

THE UTILITYSOURCE

March 2025

Products and Services for Today's Electric, Telecom, and CATV Utilities

**Aquiline Drones -
Pioneering Drone
Technology for
Energy and Utility**

**How AI Can Make
the Utility Industry
More Efficient**





Maddox is the one-stop shop for your transformer needs

Founded by a team of industry veterans focused exclusively on the transformer and transformer-related needs of industrial and commercial clients.



Sell

Maddox stocks and sells the highest quality transformers from dry types and padmounts to substations.

Rent

With thousands of units in stock, Maddox rents out transformers for the temporary power needs of customers across North America.

Repair

With shops on both coasts Maddox inspects, tests, and repairs transformers to ensure that they are in top working condition.

Purchase

We offer a great price that includes handling all the transportation and environmental issue.

1-800-270-2011

sales@maddoxtransformer.com

maddoxtransformer.com

THE SECRET TO

UNDERGROUND POWER TRANSMISSION



OUR WUNPEECE TRANSMISSION SPACERS REDEFINE THE INDUSTRY STANDARD
FOR UNDERGROUND POWER TRANSMISSION INSTALLATIONS.
WITH PRECISION ENGINEERING AND UNMATCHED QUALITY,

JOIN THE RANKS OF INDUSTRY LEADERS WHO TRUST
UNDERGROUND DEVICES FOR THEIR POWER TRANSMISSION NEEDS.



VISIT WWW.UDEVICES.COM

AND EXPERIENCE THE FUTURE OF UNDERGROUND POWER INSTALLATION

PG 4	How AI Can Make the Utility Industry More Efficient
PG 10	Novatech Automation Meets Growing Demand for Networking with Substation-Hardened Layer 2 Gigabit Ethernet Switches
PG 12	Aquiline Drones - Pioneering Drone Technology for Energy and Utility
PG 18	Ad Index



THE UTILITYSOURCE

Products and Services for Today's Electric, Telecom, and CATV Utilities

PUBLISHER

Glen Hobson
205-441-5591
glen@tipsmag.net

ASSOCIATE PUBLISHER

Steven Goodwin
205-624-2181
steve@handfmedia.net

ADMINISTRATIVE DIRECTOR

Steven Hobson
steven@tipsmag.net

EDITOR

Brandon Greenhill
brandon@handfmedia.net

CREATIVE/ WEB DIRECTOR

Jacklyn Greenhill
jacklyn@handfmedia.net

SELICK Lift, Load AND DELIVER WITH SELICK!

Whether you need to deliver a skid of blocks to a jobsite or move a 16,000 lb. load of steel, Selick has the forklift that is right for you.

We have been engineering and manufacturing rough terrain forklifts for over 50 years and our nationwide dealer network offers superior support for all your parts and service requirements.

Call toll-free or e-mail us today for all your material handling needs.



1-877-SELICK (735-5425)
sales@selickequipment.com

P.O. Box 1568 • Pelham, AL 35124
Phone: 205-441-5591 • Fax: 205-624-2181
www.theutilitysource.net
info@theutilitysource.net

SDP

*Southern Digital
Publishing*

The Utility Source™ is published twelve times a year on a monthly basis by Southern Digital Publishing, Inc. *The Utility Source*™ is distributed free to qualified subscribers. Non-qualified subscription rates are \$57.00 per year in the U.S. and Canada and \$84.00 per year for foreign subscribers (surface mail). U.S. Postage paid at Birmingham, Alabama and additional mailing offices.

The Utility Source™ is distributed to Power, Telcom and CATV Utilities and Utility Contractors throughout the USA. Publisher is not liable for all content (including editorial and illustrations provided by advertisers) of advertisements published and does not accept responsibility for any claims made against the publisher. It is the advertiser's or agency's responsibility to obtain appropriate releases on any item or individuals pictured in an advertisement. Reproduction of this magazine in whole or in part is prohibited without prior written permission from the publisher.

POSTMASTER: Send address changes to
Southern Digital Publishing, Inc. P.O. Box 1568
Pelham, AL 35124
PRINTED IN THE USA

Find. Fix. Fast.



EMSCO

ELECTRIC MOTOR SUPPLY COMPANY

- ✓ Busway & Plugs
- ✓ Circuit Breakers
- ✓ Fuses
- ✓ Motor Control Centers
- ✓ Panelboards
- ✓ Safety Switches
- ✓ Switchgear
- ✓ Transformers

If we don't have what
you're looking for,
we find it.

