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Fixed head turning from TORNOS Technologies UK

You may have heard that TORNOS-BECHLER purchased the production rights of SCHAUBLIN in Switzerland. This happened at the end of 1999 but it has been unclear until recently what effect this would have in the UK. Previously the products had been sold through an agent in the UK and TT UK did not offer any fixed head capability. But with the formation of TORNOS Schaublin in Switzerland as a department of TORNOS-BECHLER this had to change.

What effect will TORNOS-SCHAUBLIN have in the UK?

To answer this we first need to know what the name SCHAUBLIN meant to the customer base in the UK and this can probably be answered by «SCHAUBLIN? Excellent guide bushing and tooling and excellent quality tool room and second operation machines.»

But what will the name TORNOS-SCHAUBLIN become to be associated with?

Synonymous with high quality, high production multi axis CNC lathes.

Over the past few years SCHAUBLIN have been developing and refining an excellent range of multi axis fixed head lathes. Their problem seemed to be a matter of scale. Production costs and marketing opportunities are very much related to the possible market size and this is where the major advantages of the TORNOS-SCHAUBLIN operation will be seen. TORNOS-BECHLER have shown over the past four years, since the launch of the DECO range of sliding head machines, that with the correct products, good technical back up, good servicing for the customers, and attractive prices, that the market is available.

The TORNOS SCHAUBLIN range has been positively rationalised so the TORNOS now offer:

- A range of machines, sliding head, hybrid sliding & fixed, fixed head and multispindle.

The size range offered:

- Deco 7, 1 - 7 mm.
- Deco 10, 2 -10 mm SAS 16.6 3 - 16 mm.
- Deco 13, 3 - 16 mm Deco 13 Basic 2 - 16 mm MD 20/6 3 - 20 mm.
- Deco 20, 5 - 25.4 mm MD 20/8 3 - 20 mm.
- Deco 26, 8 - 32 mm TS 42 S 5 - 42 mm MD 26/6 5 - 32 mm.
- TS 42 L 5 - 42 mm.
- TS 65 8 - 65 mm.

An excellent range of products for small batch to continuous operation, from 1 mm to 65 mm bar and up to 380 mm diameter.

How has the change affected TORNOS Technologies UK Ltd?

To ensure a quick take over and to ensure that the market was immediately covered we took on Jim Healey who had been selling the SCHAUBLIN range as Product Manager and also Stephen Brennan as Applications Engineer. The first of our service engineers has visited Switzerland for service training and many of our sales team have also visited to see the range both being produced and in production. We have in our showroom a 42 S machine and a CCN125 machine so will be able to demonstrate them as required.

It has meant that we will moving to bigger premises but more about that later.

An exciting period is in front of us. Join with us on this expansion.

David Wlock

Thread chasing by interpolating axes X3 and Z1

Description: *For some special machining operations, for example when wishing to avoid using an extremely offset tool, this tip will enable internal chasing to be carried out with the tool on the end piece (T31-T34) by using axes X3 and Z1 and not X3 and Z3.*

As the TB-DECO is a programming tool with almost unlimited possibilities, this particular combination of axes can be executed quite easily provided a few model adaptations have been made.

This procedure requires somewhat special programming. It involves creating an additional operating line in the program and a new support for the machine database.

In our example we shall describe a thread chasing process on a DECO 2000 cap. 20 mm using tool T34.

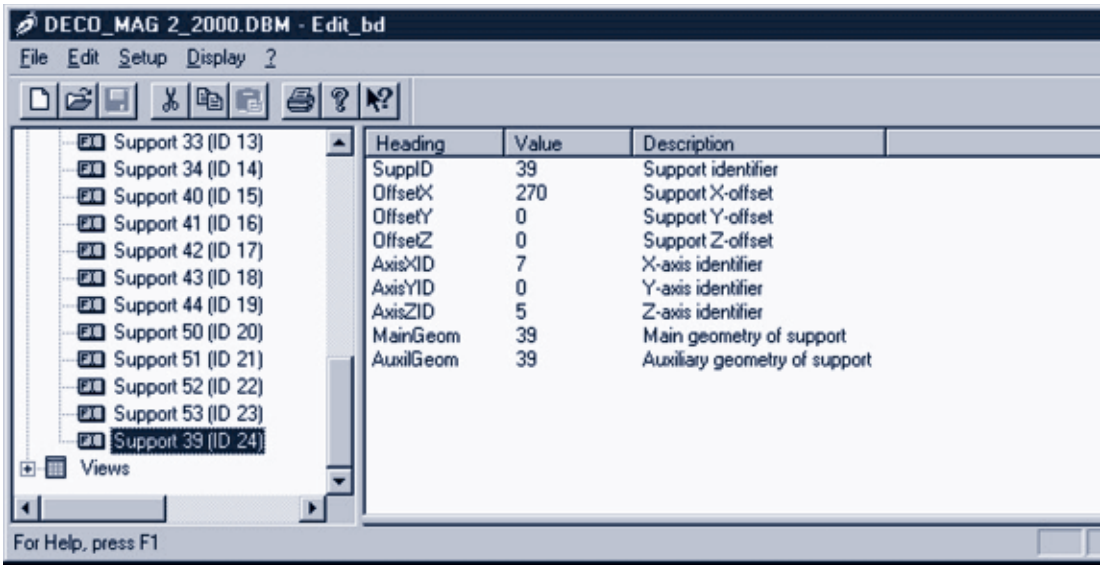
1° Creating the following operating line

1.

