Tubing and Pipe for Gas Transmission and Distribution — This medium-density polyethylene pipe and tubing is manufactured for use in natural gas distribution systems. It is available in a wide range of sizes, DR/pressure classes. Other features include outstanding flexibility and crush resistance. G2406 tubing and pipe are available in coils up to 6" in diameter to reduce installation costs and in stick lengths through 12" diameters.

Pressure-Guard[™] W3408

Pressure-Rated Tubing and Pipe for Water Transmission, Distribution. Services and Sewer —

The high-density polyethylene tubing is designed for use in municipal potable water transmission, distribution and service lines, as well as storm and sanitary sewers, and industrial or mine piping systems. With its long-term hydrostatic strength, this tubing is exceptionally tough and fatigue resistant, yet lightweight for easy handling. Available in coiled lengths through 6" IPS diameters and in stick lengths through 24" diameters.

 Pressure-Guard[™] 0&G Gathering HDPE 3408 Tubing and Pipe for Oil and Gas Gathering, Coal Bed and Landfill Methane Recovery Applications —

Extruded using high-density polyethylene resin, this tubing is ideally suited for oil and gas gathering, methane recovery and water supply lines. It is available in a wide range of sizes, DR ratings and pressure classes. The tubing and pipe are available in coils up to 6" in diameter to reduce installation costs and in stick lengths through 24" diameters.

Pressure-Guard[™] PW Tubing

HDPE PE-3408 Pressure-Rated From 1/2" to 3" Diameters — PW tubing is designed for potable water applications, including municipal rural or industrial; water distribution; water wells; mining; and irrigation applications. The tubing is pressurized with sealed ends to keep out debris. It is available in a wide range of sizes and pressure ratings. It is also available in black, blue stripe or blue shell designs.









