

APRIL 2019

NEW

# CONSTRUCTION

Products

**CRANE INDUSTRY SERVICES  
UPDATES LIFT DIRECTOR  
TRAINING PROGRAM**

OEMs Opt to  
Eliminate In-House  
Lamination Operations

# ROME

Manufacturing Heavy Duty Construction and Agricultural Implements Since 1932

## ROME PLOW COMPANY IMPLEMENTS



The ROME brand name has always been tied to heavy duty Construction and Agricultural disc plows.

ROME continues to manufacture the same style of implements that has made the ROME PLOW brand name famous for over 80 years.



ROME also manufactures pivot dump and ejector scrapers for the AG and Construction Industries.

This includes a full line of Earth Moving Scrapers and precision land levelers, such as land planes and float planes.



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

**770-748-4450**

**[www.romeplow.com](http://www.romeplow.com)**



# MADE FOR **MORE** TO KEEP PACE WITH **YOU**



You begin each day before dawn with a drive and determination to do **more** than the day before. When you move at this pace, you know to do more you need equipment that is made for more. That's why our utility line and land clearing equipment, like our **Forestry Mulchers and Aerial Trimmers**, is built from the ground up to meet your needs, delivering:

**More** Power and Production  
**Lower** Operating Costs  
**Greater** Reliability  
**Better** Safety Features  
**Superior** Operator Comfort and Control

If you're ready to operate equipment that's made to keep pace with you, then we invite you to go to **[morbarkdealers.com](http://morbarkdealers.com)** to find your local authorized Morbark or Rayco dealer. Your dealer will work with you to assess your needs now and in the future, as well as offer equipment recommendations, financing options, wear parts and service if you should ever need it.

Equipment is available for **SALE** or **RENT**.



**RAYCO**  
BY MORBARK

PG 4	Mack Trucks Seeks Entries for 2020 Mack Calendar Contest
PG 8	Crane Industry Services Updates Lift Director Training Program
PG 14	OEMs Opt to Eliminate In-House Lamination Operations
PG 24	How Many Mills is Your Coating?
PG 32	Ad Index



**Pg 4**

**PUBLISHER**

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

**ACCOUNT EXECUTIVE**

Hank Underwood  
205-624-2182  
hank@handfmedia.net

**ACCOUNT EXECUTIVE**

Brian Lockheart  
205-593-1508  
205-624-2183  
brian@cjspublishing.com

**ADMINISTRATIVE DIRECTOR**

Steven Hobson  
steven@tipsmag.net

**EDITOR**

Brandon Greenhill  
brandon@handfmedia.net

**CREATIVE/ WEB DIRECTOR**

Jacklyn Greenhill  
jacklyn@handfmedia.net

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



*New Construction Products™* is published twelve times a year on a monthly basis by H & F Media, Inc. *New Construction Products™* 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.

*New Construction Products™* is distributed to qualified owners and managers in the construction industry. 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  
H & F Media, Inc. P.O. Box 1568  
Pelham, AL 35124  
PRINTED IN THE USA



**Atlantic Screen & Mfg., Inc.**

- Well Rehab. Products
- Inline Chemical Mixers
- Manholes
- Sampling Ballers
- Bentonite
- Clear PVC Pipe
- Filter Sock
- Locking Caps

**Manufacturers of Slotted & Preforated Pipe  
ranging from 1/2" to 24" in diameter**

**302-684-3197**

FAX 302-684-0643

142 Broadkill Rd. • Milton, DE 19968

www.atlantic-screen.com

email: atlantic@ce.net

# CLYDESDALE

## SKID BASE SELF-ERECTING PORTABLE CONCRETE BATCH PLANT



Improve the quality and efficiency of your mobile batch plant operations with the new Stephens Clydesdale skid base system. Specially designed features reduce the typical installation and operating costs and help increase your margins. You can count on Stephens for the highest quality equipment, service & support.

- Highly Portable 14' Travel Height
- Concrete Foundation May Not be Required, Consult Local Engineer
- No Crane
- Up to 200 cy/hr
- Hydraulic Self-Erect



# Stephens

## CONCRETE EQUIPMENT

### *Why buy a Stephens?*

- Owned by the Stephens Family since 1957
- Honest, reliable, second-to-none sales & service
- In-house CNC Machine Shop
- Simple and easy to service & maintain
- Standard, off the shelf parts

**Stephens Manufacturing**  
P.O. Box 488  
Tompkinsville, KY 42167 USA

USA Phone: (800) 626-0200  
International Phone: (270) 487-6774  
Fax: (270) 487-8368

Website: [www.stephensmfg.com](http://www.stephensmfg.com)  
Email: [info@stephensmfg.com](mailto:info@stephensmfg.com)

Visit Us On Social Media!



OCTOBER



## 1990 MACK® SUPERLINER

Ralph Byrd Contracting, Cuyahoga Falls, Ohio  
 Owner/Operator: Steve Byrd

Steve Byrd's father bought this 1990 SuperLiner used to haul an excavator. After selling the equipment, the truck was mothballed for a decade "because it was in too good a shape to sell," Steve says. A few years ago he bought a dump trailer and put the truck back to work hauling sand, asphalt and gravel. "My dad was and always will be a Mack fan, and there are not many SuperLiners out on the road. It runs great and has never left me stranded, not even once."

@gotbluebulldog

		WK 40	1	2	3	4	5
WK 41	6	7	8	9	10	11	12
<b>SUNDAY</b>	<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>	<b>SATURDAY</b>	
WK 42	13	14	15	16	17	18	19
	COLUMBUS DAY (THANKSGIVING BRUNDA)						
WK 43	20	21	22	23	24	25	26
WK 44	27	28	29	30	31		
				HALLOWEEN			
<b>SEPTEMBER</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30						<b>NOVEMBER</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	

# Mack Trucks Seeks Entries for 2020 Mack Calendar Contest

Owners of Mack® trucks have the chance to once again be in the spotlight for a month, courtesy of the 2020 Mack Calendar Contest. For the fourth year running, six lucky truck owners will be chosen by Mack Trucks' social media followers to appear in next year's Mack Calendar. The contest runs from April 2 to May 31, 2019.

"Mack built its reputation on the hardest-working trucks and owners in the industry, and great-looking Mack trucks are always celebrated by our passionate fans," said John Walsh, Mack Trucks vice president of marketing. "The calendar contest gives everyone a chance to express their Mack pride and vote for their favorite trucks to be featured in next year's calendar."

Nominations will be accepted in categories for each of Mack's current models, including the Mack Anthem®, Pinnacle™, Granite®, Granite MHD, LR and TerraPro™, plus an additional category for Mack models which are no longer in production. All nominated trucks must be in revenue-producing service: the truck must be in routine actual use and not kept as a show truck or antique.

