

Winter 2007 Newsletter

Welcome to the Okuma Australia + New Zealand Winter 2007 Newsletter.

SURVEY

Recently, we conducted an Australia wide survey to collect and analyse customer feedback about market expectations, how we conduct our business and whether we are consistently meeting customer expectations.

I sincerely thank all those customers who gave up some of their time to provide responses to our survey. Thanks also go to our consultant, Bruce Crowther.

The reasons behind the survey are many but some are:-

- 1) We have found that there is no one single item that defines a business as good or bad, there are many items and some could be good and others bad. We wanted to identify these.
- 2) We have long held the view that consistency is very important. We need to monitor if our business operation is consistent and therefore can be relied upon by our customers.
- 3) The cornerstone of our Company Policy is that all our employees have the authority to take appropriate corrective action to improve outcomes for our Company, our Suppliers and our Customers. It is incumbent upon us to make improvements at all levels.
- 4) Planning is inevitable for all businesses and we are no exception. To improve often takes research, planning and careful change when and where necessary.

The results of our survey have been analysed and highly common responses showed:-

- Field service performance was the Number 1 customer priority.
- There was overwhelming optimism about the future.
- Product integrity was more important than most other issues.
- Good marketing is seen as more important than opportunistic advertising.

It quite definitely showed that we do many things very well but that we can improve in the following areas:-

- Communication.
- Field Service in some states.
- Delivery of Technical specification and detail.
- Follow-up after the sale, delivery and service.

We'll attend to these items, and many others, partially as routine improvements and partially in a "new definitions" program Okuma Australia has just commenced. It includes the establishment of partner programs with key suppliers, a boost to strategic employee numbers in engineering across all states and a complete overhaul of our own training and knowledge acquisition activities.

Thanks again to all those who assisted us with this survey.

NEW GENERATION OF EQUIPMENT REALLY KICKING IN

It is reasonable to say that right now, there is a lot of activity in manufacturing engineering that is leading to record levels of demand for new equipment.

As many of our readers will have read in our mailer back in May 2006, there is a "revolution" going on with regard to the high rate of take up on Multifunctional and Multitasking machine tools into the many and various manufacturing segments across Australia and New Zealand.

It goes without saying that machines like the Okuma **MULTUS** and the **MACTURN** machines offer methods outcomes that are hard to beat by more conventional and accepted practices that, more often than not, include the conventional multi machine, multi operation production of machined parts that move like house bricks across the factory floor and often stay welded to the floor on a pallet until the phone rings and someone wants delivery.

Until recently the average estimated time parts sit on a pallet on the shop floor waiting for the second or third Operation was 6 hours.

We say, plan your next job, set up and tooling whilst the machines are working on their current job. That time is free. We also say that getting parts off pallets will change your efficiency and, quite possibly, your life!

The average manufactured part has real value attached for both the buyer and the seller. The buyer wants a quality product, he always wants it faster than he is quoted and is often let down by a delay in the second or third operation, mostly due to logjam [no matter what excuse is given] and then feels he has paid a bit much. The seller on the other hand, wants more orders and more margin attached. It is the seller that has to improve here.

The seller probably knows that if he had some more time available, he could take on more orders at competitive rates, he could take the time to

package his goods with more flair, he could predict deliveries with more accuracy and he could actually assess his running cost of each job with out the "pallet factor" being guessed.

So, by using "in process" free time, get your raw material prepared, programs done, tooling ready and then aim to finish your part in one set up. That is, all the Turning, Milling [including complex profiling], Drilling, Tapping, Boring, Reaming, Broaching, [in some cases grinding] Hobbing and key-way machining.

It is not expensive to include in-process or post-process gauging with statistical recording, robot load/unload and even robot packaging and sealing and box stacking ready for shipment.

Think that's not happening? IT IS. Think it can't apply to you – IT SOON WILL!!

So, what about our combined **MULTUS** and **MACTURN** sales? With nearly 40 units either installed, or about to be, it is reasonable to assume that this is not just a popular product. It is the recognition by our market that this is now a necessary generational step in machining technique and factory efficiency.

It will be no surprise that we expect the old standards of a CNC Lathe, even with a milling turret, will fade from their highly dominant popularity position and make way for a multi axes, multifunctional re-equipment phase that both Australia and New Zealand will have to embark upon at some time and that time may just be here.

OKUMA NUMBERS – LET'S BE SURE

Sales of Okuma machines, world wide are extremely strong. Right now Okuma production is hovering around the 650 machines, out the door, per month.

