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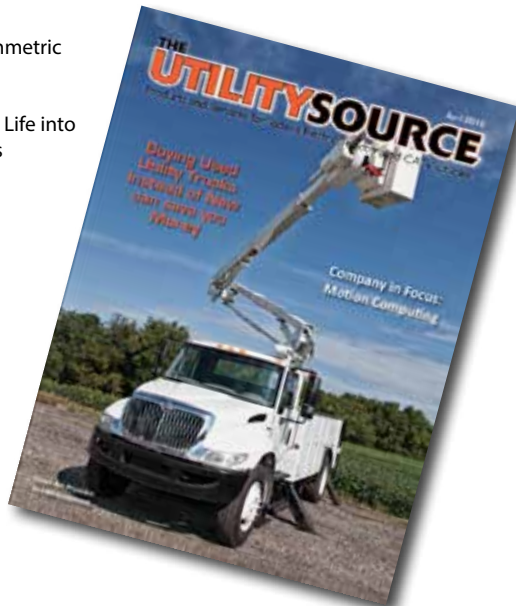
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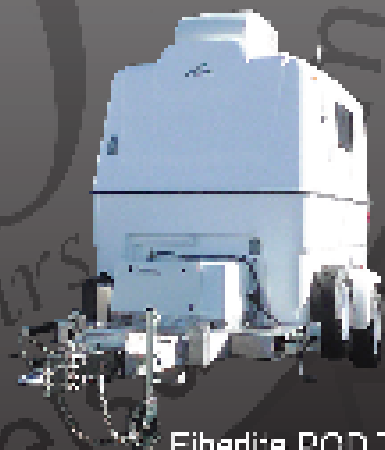
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Truck Chassis



Fiberlite XL Trailer



Fiberlite POD Trailer

Nextronex, Inc. was issued Patent Number 8,963,373 on February 24, 2015, elevating the Nextronex unique solar inverter configuration, Distributed Architecture™. This patent issuance, named “Grid Tie Solar System and a Method,” recognizes Nextronex’ innovation and reinforces the uniqueness of its solar inverter system.



The Nextronex inverter system connects multiple inverters, each rated at 160 kW to 300 kW, on a common DC bus. The inverters operate in a master-slave relationship. Each day the Smart Controller selects the master inverter based on cumulative run-time. This inverter comes on first and turns off last. Additional inverters are brought on as warranted by the insolation. This system turns on earlier in the day and shuts off later than other systems. It produces superior low light efficiencies. System availability is virtually 100% because if one inverter is down for any reason the remaining inverters can process the power produced by the entire array. Finally, the inverter lives are extended because they each have less runtime in the master-slave system.

“Distributed Architecture™ combines the benefits of central and string inverters,” states Jay Troger, Nextronex Chief Executive Officer. “You get the simplicity of a central inverter system with even

higher system availability than with string inverters.”

Nextronex systems are available in a factory commissioned, plug-and-play Power Podium™, which includes all equipment from the combiner boxes through medium voltage AC interconnection. A full-function internet accessible monitoring system is included with the system.

Troger further noted that, “Nextronex is committed to vigorous ongoing technology development, as evidenced by our two pending patents applications. The first relates to a lower capital cost, higher efficiency integration of PV with battery storage. The second involves a technology that will help displace diesel generators with PV in situations where grid interconnection of the PV is problematical.”

For more information visit www.nextronex.com

Onsite update: Largest ever World of Asphalt & AGG1

The 2015 World of Asphalt and AGG1 exhibitions kicked off Tuesday, March 17 in Baltimore and had broken all previous attendance records by mid-day - as well as setting records for number exhibitors and exhibit space, and number education tickets purchased.

- More than 7,000 registered attendees - with more than 2 show days remaining
- More than 135,000 net square feet exhibit space taken by 450 exhibitors total - both shows set records
- More than 10,000 education session tickets purchased by attendees for the shows’ signature education programs.

There was plenty of enthusiasm and interaction on the show floor and in the education sessions. Attendees and exhibitors conducted business and discussed issues affecting future industry growth, such as highway funding.

“Exhibitors and attendees alike cite the value of face-to-face dialog with so many industry professionals and companies in one place, and the consistently high-quality environment of AGG1 and World of Asphalt,” stated Show Manager Rich Prausa.

World of Asphalt Show & Conference and NSSGA’s AGG1 Academy & Expo ran through March 19, Thursday at the Baltimore (Maryland) Convention Center.

For more information visit www.worldofasphalt.com



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Safety forum to spotlight best practices, key updates

Equipment industry event set for April 20-22

Driverless cars (and equipment). The off-road equipment industry's annual safety seminar.

Delphi's technical director of automated driving, Serge Lambermont, will connect the dots between innovative product development and safety as opening keynote for the Association of Equipment Manufacturers (AEM) annual Product Safety & Compliance seminar.

The AEM seminar is set for April 20-22 in St Louis, Missouri (Hilton St. Louis at the Ballpark).

Delphi expert Serge Lambermont will focus on what's more technically known as automated driving and full autonomous (self-driving) technology. Technology management includes sensory systems, computer platforms, electrical architecture,

vehicle connectivity, user experience (and cyber security issues) to take into account, for example.