GET 10% OFF
YOUR FIRST ONLINE ORDER

With code

ELECUR10

**Home of Thousands of Transformers,
Breakers, Switches, Bus Plugs,
Circuit Breakers and Motor Controls.**



250,000st of
inventory



Every product
certified



Quick Ship
Fast lead-time

EMSCO stocks obsolete, reclaimed, and
hard to find electrical components.

www.EMSCOMN.com



**24-HOUR
HOTLINE**

Get what you need, when
you need it.

CONTACT US

800.328.1842

24-Hour Emergency Line



How AI Can Make the Utility Industry More Efficient

The energy sector is at an inflection point. Electric and gas utilities are facing a convergence of challenges, including aging infrastructure in need of an upgrade after more than 40 years.

Rising inflation, energy cost volatility and supply-chain disruptions impact businesses and consumers. In addition, government and private sector goals around decarbonization, including clean energy and electrification, are forcing utilities to advance their networks and consumer offerings.

Distributed solar, bi-directional networks, microgrids, battery storage and wind accelerate the rate of change required for utilities to keep pace. More digital natives, both as consumers and as employees, expect seamless, personalized and proactive experiences on par with global brands such as Amazon, Apple, Meta and Uber.

Made to order precast polymer HOUSEKEEPING PADS



ADVANTAGES OF POXYBASE® PADS

Outperforms

traditional concrete

Quick Installation

no waiting for concrete to cure

Labor Saving

no forms or pouring field materials

Mounting

stainless steel inserts for equipment and floor anchors

Flexible Designs

built to exact size specifications including conduit openings

Built to Last

corrosion resistant and extremely durable (seismic ready)

Quick Delivery

with limited colors available



Proudly
made in the
U.S.A.

basetek.com **877-712-2273** info@basetek.com

BASETEK

Built to last
and outperform. **We guarantee it.**

ENHANCED EFFICIENCY AND RELIABILITY WITH **PELSUE**

FIBER SPLICING
TRAILERS & INDUSTRIAL
SAFETY EQUIPMENT



Contact Us

303.975.7432 sales@pelsue.com

 **GRADE YOUR SETUP**
at
PELSUE.COM

Thus, even more traditional industries like utilities must adapt. And that means adopting technology and embracing artificial intelligence (AI) and machine learning (ML).

Utilities Must Deploy AI to Keep Up

Only AI allows businesses to transform massive amounts of diverse data into actionable insights. Doing so means improved decision-making, optimized operations, reduced risk, improved customer service and increased safety. Utilities can automate and streamline processes in place for decades to enhance efficiency at an unimaginable scale and speed.

Today's purpose-built AI for utilities can help every aspect of the business, from augmented workforce capacity to improved infrastructure and optimized operations. Organizations gain numerous benefits with the industry-specific models, patterns and practices validated over time.

The utility benefits of AI include:

- Automate tasks/process automation and optimization
- Make accurate predictions
- Extract insights from massive datasets
- Real-time observation and tracking
- Decision making at speed and scale

Safe and Secure AI Use Cases for Utilities

AI has combined with cloud computing to overcome the cost and storage challenges of large-scale data processing and analytics, dramatically



STRUCTURAL STEEL CO., INC.

Pre-Engineered Buildings Built to Withstand The Rugged Northeast Winters

- Commercial, Industrial and Agricultural Buildings Built to Satisfy Your Building Needs
 - Pre-Engineered Steel Packages
 - Pre-Engineered Post Frame Packages
 - Mini Storage Buildings



*Call For a Quote On
Your Next Project*

***We Manufacture 26 & 29 ga.
Steel Roofing & Siding***



STRUCTURAL STEEL CO., INC.



607 Rt. 13 S, Cortland, NY 13045

National: 1-800-323-7739



(607) 753-9384 • Fax: (607) 753-6272 • www.essexsteel.com

increasing accuracy in planning and forecasting. This means utilities have tremendous opportunities to improve engineering, construction, operations and field service workflows.

Location-based AI, combined with machine learning algorithms, can make predictions and sense patterns and trends with incredible speed and accuracy. It combines and analyzes GPS coordinates, drone imagery, satellite measurements and other remotely sensed data to process and analyze data at scale.