Mack's fans and followers will vote on which truck they like best in each category and are allowed to cast one vote per day, per category for the duration of the contest. Contest entrants are urged to get out the vote through their own social media channels to increase their chances of winning. Winning trucks will receive a professional photo shoot, courtesy of Mack Trucks, and will be featured in the 2020 Mack Calendar.

The Mack Calendar is eagerly anticipated each year by Bulldog aficionados and is distributed around the world. To enter a truck or cast a vote, click here: <https://www.macktrucks.com/calendarcontest/> •

# OIL ALERT<sup>®</sup>

## LIQUID LEAK DETECTOR

**DETECT OIL LEAKS AND SPILLS...FAST!**



- AVOID OPERATIONS SHUT-DOWN
- REDUCE ENVIRONMENTAL RISKS
- MINIMIZE COSTLY CLEAN-UP
- MONITOR OFF-SITE EQUIPMENT

### APPLICATION AREAS

- |                           |                       |
|---------------------------|-----------------------|
| Elevator Pits             | Hydraulic Test Stands |
| Oil Storage Locations     | Wind Turbines         |
| Diesel fuel storage tanks | Hydraulic Piping      |
| Remote Site Monitoring    | Coolant oil storage   |

Go to [WWW.OIL-ALERT.COM](http://WWW.OIL-ALERT.COM)  
OR CALL: 1-800-533-6392  
FOR MORE INFO!!

**DORLEN Products Inc.**  
6615 W. Layton Ave. Milwaukee, WI. 53220



# The CEMENT MASON'S CHOICE



## ALUMINUM STRAIGHTEDGES

- ✓ 4' to 20' lengths with kerfed edges and welded end caps
- ✓ Durable and easily cleaned
- ✓ Same size and feel as a wooden 2X4, holds a true edge without warping
- ✓ Lighter weight, less bulk than standard stock aluminum
- ✓ Actually 1 1/2" x 3 1/2"
- ✓ 1/8" wall thickness

Special order sizes available!

## CUSTOM

Finishing groover for your job and design



## TORPEDO GROOVER<sup>®</sup>

- 24", 36", 48" and 56" lengths
- Machine tooled
- High grade aluminum
- Cuts straight control joint- 1 3/4" depth
- Also available in 1 3/8" depth



## BUTTERFLY GROOVER

"...makes a beginner cut joints like a pro!"  
"Whatever groover you follow it with will make a straight groove... no matter how long you cut it!"



**800-722-8339**  
[slipindustries.com](http://slipindustries.com)



## Get a Grip on Snow and Ice

...AT THE FLIP OF A SWITCH!

TRACTION IN FORWARD AND REVERSE FOR 1/2 TON TO CLASS 8 VEHICLES

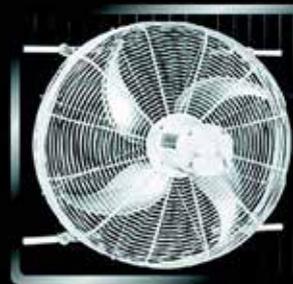
- UTILITY TRUCKS
- FIRE TRUCKS
- AMBULANCES
- SCHOOL BUSES
- PLOW TRUCKS
- TRACTOR TRAILERS

**ONSPOT**  
AUTOMATIC TIRE CHAINS

800-766-7768  
[www.onspot.com](http://www.onspot.com)

\*Approved for use in states with chain control areas

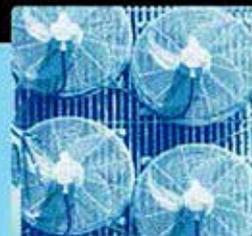
# Get Cool!



Extend transformer life!

Increase transformer capacity up to 166%!

- expert technical assistance
- low sound levels
- energy-efficient motors
- large inventory
- one-piece cast aluminum blades
- galvanized or stainless steel guards



**KRENZ-VENT**  
quality engineered, performance tested

p.o. box 187 germantown, wisconsin 53022 262.255.2318

[www.krenzvent.com](http://www.krenzvent.com)

# PIONEER OF TOMORROW'S INNOVATIONS.

Solutions for electric utilities focusing on power delivery systems

History speaks for itself. Terex Utilities has a legacy of innovative solutions that have changed the industry – from the first hydraulic digger derrick to our recent launch of the Terex® Load Alert™ system. We provide game-changing solutions that work for our customers and plan to continue well into the future. Terex Works for You™ by listening and taking action. We are here to help solve your challenges and provide innovative, high quality products and services that fit your needs.

[www.terex.com/utilities](http://www.terex.com/utilities)



**TEREX**®

**WORKS FOR YOU.**™

# CRANE INDUSTRY SERVICES UPDATES LIFT DIRECTOR TRAINING PROGRAM



Crane Industry Services, LLC (CIS), Carrollton, Ga., launched an updated Lift Director training course in February. Designed to be more interactive, the three-day course features case studies and an emphasis on understanding load charts. “A Lift Director is the person responsible at the moment of the lift,” explains Cliff Dickinson, President of CIS. “On small lifts, there can be overlapping responsibilities, and some people may wear more than one hat. For example, the crane operator may also be the lift director. But in larger companies there’s the lift director, project manager, the site supervisor, the general contractor’s representative—they’re all individual jobs,” said Dickinson.

Following language in OSHA 29 CFR 1926 Subpart CC and ASME B30.5-3.1.3.2.2, Dickinson explains that a lift director must understand his or her role in the context of their own organization.

A Lift Director, regardless of size or structure of the organization, must have knowledge about cranes and rigging, set-up and operation. “We review and analyze load charts, rigging and angles, load weights, swing dynamics, etc.,” said Dickinson.

When the cable doesn't fit, and you need a solution... **FAST**

# GO TO THE GREAVES ADAPTER ZONE!

## PT-FX Shoo-Pin™ Compression Adapters



For Copper  
Cable Only

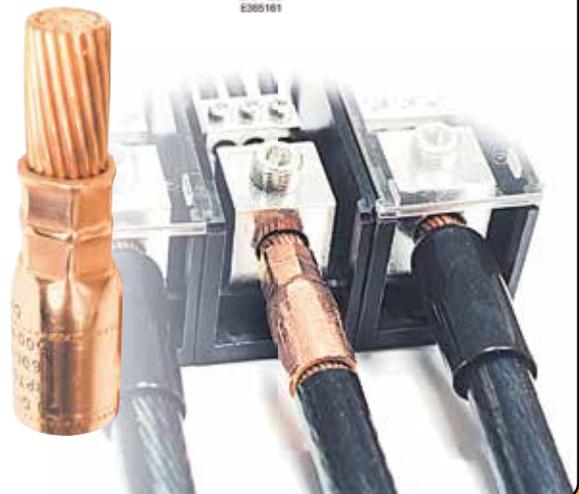
- All-copper compression adapters
- Allows reliable termination of highly stranded flexible copper cable into mechanical lugs
- Used in locomotive, mining, marine, and machinery applications
- Fits into mechanical set-screw type connectors in panels, transformers and machinery
- Features revolutionary Shoo-in™ barrel-opening design for easy cable insertion
- Fabricated of wrought copper with pin of Class B copper conductor
- Insulating covers are provided

