

PROSAW

Sawing Times

Issue No.1

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News and application stories from **PROSAW**



Fifty years of Experience



When **Prosaw** started in 1963 there were basically three methods of cutting metal. Hacksaws, Circular Saws and Friction Saws, all of which were slow and noisy.

How times have changed with modern state of the art bandsaws having computerised control systems that can virtually eliminate the operator input from the sawing process by automatically setting their own band speed and down-feed, depending on the type and size of the material.

Prosaw have established themselves as a

leading supplier of all types of Saws to the UK market. However, we have also had success in exporting saws around the world to such diverse locations as Dubai, Abu Dhabi, Singapore, Malaysia, Saudi Arabia and even China.

Prosaw are particularly proud of our design and manufacturing division which can supply everything from simple roller conveyors to sophisticated and bespoke automated handling systems with the same proud claim in 2013 that we first made in 1963 – MADE IN BRITAIN!

PROSAW

Sawing growth



Exotic alloy stockholder enjoys an impressive period of growth following aquisition of bandsaws



Danobat CP420AN at NeoNickel Kingswinford

Since taking delivery of three Danobat bandsaws from Prosaw, nickel and titanium alloy stockholder NeoNickel Kingswinford has enjoyed a dramatic period of growth, amounting to an increase in productivity of over 100%.

NeoNickel is one of Europe's leading suppliers of High Performance alloys, serving customers throughout the world and providing a single source for corrosion and heat resisting alloys and aerospace-quality metals.

The Company aims to provide a complete processing service to their customers, which begins with analytically testing every piece of alloy before processing and ends with the piece being cut to size, which is where Prosaw has been able to assist.

Having already installed a Danobat CP520AF in 2007, as part of a continuous improvement philosophy, NeoNickel Kingswinford subsequently ordered a Danobat CP420AN in 2011 followed by a further CP420AN machine in 2012.

These Danobat machines have been designed to obtain the best performance, both in terms of productivity and blade-life, whilst every sub-function has been carefully analysed and solved by applying the most advanced technology.

Standardisation of the bandsaw controllers however, has been an essential contributory factor to the continued growth of the company.

Explained General Manager Peter Moriarty: *"All three of the saws are operated by Danobat's excellent Paso Paso controller, meaning every one of the operators is capable of operating any one of the three machines. The implementation of the single common controller has allowed us greater flexibility in our working practices which in turn has led to great increases in efficiency."* Adding: *"We also have a great deal of confidence in the reliability and consistency of the Danobat machines, whilst the service we have received from Prosaw both before and after delivery has been outstanding."*

In fact, such is the level of confidence that the Company has in the Danobat machines, that they are considering "lights-out" processing during night time hours, resulting in increased availability of capacity, whilst maintaining their reputation for consistently achieving the same, or next day turnaround of orders.

Meanwhile, no matter how complex or simple the need, NeoNickel continues to be committed to providing a total quality service. With sales to over 40 countries, the Company is a truly international supplier able to understand and serve the needs of its customers the world over.



Every piece of alloy is analytically tested prior to processing



A cut in progress

Planes trains & automobiles



Leading aerospace stockholder enjoys the benefits of MEGA fast-cutting circular sawing techniques

Perhaps not trains, but Gould Alloys count themselves as a leading supplier of high integrity ferrous and non-ferrous metals to both the aerospace and motorsport industries and of course, they also serve other industries such as defence, power generation and oil and gas exploration and production.

Established in 1984 in north east Derbyshire, close to the heart of Sheffield's steel manufacturing industry, Gould Alloys is a privately owned and independent company, whilst remaining part of a large international group of companies.

The company's stock range includes aluminium, alloy steels, stainless steel, nickel alloys, titanium, and

phosphor bronze in both aerospace and commercial specifications/alloys, spanning all semi-finished forms.

Highly experienced in the use of bandsaws, including Danobat machines supplied by Prosaw, the company has now invested in a circular saw for the very first time, having recently taken delivery of a MEGA circular saw from Prosaw.