1. Asset Management
2. Decarbonization
3. Vegetation Management

4. Risk Reduction (Fire/Weather)
5. Grid Modernization
6. New Business Opportunities
7. Customer Service

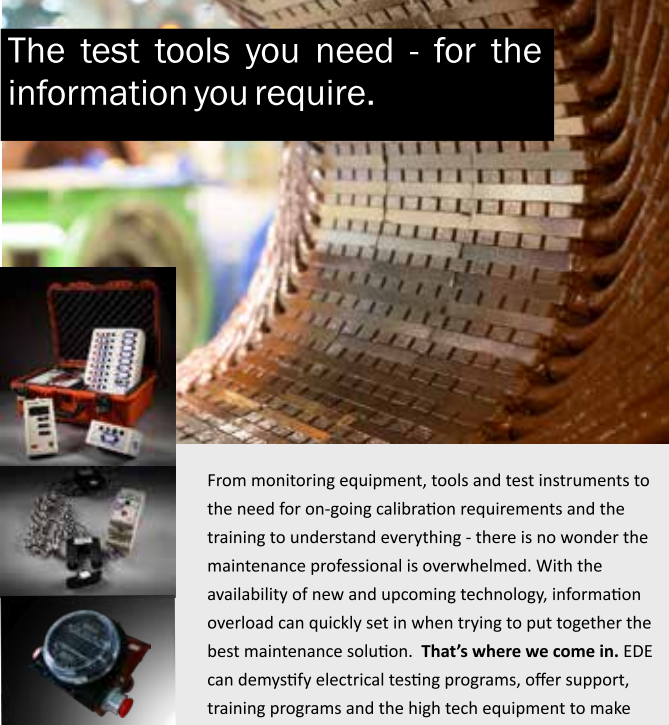
Next Steps: TRC Can Help

Operating at the forefront of innovation, TRC specializes in enabling energy businesses with AI innovation. We have cultivated specific processes, patterns and packages based on deep experience working with utility clients. Whether augmenting staff or outsourcing capabilities, customers gain cutting-edge expertise in deploying cloud services, data pipelines and custom-trained models. Our customer-centric culture allows us to offer leading solutions tailored to organizational needs and goals. We maintain a track record of delivering projects on time and on budget, continuously communicating and collaborating with our clients throughout the lifecycle. As a world leader in utility AI solutions, we offer:

- Deep expertise in secure AI, cloud and emerging technology
- Track record of successful cutting-edge projects
- World-class experts with experience across industries
- Technical GIS, open source and industry knowledge
- Packages, patterns and best practices to accelerate deployment

www.trccompanies.com •

The test tools you need - for the information you require.



From monitoring equipment, tools and test instruments to the need for on-going calibration requirements and the training to understand everything - there is no wonder the maintenance professional is overwhelmed. With the availability of new and upcoming technology, information overload can quickly set in when trying to put together the best maintenance solution. **That's where we come in.** EDE can demystify electrical testing programs, offer support, training programs and the high tech equipment to make your maintenance activities straight forward and motors and generators doing what they are supposed to do - run. We will help you **Find the Way.**

• 970/292-8207 • www.edeinst.com •



ROME

Available in 10, 12, 14, and 16 foot widths



Manufacturing Heavy Duty Construction
and Agricultural Equipment Since 1932

ROME Plow has been the premier name in heavy duty disc plows for over 87 years.

Available in 16, 18, 20, 24, and 30 foot widths



ROME has been manufacturing pivot dump and ejector scrapers for over 45 years for the construction and agricultural industries.



Available with 36 or 42" blades, and up to 20' wide

ROME also manufactures a full line of leveling scrapers (with and without gates) and haul road maintenance tools (with and without rollers)



Available in 18 and 22 yard versions

For more information on our products or for the closest authorized ROME dealer please contact us.

Available in 24, 28, 31, 34 and 37 Yards



770-748-4450 - www.romeplow.com

Steel Tracks available to fit any articulating tractor.



Novatech Automation Meets Growing Demand for Networking with Substation-Hardened Layer 2 Gigabit Ethernet Switches

NovaTech Automation, the leader in substation automation for the US electric grid, is excited to announce the release of the Hermes 2000 series of utility-grade Layer 2 Ethernet switches, enabling NovaTech to deliver a broader array of digital substation solutions to its utility customers.