## PT-R ReduceR™ Cable Reducing Adapters



For Copper  
Cable Only

- All-copper compression adapters
- Use where cable is oversized to reduce voltage drop on long runs
- Use fit existing C/B, transformer, or other gear lugs
- For Class B 'building wire' cable stranding only
- Fits into mechanical set-screw type connectors in panels, transformers and machinery
- Fabricated of wrought copper barrel with pin of Class B copper conductor
- Insulating covers provided



**GREAVES**

[www.greaves-usa.com](http://www.greaves-usa.com) ■ 1-800-243-1130

# WE HAVE THE ROPE TO GET THE JOB DONE.



800-358-7673

[www.bucrope.com](http://www.bucrope.com)

Although there is no pre-requisite for the class, it's best suited to someone with a good working knowledge of cranes and of rigging. Contact Fred Robinson to learn more about the Lift Director program and schedule at 770-783-9292 or [fred@craneindustrieservices.com](mailto:fred@craneindustrieservices.com)

#### *About Crane Industry Services*

*Crane Industry Services LLC, (CIS) based in the Atlanta, Ga. area, was established in 2008. CIS provides hands-on, classroom and technology-based training for the crane and rigging industry, nationally accredited NCCER certifications, equipment inspections, expert witness services, and consulting to the lifting industry. Crane Industry Services is WBE-certified and NCCER-accredited to train and provide OSHA-recognized, ANSI-accredited crane operator certification testing [www.centeredonsafety.com](http://www.centeredonsafety.com) or (770)-783-9292.*

[www.centeredonsafety.com](http://www.centeredonsafety.com) •

**SCHWEISS**

# DOORS

**HYDRAULIC — OR — BIFOLD**  
ONE-PIECE DOORS      STRAP LIFT DOORS

**507-426-8273**

• AVIATION      • SHOP DOORS

**SCHWEISSDOORS.COM**



# REDUCE & RECYCLE



Powered with a 56HP Kubota diesel engine.

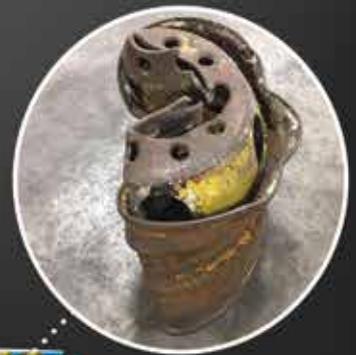
## REDUCE TIRE VOLUME up to 60%

### ADVANTAGES OF CUTTING TIRES

- Tires can be stacked within each other (nested).
- Reduces transportation costs substantially by transporting a more dense load of tires.
- Reduces regulatory problems concerning tires.

#### TC-125 TIRE CUTTER

For construction and farm tires with a sidewall of up to 24" and up to 20 plies.



#### TC-350 WHEEL CRUSHER

Reclaim valuable scrap steel for recycling or resale. Available in gas or electric.

Designed to crush commercial dayton and budd type wheels. Eliminates the difficult task of manually separating tires from old, rusted wheels. Delivers a crushing force of 79,000 lbs and with a single crush stroke completes process quickly and easily.



Made in the USA at our plant in Monticello, MN  
[www.tsissg.com](http://www.tsissg.com) // 800-223-4540

**DON'T BITE OFF MORE THAN YOU CAN CHEW ...OR LESS**

**THE NEW BATTLE AX MULCHING HEAD**

- Exclusive depth gauge design for optimized material feed rate.
- Processes just the right amount at a time, maximizing efficiency.
- Two-stage cutting chamber with adjustable primary shear bar.
- Available for skid steers and 4.5-22 ton excavators.

BUILD YOUR OWN AT [LOFTNESS.COM](http://LOFTNESS.COM)

**LOFTNESS**

**NEW KUBOTA® ENGINES & PARTS • RE-MAN KUBOTA® ENGINES**  
**Your Professional Engine Service Center**

**FULL LINE OF KUBOTA® ENGINES & PARTS**

- CHECK OUT OUR NEW & REMANUFACTURED ENGINES OR WE CAN REBUILD YOUR EXISTING KUBOTA® ENGINE
- GENUINE PARTS FOR A VARIETY FOR KUBOTA® ENGINE APPLICATIONS

**GENUINE PARTS**

- HEADS
- INJECTORS
- FILTERS
- INJECTION PUMP
- OVERHAUL KITS

**Kubota**  
 ENGINES  
 Genuine Parts • Service

**Country** (888)529-8530  
 SALES & SERVICE

255 Tracy Bridge Road  
 Orrville, OH 44667

WE SHIP DAILY USING UPS & TRUCK FREIGHT

[www.countrysalesandservice.com](http://www.countrysalesandservice.com)

# With Noise Mitigation

*The Question is -*  
**dB or not dB?**<sup>SM</sup>

*The Answer*  
**The SLARMsolution**<sup>SM</sup>  
 Community/Industrial Noise Monitor and Alarm

**Show Compliance**  
**Be a Good Neighbor**  
**WebSLARM**  
 Build-in Web Server  
**Try It**  
[netslarm.timewave.com](http://netslarm.timewave.com)  
 User: **SLARM**  
 Pw: **admin**  
**SLARMulti™**



Area Monitoring



**ACO Pacific, Inc.**  
**NetSLARM™**  
 NORMAL ALERT ALARM CONNECT

**Standalone or w/PC**  
 Text/Email Alerts  
 Rolling 3 weeks Logging  
 24/7 Alarm Scheduler  
 Ethernet, USB RS232  
 Secure Remote Access  
 SLARMsoft included

**Indoors or Out**



ODM

## SLARMSuccesses

**Construction**  
 Johns Hopkins Hospital Floor Remodel  
 Apple's New Headquarters Construction  
 Airport Jet Run Up Monitoring

**Industrial**  
 Boatyards-Ferry and Tug construction  
 Hospital Medivac Helicopter Monitoring  
 Remote Alarm Monitoring-Dams

**Entertainment**  
 Red Rocks- Colorado  
 ATT Performing Arts-Dallas  
 Ocean Speedway -Watsonville,CA

**ACO Pacific, Inc.**  
[www.acopacific.com](http://www.acopacific.com) Tel:1-650-595-8588 [Sales@acopacific.com](mailto:Sales@acopacific.com)  
**On YouTube Search: SLARMsolution**

# BUILT TO WORK HARD

MAXIMUM POWER FOR  
HEAVY DUTY JOBS



Elliott's D86, D105 and D115 digger derricks offer the widest digging radii, highest torque, smoothest operation and best lifting capacities in the industry. Plus, they're backed by a lifetime structural warranty.