Note: the master axis 1 must be Z1

2° Creating a new support (39) in the machine database

2.



Creating a new support, the feature of which would be to have axis X3 as the X-reference axis and axis Z1 as the Z-reference axis. The standard supports, T31 to T34, have X3 and Z3 as their reference axes. The support number would be 39. To set up this new support, the Edit_bd application must be used and the following instructions followed.

Open the database. Select the support field, right click the mouse. The context menu «add registration» appears. Click. A new support is created and added to the end of the list. Select this support and change the values as follows:

NOTE:

- *The value of the* **OffsetX** *field must be the same as that of support 34 of the database (in our example: 270)*
- *As the axis Z identifier* **(AxisZID)** *is Z1, the value will be 5*

3° Programming

The programming tip lies in the creation of a new tool geometry, which we will call T39, based on support 39, which we have just created. It is important to know that this geometry will be called up in the new operation line, comprising axes Z1 and X3. Another geometry, T60, will be used for the correct positioning of axis Z1 before screw threading.

Important comments

When using geometries T39 and T60 the following two rules must be complied with:

- **the geometry in X of T34 and T39 must be strictly equal (e.g.: -10).**
- **the geometry in Z of T60 and T39 must be strictly equal (e.g.: - 60)**

The following must be executed during programming:

a) Determine the geometry T60 in Z.

b) Program the tool approach position in Z1 with tool T60 active.

c) Position macro G915 to find the original part on axis Z3.

Program the approach position in Z3 with tool T34 being active.

d) Program screw threading using G933 in line Z1/X3.

Explanations

a) For the previous screw threading operation, record the last programmed position for Z1 together with the geometry in Z of the tool, which was active at that particular time. Add these two values (last position + geometry in Z) and enter the result as a negative in the geometry of T60 in Z.

For example: -35 + (-25) = -60 to be entered in T60

b) Operation 1:8 : **G1 Z1=2 G100 T60**

Z1=2 is the absolute approach position from the original part position

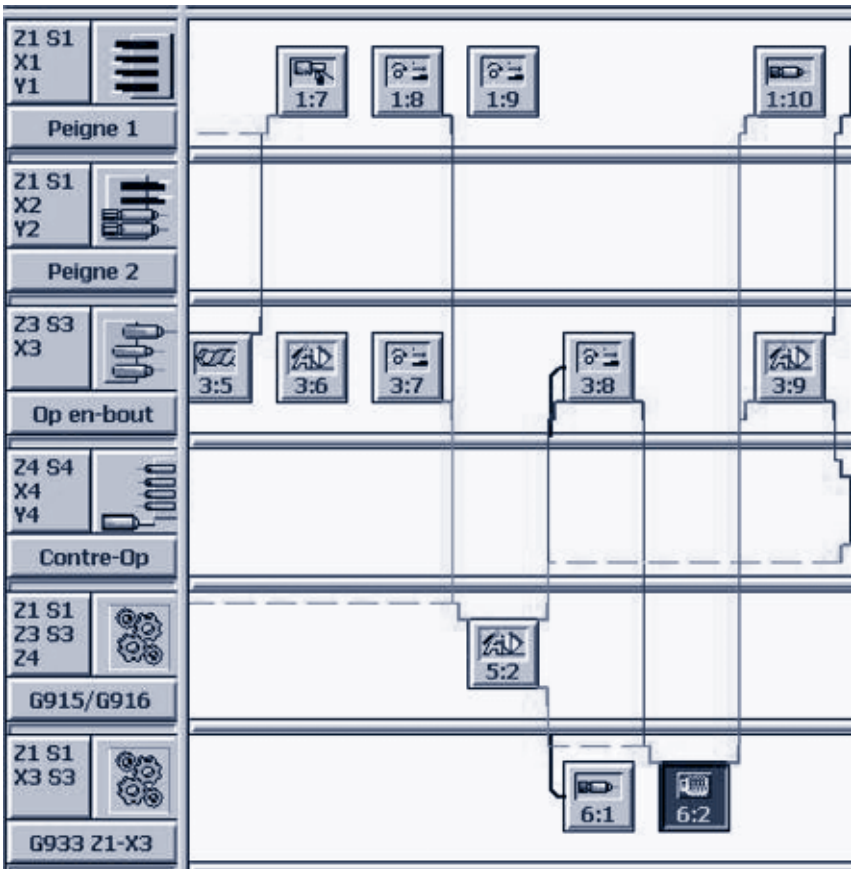
c) Operation 5:2 position macro G915

Operation 3:8: **G1 Z3=2 G100 T34**

Z3=2 is the approach position programmed in Z3. This position must be identical to that programmed for Z1 in operation 1:9

d) Operation 6:2 programming screw threading by activating the T39 geometry

3.