Product complexity will bring safety ramifications, and Lambermont will bring attendees up to speed.

The AEM product safety and compliance seminar is designed by and specifically for equipment manufacturers and their designated product safety representatives. Seminar topics offer value to both beginning as well as experienced professionals.

Attendees can choose from more than 20 sessions, from "essentials" to "advanced 201" knowledge levels, all designed to relay best practices, with expert speakers and peer discussion.

For more information and to register, visit www.aem.org/safety online in the Education and Training section. •

Kennametal Nominated For BMW 2014 Supplier Innovation Award

In November 2014, Kennametal Inc. announced the company was among three suppliers recognized at the 2014 BMW Supplier Innovation Awards in the productivity category.

Kennametal, the only tooling supplier to be nominated for the award, also was recognized for more than 30 years of partnership with BMW. Among reasons BMW cited Kennametal for the honor was innovative new tooling that increased productivity in the manufacture of engine blocks at BMW's Steyr, Austria production facility. Kennametal devotes an engineered solutions team to collaborate with BMW on such productivity-enhancing refinements.

"We are honored to have

been recognized among more than 200 suppliers at BMW's supplier awards," said Gérald Goubau, vice president and general manager of Kennametal's tooling business. "It is a great affirmation and reminder of our mission to provide innovation that customer's value; something we strive to do every day."

BMW Group considers innovation the foundation of a company's economic success and future competitiveness. The only way to master the challenges ahead for the automobile industry is through a high level of creativity and inventiveness. The BMW Group therefore recognizes its most innovative suppliers as key partners who play a crucial role in the successful implementation of new developments. The Supplier Innovation Award is designed to pay tribute to their achievements. •

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Motion Computing Take

Motion Computing® understands that, for field service industries, true mobility extends far beyond making an “office setup” portable. Mobility is also about much more than just equipping your workers with a tablet or smartphone and hoping they are productive wherever they go. Every industry has its unique job requirements and going “high-tech” isn’t as simple as replacing old-school pen and paper processes with just any mobile technology. If any part of the mobile solution you choose is positioned as “one-size-fits-all” then your workers are no better off than they were with a pen and paper. For utilities, there is never a one-size-fits-all workflow, set of operational requirements or IT infrastructure.

For example, Motion’s experts know that when utility employees and contractors need to get a job done, being outside is just a technicality. Trying to make them use a more consumer-designed mobile device that powers down when exposed to a few rain drops or that has a screen that’s not visible in sunlight not only limits worker productivity, it challenges their ability to deliver the best customer service possible. Utility professionals need access to powerful mobile computing solutions that deliver a full and consistent PC experience as they transition from the office, to their vehicles and into the field – rain or shine, whether in a customer’s home or servicing a power line 100 miles away from anywhere.

That is why, for the past 14 years, Motion® has remained solely committed to delivering industry-leading rugged tablet PCs, tailored accessories and services that are always purpose-built to support the unique and often-changing business workflows of power, water, Internet, television and telephone service providers worldwide.

Founded and headquartered in Austin, Texas, Motion® quickly emerged as not only a leader and early pioneer in the rugged tablet market, but in fact set the industry standard for a more integrated approach to designing customizable mobile portfolios that included more than just the device itself. Motion’s award-winning technical expertise and decades of industry experience has allowed us to redefine key capabilities of the rugged work environment. That, in turn, translated into quick success for both our company and our thousands of customers worldwide who have been able to mobilize their workforce efficiently and cost-effectively with Motion’s complete Windows®-based mobile platforms.

Motion’s suite of rugged Windows® tablets enables mobile workers to securely capture and share critical data at the point-of-service, delivering real-time decision making capabilities necessary for improved worker productivity, operational efficiency and customer ser-



vice satisfaction. Those capabilities are hard to find in their entirety in many competitor and consumer-designed mobile devices.

In fact, Motion’s customers consistently experience higher degrees of efficiency, work product accuracy and safety versus those with other mobile solutions, and our customers benefit from reduced operating and maintenance expenses, improved service levels, and incremental revenue capture.

We are architects and guardians, developing and delivering entire mobile platforms – beyond just the tablet – that extend customers’ most critical workflows to the field environment while protecting their existing IT investments. We have remained one of the top two rugged tablet PC providers worldwide for the last several years because we know how to bring new technology and customer needs together.

Bring Your Tablet to the Field

By Peter Poulin, CEO



However, Motion's growth and sustained success hasn't been the result of constant technology design overhauls like other device manufacturers that require you to purchase the "latest" generation every year. Motion's goal has always been to take what's worked with each previous generation of our rugged tablet platforms and add more power, more speed, more connectivity, more security and – especially for utility workers – more data capture capabilities. With customer input, we have created the ideal form factor designs for our tablets that remain consistent from generation to generation to provide longevity to customers' investments in vehicle mounts, desktop docs, carrying cases and other accessory investments.

We have also chosen to leverage Windows® operating systems and Intel® core processors as the foundational elements of all Motion®

rugged tablet PCs so that our customers know they are receiving proven, powerful and reliable mobile solutions that preserve compatibility with peripherals and back-office systems and extend the life of required workflow-support software.