There are longer deliveries than we want to see in some popular machines, particularly the very latest releases, the new LB2000, 3000, and 4000 series and Horizontal Machining Centres both of which are experiencing extreme demand from all markets.

The average delivery for an Okuma at the moment is 4.8 months. Some machines are longer than we would like to see but some are shorter than most think.

However, if you keep us in touch with your needs are, we can always find a delivery allocation that suits you. Selecting the best always needs care!

According to the latest Export statistics from METI [Ministry for Economy, Trade and Industry] in Japan, Okuma's shipments to Australia and New Zealand have been exceptionally strong for the last 10 years and little has changed. For the whole 2006 year, 83 new Okuma's were cleared for shipment from Japanese ports to Australia and New Zealand out of a total of 185 machines heading this way from all Japanese makers. This is a market share for Okuma of 44.9% of Japanese built CNC Lathes and Machining Centres. These are the facts. [the split is NZ 45%, Aust 44.8%]

For Okuma Australia and New Zealand, conventional CNC Lathes and Grinders accounted for 38% of our deliveries, Machining Centres accounted for 26% and Multifunctional machines hit an all time high of 36% after being just 6% in 2004.

Many thanks to our supportive customers.

OKUMA'S KANI K4 IS BIG BUT K5 IS THE SHOW OF THE CENTURY

Okuma Corporation has 3 main manufacturing/assembly facilities in Japan. Oguchi [head office], Konan [the previous Okuma and Howa facility] and Kani.

At the Kani complex, Okuma has a mixture of facilities:

- K1 is the Okuma Motor factory – Yes we make our own motors
- K2 is the largely unmanned FMS factory with 9 FMS Lines the largest of which handles parts up to 20 Tonnes EACH PART!
- K3 is the Vertical and Horizontal Machining Centre assembly factory temperature controlled to $\pm 0.5^{\circ}\text{C}$ – continuously.
- K4 is the Clean room spindle building facility and large Lathe assembly
- K5 is for Double Column Machining Centre assembly

When visiting Okuma, it is easy to be stunned at the size of some of these facilities.

K5 is not only a huge floor area, but its overhead crane capacity and height is enough to allow the lifting of an MCR BII 35 right over the top of another MCR BII 35 - easily! The MCR BII's are the biggest machines Okuma make. K5 also features a walk around mezzanine viewing platform from where you look down upon scores of Double Column Machining Centres in various stages of build. Why not arrange a visit to Okuma, K5 is the show of the century!



CAM – DAMNED IF YOU DO, DAMNED IF YOU DON'T!

A considerable number of the manufacturing community are looking more and more toward the use of Computer Aided Manufacturing [CAM] in their routine process. A large part of CAM these days is the generation of complex [or simple] tool path code for use with capable CNC machines.

One very much needs to remember, that as machines [and parts] get more complex by design, the generation of acceptable paths and correct code becomes more complex by nature.

To introduce CAM system into a manufacturing process you will need skilled personnel who can think outside the square, so to speak, and personnel who are prepared to persevere with finding a method that suits the job rather than expecting the CAM systems to be universally applicable to every job known to man.

Of course, there are the CAM system suppliers who will assist you when the going gets tough, right? Not necessarily right! It can happen that CAM suppliers do get it completely wrong and the easiest thing to do is blame the machine tool.

Recently, we had to take hold of one such installation and it has taught us a great deal.

To improve our ability to monitor installations and assist when and where necessary, we have formed a partner relationship with MasterCAM. They are well known, very price competitive, world recognised, have proper access to post processor support worldwide and are appropriately represented in all states of Australia. In addition, we and Okuma Corporation in Japan are MasterCAM clients and Okuma Australia has specific in-house experience with MasterCAM. This delivers a complete customer package. Please consider it.

Okuma Australia has no specific intention of re-selling MasterCAM as MasterCAM has no real intention of re-selling Okuma's. It is the background customer support that is in our focus here.

We also work closely with CG Tech's, Vericut path verification product and therefore we end up with a broader on-board capacity to manage the outcome for our customers in this critical area.

If you are thinking of introducing [CAD]-CAM, might we suggest:-

- Talk to MasterCAM, or your chosen supplier, about your expectations of both the CAD and the CAM sides. Seek many views.
- Our partner relationship with MasterCAM gives customers confidence and it makes a big difference when the Machine tool dealer can deal with the CAM supplier and system issues directly as applied to the machine in use. Often it does not work the other way.
- Be sure your budget [money and time] will allow your employees to be trained properly in both generalities of the system and how it applies to your work specifically.
- Insist that your CAM supplier has a recognised, tried and proven post processor for the machine you will apply it to.
- Make sure that you consult Okuma Australia about options that might be available, but may not have been initially supplied with your machine.
- Ensure that your tooling is carefully catalogued and appropriate for the jobs you will use it for via the CAM system.
- Do consider parallel technologies like Vericut.