New functionality offered by the *DECO-Magazine*

From this edition onwards, the programming examples published can be downloaded from our Internet site, address www.tornos.ch, under heading «TB-DECO».

E

DECO 13 bi *basic i*

In the last edition of *DECO-Magazine* we illustrated that the new range of « basic » lathes meets the production and financial requirements of the small parts turning market for both simple to reasonably complex parts.

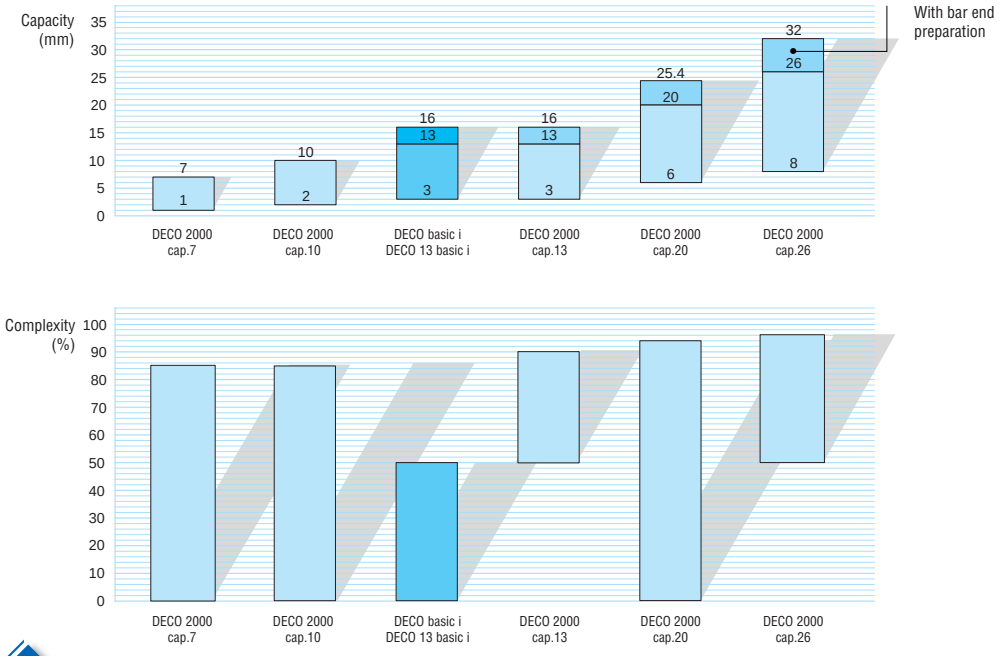
As for the letter « i » (of the word « integrated »), this represents the best way of incorporating and controlling the automatic bar feeder unit on a loose tailstock lathe.

A few weeks after three major events, during which we presented, for the first time, the characteristics of the DECO 13 basic «i», (Simodec/France, BIEMH/Spain, MACH/United Kingdom) and just prior to the first world-wide launch at the SIAMS, the market feedback confirmed that our strategic choice in developing a new product line for machining simple parts, was both well-advised and expected by some of our clients.

Having delivered more than 2000 lathes of the advanced DECO 2000 range (as opposed to the basic range), we are quite aware of all the strengths and weaknesses of the solutions proposed.

Since the autumn of 1996, when we supplied the first DECO 2000 lathe, we have been continuously launching new single-spindle products for the various small-parts turning capacities and making innovations in this sector.

TYPES OF PARTS THAT CAN BE MANUFACTURED COMPARED WITH THE DECO 2000.



The kinematics adopted mean that several tools can be used simultaneously with counter-operations taking place in masked time.

By its very design of using two tool systems, a die stock chaser and integrated system comprising end-operations, counter operations and a turning system, some operations are now different to those currently executed on the DECO 2000. The counter-spindle is no longer independent in relation to the different tool systems of the lathe (front platen, end-unit, counter-operations).

In order to guarantee perfect incorporation in a tried and tested system, it is logical for the programming for the basic DECO 13 lathe to be completed on our TB-DECO programming platform.

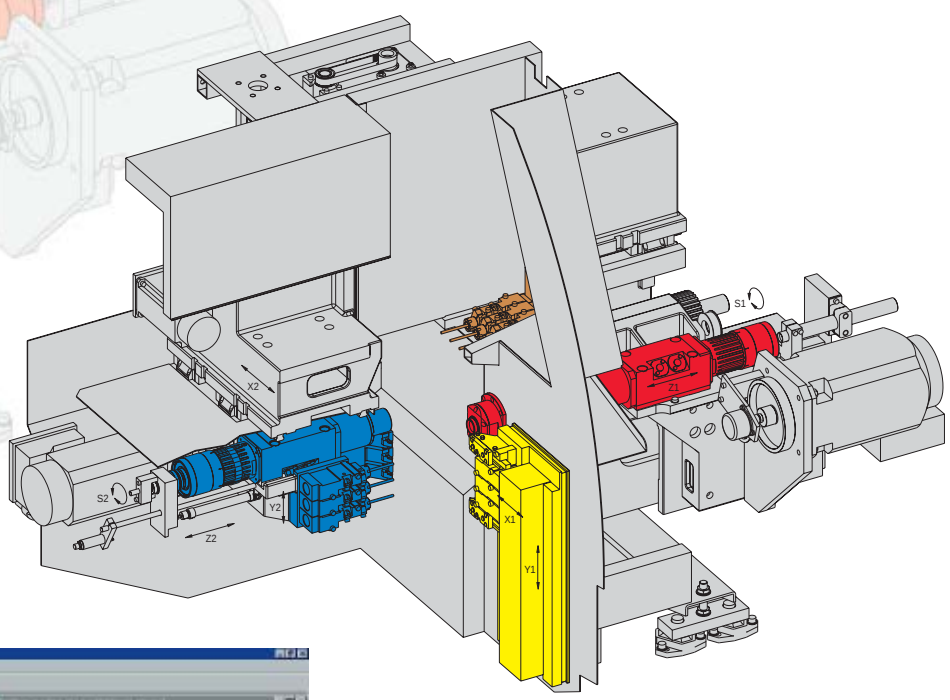
The immediate advantages are as follows:

- Programming using a tried and tested system
- A single programming system for all TORNOS-BECHLER lathes, the advanced DECO 2000, MULTIDECO and DECO basic
- Benefit of all the improvements of the DECO 2000 concept (see boxed in section below)
- Direct system mastering by clients already operating lathes of the DECO 2000 family or the MULTIDECO
- Modern and changing system incorporating all the latest developments of modern computing
- High performance and user friendly programming tool

Technically the DECO 13 basic lathe is characterised by:

- *simplified configuration.*
- *a reduction in the number of numeric axes (six as opposed to ten for the advanced DECO 2000, 13 mm capacity).*
- *a reduced number of fixed and turning tools.*
- *simplified counter-operations.*

The purpose of this simplification is to produce a lathe to execute simple to reasonably complex parts with an attractive price to quality ratio.



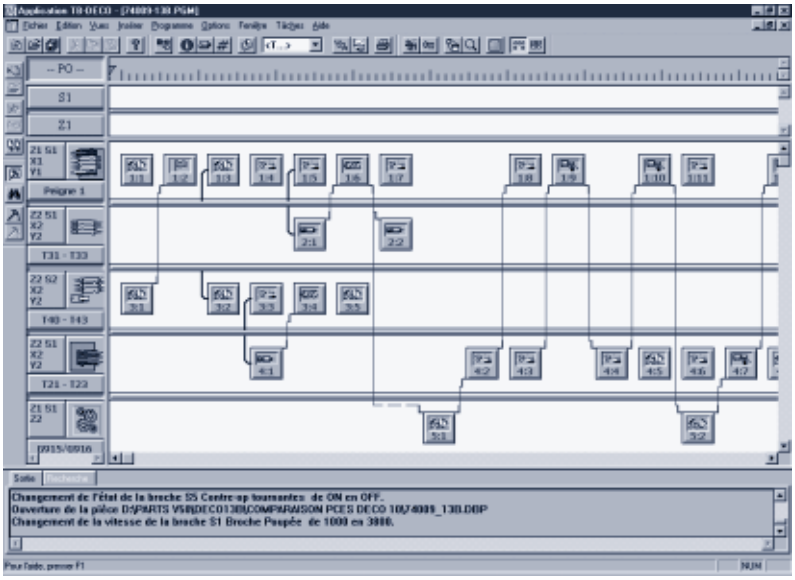
In order to maximise the capacity of the lathe, a certain working methodology in masked time (counter operations, tool preparation etc.) must be applied. A program model, regarded as a recommendation of the machining sequence order, has been incorporated in the TB-DECO software. This model will enable the operator to benefit from two tool systems (as

opposed to four on the DECO 2000) by following a sequence logic for all machining operations, thereby avoiding any conflicts or risks of collision between the various kinematic elements of the lathe.

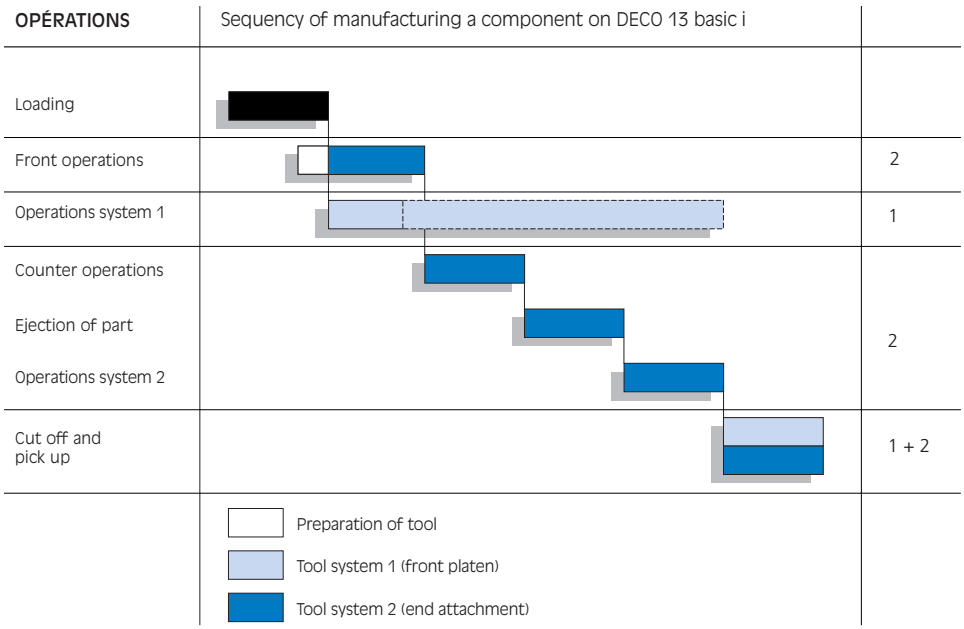
Defined kinematics and its advantages

Basically, the lathe comprises the following units:

- 12,000 rpm head stock, 13 (16) mm capacity
- 1 front platen with 5 positions
- Synchronous revolving guide bush
- Spindle stop and motorization for 3 revolving tools on the front platen
- An independent tool system comprising 3 positions for end-piece machining with the guide bush and three other positions for the turning tool holders. This system also includes the counter-spindle, 13 (16) mm capacity, 12,000 rpm. The entire system can be displaced along 3 numeric axes (X/Z/Y)
- Pneumatic parts extractor with collet oil cleaning unit
- A station for 3 end counter-operations
- Incorporation of an automatic bar feeder with oil bath (for bars of 3.2 m, 3.85 m or 4 m as selected) comprising 2 guide channels, the pushers and a guide sight to cover the complete range of the lathe, for machining bars from 3 to 16 mm long.



Caption: In order to simplify programming and although the lathe only has two tool systems, the machine database designers proceeded on the basis of leaving 4 operation lines. This represents a marked simplification at thinking level. Movement parallelism can only be ensured between those systems of front platen 1 and one of the three others, but never from amongst these latter; (as the same tooling system is used, they can obviously not be engaged simultaneously).



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Since its installation, the basic equipment for the DECO 13 basic i means that it can start production without it being necessary to add a vast array of options.

Despite the fact that the kinematics includes «only six axes», the DECO 13 basic i offers machining facilities, which are generally only carried out on lathes with far more axes:

- The combined tool system with 3 axes can work simultaneously with the guide bush and front platen (e.g. end turning and drilling, rough and finish turning).
- Slide and turning operations can be executed (rough-finishing turning / die cutting threads) using the turning tools along the lines of headstock lathes (repeated tool movements along the bar in the fixed position) for rough and finish machining or thread chasing.
- All the tools and counter-spindle can be numerically centered with the lathe axes (dispensing with manual mechanical centering).

Automatic bar feeder

Another essential point is the incorporation of a bar feeder into the lathe. The bar feeder not only provides a useful technological feature but also contributes to the overall design.

The automatic bar feeder comes with an oil bath (hydro-dynamic effect for the bar) and has the necessary basic equipment – such as guide channels, pushers and revolving extension pieces – to cover the entire range of the lathe (3 to 16 mm bars).

The inclusion of this facility now means that we can offer a complete production unit with the following characteristics:

- Bar feed control incorporated with lathe control.
- NC calculation of bar end.
- The speed and feed rate are automatically adjusted in relation to the diameter of the bar being machined.
- Guiding steady opening is automatically adjusted in relation to diameter.
- Capacity changes (guide channel) are extremely fast.

The DECO 13 basic i will be unveiled for the first time in the world at Siams in Moutier from 23rd to 27th May. It will then be presented throughout the world, in particular at the METAV, AMB, IMTS, BIMU, TATEF, MAQUITEC, THAI METALEX and EMAF trade fairs, as well as in our subsidiaries. The first deliveries are scheduled for September 2000.

The strong points of the DECO 2000 concept.

Ease of programming.

Facility of programming several machines from one PC.

Simple software update.

The programming is undergoing development at the same rate as computing .

Machines are always of the latest design.

One single software package for all the machines.

DECO 13 bi: special offer basic i

for the first 100 purchasers!

During the launch of the DECO 13 basic i at SIAMS and with the aim of providing easier access to the new «basic» philosophy, TORNOS-BECHLER is offering tool holders and equipment up to a value of CHF 3,500.— to the first 100 purchasers of the DECO 13 basic i.

Your usual TORNOS-BECHLER contact will be on hand to provide all the necessary details. Don't hesitate to get in touch.

SIAMS 2000 : the meeting of microtechnologies

SIAMS has now beaten all records! From 23rd to 27th May 2000, this showcase of microtechnology will welcome 430 exhibitors covering an area of almost 7000 m².

Since 1988, SIAMS has been the meeting point of specialists in microtechnology. Growing with each event, it rapidly became an international forum. Being a professional yet close venue, SIAMS is also a friendly trade fair, whose size encourages direct and frank exchange between partners, within a minimum of time and with maximum efficiency.

It would be useful to highlight the extent to which SIAMS, is a captivating showcase for the most modern forms of production, particularly in the areas of machine tools, assembly installations, measuring and inspection equipment, controls, industrial computing, tooling, accessories, mechanics, semi-finished products, small parts turning, sub-contracting, heat treatment, surface treatment and so on… These many products and activities confirm the calibre and diversity of SIAMS.