But just because we stay true to our core doesn't mean that we aren't evolving. Motion® has grown large enough to solve our customers most complex mobility problems while remaining small enough to do so quickly. As a mobile workforce transitions from "nice to have" to "must have" for organizations of all sizes, many are realizing that what passed as a mobile solution a few years ago – maybe a device that would allow for remote email or file access – is far from sufficient today. Just as a "portable" device is not going to deliver a full mobile work experience, a non-rugged mobile device is not going to deliver in the rugged environments that many utility workers find themselves in every day.

That's why Motion Computing® works with each individual customer to understand their unique set of challenges, resources and future needs to customize and integrate all the pieces required for their rugged mobile platform, from the hardware and peripherals, to in-vehicle solutions, connectivity solutions, software and services. By doing so we enable longer product life cycles and overall platform stability, which enables lower IT training and support costs.

We have been innovating and improving the entire rugged mobile experience for customers in the utility sector, as well as other verticals, at a far greater speed than most. Our rugged tablet PCs remain many generations ahead of where others are pushing to get to today. While others are still working on their first generation solutions, Motion's next platform launch will be its 20th.

As Motion® looks to the future, customer collaboration will continue to define and drive our technology innovation. Our success has always hinged on our customers' success, and we will work together to remain at the forefront of the mobile workforce evolution, helping them prepare for the future now.

Motion Computing, Inc., was acquired by Xplore Technologies on April 16, 2015. Motion and Xplore now operate as one company, under the Xplore brand and with a leadership team comprised of Xplore and former Motion leaders. The Motion brand will be retained at the product level, and the combined company will continue to deliver award-winning rugged mobility solutions worldwide.

For more information visit www.motioncomputing.com •

Buying Used Utility Trucks Instead of New can save you Money

The smarter and more economical way to purchase a utility truck

Often times, businesses find that it's better to invest in a fully reconditioned truck versus new as it allows them the ability to save capital they might be able to use elsewhere in their company. In addition to the cost savings of purchasing used over new, there are other positive factors to consider too.

For Example:

Used utility trucks have a lesser chance of developing mechanical or electrical issues in comparison to new trucks. Initial production problems can crop up that might not present them until after the truck has been put into regular use. Used trucks that have been refurbished seldom encounter these types of issues and any potential Original Equipment Manufacturer recalls have already been addressed.

Another important factor is the break-in period that applies to all brand new commercial trucks. Break-in is the time that an engine requires to allow the bearings to set properly and the piston rings to seal around the cylinders. A brand new truck has to cover an average distance of 3,000 miles followed by an oil change to bring the machine to its optimum performance level.

Lastly, the price of a used utility truck is based in large part on the model year, mileage and hours of use on all boom parts and controls. The higher the numbers, the lower the price ranges. If the price is unreasonably low, it could mean that the machinery has a limited working life left. In contrast, most name brand utility equipment can have an extended working life if it has been properly maintained throughout its lifetime. In some cases these trucks can be in service as long as 20 years or more.

Purchasing Used Utility Trucks can help save you money and allow you to put that savings to another use. Before you make a decision on what truck you're going to buy, make sure that it is in good working condition, it is current on all inspections and that regular maintenance has been performed and documented.

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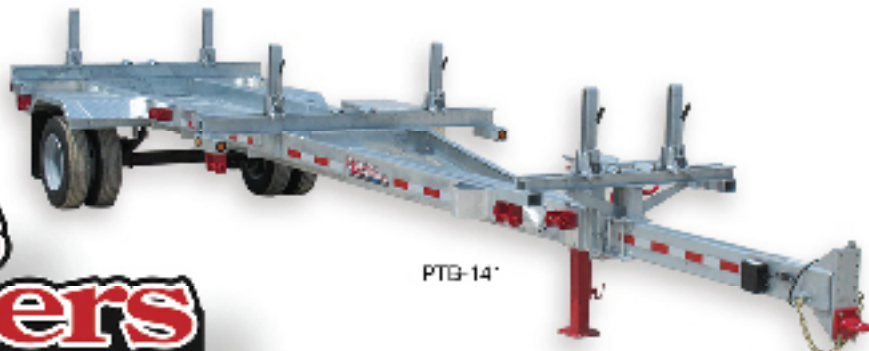


