

# MAINTENANCE

Operations • Service & Repair • Inspection • Safety • Equipment • Condition Monitoring • Lubrication

## New Coating Booth Reduces Lead Times for Extra-Large Parts



Fusion Inc. in Houston has just completed its largest, state-of-the-art coating booth to help make the coating of larger components a less arduous process.

Coatings are used to help components survive harsh service conditions, which can greatly increase service life. Many OEMs protect their new components by coating them with different carbide and super alloys so as to extend their service life.

The new coating booth, however, is sound proof and equipped with a dust-collector.

It can handle customer components up to 96 inches in diameter and 28 feet long and up to 80,000 pounds. The booth itself is 16-feet-wide by 13-feet-high by 51-feet-long.

The roof opens hydraulically, so an overhead crane can be used for loading and unloading. The booth has a gantry-supported robot, which can be programmed in detail for any areas in need of coating.

Fusion Inc.'s new coating booth can handle customer components up to 96 inches in diameter and 28 feet long and up to 80,000 pounds.

It also incorporates the latest LED lighting and interior cameras, so customers can log on and view their individual components being coated in real time.

One of the more innovative features of the booth is its ability to robotically coat large crankshaft rod journals. This is the first coating booth with this capability.

Crankshafts have connecting rod journals that are off-center on "stroke." The robot is able to follow the stroke of the crankshaft, so it can be coated.

The booth was the idea and creation of Stratton Gillis along with engineers Bob Curd and Paul Curfman with the help of intern Reese Chesnut. Reese is attending Mississippi State University pursuing a mechanical-engineering degree.

Fusion also has added a tug and two large capacity

transfer cars to safely move large, heavy components to-and-from the blasting room to the booth.

Fusion Inc. started in 1959 as Ceramic Coating Inc. and has been a leader in the development of thermal spray applications and finishing for 57 years. The company specializes in the repair of downhole components, wind-turbine main shafts, and ro-

tating/reciprocating components including large industrial crankshafts. Fusion offers High-Velocity Oxy-Fuel (HVOF), Twin Arc, and Plasma coatings along with finishing capacities up to 96 inches in diameter by 37 feet in length and 80,000 pounds.

Coating is not new for the wind industry. Fusion has sprayed main shafts using the HVOF process since

2010. But Fusion has seen a growing trend for larger main shafts for wind turbines. Fusion now can accommodate 96 inches by 28 feet in the coating booth and 96 inches by 37 feet in its largest grinder. ↵

*Source: Fusion Inc.*

For more information, go to [www.FusionHouston.com](http://www.FusionHouston.com)

## Trailer Provides Maximum Flexibility for Hauling Oversized Equipment

For more than a decade, Talbert Manufacturing, a North American leader in specialized heavy-haul solutions, has manufactured its 55CC close-coupled lowbed trailer. The trailer features a low deck height, high capacity rating and a removable gooseneck, allowing safe and easy loading of oversized equipment, including excavators and dozers.

“Our 55CC is our most popular, best-in-class lowbed trailer,” said Troy Geisler, Talbert Manufacturing vice president of sales and marketing. “This trailer’s features maximize operator versatility, which makes it an ideal addition to virtually any equipment fleet. The innovative design continues to provide a durable, safe choice for equipment movers.”

The trailer features Talbert’s industry-leading 18-inch loaded deck height — two inches lower than competitive versions — and a 6-inch ground clearance for easy navigation

of oversized loads under bridges and through tunnels without the need for rerouting.

The trailer’s rear deck and bridge section feature the widest bucket-well arrangement in the industry, allowing for maximum space to lower the excavator bucket and stick. The recessed boom well’s design coupled with the deck’s low bucket-well maximizes space for positioning the excavator’s bucket and stick. The design provides excavator transport with the lowest possible overall height.

The trailer’s 26-foot deck has a capacity rating for half the deck length, allowing operators to haul 55 tons in 13 feet. Most competitive models require distributing that weight across the entire length of the deck. Talbert’s solution provides an advantage for concentrated loads, such as excavators and loaders. Connections for a close-coupled, pin-on

fourth axle provide further distribution of the payload, when required.

The 55CC features Talbert’s innovative four-cylinder removable hydraulic gooseneck that maximizes lift capacity and load height. While most conventional trailers feature only two or three cylinders that run perpendicular to the deck, Talbert was the first in the industry to engineer the non-ground engaging hydraulic gooseneck with four cylinders that run parallel. In addition to stronger lifting capacity, this means Talbert trailers minimize the need for frequent load adjustments. The trailer’s 108-inch swing radius allows haulers to distribute the weight from the drive axles to the steer axle of the tractor.

Talbert Manufacturing’s 55CC lowbed trailer features an industry-leading 18-inch deck height along with a high-capacity, 26-foot-long deck for easy hauling of large equipment while ensuring maximum clearance under bridges and through tunnels.