The Hermes 2000 Gigabit Ethernet switches feature 28 ports and meet IEC 61850-3 standards. Available in various configurations of copper and SFP ports and operating voltages, Hermes 2000 switches are designed for mounting in 19" racks.

NovaTech's CEO, Conrad Oakey, expressed enthusiasm for the new products:

"The recent introduction and strong response to the OrionVX – the server-deployed version of our popular OrionOS for substation automation platform - highlighted a customer need and an opportunity to provide robust network solutions suitable for the performance, cybersecurity, and environmental demands of the modern digital substation – all backed by responsive service that our customers love. Hermes 2000 broadens the offering for NovaTech customers and expands our capabilities for turnkey system engineering solutions."

At a time when the demand for robust, integrated communication and automation solutions in the energy sector is growing rapidly, NovaTech's customer-centric culture promises to deliver powerful solutions that address the challenges of electric grid modernization.

About NovaTech Automation:

NovaTech is a global leader in providing automation equipment for the electric grid, helping utilities enhance grid reliability, safety, and efficiency. Their solutions drive the modernization of critical infrastructure and support the transition to a smarter, more resilient energy system.

For more information, please visit: www.novatechautomation.com/products/hermes-ethernet-switch •

BROWN BEAR



OFF HIGHWAY
HIGH FLOTATION
4X4 CARRIER

COMPOSTING
ATTACHMENTS



BRUSH
MULCHING
ATTACHMENT

BACK-FILLING
ATTACHMENTS



WWW.BROWNBEARCORP.COM

641-322-4220
sales@brownbearcorp.com

BROWN BEAR CORPORATION

CORNING, IA 50841
www.youtube.com/c/Brownbearcorp



Aquiline Drones (AD) partners with Drone Volt (ALDRV) to advance LineDrone technology for power-line inspection services in the US.

Aquiline Drones (AD) signs historic licensing agreement with long-time partner Drone Volt SA (ALDRV) to introduce and provide electrical power line inspection services in the United States using the LineDrone – a unique combination of advanced and pioneering technology.

AD, a leading U.S.-based drone technology enterprise, has announced a strategic partnership with Drone Volt to introduce and expand the capabilities of the LineDrone to the US market. Dubbed an engineering marvel, the LineDrone is a specialized unmanned aerial system (UAS) developed in collaboration with Hydro-Québec – Canada's largest energy producer. This groundbreaking technology is designed to revolutionize the inspection and maintenance of high-voltage power lines, by offering advanced, non-contact measurement solutions.

Hydro-Québec is renowned not only for its extensive hydroelectric power generation but also for its significant investments in research and development, particularly in robotics for power line inspection and maintenance. The company's research is primarily conducted through its Institute de recherche d'Hydro-Québec (IREQ), established in 1967.

Using artificial intelligence (AI) to control the drones and analyze acquired data – along with other pioneering technologies, Aquiline Drones will introduce and deploy LineDrone inspection services nationwide.

The LineDrone is the only drone - globally, capable of landing on live high-voltage lines (315,000 volts / 2,000 A) to conduct inspections by traversing the power lines using a unique motorized rolling system – LineOhm and LineCore probes, to analyze and document the condition of overhead conductors without having to de-energize the line. The LineDrone is also engineered to perform critical diagnostics on live transmission lines using state-of-the-art sensors to conduct high-precision inspections, including resistance measurements, corrosion assessments, and splice evaluations, without requiring power outages. This innovation significantly reduces operational risks while enhancing grid reliability and efficiency.

By reducing the need for costly helicopter and high-risk manual inspections, the LineDrone represents a safer, more cost-effective, and environmentally friendly alternative for the energy industry. With increasing demand for efficient grid management solutions, this collaborative effort aims to redefine how utility companies monitor and maintain their critical infrastructure.

Aquiline Drones will leverage its extensive expertise in



autonomous drone operations and regulatory compliance to help deploy the LineDrone technology for utility companies and infrastructure service providers throughout the US.

"Our collaboration with Drone Volt aligns perfectly with our mission to deliver cutting-edge drone solutions that enhance safety, efficiency, and sustainability," said Barry Alexander, Founder and CEO of Aquiline Drones. "By incorporating advanced AI and cloud technology into the LineDrone system, we aim to set a new industry standard for high-voltage power line inspections" Alexander says.