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Boom Make/Model: Altec/AM55

Vehicle Make/Model: Freightliner/FL80

2004



**4x2 65' Double Over Center
Under CDL 11' Dump Body**

Stock#: 672406

Boom Make/Model: Versalift/V5250RV

Vehicle Make/Model: International/H300

2007



**4x2 51' Art/Tale 1,000lb Upper Material
Handler 20,000lb Brazen Bumper Winch**

Stock#: X72009

Boom Make/Model: Altec/TA45M

Vehicle Make/Model: Freightliner/M2

2006



**4x2 60' Over Center Material
Handler Insulated Single Man bucket**

Stock#: 514559

Boom Make/Model: Altec/AM55

Vehicle Make/Model: Chevrolet/C7500

2004



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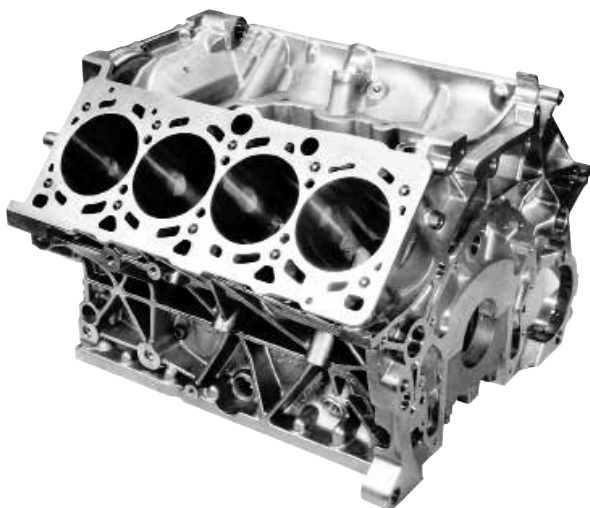
Different Thinking Drives Asymmetric Boring Revolution

Innovation in precision boring increases productivity, reduces costs

Precision boring is a vital process in manufacturing many critical components. The accuracy and finish of a multi-journal crank bore in an engine block relates directly to power and fuel efficiency, and the time it takes relates directly to the engine company's profits. Precision bores in numerous engineered components are essential to critical performance metrics. Such bores must meet critical tolerances; but the downside is that precision boring can be costly and time-consuming, with a small mistake or error resulting in the scrapping of expensive parts. The response from Kennametal is a geometric and asymmetric line boring bar solution being termed a revolution in the process by delighted users.

By definition, boring, as opposed to drilling, is a machining process in which internal diameters are made in true relation to the spindle centerline. This process is most commonly performed with the workpiece held stationary and the cutting tool both rotating and advancing into the workpiece, although boring is also done with the cutting tool and the workpiece being adjustable.

Common applications for boring include the enlarging or finishing of cored, pierced, or drilled holes and contoured internal surfaces. Related operations sometimes performed



simultaneously with boring include turning, facing, chamfering, grooving, and threading.

How It's Done

Envision a small engine block with five in-line journals requiring crank bores. Conventional thinking for a multi-journal finishing assignment, for example, involves a multi-blade guidepad reamer with the following suggested process (here designated as Option 1.0):

- A pilot reamer finishes the first journal
- The multi-blade reamer is fed in and semi- and final-finishes journals 2 through 5.
- The reamer is then retracted.

The advantage of such a process is

that it lends itself to use on CNC horizontal or multi-axis machining centers and does not require a dedicated boring machine with dedicated fixtures. However, depending on the size of the workpiece, the machine tool must be of sufficient rigidity or quality can fall off dramatically. Also, feed-in and feed-out of the reaming tool over finished bores must be done slowly and precisely or retraction marks and/or damage to the cutting edges will occur.

Another general option for machining this kind of bore is line boring (Option 2.0). The basic issue to be solved at this option is how can the cutting blades and the tool's guide pads pass through unfinished journals with smaller hole diameters?

CNC machine tool builders have responded to this quandary with using conventional line boring bars and "counter-bearing" capabilities on their equipment. The process looks like the following:

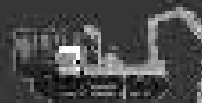
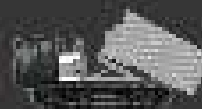
- The workpiece area of the machine tool lifts the cylinder block up
- The line boring bar is fed through the component into a bearing at the opposite end
- The cylinder block is adjusted down and clamped



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- Crank bores are semi- and final-finished
- The cylinder block is lifted up and the boring bar retracted

The process speeds up feed-in and feed-out, and because the tool is supported on both ends; the geometric quality of the finished bore is improved compared

to reaming option 1.0. On the downside, lift functions require special fixturing and CNC control, and the required counter-bearing on the fixture makes any additional back-side machining impossible.

Multi-axis machine tools with tilting worktables and/or tilting spindles together with more evolved boring bars

contribute to Line Boring Option 2.1 with expandable guide pads, where the process evolves to the following:

- A pilot reamer is fed in and finishes journal 5
- The component (or machine table) gets rotated 180 degrees
- The machining center X-Y axis is adjusted to feed the boring bar in off-center
- The boring bar with guide pads is centered into journal 5
- Guide pads are expanded
- Journals 1 through 4 are semi- and final-finished
- Guide pads are fed back in
- The boring bar is retracted off-center

Option 2.1 uses the multi-axis adjustability of the machine tool. It retains the advantages of Option 1.0 by eliminating the need for any lift function or counter-bearing and Option 2.0 with support on both ends of the tool. The disadvantages are that the complex internal mechanics of this type of boring bar are costly and can be difficult to handle. Insufficient lubrication use can damage sensitive internal mechanics, and if not monitored exactly, the tool can jam or hook in the workpiece and cause damage to the machine, fixture, tool, and part.