Elliott's Digger Derrick line is specifically engineered for transmission and heavy-duty construction projects. Built to work hard, day after day, year after year, the digger line boasts Elliott's high boom pinpoint geometry allowing for maximum power out of the hole, as well as features offering ergonomic seating and a variable displacement piston pump.

Every Elliott machine is designed to be the right tool for the job, which is why our aerial work platforms have working heights to 215', boom truck cranes with tip heights to 207', digger derricks, and special purpose track vehicle cranes. We will work with you to customize your machine, maximize your productivity, and get the job done.

**CONTACT US TODAY**

Find a Distributor at [www.elliotequip.com](http://www.elliotequip.com)

+1(402) 592-4500 | [sales@elliotequip.com](mailto:sales@elliotequip.com)

**ELLIOTT**  
EQUIPMENT COMPANY



## OEMs Opt to Eliminate In-House Lamination Operations

*OEMs that make parts or products from flat-rolled steel, aluminum and other metals are eliminating in-house lamination operations and outsourcing to experienced coil coaters instead*

For OEMs that apply laminate films to metal parts or apply coatings to as decorative finishes, the in-house manufacturing process requires a significant investment in equipment, plant floor space and ongoing maintenance for what can be a very temperamental process.

Not only that, but failure to precisely control what can be a very temperamental process can lead to laminates which do not bond properly or wrinkle, leading to excessively high scrap rates and even product returns.

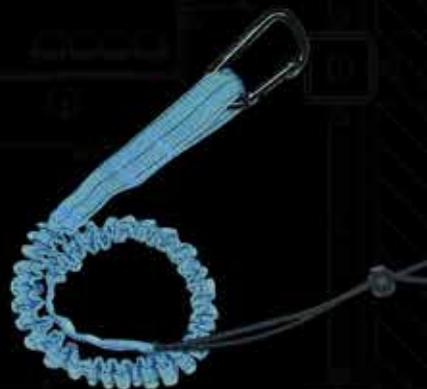
For this reason, OEMs are increasingly outsourcing the application of laminate films to experienced coil coaters who can provide several alternatives: steel, aluminum or other metals in coil or sheet form with pre-applied (dry) adhesive; or fully laminated product that eliminates in-house processing altogether.

The result for OEMs can be significant, both in terms of speeding production and reducing operational costs. However, when paired with the fact that experienced coil coaters can produce high quality laminated products, it becomes a win-win scenario.

# STANDING SEAM ROOF ANCHOR

THE INDUSTRY'S LIGHTEST AND  
MOST UNIVERSAL FIT ANCHOR POINT

Patent Number: US D629.679



## FULL LINE OF FALL PROTECTION PRODUCTS

CALL NOW! **863-703-4522** OR  
TEXT **SSRA** TO **95577** FOR MORE INFO

[www.fallpd.com](http://www.fallpd.com)

"Many OEMs are not fully aware of the alternatives for outsourcing part of, or all, the lamination operation to coil coaters," explains Dan Chin, president of Universal Chemicals & Coatings (Unichem), a company that specializes in custom adhesives and coatings used in coil processing. "This is often simply because they have 'always done it the same way' - in house - but they can get a high quality laminated product and eliminate the costs and headaches associated with the process."

### Laminates

The use of laminate applied to metal to fabricate parts or products is widespread throughout manufacturing. Decorative finishes provide the look of stainless steel, brushed copper, and wood grains, as well as a variety of colors, imprints, and a range gloss levels. Laminate films can also serve a functional purpose by providing scratch or chemical resistance.

Some of the more common applications including appliances (refrigerators and freezers, washing machines, dishwashers, microwaves, range or fume hoods), construction products (insulated wall panels, garage doors, roofing products) and the mobile and manufactured home markets (walls, door panels).

Applying laminates to metal requires multiple steps. First, the metal is prepared by chemically cleaning and pre-treating. A liquid adhesive or film laminate is then applied to the metal and cured in an oven. The laminate film is then bonded to the metal as the adhesive coated metal exits the oven and the laminate is fed into nip rollers to join the laminate to the adhesive. The laminated metal is then cooled.

According to Chin, in each step of the process there can be challenges which can lead to poor bonding or delamination.

"All kinds of things can happen during a non-continuous laminating process," says Chin. "You can have issues with bonding caused by the cleanliness of the metal, improper application of the adhesive or insufficient oven temperatures. There could also be misalignments of the lami-

## Material Handling Equipment

**Your One Source For All Your Material Handling Needs**

- Storage Products (Steel Cabinets, Shelving & Lockers)
- Loading Dock Equipment
- Conveyors
- Pallet Racks
- Mezzanines
- Carts & Trucks
- Containers & Bins
- Safety Equipment
- Drum Handling Equipment
- Hoppers
- Wire Partitions
- Lift Tables
- In-Plant Buildings
- Cranes (Jib & Bridge)
- Hoists & Trolleys



# 1-800-239-3434



**WAREHOUSE EQUIPMENT AND SUPPLY CO.®**

116 West Park Drive • P.O. Box 19808  
 Birmingham, AL 35219  
 Email: [sales@warehouseequipment.com](mailto:sales@warehouseequipment.com)  
 Web: [www.warehouseequipment.com](http://www.warehouseequipment.com)

# EFFICIENCY PRODUCTION

## America's Trench Box Builder™

### Utility Contractor's Choice for Trench Shielding & Shoring

- Largest selection of shielding and shoring equipment available.
- Custom shields built to your specs.
- Site-Specific Engineering.
- OSHA Trench Safety Training.
- Jobsite Installation Assistance
- Efficiency Production knows that our success is based on your success!



Steel Trench Shields



Hydraulic Shores



Build-A-Box™



Aluminum Shields™



Stone Mizer™



Slide Rail System

800-552-8800

[www.encyproduction.com](http://www.encyproduction.com)

685 Hull Rd., Mason, MI 48854



**EFFICIENCY**  
**PRODUCTION**  
America's Trench Box Builder™

nate that cause wrinkles in the film.”

Chin says this can lead to extremely high scrap rates in excess of 20%. Worse than that, OEMs may experience product returns and negative reviews due to delamination that occurs on a delayed basis once the product is in the field.

“If there is an issue with the bonding of the laminate, it can manifest later when a product is

already in the hands of the customer,” says Chin. “Normally there would be quality control testing in place to ensure that doesn’t happen, but it is still possible. By the time the OEM finds out, it can become quite costly.”