Designed to be used with stainless steel and alloy billets of up to 100mm diameter, the carbide tipped blade slices it's way effortlessly through the billets in less than 10 seconds. The same cut would take approximately 7 or 8 minutes using a bandsaw.

Delighted Production Manager Gary Smith revealed " *The MEGA saw not only helps us to drastically improve our delivery times, but also allows us to take on work with shorter lead times than we normally would. Also, since the circular saw is inherently more accurate than a bandsaw for this type of application, we save about 1mm of material per cut. This is an additional factor that adds to the significant cost savings that we already enjoy by using this machine.*"

He added " *We have also been very impressed with Prosaw's performance, both from the perspective of engineering ability as well as from their continued and excellent after sales support.*"



The MEGA CS-100S circular saw



Cutting a billet

Water under the bridge



Specialist fabricator invests in waterjet cutting technology, improving process time and lowering production costs



TCI cutting Waterjet system model SM-S 3015 in operation



Pharmaceutical grade stainless steel IBC's

Birmingham based Brookeson Material Handling Ltd specialise in the manufacture of stainless steel processing equipment for the food and pharmaceutical industries and can boast many household names, including Eli Lilly, Pfizer, Procter and Gamble and GlaxoSmithKline amongst their list of satisfied customers.

Some of the sheet steel components processed by the company used in the manufacture of such items as IBC's, frequently require a non-linear cutting path and have until now required the use of a laser cutter in order to achieve any shaped cuts, a process that has previously been outsourced by the company.

However, with the acquisition of a TCI Cutting Waterjet system supplied by ProSaw, these components can now be manufactured entirely in-house.

The waterjet cutting head tool is capable of slicing through stainless steel plates by using a jet of water mixed with an abrasive and then directed at the plate at high pressure and velocity.

In this case, the abrasive used is a granular form of the silicate material garnet, the non-granular form perhaps being more familiar to many as a deep red coloured stone often used in jewellery.

The Waterjet cutting head is manipulated by the use of a three

axis CNC and computer generated pathways.

The system can accommodate steel sheets measuring up to 3 metres by 1.5 metres and can operate at speeds of up to 20 metres/minute.

Water is pressurised by means of an integral hydraulically driven reciprocating pump system whilst the garnet is metered at a rate relative to the material being processed and the required finish of the cut edge.

The garnet is directed into the jet stream immediately prior to being discharged from the nozzle outlet.

Metals of thicknesses up to 200mm can be extremely accurately cut in this way.

The system has delivered a number of benefits to the company as Managing Director Ian Brookes explains:

"Our new waterjet cutting system means that we no longer need to rely on laser cutting sub-contractors to process some of our components, which has had the beneficial effect of reducing turnaround times as well as lowering production costs,"

adding: "The facility has also introduced a greater degree of flexibility into our working practices, something that is particularly important when producing products for the pharmaceutical market."



TCI cutting Waterjet system controller



A small area of Cogne UK's stainless steel stockholding

Problem solved



Prosaw's problem solving expertise results in stainless steel stockholder maintaining their reputation for customer satisfaction

Cogne UK was established in the great steel city of Sheffield in 1997 by Italian parent company Cogne Acciai Speciali, one of the leading producers of stainless steel long products in Europe and indeed, the world.

The UK Company is now a market leader in the stockholding and processing of stainless steel, tool steel and construction products, with over 4,000 tonnes of steel held in stock.