An Asymmetric Solution

In collaboration with a major automotive manufacturer's engine block operations, Kennametal engineering staff has advanced the boring function with Option 3.0, asymmetric line boring. This is a geometric leap forward that accentuates the advantages of reaming and line boring while virtually eliminating the disadvantages of both.

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As with most advanced solutions, the principle at the foundation is quite basic. Normal guide diameters are of full material or build of 3 or more guide pads, providing no degree of freedom from the bore wall while feeding in and out. The Kennametal solution supports on guide pads in a setup similar to a typical guide pad reamer, but the guide pad, normally located 180° to the cutting edge, was rotated so the resulting design provides freedom to enter and exit the guide part even passing through the raw bores. This geometry allows feeding the bar through raw bores on an eccentric path. The process, then, looks like this:

- A pilot reamer is fed in and finishes journal 5
- The component (or machine table) gets rotated 180 degrees
- The asymmetric boring bar is fed

in off-center using the machining center's X-Y axis

- The tool is moved to the center and finishes journals 1 through 4 simultaneously
- The tool is retracted off-center with fast feed out.

Such asymmetric line boring retains all the advantages of previous line boring efforts -- high-quality precision bores, support on both ends of the tool, while no expensive lift functions, obstructive counter bearings or critical mechanisms inside the tool are needed. It also adds the fact that complete feed-in and feed-out moves can be done at increased feed rates on conventional machining centers, adding efficiency to the process.


Naturally, being a Kennametal solution, the indexable inserts offered with this

eccentric boring bar solution are also advanced. High-precision R18 inserts have eight cutting edges with pre-defined back taper, which allows for high feed rates. Diameter can be adjusted to the precision of 1 micron. The high clamping force provided by the conical clamp screw avoids any settling effects.

Both inserts and the asymmetric boring bar are designed so the inserts clamp directly into the boring bar body. This eliminates the need for cartridges and the additional tolerances and space they require.

In short, this asymmetric line-boring solution increases machining robustness, process speeds, and reduces tool maintenance and handling, all while being compatible with CNC machining centers – a solution any manufacturer in search of process improvements will find anything but boring. •


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Linde technology can break aluminum for lighter cars, trucks



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The U.S. auto industry's shift toward lighter weight vehicles through greater use of aluminum is now in high gear with 2015 pick-up trucks rolling into dealer showrooms sporting as much as 350 pounds more of the metal than last year.

Automakers are racing to satisfy new 54.5 mpg corporate average fuel-efficiency (CAFE) targets for 2025. Automobile manufacturers report plans to use more aluminum in doors, hoods and other parts beginning in the next few years, including plans for aluminum-bodied pickups. There has been a global surplus of aluminum the past nine years¹, but the shift raises questions about supply. In the near term, demand is projected to grow at an average annual rate of almost 6 percent a year through 2018.²

"The more aluminum that is recycled, the better the aluminum supply picture, especially in the near term, while the industry waits for new primary production to come on stream," says Tony Palermo, program manager, metallurgy, for Linde LLC in North America. Linde LLC is a member of The Linde Group, a leading global industrial gases and engineering company, which offers proprietary oxyfuel heating technology that can help improve the productivity and energy efficiency of aluminum production from recycled feedstock sources that will be increasingly critical to meet burgeoning demand.

Aluminum is about one-third lighter than steel, but costs about 2-3 times as much per pound. Yet a 10 percent reduction in weight means about a 7 percent improvement in fuel economy for the life of the average vehicle. Initial raw material costs are less important on vehi-

cles with higher sticker prices. And because heftier vehicles like SUVs, pickup trucks and luxury sedans can shed pounds more easily in a material switch, they can be critical to strategies to improve fleet economy.

A new survey of automakers by Ducker Worldwide, commissioned by the Aluminum Transportation Group, projects the use of aluminum for NAFTA-produced vehicles to grow from 350 pounds per vehicle in model year 2015 to 547 pounds per vehicle in 2025. That equates to an overall market volume of 6.9B pounds now to 10.8B pounds in 10 years -- a 56 percent increase.

Sheet aluminum for auto and truck bodies remains the top growth area for the auto industry, though aluminum castings are finding their way into a growing list of automotive components. Aluminum currently enjoys about a 73 percent share, by weight, of the casting market in 2015 vehicles.³

Aluminum Boost

Analysts indicate aluminum-cast parts manufacturers are increasingly engaging in vertical integration to ensure a continuous supply of raw materials. That means construction of smelters to increase secondary production from recycled content, as well as boosting downstream production of finished aluminum-based products.⁴

Traditionally, primary and secondary production operations have run side-by-side so that recycled content could be added to the primary operation to increase the casthouse output. In 2007, Linde documented a 60 percent increase in aluminum remelting capacity and a 50 percent reduction in fuel consumption in such a 130,000 metric ton per

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year facility in Norway using Linde Low-Temperature Oxyfuel (LTOF) technology.

However, primary aluminum production has been scaled back in the U.S. in recent years, and most secondary aluminum plants have lower production capacities and start at or close to 100 percent solid material in the charge, Palermo says. "With high levels of solid charge materials, you need to either add more energy or improve the energy efficiency of your process -- or both to maintain, let alone increase, melting capacity."