Even if the majority of companies present are Swiss, a fair proportion of exhibitors also comes from abroad, thus lending SIAMS its international flavour: Germany, France, Italy, Great Britain, the USA, Japan, Denmark, Israel and so on…

As regards the infrastructure, the main feature lies with the increase of the surface area made available to the almost 430 exhibitors – which has now been extended to almost 7000 m² (i.e. 700 m² more than in 1998). This increased area means that SIAMS can now welcome an additional 30 more exhibitors.

SIAMS 2000 now comprises 6 halls, each being dedicated to a particular aspect of microtechnology. This grouping together by area will now enable visitors to gain access to their contacts or obtain the information required more quickly, thereby avoiding time wasting, which normally occurs in highly dispersed halls.

Almost 14,000 professional visitors came to SIAMS in 1998, of whom roughly 3000 came from abroad. The new communication strategy, which has been set up, coupled with the active support of exhibitors, presages a marked increase in the number of visitors to the 2000 event.

SIAMS is also using the opportunity of the year 2000 fair to change its image. The change is mainly in a new logo, which now reflects better with the worldwide image of SIAMS.

Innovations and originality characterise this seventh event, which will be held from 23rd to 27th May 2000 in Moutier.

Francis Koller,
President of SIAMS

MOTOREX-Focus: cooling emulsions and their maintenance

It is now possible, with modern water-soluble emulsions, to achieve very good surface finishes. Unfortunately, what frequently happens in practice, is that the importance of a good emulsion and its maintenance is often ignored. This is just as important as good machine adjustment or using the correct tool.

MOTOREX has been examining the question of emulsion for several years now and permanently invests in research and development for new products and overall solutions in testing and maintaining emulsions. The latest products developed from these activities are MOTOREX SWISSCOOL 7755 Aero and the MOTOREX PROCESS FLUID MANAGEMENT maintenance concept.

The future of metal machining using new products

In the past, water-soluble cooling emulsions demanded very careful handling. Nowadays, the new generation of modern emulsions is more stable and provides new metal machining facilities owing to its complex combinations of essential basic oils, emulsifiers, stabilisers, anti-corrosion agents, high-pressure and other high-tech additives.

The demands made on these modern emulsions are very high – generally the following properties are required:

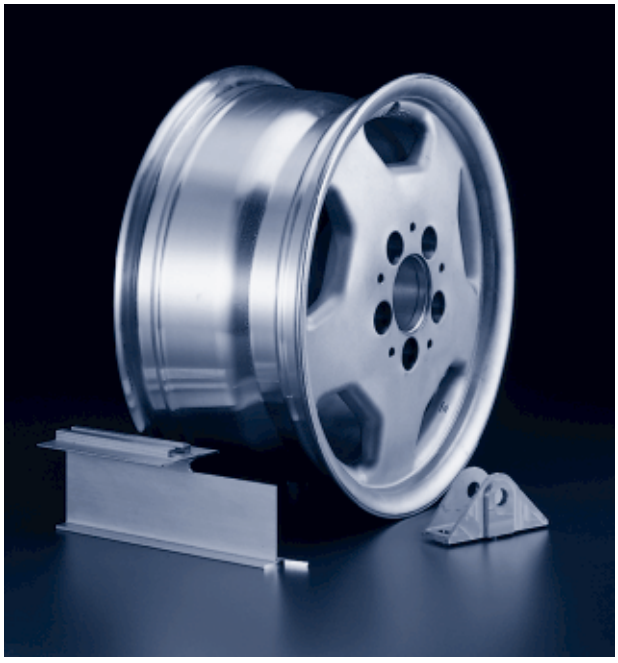
- *vast cooling, wettability and rinsing capacity*
- *they must be free from chlorine, sulphur and nitrite*
- *they must be environmentally friendly and not harm the skin*
- *they must demonstrate high emulsifying stability*
- *they must be highly resistant to micro-organisms*
- *they must provide good anti-corrosion protection*
- *they must be neutral to machine varnish*
- *if possible, they must comply with TRGS 611*

Emulsions have largely demonstrated their cooling and rinsing ability in all milling, grinding, drilling and tapping operations. The best adapted product must always be selected once all factors, such as machining speed, material quality, tool use and series size, have been considered. A tribologist should be consulted in such cases. The company frequently develops special formulations for new applications.

General purpose emulsions, such as MOTOREX SWISSCOOL FRISCO 7733 are, of course, available. This particular emulsion is well adapted to all machining processes and is suitable for all alloyed materials, such as steel, cast iron and aluminium.

