

## 3-D Service Announces Sweepstakes Winners



In December, 2004, 3-D Service announced its Florida Keys Fin-tastic Fishing Furlough sweepstakes. The contest was part of a marketing initiative to expand their customer base and included targeted mailings and a web campaign.

The grand prize winner, Joe Harwell of Alcoa (shown above), received a 3-day/3-night fishing trip to the Florida Keys for himself and a guest with accommodations at the luxurious Hilton Key West Resort & Marina. Located in the heart of downtown Key West, the resort is a top-of-the-line hotel with a marina and many amenities. Addition-

ally, Joe and his guest enjoyed two full days with Key West's largest charter company, Almost There Sportfishing Charters.



Harwell and Weimer at the Hilton Key West Resort

Joe and his guest were accompanied by Ed Weimer, operations manager at 3-D Service's Cincinnati service center.

Joe and Ed both landed large Cobias. Joe's 30 pound Cobia is shown below being held by a crew member of Almost There Sportfishing Charters.

The following first prize winners received rod and reel combinations:

- John Bates—Hopewell Twp
- Ed Bobco—Bico
- Bob Collins—Bay Steel Corp
- James Cook—The Timken Company
- Tony Gayer—Honda
- Mark Glause—Meadowlane
- Michael Hatem—Mingo Junction
- Jim Hoover—Elyria Water Works
- Dean Kallenborn—Orrville Utilities
- Pete Knapper—Rolls Royce
- Tom Knipfer—Match Mold/Omni Die Casting
- Robert McKim—Rocky Mountain Steel

### SERVICE PROFILE—ENGINEERING CONSULTING SERVICES

3-D Service's mission is to provide value-added engineering support for your applications. Through their engineering consulting services, engineers and field technicians can test and evaluate your maintenance and repair needs before beginning a project as well as provide consulting and design services.

3-D Service engineers can upgrade or redesign your equipment for better performance, energy management, and heat dissipation. Engineering consulting services include:

- Upgrade and redesign services
- Motor modification
- Project management
- Commutation evaluation
- Root cause failure analysis
- Finite element analysis
- Shaft stress analysis
- Torsional loading analysis
- Modal analysis
- Duty cycle analysis
- Energy efficiency studies
- Performance verification testing & analysis
- Equipment surveys & needs assessment
- Cost/benefit analysis of proposed modifications
- UL re-rating
- CAD engineering/documentation services
- Load shedding
- Automatic transfer schemes
- Harmonic filter design & specification
- Bus design & on-site fabrication
- Power system analysis



It's a big one!

# 3-D Service Rises To Unexpected Challenge

One day in November of 2004, 3-D Service received an urgent phone call from VA Tech Hydro of St. Catharines, Ontario. VA Tech Hydro, a world leader in the hydroelectric power generation market, was managing a rehabilitation project for St Lawrence Seaway Management Corporation's Welland powerhouse. The project included refurbishment of two 5,000 horsepower, 6,600 volt hydro generators. Both units had been rewound and needed to be vacuum pressure impregnated (VPI). VPI provides sealing, electrical insulation, and mechanical support of the windings.

To keep the project on track, VA Tech Hydro immediately needed a repair company with the ability to VPI the large units. VA Tech's project manager visited the 3-D Service corporate offices and service center in Massillon, Ohio to review quality procedures and determine their capability to meet VA Tech's equipment service needs. He was impressed with 3-D Service's ability to offer a high-quality, total repair service for large hydro generators.

After the visit, VA Tech sent the first St. Lawrence Seaway Management hydro generator for VPI followed soon after by the second unit. VPI of the first unit was successfully completed. When initial inspection and testing on the second unit was performed, oil saturation of the core iron and loose insulation filters were found in its rewound stator.

VA Tech approved 3-D Service's recommendation to strip, rewind and VPI the unit. Their project manager made subsequent visits to 3-D Service to monitor progress of the work and witness final testing. Final testing of the units included grounding, temperature rise, insulation resistance, insulation

temperature limits, and tip-up test to IEEE standards as well as mechanical vibration testing to ISO 1940/1 standards.



VA Tech Hydro unit during rewind.

For a complete overview of 3-D Service's generating station services, see the [Generating Station Services brochure](http://www.3-dservice.com/literature.htm) found at [www.3-dservice.com/literature.htm](http://www.3-dservice.com/literature.htm).



3-D Service chief engineer and VA Tech project manager inspect completed winding.

## 3-D Completes Indianapolis Casting Project

3-D Service field service employees successfully completed a turnkey project for Indianapolis Casting Corporation in Indianapolis, Indiana, during their July shutdown. A division of International Truck and Engine Corporation, Indianapolis Casting Corporation manufactures precision gray iron castings including engine blocks and heads for heavy-duty trucks and Humvees.

The project consisted of replacing vintage 1972 15 kV vertical lift aisleless switchgear with ABB SafeGear arc resistant switchgear in a sheltered aisle enclosure (PDC). 3-D project Leader, Tony Humbert, who has 40+ years of power project management experience, directed the project. Close coordination between 3-D Service and ABB facilitated the successful completion of this project in a six calendar day period, from July 1, 2005 through July 6, 2005.

Feeder cables were reused, and switchgear was shipped assembled in the shelter structures (PDC). The project also included rigging and electrical terminations. 3-D Service's custom on-site bus fabrication capability was a significant contributor to the success of the project.

3-D Service recently announced its authorization by the ABB Power Technologies (PT) Division to jointly supply aftermarket products and services of medium voltage and low voltage switchgear, circuit breakers and motor control centers manufactured by ABB and its legacy brands and trade names, including Asea, Brown Boveri, Gould and I-T-E.

