

OGURA

on the move

OGURA INDUSTRIAL CORP.

FALL • 1999

Ogura Industrial Holds 1999 National Sales Meeting



Training session at the Ogura National Sales Meeting held in Atlantic City, N.J.

The North American Sales force of Ogura Industrial attended the first ever National Sales Meeting (Ogura industrial formed as a U.S. corporation as a direct operation of Ogura Clutch Ltd. in 1998.) All sales reps came away with a better understanding of Ogura's strengths in quality and production. In addition, technical training was

held to help increase each sales reps' knowledge for application engineering. This will speed up response time for new inquiries. Frank Flemming, President of Ogura, stated "by understanding Ogura's newest advantages in production, engineering and quality, our sales force will be able to confidently talk with OEM

design engineers and help them choose the clutch or brake which provides the best value for their company and their application.

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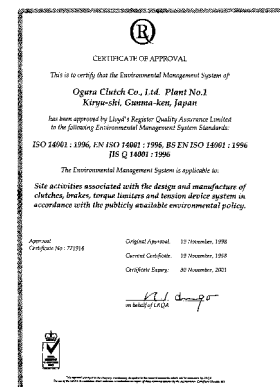
Some companies still believe best value always means lowest cost. Our sales force understands the importance of application needs (life, cycles and the performance range) that will give the best return (warranty costs, product costs and assembly costs) to that customer's bottom line".

A certificate acknowledging the training was sent to all sales reps in attendance.

Ogura Receives ISO 14001 Rating

Ogura's Plant #3, which produces industrial clutches and brakes, is the first plant in the Ogura group of companies to receive the ISO14001 recognition. Additional Ogura plants will be

going through the process and should qualify by the end of this year. This will allow almost all of Ogura's manufacturing facilities to be ISO 9001, QS9000 and ISO14001.



Ogura SAS Ramps Up Production

The new European manufacturing facility for Ogura in Valenciennes, France, is already up to 50% operational capacity. The plant will continue making gains throughout 1999 and should enter full production by the end of this year.

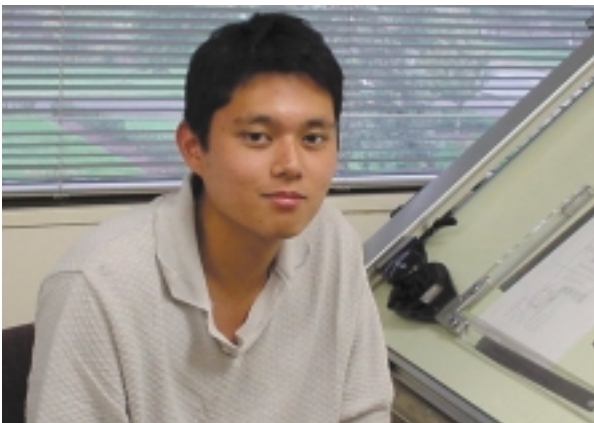
Ogura SAS is currently going through the QS 9000 qualification process. This should be completed by the end of this year.

New Personnel at Ogura Industrial



*Marlo Bellotti
Customer Service*

Marlo joins us in the Customer Service area. She brings with her ten years of customer service experience. She has already attended Ogura's national training program, and has gained experience in the lawn and garden market from the Outdoor Power Equipment Show in July. She is looking forward to working with all of our happy customers.



*Akihito Watanabe
Product Engineer*

Akihito recently graduated from Johns Hopkins University with a BS in Mechanical Engineering. His skills in Japanese and English will allow improved communication from our Application Engineering Department. After training in the U.S., he will be going to Japan for extensive training on production processes.

Louisville Show A Success

During the Outdoor Power Equipment Show in Louisville KY, at the end of July, many end users and dealers were very complimentary in regards to Ogura's quality and field performance. The comments from both the users and the OEM's was that Ogura produces the best value in PTO clutches.



*Ogura Booth with Sales and Applications
Engineer Personnel*

The live web site at the booth allowed many dealers to see the Ogura Installation and Trouble Shooting section located on the web site (www.ogura-clutch.com). They were encouraged to use and copy this information to help their customers.