Like AD's Flight to the Future (F2F) online drone training course – in scope and scale, the LineDrone project aims to train a workforce of professional drone service providers (DSPs) to then participate as professional LineDrone DSPs (LDSPs). The US has 600,000 + miles of transmission lines that move electricity from power plants to cities and towns nationwide.

The following is an overview of F2F: <https://www.youtube.com/watch?v=hgd0zD-mcw4>

AD aims to expand the distribution of LineDrone services within the US, to provide high-tech job opportunities as LDSPs. Under the agreement AD will provide the following:

Expanded distribution of LineDrone services across the USA.

Specialized drone pilot training for operational support to energy sector professionals adopting the technology. AD-trained pilots or drone service providers (DSPs) could then work as AD affiliates – ensuring FAA compliance and

5,000 Lumen (50W) Rechargeable/AC Dual Head LED Tripod Work Light



1-866-4VOLTEC (486-5832)

integration with evolving U.S. drone regulations: https://www.youtube.com/watch?v=u_Hul4xensc

Competitive commercial liability insurance and warranty options to the US drone marketplace, primarily focusing on individuals and entities trained through our program. Various insurance coverages will be available for purchase through Aquiline Drones Indemnity Corporation (ADIC). Contracted opportunities for LDSPs through extended Service Level Agreements (SLAs) held by AD, under contract with industry stakeholders.

Transmission lines require rigorous and routine maintenance, involving inspection processes that are typically less-safe, cumbersome and more restrictive than what can be more easily achieved using an AI drone solution. Regional Transmission Organizations (RTOs) can now use this much safer LineDrone system to replace having to shut down lines, and can realize significant manpower and equipment savings, often done with the addition of helicopters and linesmen.



Line Guard | Pole Guard | BirdBloc
Learn More at [CritterGuard.org](https://www.CritterGuard.org)



"This agreement extends our existing partnership with Aquiline Drones and enables AD to include specific and adapted drones as part of a proven next generation power grid infrastructure inspection system" says Marc Courcelle, CEO of DroneVolt SA. Aquiline Drones is able to provide an entire ecosystem of AI controlled drones, inspection data analysis, FAA pilot training, operating liability insurance and lifetime system support of each client. No other drone provider in the US can offer this broadly encompassing and complete solution.

About Aquiline Drones

Aquiline Drones Corporation (AD) is an all-American drone technology company specializing in drone manufacturing, artificial intelligence (AI), and superior drone pilot training. AD is also self-insured through Aquiline Drones Indemnity Corporation (ADIC). AD's core management comprises highly experienced aviators, systems engineers, IT gurus, military personnel (including veterans), and business strategists. AD delivers a vertically integrated blend of products and services. AD's full spectrum of technological solutions is widely applicable across countless industries and environments for superior, real-time data processing and insights. Visit www.AquilineDrones.com for more information.

www.AquilineDrones.com •

*"As a safety professional, you always want your workers to have access to leading edge safety tools that improve safety and focus. Working with **COOLSHIRT SYSTEMS** over the past two years allowed me to help design a tool by lineman for lineman."*

*The **A.R.C. Hybrid Cooling System** by **COOLSHIRT SYSTEMS** allows lineman to remain more focused and less fatigued by reducing their core body temperature in extreme environments, therefore reducing the possibility of unintended accidents."*

-James "Jim" Bonner
Compliance Coordinator- Retired
Alabama Power



A.R.C. Hybrid Cooling System

Complete Arc Rated Portable Cooling Solution

Developed in conjunction with major power companies for use in extreme heat conditions, the **A.R.C. Hybrid Cooling System** uses liquid cooling to reduce fatigue, injury, and heat stress related illness.

Designed specifically for use by linemen, the **A.R.C. Hybrid Cooling System** features a compact design with a custom woven strap mounting system. The use of S-hooks offers the versatility of mounting inside or outside of the bucket. The system includes our mobile ice based cooler, a 7 hour lithium ion battery with charger and a **CAT 2, 12 CAL** rated Liquid Cooled Vest for **70E Arc Flash** protection.

Designed with portability in mind, measuring **6" x 6" x 20"** and weighing in at **less than 10 lbs dry**, the unit is entirely self-contained and built to last with a 20,000 hour pump.



