

Ogura buys competitor; expands production capacity

Ibaraki City, Japan

Ogura has finalized the acquisition of Koyo Techno in the Ibaraki City in Japan. Koyo was previously a Hitachi subsidiary. The plant was set up by Hitachi to manufacture electromagnetic clutches for the Hitachi compressors that were then sold to Nissan Corporation.

Koyo has been manufacturing electromagnetic clutches since 1969. They currently employ 100 people and current manufacturing volume is 1.5 million clutches per year.

The acquisition of Koyo



Koyo's two production buildings



Current machining center technology

Techno gives Ogura Japan additional manufacturing capacity to handle the growing requirement for air-conditioning clutches for the Asian market.

Standard product range



Would you like to receive the newsletter via e-mail?

Although the newsletter is posted to the Ogura web site, some customers have inquired about the possibility of having the newsletter sent via e-mail. If you would like to receive the newsletter this way, please send an e-mail to Sheila Nathan at sheila@ogura-clutch.com. In the subject line, please reference Newsletter. If you would

like to receive the newsletter only by e-mail, please also put "e-mail only". If you would like to receive the newsletter via e-mail and also have us send a hardcopy to you, please put "both". If you prefer receiving the hard copy version, you do not need to reply; it will continue to be sent to you.

OIC EMPLOYEE PROFILE

Agnes Correll Accounting Assistant

Hil My name is Agnes Correll and I am an Accounting Assistant at Ogura Industrial Corporation. My responsibilities include accounts payable and receivable, payment of commission, bookkeeping, as well as taking care of catalog requests and numerous other administrative duties.



Agnes Correll

My country of birth is Poland. I have been in this country for 19 years (since I was 10 years of age) and I have been spoiled by the American way of life. When I first moved to America I was amazed at how much is available to people here and I still feel that way. I still have family in Poland (grandmother, uncles, aunts, etc ...) and do visit the country once in a while. My family has also come to America and I enjoy spending time with them here. We still practice our Polish traditions mainly in cooking and especially around Holidays.

I have been married for three years to my wonderful husband, Dennis. When I have free time I enjoy painting and drawing. I am very passionate about art. My original interest in school was fashion design, however, I have since gone a different way. I have enjoyed my time with Ogura and hope to do so for many years.



Ogura personnel parade with much enthusiasm

Ogura on Parade

Many Ogura personnel participated in the annual fall parade in Kiryu. Parades in Japan are very similar to parades in the US with the exception that, in Japan, a number of floats are carried by the participants instead of either driven or towed down the street.

Sake, traditionally, is a very important part of this event. Fortunately for the Ogura workers, the parade takes place on Saturday so the Ogura workers can maintain their sharpness come Monday morning.

New sales force site speeds customer response

In keeping with the overall theme of using computers and automation to provide faster responses to customers, Ogura Industrial Corporation developed an interactive web site for its sales force. The site allows Ogura's sales force to check on customers' orders, shipments and to update any changes in forecasted customer requirements. The site also contains a training section whereby the sales force can view any one of seven training modules. Each module has a test at the end so the salesman can measure their knowledge to find out if



Home page of Sales Force Web Site

improvement is needed.

The Sales Lead section of the site helps speed response time to both existing and potential customers. All details regarding inquiries received by potential customers are immediately posted to the site. This allows the sales force to retrieve this information from any location 24 hours a day.

Announcements, pricing, drawings, and literature request forms on the site give the sales force fast and easy access to reduce the response time in handling customer requests for this information.

APPLICATION STORY

Electric Go Carts

120+ mph electric go cart is too fast for track officials

Ogura's ST1W clutch allows the new 144 volt electric go cart to engage amazingly high torques (up to 250 Ft Lbs) directly to its 2-inch diameter drive axle.

It's a lot like time travel. One moment it's here, and then it's waaayyy over there.

Its loudest sound is the screeching of tires. It's almost silent, it's green (non-polluting) and it's really fast . . . the 1/4 mile is reached in 12.1 seconds at over 110 mph!

Track officials who had seen the vehicle simply did not think it could go that fast. Vehicles over 100 mph require a roll cage at the NEDRA Drags in Woodburn Oregon. This vehicle would not be

allowed to race again without modification, simply because it was too fast!!