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Talbert constructs its main beams and side beams using a 12-inch deep I-beam fabricated from high-strength T1 steel with a minimum yield strength of 100,000 psi. The 2-inch Apitong flooring provides high strength for long-term durability under heavy loads. Other standard features include removable outriggers, a manual exhaust valve, recessed load-bearing bolsters, and a 12-volt LED sealed light system.

The 55CC trailer comes standard with six tie-down rings on each side of the deck and eight tie-down rings between the deck's main beams. Two sections of expanded metal baskets are mounted under the center of the deck to store chain and other items required for the job.

Talbert trailers come standard with Valspar R-Cure® 800 paint to prevent corrosion. For additional protection from the elements, customers have the option to upgrade the primer from alkyd to a zinc-rich primer or Valspar's.

Talbert has been building world-class heavy-haul and specialized trailers to rigorous customer specifications since 1938. The company offers complete lines of heavy-haul trailers and specialized transportation equipment for the commercial, industrial, military, and government sectors. Its trailers and equipment are used in applications as diverse as renewable energy, aerospace, heavy construction, in-plant material handling, manufacturing, and processing systems and much more. ↘

Source: Talbert Manufacturing

For more information,  
go to [www.talbertmfg.com](http://www.talbertmfg.com)

## CSZ Electromagnetic Actuated Clutches Have Zero-Backlash Design

Miki Pulley's CSZ Electromagnetic Actuated Clutches are for direct sale to OEMs in North America.

These CSZ Clutches have zero-backlash design. They use the magnetic force generated by the energized coil that provides engagement of input and output members of the clutch. They provide an efficient connection between a motor and a load with low inertia, minimal drag and zero backlash.

Miki Pulley CSZ Clutches feature an integrated bearing design that makes mounting fast and easy while ensuring application concentricity and excellent system runout. CSZ Clutches operate well in temperatures from 14 degrees F to 104 degrees F (minus-10 degrees C to 40 degrees C).

They are available in bores ranging from 10mm to 15mm, with

Miki Pulley CSZ Clutches have zero-backlash design.



Miki Pulley



brake torques ranging from 1.77 foot-pounds to 7.376 foot-pounds (2.4 Nm to 10 Nm). The CSZ uses corrosion-resistant materials and is RoHS compliant.

“Miki Pulley’s CSZ Clutches are

a great choice for high performance printing, paper processing, packaging, food processing and textile manufacturing systems,” said Jon Davidson, Miki Pulley sales specialist. “They are proven performers

in system applications around the world.” ↵

Source: Miki Pulley

For more information, go to [www.mikipulley-us.com](http://www.mikipulley-us.com)

## Trelleborg Launches New Boat Landing Systems Maintenance Service

Trelleborg’s engineered products operation has launched a new maintenance service for Boat Landing Systems (BLS). The new service is designed to identify degradation in BLS performance before it has the potential to cause damage to an offshore platform and a berthing vessel’s structural integrity, which can result in huge costs and downtime.

Often used for projects in remote locations, it’s imperative that a BLS is robust and reliable. Trelleborg’s new maintenance service includes an annual survey designed to check the BLS for cracks on the rubber surface, de-bonding, permanent deformation, and corrosion. With this analysis, Trelleborg can identify degradation in performance before it can become a problem for the platform.

“BLS come under general inspection during routine maintenance schedules of the entire platform, a task that is usually carried out by a maintenance contractor,” said J.P. Chia, engineering manager within Trelleborg’s engineered products operation. “However, if not surveyed accurately, cracks on the rubber surface of the Eccentric Bumper Ring (EBR), de-bonding of the rubber and pipe, deformation, and/or corrosion can go undetected, potentially resulting in costly remedial repair and even replacement of the BLS.”

“Offshore platform operators and contractors can reduce the degradation risks often associated with boat landing systems by working directly with an experienced product manu-



Trelleborg’s boat landing system on site.

facturer,” Chia said. “By doing this, contractors and operators can be sure the BLS in situ is reliable, tailored to the demands they are likely to face, and importantly, perform for the long-term. After all, no one knows the product like a manufacturer.”

Trelleborg’s engineers will conduct the BLS maintenance survey on an annual basis to identify areas of weakness and potential wear-and-tear. From best practice design, manufacture and testing, to full in-life support, Trelleborg can help establish and implement a best practice maintenance regime tailored to BLS requirements. Trelleborg offers in-depth understanding about the product, ensuring that extra eye for detail, ideal during maintenance surveys. In addition, should the product need to be repaired or replaced, Trelleborg can

supply the most suitable solution on a project-by-project basis.

Trelleborg’s engineered products operation designs, manufactures, and tests its BLS to the highest of standards. Based in the company’s laboratory for full-scale research and development is its test press — the largest in the world of its type, with a load capacity of 18,300 metric tons and weighing in at 600 tons.

Additionally, Trelleborg formulates unique polymers for each project’s shock cells in-house. Total transparency and an unrivaled understanding of materials technology is integral to every product. ↵

Source: Trelleborg

For more information, go to [trelleborg.tecs1.com/boatlandingsystems](http://trelleborg.tecs1.com/boatlandingsystems)