This new agreement strengthens 3-D Service's partnership with ABB and takes advantage of 3-D Service's experience and expertise in the power service industry, such as that used to successfully complete the Indianapolis Casting Corporation project. 3-D Service's power services include repair and maintenance of circuit breakers, switchgear, transformers and relays; substation designs and upgrades; and custom bus fabrication.

# Employees Receive Continuous Improvement Awards

3-D Service is continually focused on ways to improve service to its customers. They are able to consistently meet and exceed customer expectations through continuous improvement and their high quality standards.

As stated in the May 2005 issue of Maintenance Technology, "Continuous improvements do not just happen; they are the product of the workforce that made the improvements happen." 3-D Service's employee suggestion program is, therefore, an integral part of the continuous improvement program. The suggestion program is administered by the company's continuous improvement team. The interdisciplinary team is charged with solving problems with positive measured results through process improvement and the successful involvement of the entire organization.

In recent months, employees received monetary awards for the following continuous improvement suggestions:

- Suggestion regarding streamlining of forms and record keeping in the Winding Department and use of fixtures for VPI of stators.
- Suggestion regarding utilization of free space on our service trucks to list our services.
- Suggestion to install a jib crane in the winding/machine shop bay.
- Suggestion regarding slotting of endbells on table motors upon arrival to improve workflow and reduce time to complete work. This suggestion will be tracked to determine cost savings throughout the year. The employee is eligible for an additional award based on the total cost savings.

## ***Focus on Service Capabilities***

Power quality is a major concern for today's businesses. Most problems occur because of inadequately protected electronic equipment that sends electrical noise through the system; improper wiring or grounding; or imbalanced loads. A 3-D Service power quality analysis ensures the highest possible power quality. 3-D Service combines extensive knowledge and experience with the most modern tools to provide a systematic and thorough analysis of your power system, including:

- *Data Collection using power quality analyzers*
- *On-site review of applied wiring & grounding*
- *Power monitoring to capture events triggered by power, harmonic and transient thresholds*
- *Power quality surveys & diagnostics to improve your power quality & equipment reliability*
- *Match equipment requirements & susceptibilities to incoming supply*
- *Low, medium and high frequency transient capture using digitized high-speed sampling*
- *Load distortion & imbalance analysis to IEEE standards to extend equipment life*
- *Identify systems that are weak compared to the amount of power required by the load*
- *Identification of harmonic pollution*
- *Coverage of both static & dynamic power system elements*
- *Compliance with power quality standards*

Combine a power quality analysis with an energy efficiency study of your manufacturing equipment to optimize your total power needs. Call 1-800-837-1614 and ask for your Power Quality Tips—Questions & Answers.

## **3-D Signs Distributor Agreement**

3-D Service recently finalized an agreement to sell and distribute Magnom® filters, a product of Fluid Conditioning Systems Ltd (FCS) based in Warwick in the Midlands of the United Kingdom. FCS entered the U.S. market in 2003, and 3-D Service is one



of their first U.S. distributors. In Industrial applications, filtering of contaminants is subject to many problems, including consumable and environmental costs. The limiting factor is often the cost of introducing fine barrier filters, as they are more expensive and have proportionately shorter lives in use. The Magnom filter uses magnetic field technology to trap contaminants and prevent them from washing back into fluid, as is the case with magnetic sump plugs, even in high velocity or high vibration applications. Uniquely, it achieves this without incurring pressure drop, even when the filter is full. The Magnom can operate for very long periods without service, and when contaminants need to be removed, it is easily cleaned and re-used.

Generally, disposing of a used cartridge filter means disposing of some form of metal container, a paper or fiber cartridge, the oil/fluid, which is saturated into the paper cartridge (on average 1 quart), and of course the contaminant itself. The environmental benefit of removing contamination from the fluids without having to throw away large and potentially dangerous cartridge filters is huge.

Magnom technology is used in both mobile and industrial applications from high performance race car engines to power generation facilities. 3-D Service is excited to be on the leading edge of distributing this new, award-winning technology. For more information, call 800-837-1614.

## Barrows Named Manager of Michigan Service Center



3-D Service has appointed **Robert Barrows** as operations manager of their service center in Farmington Hills, Michigan. Barrows is responsible for managing all phases of service center operations as well as sales, promoting and increasing the service base, providing quotations and customer support. Barrows holds an Associate of Science degree in electrical technology from Edinboro University (Scotland) as well as a Bachelor of Science degree in general studies from Wayne State University in

Detroit, Michigan. He served eleven years in the United States Navy as an electrician. After being honorably discharged he held positions with Haspag Corporation and A.G. Whaley Manufacturing and Sales. Most recently he was regional manager of sales and service with SANDAR Industries. "His successful track record in all phases of operations including national and international business development will be an asset to 3-D Service," said president Bernie DeWees.

## Bob Gandee Hired as Facilities Engineer

3-D Service has hired **Bob Gandee** as facilities engineer at the Massillon, Ohio service center. Bob will be responsible for optimizing the efficiency and production levels in the Massillon service center, including the following:

- Configuration/layout of the service center
- Improving departmental workflow
- Service center maintenance.

Bob has thirty years experience in industry, most recently at the Hoover Company, including training and experience with LEAN enterprise and Six Sigma continuous improvement methods. He has an extensive background in quality control, receiving operations, receiving inspection, shipping functions, and auditing techniques. Bob is a graduate of Kent State University as well as a certified purchasing manager, accredited purchasing professional, and a green belt in Six Sigma.



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Call 3-D Service today for your equipment or service needs at:

800-837-1614

For more information visit our website at [www.3-dservice.com](http://www.3-dservice.com)