Aluminium alloys have the edge

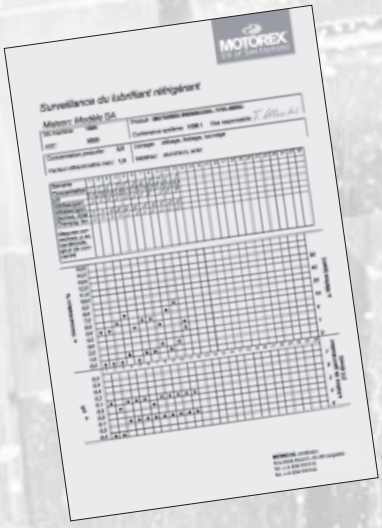
At the start of the third Millennium, aluminium is still the preferred material in the trade – even though the specific machining energy of aluminium is 25 % below that of steel. More powerful turning



Whether this is for the seat rails in the latest Airbus or hyper lightweight aluminium rims used by the well-known car manufacturers, aluminium alloys are currently highly in fashion – and must be treated with very particular attention.

centres are used to meet the high production demands. When aluminium alloys are machined at high speed, it is very important to give good surface finish without tool marks. The emulsion used in such cases, plays a very important part, because the effect of the emulsion and rinsing exert a specific action on friction, which reduces the coefficient required. This guarantees chip removal. MOTOREX SWISSCOOL 7755 Aero is perfectly adapted to machining bars of commonly used diameters.

MOTOREX developed the new special emulsion, SWISSCOOL 7755 Aero for the very demanding machining operations of aluminium alloys, steel and titanium. These highly dispersant oil-water emulsions are perfectly suited to all high-speed machining operations – at concentrations from 5 to 11% whilst complying with TRGS 611.



The laboratories of MOTOREX industries are regularly involved in analyses. The results are now published in MOTOREX PROCESS FLUID MANAGEMENT, which will provide you with information on the current state of cooling emulsions.

Systematic maintenance

Emulsion maintenance is something that has constantly been uppermost in our minds since emulsions were invented. As a long established partner with well known companies from all sectors of industry, MOTOREX developed a rational system for monitoring the current state of the emulsion with its MOTOREX PROCESS FLUID MANAGEMENT product. The log book for each machine provides accurate information on all points. This monitoring system is based on TRGS-611 regulations (technical regulation for hazardous materials). Concentration, pH value, nitrate, germ number and so on are factors which one can scientifically influence and guide.

Modern cooling emulsions retain their physical-chemical and bacteriostatic properties for several months. The longer periods between emulsion changes and a clearly prolonged tooling life have drastically reduced operating costs. MOTOREX guarantees the compatibility of all products that come into use with MOTOREX PROCESS FLUID MANAGEMENT.

Maintenance units, such as the oil separators manufactured by Frex + Messmer S.A. in Spiez, remove all foreign bodies from the cooling circuit and are the ideal supplement for systematic maintenance.

In co-operation with various consumer groups, the MOTOREX specialists grappled with the main problems surrounding these water-soluble, cooling emulsions and drew up a list indicating the majority of causes and their remedies:

1. corrosion
2. foam
3. calcic soap
4. the onset of smell
5. oily deposits
6. concentrated waste
7. stains appearing on machined parts
8. the onset of skin and visual problems

An example taken from the maintenance list regarding the onset of smell (the development of a metallic smell may prove normal for some emulsions).

Cause

Bacterial attack (>10^5 germs/ml emulsion).

Solutions

- Add 0.1 – 0.15% large spectrum MOTOREX ANTISEPT biocide.
- Change the emulsion. Before topping up the old emulsion, slowly add 2% MOTOREX TST SUPER system cleaner. Use this emulsion for 24 hours. NOTE: not suitable, particularly for 100% synthetic emulsions (foam).
- Then thoroughly rinse the (high pressure) system with a new emulsion.
- When mixing, always use clean containers.
- Never use cloths in the machine area or to seal the cowling – risk of contamination!
- Never throw rubbish in the cooling emulsion containers.

Cause

Fungal and yeast attacks.

Solutions

- As indicated above.
- If there is a yeast attack, immediately change the cooling emulsion because it may block the pipes.

Cause

Instability created by a foreign product following refilling.

Solutions

- Inadequate draining/cleaning before refilling. Start again and drain everything.

Cause

Unusual oil / leak.

Solutions

- Scoop out the unusual oil or stop the leak, preferably using the F+M oil separator. Skimmers are only suitable in certain circumstances.
- Change for lubricating oils which can easily be separated from the emulsion. All MOTOREX fluids, oils and cooling emulsions are compatible with one another.

As a general rule, fresh emulsions contain little bacteria. However, components likely to encourage the development of bacteria, fungi and yeast can be transmitted through the air or in waste (i.e. cigarette ends, left over food), thereby contaminating the installation. Similarly, deposits caused by an inadequate flow rate inside the pipes, give rise to a concentration of micro-organisms. This is remedied by the use of MOTOREX TST SUPER cleaners together with high-pressure hoses and units fitted with brushes to clean the pipes.

Would you like MOTOREX to send you all its maintenance recommendations free of charge? If, so, please write to:

MOTOREX S.A., Customer Services, «Emulsions – Maintenance recommendations», P.O. Box
CH - 4901 Langenthal
or send us an e-mail:
motorex@motorex.com.

Please indicate the language in which you would like to receive your maintenance recommendations (German, French or English).

Refer to *DECO-MAGAZINE* No. 14, for an article by MOTOREX relating to the use of cutting oils for non-ferrous alloys.

The **DECO 2000** concept is breaking with a 100 year-old tradition!