### **Outsourcing to Coil Coaters**

According to Chin, one option for OEMs is to turn to experienced coil coaters who can pre-apply B-stage adhesive to virtually any metal substrate.

The B-stage adhesive is designed to reactivate and cure within a specific temperature range to bond the laminate. This eliminates several steps and can lead to a higher quality laminate bond.

“From a quality standpoint, you are going to get excellent uniformity of the adhesive applied [by a coil coater] and it will be properly cured,” says Chin. “Then, basically all the OEM has to do is laminate the film to the metal.”

Another option is to eliminate the entire process completely. This eliminates the need for in-house labor, application equipment, curing ovens, and environmental emission control systems.

“Typically, the coil coater has a lot of experience running these types of products, so they can dial in the adhesive thickness and control the curing and laminating temperatures very closely to ensure the proper bond,” says Chin. “That is going to translate to higher quality laminated product.”

Coil coaters must also guarantee scrap rates below a certain level.

“There is no testing the OEM will

## **Low-Dust Application of Stabilization Materials** Fast, Accurate and Consistent!

Sizes  
from 8 to  
27 Tons



Truck Mounted



Pull-Type



Custom Sizes

- Spreads all dry binding agents accurately

- Spread rates up to 120 lb/sq. yd.

- Available in manual or automatic rate control with Stoltz Controller

Used for Soil Stabilization, Cold In-Place Recycling, Full Depth Reclamation, and similar construction processes, Site Spreaders feature a rugged, fully welded design, 30 inch conveyor, and either automatic or manual controls.



**1-800-843-8731**

Get all the details you need at  
[www.stoltzfusspreaders.com](http://www.stoltzfusspreaders.com)



## You'll never see it coming.

One second can change everything - especially where arc flash is concerned. That's why it's critical to understand the proper selection and use of PPE tested to withstand an arc flash event. To learn more about arc-rated PPE solutions from MSA or request a FREE, no obligation safety evaluation, visit [MSAsafety.com/safetyevaluation](https://MSAsafety.com/safetyevaluation).

**WE KNOW WHAT'S AT STAKE.**

© MSA 2018 • ID 55-6085-MCP

**MSA**  
The Safety Company

need to do, other than spot checks for their own quality monitoring process. The coil coater takes care of all that," says Chin.

Chin adds that laminated coil can also be easily cut to just about any size, ready for stamping, forming or other finishing operations. This can eliminate several additional in-house steps and simplifies the process of maintaining an inventory of laminated metals in different sizes.

### **Adhesion Challenges**

Experienced coil coaters are also better equipped to handle difficult adhesion challenges, often with the help of adhesive formulators like Unichem that can deliver custom formulations and provide other advice about the lamination process.

"As an adhesive formulator, we can customize the adhesive to match more exactly what the OEM is trying to accomplish," explains Chin. "There are times the adhesive company, which has a specific catalogue of products, doesn't have a solution that works for specific applications."

One example is adhesives formulated to be more "forgiving" in terms of temperature curing ranges. This can help OEMs that have challenges with oven temperature or consistency across the width of the coil.

"By working with the OEM or coil coater and understanding the parameters, we can help to dial in a solution that is very specific and resolve problems they are having in the bonding process," says Chin.

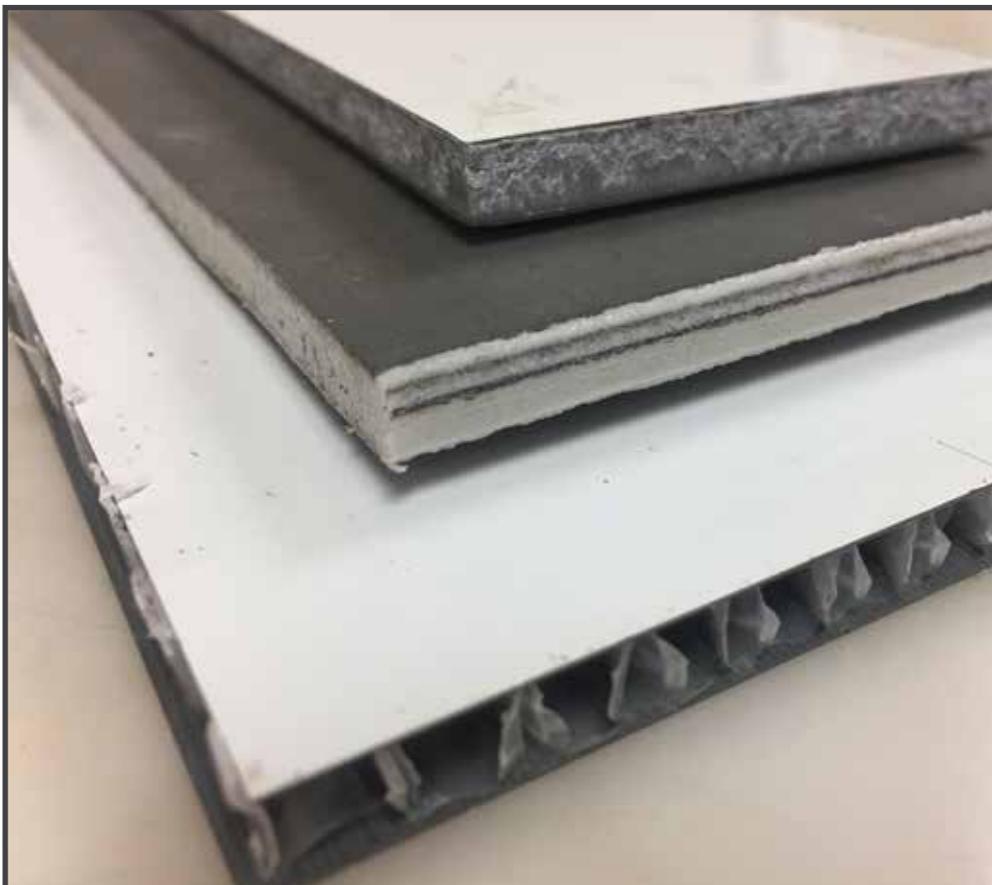
Popular laminate films like TPO (Thermoplastic olefin) are also notoriously difficult to bond to metal. TPO can refer to materials such as polypropylene (PP), polyethylene (PE), block copolymer polypropylene (BCPP) and others.

Although there are standard adhesives used to laminate to TPO, Chin says Unichem has seen enough variances that they have developed several custom solutions specifically designed for that material.

"As we have been formulating for TPOs, we have learned there can be really specific requirements as to the performance criteria and type of testing required that we have had to modify the adhesive significantly in order to get it to work for all the parameters," says Chin.

