



OGURA ACQUIRES NEW PLANT IN PHILLIPPINES

The Philippines

Ogura has purchased the assets of Sansen Manufacturing in the Philippines, South of Manila. Sansen is already quite familiar with the manufacturing of electromagnetic clutch and brake components. Their largest business is currently electromagnetic coil manufacturing. The smallest size coils are micro coils at about 0.1 g and their largest coils have been five feet in diameter (about one ton). These coils go into linear motors, solenoids, valves, sensors and coils for all types of actuators. The plant has also done assembly for automotive air conditioning clutches. The facility also has the ability to do injection molding of both coils and magnet assemblies. Machining processes include punching, CNC machining and grinding, both single and double surface.



Ogura Clutch Philippines, subsidiary of Sansen

Sansen previously did subcontract work for Ogura; armatures for AC clutches.

Construction is being started on a new building, so that Ogura can expand manufacturing operations to include other clutch and brake products for the Philippine facility. ●

THE 8TH SUPPLIER QUALITY CONTROL SEMINAR

Kiryu, Japan

The 8th Supplier Quality Control Seminar was held last quarter. Fifty-seven employees representing forty-two supplier companies attended.

The seminar consisted of two parts. The first part was "The Overview and Summary of the ISO9001/IATF16949 Revision" which focused on the requirements for suppliers.

The second part of the seminar was on the "Revision of RoHS 2" and "The Overview and Summary of Revision of Ogura Green Procurement Standards." Managers from quality and environment management departments explained the correlation between RoHS 2 and the obligation to submit compliance with the four additional restricted substances. Each supplier has to certify the non-use of prohibited/restricted materials related to the products and parts within the Ogura green procurement standard. ●



Quality Control Seminar

OGURA RECEIVES SUPPLIER OF THE YEAR BRONZE AWARD

Kiryu, Japan

At the end of January, Usui International Industry Company, Ltd. held their annual supplier awards. This year, Ogura was awarded bronze for their production of electric coils for controlling viscous fan clutches.

Usui produces externally controlled fan drives for trucks and SUV's. These are mainly sold in Japan, but Usui is starting to export these controllable fan drives to Europe, North America and China. ●



Award Presentation

Ogura Sales Rep Profile

ED RUPERT

INNOVATIVE INDUSTRIAL MOTION

Hi, my name is Ed Rupert of Innovative Industrial Motion! We joined the Ogura sales force in March of 2017. I cover parts of middle and eastern Tennessee for Ogura. I have over 35 years in the industrial market place, the last 22 years were with Applied Industrial Technologies, eighteen years were as General Manager in Cartersville, Georgia and the last two years as an Account Specialist focused on the aviation markets, OEMs and government accounts. My industry experience includes automotive, wood products, pulp and paper, textile, power generation, food and others. I have a BA in Applied Human Behavior and Business Management. I live in a suburb outside of Atlanta, GA and when I am not working, I enjoy spending time with my family and going to the beach. ●



Ed Rupert

ISO14001:2015 PERIODIC AUDIT

Kiryu, Japan

Last quarter, Mr. Suzuki of Lloyd's Register of Quality Assurance (LRQA) conducted a periodic audit for ISO14001:2015 at four of Ogura's manufacturing facilities. According to the testing, there were no serious non-conformities. However, there were two minor ones and 26 improvement suggestions. Minor non-conformities included one related to environmental law regulation and one related to operations management. As for the comments, 13 were made on operations management, four on objectives and goals, three on environmental policy, six on others miscellaneous areas.



*Mr. Suzuki of LRQA conducts
ISO14001:2015 audit*

Operations will review the inspector's report and quickly make a corrective plan taking into consideration all suggestions. These improvements will help build an even stronger management system. ●

UNIVERSITY OF KENTUCKY PLACES 3RD

Lexington, KY

Last quarter, the University of Kentucky pulling team made a new tractor for the International ¼ Scale Tractor Student Design Competition.

The design team's "Wild Cat 31118" tractor included new features, such as an electronically controlled shifter with a five-speed transmission and overdrive, where an Ogura electromagnetic clutch was used to engage the overdrive system. The tractor also had a high-performance front-end air suspension system.

Overall, the team placed 3rd with a 2nd place in tractor pulls and design judging along with a 3rd place in durability.

Ogura is proud to support colleges and universities with both product and application assistance for these competitions. ●



University of Kentucky Pulling Team

PLANTING IDEAS.... HARVESTING SOLUTIONS

Mention of a new robotic innovation hardly turns heads these days. Robotic welding systems and in-plant transport equipment, pick and place robots and automated machining centers are common factory features. Self-driving cars and delivery vans are real.