Linde LTOF (Low-Temperature Oxyfuel) technology addresses this problem by replacing air-fuel com-

bustion with oxyfuel combustion that is characterized by low flame temperatures. Lower flame temperatures result in more uniform heating and lower thermal NOx generation while continuing to reap the benefits of energy efficiency and increased radiative heat transfer efficiency typically attributed to oxyfuel combustion.

According to the U.S. Environmental Protection Agency (EPA), about 1.7 million tons of aluminum were used to make durable goods such as appliances and automobile parts in 2012. While more than half of aluminum beverage cans are recycled, most back into cans, the EPA does

not calculate recycled automotive aluminum in measures of waste generation, recycling or disposal.⁵

Linde provides industry-leading portfolio solutions for the ferrous and non-ferrous metallurgy industries, ranging from gases and equipment to process consulting and services. For more information, contact Linde (www.lindeus.com), 800-755-9277. •

The advertisement for GPS North America features a blue background. At the top is the logo, which consists of a stylized blue globe with an orange orbital ring and the text "GPS NORTH AMERICA". Below the logo, the text reads "Everything you Need, In the Palm of Your Hand!". Further down, it says "From GPS Tracking to Paperless Forms We're Your One Source!". At the bottom, the website "www.gpsnorthamerica.com" and phone number "888-760-4477" are listed. The bottom half of the ad shows two men in blue shirts and hard hats; one is holding a tablet and pointing at it while the other looks on. A piece of electronic equipment is visible on the left.

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The advertisement for Roose Mfg. Co. Cable Trailers has a grey background with a red banner across the middle. The top section features the company name "ROOSE MFG. CO." in large, bold, black letters, followed by "Cable Trailers" in white text on the red banner. Below this, two yellow cable trailers are shown. The top trailer is labeled "2-3 Reel Roll In" and the bottom one is labeled "2000- 14000 # Cap.". At the bottom of the ad, the phone number "800-552-3276" and website "www.roosemfg.com" are displayed.

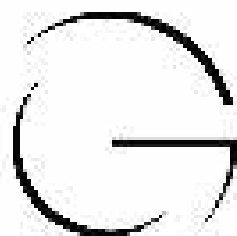
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GOLIGHT

TUS NEW PRODUCT NEWS

Atlas Copco featured new Tier 4 Final QAS 45 portable generator during The Rental Show



Atlas Copco Portable Energy packs a great amount of power into its heavy-duty QAS 45 portable generator. The unit features an Isuzu 4LE2X engine and a diesel oxidation catalyst (DOC) to achieve Tier 4 Final emission levels. The QAS 45 is rated for 45 kVA of prime power for applications such as construction, oil and gas, rental and large events.

Atlas Copco featured the QAS 45 portable generator Feb. 22-25 at booth 8935 during The Rental Show in New Orleans.

The QAS 45 generator is designed for predictable power and optimal operation with its reliable alternator, large fuel tank and simple control panel. The unit is equipped with a dependable Leroy Somer AREP alternator for superior motor starting capabilities. It also features a 72.5-gallon fuel tank for run times as long as 30-hours under typical loads. DeepSea 4510 controls are comfortable, reliable and easy to use. The backlit display shows all critical machine information, which can be viewed through a rugged, clear viewing panel in the door. The generator controller features remote start capability and all functions are set with warning and shutdown safety limits that can be easily customized by the user.

The generator has high versatility with its standard voltage selector switch that allows operators to adjust the machine's output to 480/277, 208/120 and 240/139 volt 3-phase settings, as well as 120/240 volt single phase for varying applications and equipment. This versatility gives users greater flexibility on jobsites

and can increase utilization at rental centers. Operators can lock the front panel voltage adjust potentiometer to prevent unintentional adjustments to the voltage, which can cause overheating or equipment damage. In addition, the QAS 45 features two 120vac GFCI duplex receptacles that are always powered, so contractors can operate small hand tools while running larger loads.

The QAS 45 ensures low decibel levels for use on noise-sensitive jobsites and residential areas with its sound-attenuated enclosure and a vertical radiator and exhaust discharge. The spillage free base-frame is sized for 110 percent containment of all the machines fluids and fuel, giving users confidence in the most environmentally sensitive areas.

The QAS 45 has one of the highest resale values in the industry due to its overall durability as well as the quality and dependability of its individual components. The QAS 45 is mounted on a durable frame and surrounded by a robust enclosure formed from galvanized steel and powder coated for a long-lasting, scratch- and corrosion-resistant surface.

Maintenance was a key factor when the QAS 45 was designed. Large access doors and single side maintenance ensures that service downtime is kept to a minimum. The DOC after-treatment device requires no regeneration or maintenance. The engine meets Tier 4 Final emission standards without the need for diesel exhaust fluid or a diesel particulate filter system, thereby eliminating any maintenance for those systems. Further, engine fluids are plumbed to the edge of the skid to eliminate the hassle of maneuvering pans into the interior space. And, the extended life filters have 500-hour service intervals resulting in reduced maintenance costs.