Electrolytic Tinplate is another good example of a substrate that can be difficult to bond laminates and achieve the desired adhesion.

"Tinplate surfaces are very heat sensitive. Cure temperatures and other processing



# MORE EQUIPMENT OWNERS RELY ON US.

We're proud that Dominion  
Rubber Tracks are the

**#1 SELLING  
RUBBER TRACK**

brand in America.

CALL US TODAY  
TO GET THE BEST  
PRICE ON  
RUBBER TRACKS,  
YANMAR PARTS  
& UNDERCARRIAGE  
PARTS

800-365-7260

**DOMINION**  
*Equipment Parts*

[depparts.com](http://depparts.com)

Ashland, VA » Jacksonville, FL » Dallas, TX » Cincinnati, OH » Portland, OR »  
Sacramento, CA » Schenectady, NY » Leduc, AB

steps need to stay below 410 F, or within a 390 - 410 degree Fahrenheit range, otherwise tin re-flow can occur," says Chin. This means that adhesives also need to cure or bond at temperatures below this temperature.

### ***Time to Make the Switch?***

Chin says that a good time to consider the transition is for plants that are utilizing aging equipment that can be time-consuming and costly to maintain or when scrap rates or performance issues with in-house laminating are excessively high.

"If the [lamination] equipment is 10 or 15 years old, it can become more problematic and require increasingly more maintenance. Outsourcing the entire process to coil coaters might be a better alternative than upgrading the equipment, which could be a huge investment," says Chin

"Certainly in a manufacturing facility, the process

of laminating can become a production bottleneck," says Chin. "Because depending on the temperatures and thickness of the metal substrate, you can only process it a certain speed." In some cases, outsourcing lamination operations – particularly those that are proving difficult and time-intensive – can speed up overall production.

"OEMs no longer have to worry about that if they receive laminated product in the sizes needed. They can immediately move to forming and finishing steps and definitely speed up production significantly if the laminating bottleneck is eliminated," adds Chin.

For more information, contact Unichem at: 1975 Fox Lane Elgin, IL 60123; or Call: +1 (847) 931-1700, Fax: +1 (847) 931-1799; email: sales@unicheminc.com or visit online at [www.unicheminc.com](http://www.unicheminc.com) •

The all new T14-54/617 is the Tier 4-compliant Trencor Mechanical Trencher. Packed with plenty of power for the toughest rock, the new T14-54/617 runs so cleanly there is no regen cycle needed. Trencor is known for being the longest lasting, toughest, underground equipment in the industry all backed by 24/7, worldwide, service and support. PinPoint® Telematics comes standard, logging and transmitting real-time data to optimize operations and reduce downtime due to missed maintenance.

© 2018 American Augers, Inc.  
A Charles Machine Works Company



# WE KEEP AMERICA ON TRACK



**MOROOKA**

UTILITY CARRIERS

Call: 800-365-7260

OR

Visit: [morookacarriers.com](http://morookacarriers.com)



## ***HOW MANY MILS IS YOUR COATING?***

***Instantaneous handheld coating thickness gauges that can be operated by virtually any technician deliver lab-quality readings even on curved and complex surfaces***

From the job shop to the robotic assembly floor, it is vital that the product be made well and correctly coated for protection, aesthetics, and performance.

So, industries like automotive, aerospace, and those utilizing plating, anodizing, powder coating or other coatings need accurate coating thickness measurement. This is particularly important when the coatings play a critical role in preventing the corrosion or wear of metal substrates.

# MULTI VIBE<sup>®</sup>

Quality

*New  
Product*

**Never Worry  
About Gas Engine Problems Again  
Just Have Your Batteries Charged**



**Screed Using A  
Battery Powered Drill**

**Use Up To 12' Screed Board  
Perfect For Smaller Jobs  
No Emission Problems**

Drill Tested & Recommended Dewalt DC996 Hammer

Contact Your Local Multivibe Dealer or Call 1-877-220-6652 For More Information

3125 N Friendship Rd Paducah KY 42001

Properly applied coatings, with thickness measured in mils (.001 inch) or microns (.001 mm), are also essential for paint/coatings contractors and companies that coat a wide range of building and functional surfaces, including pipe. Accurate application and coating thickness measurement, in fact, are crucial to avoid coating breaches leading to corrosion of the underlying substrate. This can help to prevent leaks and other safety issues in a wide range of industries.

However, until recently conducting frequent laboratory-quality coating thickness tests throughout the manufacturing process or in the field has been difficult. Traditionally, this required meticulous sampling and preparation, as well as taking the sample to the lab for evaluation. Although portable coating thickness gauges are not new, most fail to provide the accuracy, speed, or simplicity required for anyone to conduct quick checks as needed on the production line or in the field.

Fortunately, handheld devices are now available that allow personnel to easily and quickly perform lab-quality coating thickness measurements. Some options offer instant coating thickness measurement of almost any non-magnetic coating on both ferrous (magnetic) and non-ferrous (non-magnetic) substrates. This is possible using only one hand, even on curved and complex surfaces.

By simplifying the process, industrial facilities and paint/coatings contractors and companies can increase the quality of their products and services from start to finish while optimizing cost.

The Many Benefits of Coating Thickness Readings  
Coating thickness directly affects product quali-

ty, whether for automotive paint, electroplating, anodizing, or a wide range of other coating applications. For example, checking the paint coating consistency on a vehicle not only provides a product with a superior finish, but can also offer essential data about the consistency of the paint when it is wet.

“Incorrect paint consistency can affect drying times or eventual flaking of the paint film,” says John Bogart, Managing Director of Kett US, a manufacturer of a full range of coating thickness testers. “Too little paint coating and you are left with cosmetic issues in opacity, and protective issues like corrosion, wear, and exposure. Checking coating thickness can also tell if auto body work has been done on a used car, which can help the customer or dealer make a good decision on pricing.”

When specificity and adhesion matter in anodizing and electroplating, a coating thickness gauge should be able to read the thickness of the coating to the most minute measurement. This can play a major factor in preventing corrosion while optimizing the process by eliminating any excess use of the expensive plating product.

Another way a coating thickness gauge can make a significant impact is in testing anti-corrosion pipe coatings to find weak spots, where the coating is too thin and a breach of the coating could make the substrate susceptible to corrosion, according to Bogart.

“Knowing about these trouble spots can prevent a disaster well before it occurs,” he says.

“This might involve petrochemical pipes in a facility, water pipes in a home or office, or even the

From Lignomat, an Expert in Moisture Detection

# Innovative Solutions for Moisture Tracking



● All types  
of Handheld  
Moisture Meters



● Wireless  
Measurements



● Internet  
Accessible

**800-227-2105**

Call us with your  
Moisture Detection  
Question.