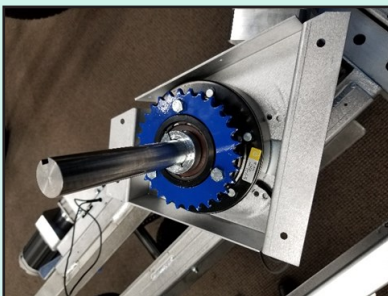
The benefits of the robotic revolution are also taking place in the strawberry fields of California thanks to farmer and entrepreneur Erik Jertberg. Erik points out that strawberries are picked by hand so any solution that would improve the efficiency of the harvester would benefit the farmer as well. Presently, 10% to 15% of a crop can be lost because it can't be harvested in time.

On a strawberry farm, harvesters fill crates with berries as they move down a row. After filling several crates they would carry them back to the edge of the field. Erik says that a worker would walk about 2/3 of a mile actually harvesting but 3-1/3 additional miles just carrying the filled crates.



*Harvesters using AgPro's
StrawBot robotic cart*

AgPro's solution is the StrawBot SB2 and SB4 robotic carts. Instead of the cart being a destination for the worker at the edge of the field, it follows along the row as the berries are picked. Infrared proximity sensors tell when the harvester has moved a certain distance away from the cart. The cart's controller commands battery powered heavy-duty electric motors drive the cart forward maintaining convenient distance for easy worker access and safety.



*Clutch with
mounted drive sprocket*

Electric motor torque is transmitted through an Ogura MA-7FSP general purpose clutch with an attached sprocket. Drive chain extends from the clutch sprocket to the driven wheel sprocket. The system is duplicated on the opposite side of the cart permitting each wheel to be driven independently.



Ogura MA-7FSP Clutch

Erik says an important feature is being able to disengage the Ogura clutch, allowing the carts to be easily moved by hand and towed for quicker transport to different fields or storage locations. Ogura's experience building clutches and brakes designed for agricultural use and outdoor equipment and reputation for high quality standards make them a natural team member of the supplier base.

AgPro is proud that this is a product development program where everyone wins. The harvester's time is more productive with far less wasted motion meaning better pay. Less waste of harvester time means less crop waste and greater profit for the farmer. The farm worker, the farmer and ultimately the consumer, all benefit.●



Ogura in the News

TOKYO AUTO SALON 2019

Tokyo, Japan

Ogura exhibited products at the Tokyo Auto Salon which was held at the Makuhari Messe International Convention center in January.

There were a few new clutches introduced, such as the metal single for Suzuki Swift Sport, metal single for Honda Civic Type R, metal twin for Audi S1, and the clutch for the new Jimmy (under development).

As in the previous year, the drivers of Inter Proto Series, Kyojo Cup and Toyota Gazoo Racing took part in the interview.

There was also an interview with Tatsuya Kataoka, the leader of T's Concept team which participated in the Pirelli Super Taikyu Series. The interview was hosted by Ogine, who took part in Kyojo Cup, and included racer Daisuke Toyota as well as father and son racers, Toshihiro and Taiki Arai.



Mr. Ogura with racecar drivers

Ogura displayed two vehicles, Toyota 86 which was used at the Toyota Gazoo Racing Rally Challenge, and a second Toyota 86 which was used at the Pirelli Super Taikyu Series. The latter one is especially historic, because the final race in Okayama was the first official domestic race for the racer Morizo and the president of Toyota Corporation, Akio Toyoda. ●

LAWNMOWER RACING

Both Chuck Miller and Bobby Cleveland are going to be lawnmower racing again this season and Ogura is going to be sponsoring both drivers. Over the winter, Chuck took 1st in the 40th Winter Championship pull in Springfield, OH with his custom mini-tractor. Both Bobby and Chuck will be racing in May, June, July and August in order to qualify for the Nationals in Ohio in September.

Results will be posted on Ogura's Facebook page as they happen.

www.facebook.com/oguraindustrialcorp ●



Toyota 86 at Tokyo Auto Salon

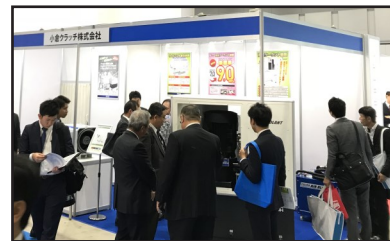
THE 29TH JAPAN INTERNATIONAL MACHINE TOOL FAIR (JIMTOF 2018)

Tokyo, Japan

Ogura participated in the 29th Japan International Machine Tool Fair, which took place last quarter at Tokyo Big Sight.

It was the second time to participate in this exhibition. A record-breaking 153,103 people visited the fair this year, and many of them came by the Ogura booth.

For this year's show, the super high-pressure coolant (20 MPa), smaller pressure coolant system (4 MPa), and the oil mist separators were on display. Both Okuma Ltd. and O-M Ltd. showcased the Ogura high-pressure coolant (7Mpa) and high-pressure coolant (8Mpa) in their booths. The visitors showed strong interest in Ogura's latest technology, the ultra-high pressure coolant system. ●



29th Japan International Machine Tool Fair