Ogura Clutch Continues To Grow, Hires Record Number of Engineers



Ogura's New Recruits

Even with the slow down in Asia, Ogura continues to grow. To help with this activity, 20 engineers were recently hired to provide additional support in Ogura's application, design and production engineering departments.

Two of the recent hires have Master Degrees in Engineering. Additional hires came from technical schools and 2-year colleges. A total of 55 new technical personnel joined Ogura this summer.

OGURA Clutch Brake Application Ideas!



Agricultural Spraying System

The application illustrated above uses an Ogura clutch and brake to allow the operator to control the length of the spray hose through a radio controlled system. Another Ogura clutch is used to turn the pressure pump on and off automatically as the pressure in the spray system drops.

This is how the system works. A gasoline engine is used as the prime power source which drives the pressure pump, and through a gear reducer, the unwind and wind up of the spray hose. The engine also supplies the electrical power to charge the battery, which supplies the power to engage the clutches, disengage the brake, and power the radio control (R/C) system.

The operator controls the unwind and wind up of the spray hose, through the R/C system, which engages the Ogura VCE clutch. The VCE clutch is placed between the engine and the gearbox where, operating at the high speed shaft, allows the use of a smaller clutch. The VCE series clutch was also chosen because of its compact size, and its economical cost. An Ogura SNB spring applied brake is used to stop and hold the hose reel to prevent additional hose from coming off the reel when the operator wants the unwinding of the hose to stop. A SNB brake is used because using spring force it does not require any electrical power to apply the brake. This feature reduces the demand on the battery and allows the brake to be engaged while the spray equipment is being transported between fields when the engine would not normally be running.

The engine also drives an Ogura 7FS general purpose clutch, which is controlled by a pressure switch that senses the pressure in the spray hose. When the operator begins spraying, the pressure in the system drops below the minimum set point of the pressure switch, and allows the clutch to be engaged to drive the pressure pump. When spraying stops, the system pressure increases to the pressure switch maximum set point and disengages the clutch. The advantage of using the clutch rather than a pressure actuated, re-circulation valve is that the pump is only driven when pressure is required thereby reducing wear on the pressure pump. This also reduces the load on the engine reducing gas consumption, making the system more efficient and environmentally friendly.



New Product Release From Ogura: MCNB Spring Applied Brake

The MCNB has been redesigned for lower cost and better performance for servo motor applications. The micro holding brakes from Ogura incorporate a plastic armature, which significantly reduces the inertia that servo motors need to accelerate. This new engineered plastic armature has friction material bonded directly to the surface. This new friction material also resists glazing, which allows it to maintain its co-efficient over a wider temperature range and helps it hold up better in higher cycle requirements.



The MCNB is available in three sizes (2, 5 and 10 in. lb.) and 24 and 90 volt coil options.

The new series also incorporates a cost-effective, engineered plastic D-cut hub. This D-cut hub allows for fast, easy installation and eliminates the need for set screws. This hub also incorporates a spring to reduce hub rattle, which reduces the noise in applications.



MCNB incorporates a cost-saving, light-weight, D-cut hub with an anti-rattle spring. This unique brake design also includes a light-weight plastic armature.

Ogura Industrial in the News

Design News has featured Ogura as the cover story in their May 17 issue. The Ogura high-performance clutches and brakes were featured in the article. The article also detailed Ogura's responsiveness to the customer's request for specific performance. (Ogura was able to meet the requirements which a number of other manufacturers could not achieve.) This special clutch and brake allowed the customer a substantial savings over a servo motor option.



Ogura Industrial featured on May 1999 Cover of Design News

In upcoming months Ogura will be publishing additional editorials in Machine Design. In addition, a number of press releases will be issued highlighting new Ogura products.

Ogura Industrial Corp.
P.O. Box 5790 • Somerset, NJ 08875
Tel: (732) 271-7361 Fax: (732) 271-7580
E-Mail: info@ogura-clutch.com
Internet: www.ogura-clutch.com