The QAS 45 comes equipped on a class-leading single axle trailer with robust tie-downs for safe transport on a flatbed. The unit also can be skid mounted for easy movement with a forklift. All units come with an integral

standard single-point lifting eye in the enclosure for maneuvering with a crane, and is rated for lifting the complete genset with trailer and fuel.

New SKG Series Submersible Pumps Dual Shredding Technology



BJM Pumps® introduces the new patent pending SKG Series submersible pumps, designed and engineered for wipes and other difficult solids in wastewater. The SKG Series pumps can easily obliterate items once considered too difficult or near impossible to pump. The robust construction coupled with RAD-AX™ Dual Shredding Technology delivers solids handling technology never before available for 2, 3 & 5 HP submersible pumps. The SKG Series pumps are the leading choice for applications faced by the municipal and industrial wastewater industry. Flushable wipes - currently a multi-million dollar problem in the U.S. - may now be effectively handled through the innovative design of the SKG pump. Top features include:

- RAD-AX™ Dual Shredding Technology (Patent-Pending) featuring radial and axial shredding elements.
- All shredding elements constructed of hardened 440C Stainless Steel with a Rockwell hardness of 55C plus.
- Shredding System efficiency to alleviate potentially high surge load to the motor.
- Efficient, high solids passage impeller and volute design, coupled to a high torque 4-pole motor. (2, 3,

& 5 HP)

- Heavy Duty SOOW power and Seal Minder® cable - for early warning moisture detection.
- Oil-lubricated Double Mechanical Seals and separate lip seal.

The RAD- Radial Shredding

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The AX- Axial Cutting

Dual cutting elements operate in tandem to multiply shearing action. As the material exits the radial shredding area, the axial cutting components shear any remaining pieces by way of multiple cutting bars. Impeller design expedites flow and hydraulic performance, preventing clogs.

RAD-AX™ Construction

Features 440C Hardened SS on all shredding elements and a high torque, 4-pole motor, to ensure difficult solids are handled more efficiently.

Impeller and suction cover are constructed of chrome iron for added durability, long life and trouble free performance.

The hardened impeller and plate materials provide maximum wear resistance for long service life. Hardened cast iron construction stands up to rough handling and pumping gritty water.

Winding protection and (NEMA) Class F motor insulation allow motor temperatures to rise to 239°F, superior to pumps with Class A and B insulation. An automatic thermal switch turns the pump motor off if the temperature and/or amp draw rises too high. When the motor cools the switch will automatically reset and the pump will turn back on.

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TUS NEW PRODUCT NEWS

Brokk Introduces New TC120 Tank Cutter Attachment

Brokk Inc. releases the TC120 Tank Cutter attachment. Manufactured by their sister company, Darda, this attachment delivers maximum cutting control and ultimate versatility for continuous steel cutting abilities that are unparalleled in the industry.

The 47-by-17-inch TC120 Tank Cutter can be used with the Brokk 160, 260 and 400 models to deliver extraordinary precision. The TC120 brings flexibility to the jobsite with its hydraulic rotation capabilities and five-inch-wide jaws. It exerts 75 tons of cutting force at 7,250 psi to easily cut through half-inch thick steel plate.

Although this attachment can be used in a variety of applications, such as in salvage yards and balers, it's commonly employed for cutting steel tanks, pipes and vessels.

The most common method of

cutting steel, an open-flame torch, poses a fire hazard when cutting into flammable tanks and vessels, and it can raise the risk of exposure to harmful emissions. By using the electric Brokk machine with the TC120 instead, operators reduce the risk of exposure to toxic emissions as well as prevent fires.

"This revolutionary product defines versatility. It combines power, efficiency and, above all, safety," said Mike Martin, Brokk Inc.'s vice president of operations. "Safety is vital. When cutting tanks, you never know what you'll run into. You don't have to worry about that with the Brokk machine and TC120 combination. Since it's electric, you reduce the risk that comes with cutting into potentially flammable tanks."

In addition to heightened safety, the TC120 improves productivity by continuously cutting steel.

"For the first time in the industry, there's a safe, easy,



high-productivity option for cutting steel," Martin said. "Combining the Brokk machine with the TC120 attachment is like powering a giant scissors – it slices through steel like a scissor to paper."

The TC120 attachment also benefits contractors with its extended reach. Brokk machines' remote capabilities, coupled with arms that extend as far as 27 feet, easily reach places others can't, improving efficiency while minimizing labor costs.

Because it's attached to a Brokk machine, it reduces the risk of injury to laborers by eliminating the need to climb scaffolds and ladders with torches to get to hard-to-reach spaces.

The TC120 is one of many Brokk attachments that can be quickly interchanged for greater versatility on a jobsite. Brokk Inc. supplies a wide range of remote-controlled machinery and attachments, maximizing productivity, improving efficiency and promoting safety. •

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Video demonstrations of Verti-Lift Hydraulic and Pneumatic Work Positioners can be seen on YouTube (search Verti Lift). They are made in the USA and available from Material Handling Distributors nationwide.