**Lignomat**  
[www.lignomat.com](http://www.lignomat.com)



● Concrete  
Moisture Testing

pipng and tubing in an engine.”

“A nondestructive gauge is a perfect way to ensure that the pipe’s protective coating has not been applied too thinly or become so over time,” he adds. “Excessively thin coatings are more likely to be chipped or breached, which can lead to corrosion promoters like water or oxygen getting under the coating and accelerating corrosion in the substrate.”

### ***Simplifying Coating Thickness Measurement***

Although traditional laboratory and online based coating thickness measurement techniques are

useful in the right settings, they have lacked the simplicity and flexibility required for frequent spot checks. Often, this involves sampling, sample preparation, and taking the sample to the lab for evaluation, which requires the participation of staff adequately trained for the process.

Other conventional coating tests, such as scratch testing, have been destructive or invasive and damaged the sample. This meant that a product could not be returned to the production line, or that a coated surface had to be recoated or repaired in the field at additional expense. Also, since only a small portion of the component or

facility may be tested, results may not be representative of the entire situation.

Consequently, various portable coating thickness measurement devices have been developed. However, these have not always provided the necessary accuracy or been sufficiently easy to use.

Another drawback is that in certain environments with



# Revolutionary Lighting Solutions



**GOLIGHT**



**Durable...Versatile...Powerful...GUARANTEED**



When the power goes out we know we can rely on our nation's linemen to strap on their boots and march into the elements to get our electrical service back online. More often than not, that means battling wind, rain, snow and ice and doing so in the dark. In those conditions, light that can be dynamically directed where it is needed, when it is needed is an essential tool for safety and productivity. In both emergency situations and day to day operations Golight has proven to be a vital tool in extending work hours and increasing productivity. Golight has been a partner to the men and women who keep our lights on for almost 20 years and we are committed to seeing that relationship grow and develop.



KOOZIES... BANDANNAS... DECALS... Send an email to [media@golight.com](mailto:media@golight.com) and let us know you saw our ad in "THE UTILITY SOURCE" and we will send you some Lineman branded merchandise!

multiple substrates, the devices typically either had difficulty determining the substrate or utilizing the correct test for the application. So, multiple measurement devices had to be used, which complicated testing and added cost.

Finally, typical coating measurement methods were usually unable to accurately measure curved or complex surfaces. This left pipe as well as convoluted component designs largely unable to be easily spot checked for coating compliance.

In response, industry innovators have developed a number of advanced designs for handheld coating thickness test devices. For units used on the production line and in the field, these significantly improve accuracy, versatility, and ease of use.

One example, the LZ990 portable coating thickness gauge by Kett combines two of the most widely used measurement methods, magnetic inductance and eddy current, in a dual mode device that can measure the coating thickness of almost any non-magnetic coating on both ferrous (magnetic) and non-ferrous (non-magnetic) substrates.

Since the unit is able to automatically determine the substrate and use the appropriate measurement circuit, this enables instant, non-destructive testing on painting, plating, anodizing, and organic coatings with accuracy up to 0.1  $\mu\text{m}$ . Such testing takes less than a second to display the measurement.

Because the key to providing accurate, repeatable measurements is the operator's ability to reliably make consistent contact between the instrument and the test surface, the unit also utilizes a spring-loaded probe to generate a consistent contact pressure with the measured surface. This in-

tegrated probe also includes built in edge guides to enable easy measurement of even curved and edged surfaces. To ensure device stability during measurement, the foot of the probe is also designed to provide a firm platform when placed onto the test piece.

According to Bogart, a number of other design considerations in handheld coating thickness gauges can also simplify measurement and improve versatility.

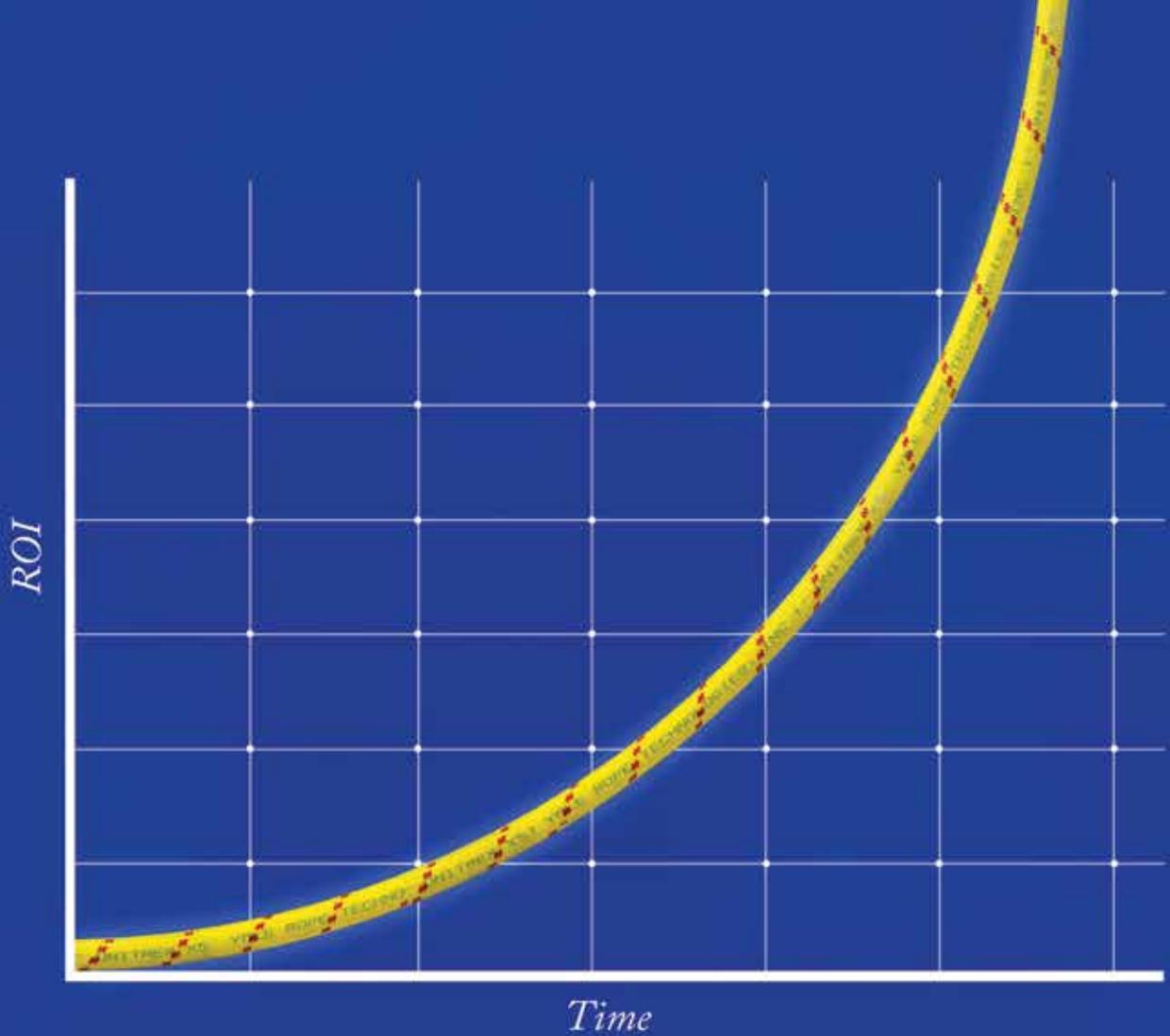
In order to improve accuracy and durability on the factory floor or in the field, it is best for the unit to have no moving parts, other than the probe. Similarly, the unit should be impervious to vibration, with measurement independent of its orientation.