A.R.C. Hybrid Cooling System
2002-0017



COOLSHIRT®
LIQUID COOLED GARMENTS



SUNBELT
SOLOMON

Keeping your transformers in service.

Repair, Rewind, Recycle.

VISIT US



800.830.0251 | info@sunbeltsolomon.com

Don't get caught off guard when we deliver this FAST.



So fast you might not be ready for it.

LS Cable & System USA lead times are the best in the business.
Order today and get your product months ahead of the competition.

lscsusa.com



LS Delivering quality **3x faster!**

THE SAFEST WAY TO CLIMB A STEEL POLE IS WITH WINOLA INDUSTRIAL INC.



WINOLA
INDUSTRIAL INC
CLIMBING DEVICE DIVISION
570-378-3808
FAX: 570-378-2597
RR1 BOX 1070, FACTORYVILLE, PA 18419
WWW.WINOLAINDUSTRIAL.COM
WINOLA@EPIX.NET



Galvanized
Weathering Steel
Powder Coated



Basic Device
for Working
(steps adjacent)



Basic Climbing
Device
(steps staggered
for climbing)



NEW!
Safety
Tie-offs



Knurled, Impact
Tested Rungs



Overhead View

Step Drill
Not Aligned



Ladder Pegs
Pegs are Aligned
for Easier Climbing

Visit us at: www.winolaindustrial.com

OVER 4 MILLION LADDERS PRODUCED SINCE 1971

Ad Index

Company	Pg.	Website
Base Tek	5	www.basetek.com
Brown Bear Corp	11	www.brownbearcorp.com
Conduit Repair	BC	www.conduitrepair.com
Coolshirt	15	www.coolshirt.com
Critter Guard	14	www.critterguard.com
EDE	8	www.edeinst.com
EMSCO	3	www.emscomn.com
Essex Steel	7	www.essexsteel.com
Grace Industries	IBC	www.graceindustries.com
LS Cables	16	www.lscusa.com
Maddox Transformer	IFC	www.maddoxtransformer.com
Pelsue	6	www.pelsue.com
Rome Plow	9	www.romeplow.com
Sellick	2	www.sellick.com
Underground Devices	1	www.uddevices.com
Voltec	13	www.voltec.com
Winola	17	www.winola.com
Working Concepts	18	www.safeworker.com

Work shouldn't hurt.

SOFT KNEES® No-Strap Knee Pads



STOP a LADDER®

Another fine **ergoKNEEL** product
www.ergokneel.com



888-456-3372 • www.safeworker.com • info@safeworker.com

LONE WORKER PROTECTION
FALL PROTECTION
SUSPENSION TRAUMA PREVENTION

 **SECURE 1/2 MILE**
LINE-OF-SIGHT 



ASSIGNED MONITORING ATTENDANTS



Grace Web Portal Dashboard



Custom Check-In Schedule



TEXT/Email Notification

Receive a GPS Map Link

Check-In System



LEARN MORE



GRACE GATEWAYS

Iridium Satellite/Cellular

Mobile or Portable Worksite Models

SALTTM System Loop Test Indicator

Supports up to 20 Grace Pendants



WORKFORCE[®] LONE WORKER PENDANT

Fall Detection

Manual Panic Button

Motion Detection

GPS Location



REPAIR CONDUIT IN A SNAP!

- No Tape
- No Plastic Straps,
- No Metallic Straps

NO KIDDING!

**Designed especially for
power, communications,
and fiber optics**



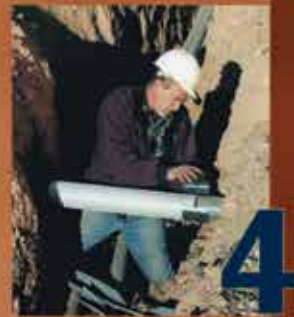
**Step 1: Remove
Damaged Conduit**



**Step 2: Cut Split
Duct Conduit to Fit**



**Step 3: Snap in
Place**



**Step 4: Attach
Adapters**



**Step 5: Finish Job
in Record Time**



"The World Leader In Split Conduit Products"



Conduit Repair Systems, Inc.

The World Leader In Split Conduit Products

800-670-1804

fax: 435-673-8724

email: crs@conduitrepair.com

Please Visit Our Website at WWW.CONDUITREPAIR.COM