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New 'Mini' Environmental Protection Cabinets Increase Flexibility For Outdoor Equipment Installers



will follow. This is the smallest cabinet-style housing that Intertec has produced to date - other products in this size range comprise two-part enclosures that split open for access. MINICABs are manufactured from hot-pressed GRP (glass reinforced polyester) for robust, maintenance-free performance in harsh outdoor environments. This material does not corrode and is impervious to the effects of salt and common atmospheric pollutants, making it suitable for use in any type of rural, urban or industrial environment. An unobtrusive light gray in color, the GRP is also UV resistant, has very low flammability and is self-extinguishing. An optional exterior gel-coat offers added protection for applications that involve prolonged exposure to intense sunlight.

All hinges and mounting fixtures are manufactured from corrosion-resistant 316 stainless steel and the door can be fitted with a lockable handle or security-key mechanism. As standard the cabinet carries an IP54 rating, but IP65 versions are available to order for applications that require higher protection against water ingress. A durable EPDM rubber compression seal is incorporated in the molded retaining groove that runs the full length of the joint between the cabinet and the door. The cabinet is also impact resistant.

To help simplify installation and ensure optimum thermal performance, equipment can be attached to a separate mounting plate, which is then secured inside the cabinet. Intertec offers a choice of corrosion resistant GRP or stainless steel mounting plates. For applications where it is necessary for personnel to be able to see annunciator devices such as equipment status indicators or meters without having to open the cabinet, the door can be fitted with an acrylic or safety glass window.

Intertec MINICABs are also available in versions that are suitable for use in potentially explosive atmospheres. Options include IEC 60079-0 compliant models that use a special electrically conductive form of GRP to prevent the build-up of electrostatic charge.

www.intertec.info

A new range of small GRP cabinets from Intertec provides installers with increased flexibility for protecting outdoor equipment. The new MINICAB housings combine a relatively high containment capacity with convenient pipe stand or wall mounting, and feature a flat full-size hinged door for quick and easy access. They are designed to help customers simplify the layout, installation and maintenance of outdoor equipment without having to recourse to large footprint free-standing cabinets.

MINICABs are especially suitable for protecting smaller-scale field-based installations such as electrical, analytical or safety equipment against the effects of weather and unauthorized access. Their GRP construction also makes them ideal for long-life applications in harsh climates, and in plants handling chemicals and petrochemicals.

Intertec is initially launching the MINICAB 44 model, which has a capacity of approximately 44 liters and measures just 506 x 356 x 245 mm (19.9 x 14 x 9.6 inches, HxWxD); larger versions

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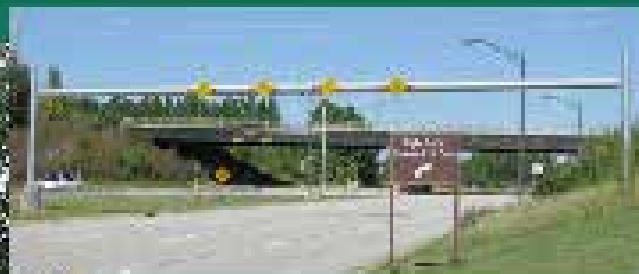
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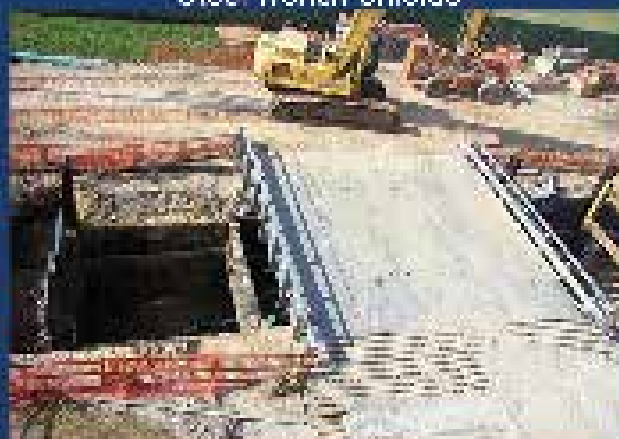
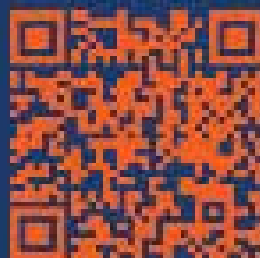
Aluminum Trench Shields



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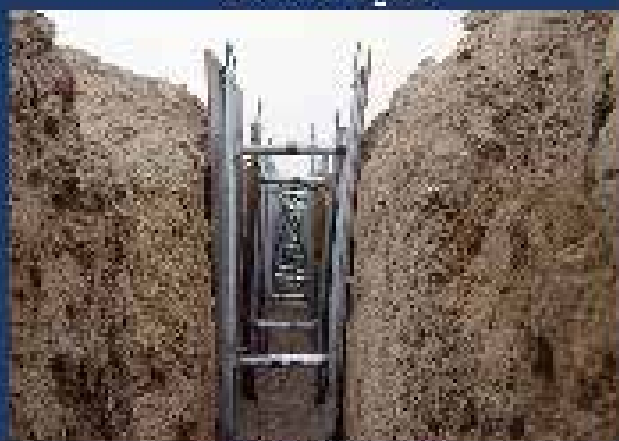
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