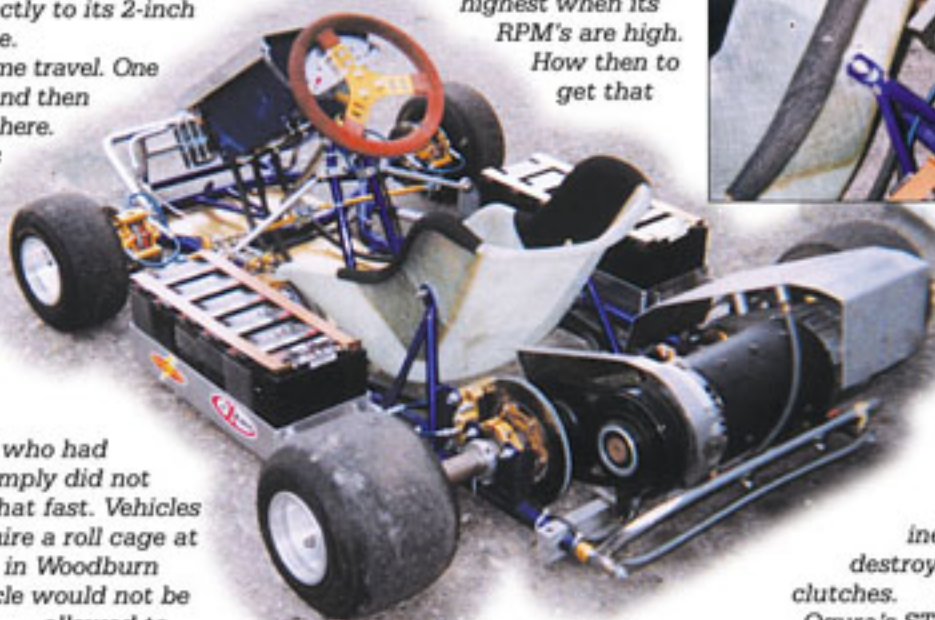
Several months earlier, RSG, a small forward thinking electric vehicle manufacturer located in Long Beach California,

was facing a new technical challenge. They had developed a very fast combination of heavy-duty go cart frames, 6 inch OD high efficiency DC motor, special rechargeable Boulder batteries, and a unique DCP-1200 motor controller (with a potential of 800 Amps for 3 seconds).

The Challenge: How to apply the dramatic torques gener-

ated by their electric motor system directly to the drive wheels?

The motor's peak torque is highest when its RPM's are high. How then to get that



4-wheel hydraulic brakes are required to stop this electric rocket

power to the wheels? Direct coupling the motor to the drive wheels would not allow for the best acceleration of the cart. Typical mechanical clutches were too heavy and slow for this state of the art machine. Ideally the new clutch would need to be: electric, light weight, fast acting, rugged and allow some small slip during launch. Additionally, the clutch needed to be mounted right on the motor output shaft and have a hub for mounting a heavy sprocket for the main drive chain (same chain as used on racing motorcycles).

The Ogura stock mobile clutch ST1W offered all of these features.

The ST1W clutch was originally designed to handle various mobile



The ST1W clutch is mounted on the motor shaft

applications such as stump grinders and diamond cement cutters where heavy-duty torques and high inertias would easily destroy less rugged clutches.

Ogura's ST1W was specified due to its small size, light weight and high torque output. 250 Ft Lbs. The ST1W uses our double flux armature design, high-powered copper coil and heavy duty return springs.

At first glance (especially when the battery covers are installed), it looks much like the noisy, relatively sluggish gas powered carts you can find (and hear) at the local "go cart tracks".

So far, RSG is still testing and perfecting the platform. The clutches are working

very well and speeds of 140 mph+ have been achieved. The company's

plans for the future include electric go carts for family fun (limited to 30-40 mph or so). With zero pollution and quiet operation, electric vehicles and clutches are the wave of the future.



ST1W electromagnetic clutch



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Happy Holidays from the staff of Ogura Industrial

NEW PRODUCT RELEASE

New 'Silent' armature developed for industrial clutch applications

The V Series of electromagnetic clutches includes a "silent" armature option. The unit incorporates a noise dampening plastic disk in both the armature and the rotor. These disks dampen out the high frequency noise and also reduce the time of the noise wave by approximately two thirds.



V Series Silent Armature

This reduced noise version was developed to satisfy medical and other consumer related applications in which clutch or brake engagement noise would be objectionable. The V Series is currently available in 4 models from 3 to 43 lb.ft. in torque and is available in either 24 or 90 volt coils.

OGURA IN THE NEWS

Cooling applications

In November, **Machine Design** ran an article showing the advantage of using an electromagnetic clutch on the fan drive for engine cooling applications.

The article highlighted the fact that in many colder climates the fan is not required to run at all so when the fan does run, it robs the engine of power and fuel efficiency. By putting an Ogura electromagnetic clutch in the drive, it allows the engine to run more efficiently, save fuel and deliver more power.

As more engine manufacturers strive for greater fuel efficiency and reduced engine emissions, the Ogura electromagnetic

clutch is a simple, cost effective solution. More information on this and other editorials can be found on Ogura's What's New Section at www.ogura-clutch.com, in the editorial archive.



Article in Machine Design

Ogura shows new products at 2002 Textile Industry Show

Tokyo, Japan
At the 2002 Textile Industry Show, Ogura showed a variety of hysteresis and magnetic particle clutches that can be used to control tension on various textile fibers.

Both open and closed loop systems were displayed. These systems



Typical example of a closed loop feedback system



Industry personnel reviewing Ogura's system approach to textile tension control

showed how Ogura products, in conjunction with other manufacturers' load sensors, could effectively be used to control tension accurately for light tension requirements.