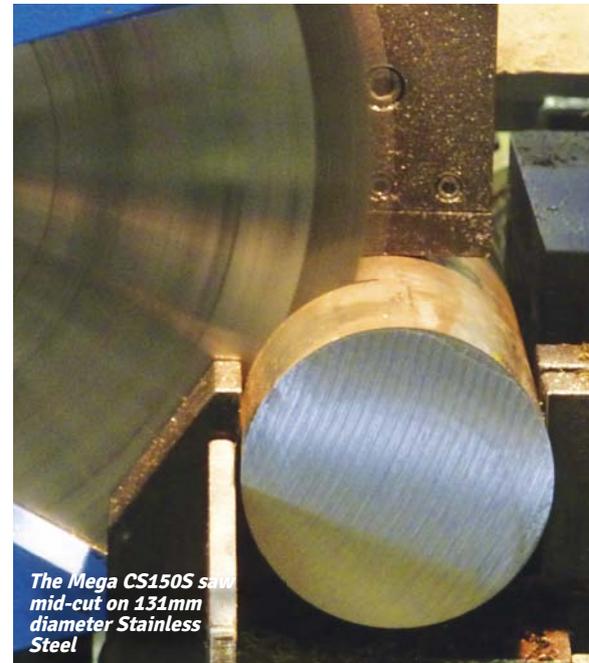
When Cogne were contracted to supply stainless steel components that required completion in a time of less than 4 hours - compared to the more usual 60 hours, they turned to Prosaw to find a solution to a problem that even the most recently developed high speed production bandsaw was unable to fulfill.

The solution lay in the use of circular sawing technology, but whilst high-speed cutting with carbide circular saws has been available for some time, they have generally been limited by cost to processing carbon steel rather than stainless steel. Additionally, in order for the project to be financially viable, Cogne needed to process at least 500 components with each saw blade.

However, Prosaw, using the latest in circular blade technology engaged in a lengthy testing programme using a Mega CS150S saw, that finally resulted in each blade producing over 700 components with the

remarkably short cut time on 131mm diameter stainless steel of just 28 seconds. Equally impressive was the performance on 76mm diameter stainless steel, resulting in 2,700 cuts with a single blade, reducing the total job time from 70 hours to just 6.5 hours.

Commented Cogne UK, Group Operations Manager, Tony Evans: *"The philosophy at Cogne is to provide our customers with the best product and the quickest delivery possible and while we have made significant investment in time working with Prosaw and a significant capital investment in the purchase of new machines, it allows us to continue to offer our customers the very best of service."*



The Mega CS150S saw mid-cut on 131mm diameter Stainless Steel



The Mega CS150S saw in operation



Prosaw UK Sales Manager Rob O' Brien (Left) and Metlsaw's Sales and Marketing Manager Doug Jamieson at the recent Aluminium Düsseldorf show.

Prosaw appointed to represent Metlsaw in Europe

After almost 50 years of supplying the very best in metal sawing machines to the UK market, **Prosaw** are delighted to have entered into partnership with Metlsaw Systems Inc. of Benicia, California, USA to represent them in Europe.

Whilst **Prosaw** have always offered a wide range of sawing machines, it's the high quality end of the market that has seen the most growth in recent years, which fits Metlsaw's profile perfectly.

Metlsaw offer an extensive range of machines for aluminium, from plate saws through to extrusion saws and after dominating the US market for many years are expanding their presence into Europe and see **Prosaw** as their perfect partner.



A material handling system in construction in Prosaw's assembly workshop.

Does faster cutting equal productivity?

In the sawing industry the question most often asked is "How quickly can I cut this" and whilst machine performance is of course important, it becomes irrelevant if the cut component cannot be moved on quickly. Material handling can be more critical than the sawing process itself, so the question is, if you take 30 minutes to saw a component and then have to wait 10 minutes to remove it, are you being efficient?

Prosaw's design and manufacturing division can provide a solution to this problem. From basic input and output conveyors to fully automated handling systems we are happy to give free help and advice to companies on how to improve their production.

Prosaw Certificated Training Courses

- Can you meet your obligations to the Health & Safety of your bandsaw operators?
- Are your saw operators trained and certified?
- Are you running at maximum productivity in your cutting department?
- Are you getting maximum life from your blades?

If you cannot answer yes to all of these questions, then you cannot afford to miss one of our training sessions.

We were established in 1963 and our specialised tutor is a respected authority in bandsaw theory and practice gained in over 20 years of practical experience.

You will benefit from:-

- A thorough working knowledge of bandsawing techniques
- A comprehensive reference package for you to take away
- A certificate of completion, an acknowledgement of your operator's competence

Call us today to book your place
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