To save time during the testing process, he recommends utilizing a unit with a large screen that enables the quick reading of results. Those results should be able to be stored in the gauge and transferred to a computer and/or printer for documentation and averaging purposes. An instrument that stores many test measurements is best so operators can perform numerous tests before downloading the results.

"Easier, more accurate coating and plating measurement with handheld units will help to improve quality checks wherever needed," concludes Bogart. "So, defects can be immediately detected and corrective action undertaken to minimize scrap and faulty end-products."

For more info, contact Kett: call 800-438-5388; email [support@kett.com](mailto:support@kett.com); or visit [www.kett.com](http://www.kett.com).

**[www.kett.com](http://www.kett.com)** •



## Unitrex XS™ Max Wear. Unmatched performance in the field and in the boardroom.

Electric line stringing is easier and more economical with Unitrex™. Made with a core of Honeywell Spectra®, it is up to 10 times lighter than steel, while delivering comparable strength. The urethane-coated polyester jacket provides excellent abrasion resistance for great productivity that lasts.

To learn more, visit [www.yalecordage.com](http://www.yalecordage.com)

**YALE CORDAGE**  
Performance. Passion. Possibilities.

Company	Pg.	Website
ACO Pacific	12	<a href="http://www.acopacific.com">www.acopacific.com</a>
Atlantic Screen & Mfg., Inc.	2	<a href="http://www.atlantic-screen.com">www.atlantic-screen.com</a>
Buccaneer Rope	10	<a href="http://www.bucrope.com">www.bucrope.com</a>
Country Sales and Service	12	<a href="http://www.countrysalesandservice.com">www.countrysalesandservice.com</a>
Dominion Rubber Tracks	21	<a href="http://www.depparts.com">www.depparts.com</a>
Dorlen Products	6	<a href="http://www.waternalert.com">www.waternalert.com</a>
Efficiency Production	17	<a href="http://www.efficiencyproduction.com">www.efficiencyproduction.com</a>
Elliott Equipment	13	<a href="http://www.elliottequip.com">www.elliottequip.com</a>
eMars Inc	32	<a href="http://www.emarsinc.com">www.emarsinc.com</a>
Fall Protection	15	<a href="http://www.fallpd.com">www.fallpd.com</a>
GoLight	29	<a href="http://www.golight.com">www.golight.com</a>
Greaves	9	<a href="http://www.greaves-usa.com">www.greaves-usa.com</a>
Krenz Vent	6	<a href="http://www.krenzvent.com">www.krenzvent.com</a>
Lignomat USA	27	<a href="http://www.lignomat.com">www.lignomat.com</a>
Loftness	12	<a href="http://www.loftness.com">www.loftness.com</a>
Morooka USA	23	<a href="http://www.morookacarriers.com">www.morookacarriers.com</a>
MSA Safety	19	<a href="http://www.msasafety.com/safetyevaluation">www.msasafety.com/safetyevaluation</a>
Multi Vibe	25	<a href="http://www.multivibe.com">www.multivibe.com</a>
Onspot	6	<a href="http://www.onspot.com">www.onspot.com</a>
Rayco	1	<a href="http://www.rayco.com">www.rayco.com</a>
Ring Power	IBC	<a href="http://www.ringpower.com">www.ringpower.com</a>
Rome Plow	IFC	<a href="http://www.romeplow.com">www.romeplow.com</a>
Schweiss Doors	10	<a href="http://www.schweissdoors.com">www.schweissdoors.com</a>
Slip Industries	6	<a href="http://www.slipindustries.com">www.slipindustries.com</a>
Stephens Mfg	3	<a href="http://www.stephensmfg.com">www.stephensmfg.com</a>
Stoltz	18	<a href="http://www.stoltzfussspreaders.com">www.stoltzfussspreaders.com</a>
Terex	7	<a href="http://www.terex.com">www.terex.com</a>
Trencor	22	<a href="http://www.trencor.com">www.trencor.com</a>
TSE	BC	<a href="http://www.tes-international.com">www.tes-international.com</a>
TSI	11	<a href="http://www.tsissg.com">www.tsissg.com</a>
Warehouse Equipment	16	<a href="http://www.warehouseequipment.com">www.warehouseequipment.com</a>
Yale Cordage	31	<a href="http://www.yalecordage.com">www.yalecordage.com</a>

## TAKING CHANCES WITH DAVIS - BACON MANUAL PAYROLL COMPLIANCE?

EACH WEEK, EVERY CHECK HAS 30+ WAYS TO BE A LOSING PROPOSITION.



NONE OF OUR 15,000+ CLIENTS HAS EVER HAD A LEGAL COMPLIANCE ISSUE... NOT ONE.

480-595-0466



[emarsinc.com](http://emarsinc.com)

**Be Davis-Bacon Compliant In Minutes**



# Your Trusted Partner.

Partnering with Ring Power gives you access to a vast range of jobsite-tough products to round out your fleet. Ring Power carries machines from dozens of manufacturers to ensure you always have access to the right tools for your job.

Short-term, long-term or rental-purchase options available.



1-844-766-RENT • [Utility.RingPower.com](http://Utility.RingPower.com)

# GREENMACHINE

CLEAN. QUIET.  
ALL ELECTRIC  
PULLING AND  
TENSIONING.



THE NEWLY DESIGNED DPT40E IS POWERED BY A REGENERATIVE ELECTRIC MOTOR, ELIMINATING THE NEED FOR DIESEL AND HYDRAULIC OIL.

FOR SALES INQUIRIES, PLEASE EMAIL US AT [SALES@TSE-INTERNATIONAL.COM](mailto:SALES@TSE-INTERNATIONAL.COM)

U.S. PATENT NOS. 8,322,689 B2 AND 9,178,340 B2

**TSE**  
INTERNATIONAL, INC.  
1-800-825-2402