We can assist you, but it is your planning that will assist you more!
Don't be sucked in by the competitive swagger. "Proof before purchase" is really a great slogan.

For more, go to www.mastercam.com.au

LB2000, 2500, 3000 AND 4000 EX SERIES SET TO CREATE A STORM

Most people know that Okuma's LB series has been the Number 1 selling CNC Lathe series of all time.

Okuma has now released the new LB range that is available for the Australian and New Zealand markets and is destined to maintain its dominant position.

The principal matter here is that this is no smart facelift. **The new models offer a host of design changes that really form the core of the new models.**

- Larger spindle bores
- Increased Main and Milling spindle speeds
- Built In NC tailstock
- Improved Torque for the milling spindle
- Milling feature added to the LB2500
- Y axis added to the LB4000

- Increased Swing over saddle
- Increased maximum turning diameter for all models
- Increased Distance between Centres on LB4000 up to 1500mm
- Dramatically improved milling, drilling and tapping capacity in all areas.
- Thermo Friendly Concept applied to all models.

These machines are now on our Australian and New Zealand allocated stock lists in reasonable numbers but in view of the huge worldwide demand that will ensue, it will take some months to normalise.

Again with the LB4000 offering a Y axis now and the LB2500 offering milling there are immediate benefits from these new capacity opportunities not to mention the mainstream LB3000 series that is available in Non M – M – W – MW – MY – MYW versions.

Sensational!

STAYING AHEAD OF THE GAME

Staying ahead of the game, Fisher & Paykel Production Machinery has recently installed an OKUMA MULTUS B400C Multi Tasking Machine. "We considered 5 axis vertical machining centres in the past" says Tony Devonshire, "but we needed a replacement for our simple CNC lathes. The introduction of the Multi function machine concept provided a solution to both needs with one machine and we selected the Multus B400."

The machine has an impressive 710mm diameter swing, 1,500mm between centres, "Y" and "C" axes and an automatic CNC controlled tailstock. The real innovation is the 10,000rpm, 0.001 degree programmable "B" axis indexing head which allows compound angle milling / drilling and tapping or interpolation at literally any angle. The Sandvik CAPTO C6 mount tooling is stored in the machines 40 tool capacity automatic tool changer located at the rear of the headstock. The spindle itself can use sophisticated multi edge tool holders which reduces the number of tool changes.

Programming is either done off-line or via the on-board conversational IGF function which is easy to follow on the 15" TFT touch screen, a standard feature of all current Okuma controls. External communication with the machine is achieved via Ethernet networking capability, another standard feature on all current Okuma models.

Okuma's new P200 series control utilizes a Microsoft Windows XP Embedded user interface which is ideal for the deployment of Okuma's leading Collision Avoidance System. The system works by monitoring graphic models of machine components and tool holders in real time and predicts any imminent collisions due to operator errors.

Another outstanding feature of the Multus machine is Okuma's patented "Thermo Friendly Concept" which enhances machining accuracy and repeatability by 1) designing out thermal deviation and 2) electronically compensating for temperature change by using strategically placed sensors.

Fred de Jong of Okuma New Zealand says "the uptake of the Multus machine technology is becoming rapid as shops work towards the 'one set up' concept by doing as much work on the part as possible in a single machine set up."

Other variants of the Multus include a second turning spindle and the facility for the machine to transfer parts from one spindle to another. The functionality of the "B" axis head then allows machining to be performed on the back side of parts.

NOEL WHITE HITS STAR STATUS

Senior Victorian Applications Engineer, Noel White, has been awarded the coveted "Asia Pacific Employee of the Year" award in Japan. From 26 AP distributor organisations across the region, Noel's skill was recognised as having great depth and exception excellence ahead of all others.

Noel attended the 10th Asia Pacific Dealers Meeting in Nagoya with Managing Director, Phil Hayes and was presented with his award by Okuma President and CEO, Mr. Dean Hanaki.



NEXT EDITION

Look for specific articles in Spring 2007 on:-

1. FANUC EDM Wire cut machines heading our way.
2. MU 400 and MU 500, Five axes, applications abound
3. New Definitions review/update