After six generations of specialists in fixed and sliding head single-spindle lathes, the Laubscher Précision SA company in Täuffelen has now crossed the threshold of a new development stage with the purchase of MULTIDECO 20/6 machines!





Our editorial staff arranged a meeting with Mr. Manfred Laubscher, operations director, to discuss market trends, the DECO 2000 and, of course, the MULTIDECO.

Company profile

Laubscher Précision SA is far from being a small company. It has a fleet of roughly 600 machines and a fully integrated finishing system for all small turned parts, for the benefit of its customers (hardening, lapping, honing, galvanic treatment etc...). This family run company in the Bienne region has a workforce of approx. 270 people and is one of the largest small-parts turning concerns in Switzerland.

Laubscher Précision SA specialises in the small parts turning of all materials, from 0.3 to 32 mm, especially for complex parts. Being historically well equipped with Tornos machines (M4, M7, R-10, R-16), the company distanced itself a little from TORNOS-BECHLER during the 80s when it turned towards numeric control, but the latter did not provide adequate satisfaction. When the DECO 2000 system was launched, Messrs. Laubscher decided to wait and see. The new dedicated programming method was regarded as a real stumbling block – was this a truly viable system or a flash in the pan?

Thinking back, Mr. Manfred Laubscher remembers that it seemed rather risky to invest in products and training. Six years and 10 DECO 2000 machines later, Laubscher Précision SA ordered one of the first MULTIDECO 20/6 and has just signed up for the second. How was this possible?

A break with tradition

At this point, Mr. Laubscher confided that, by making these purchases, he was breaking with six generations of tradition. However, the financial logic finally prevailed and, as he quite justifiably explains, the reasons are very pertinent:

- The DECO 2000 system has proved to be reliable and is well known by the operators.
- Same programming approach for the single-spindle and multi-spindle ranges, thanks to the TB-Deco.
- Workforce interested and keen to work with the machines of the future.
- Higher degree of complexity and parts precision.
- The overall «machine-bar feeder» solution is essential to a dedicated, 100 % reliable service.

After analysing developments within the competitive environment and general trends, Mr. Laubscher has, for some time now, been searching for rational products, which could meet the ever-growing precision and quality requirements at reduced costs for his clients. Right from the outset, he excluded cam-operated multi-spindle lathes, where the know-how of the service providers on the market is so vast that a newcomer could never be competitive.

Both with the MULTIDECO in all cases, as with the DECO 2000, a very high degree of know-how is incorporated in the machine, thereby making take-over relatively simple. Good mechanical qualities, coupled with the necessary training, meant that Laubscher Précision SA was quickly able to benefit from the power offered by this means of production.

To explain his apparent philosophical change of opinion (from being ultra cautious, if not «sensitive» about the DECO 2000, to becoming a leader if not a «pioneer» with the MULTIDECO), Mr. Laubscher acknowledges that another argument swayed him towards the MULTIDECO 20/6, namely the competitive advantages provided by the product. The «know-how supplied with the machine» also counted a lot when making the decision.

Trends

At given periods, we become aware of the trends and developments in the demand for more flexible lathes to meet reduced large-series runs. Did this actually happen?

«Not at all», Mr. Laubscher stated. «Series production is tending to go up. Laubscher is currently producing 2 million parts a day! And there are some parts whose rates of production are 2 million a week. The DECO 2000 - 10 mm capacity machines produce small series parts running to a few hundred thousand!»

Overall solution

Historically, Laubscher started, like TORNOS-BECHLER, to produce small machines for the horology/watch industry. Despite a different course of development and almost 150 years later, we can see how, despite our divergent paths, the concept of high precision, coupled with the love of small-parts turning, has brought our two companies together in their striving towards customer satisfaction.

The vast experience in small parts turning, as well as the hundreds of different types of lathe used at Laubscher Précision SA only represents one part of the solution this company offers its customers.

These operations are but the first part of a whole series of added value, such as hardening, electroplating, grinding, honing and so on. This allows Laubscher Précision SA to meet all its customer requirements in a flexible yet reactive way, based on the complete mastering of all its processes.

To conclude this article, we shall let Mr. Laubscher have the last word in summarising his approach to the market: «If a carrier or forwarding agent can reach very remote parts, then Laubscher will deliver there and provide its solutions».

The editorial staff of ***DECO-Magazine*** would like to thank Mr. Laubscher for his warm welcome and wishes his company, which was briefly presented here, every success.

LAUBSCHER PRÉCISION SA	
Company established	*1846*
Present directors	*Messrs. Heinz Laubscher, Jürg Laubscher and Ernst Zehnder*
Directors from 1/7/2000	*Messrs Jürg Laubscher, Hans-Peter Laubscher and Manfred Laubscher*
Workforce	*Approx. 270 people + 22 apprentices*
Fleet of machines	*Approx. 600 including 319 Tornos cam-operated lathes*
Production	*Approx. 250 tonnes of parts per annum (for approx. 550 tonnes chippings)*
Main markets	*40 % of t/o in Switzerland* *Other major markets: USA, Germany and the UK* *25 % of t/o in horology/watch industry*
Projects	*New plant to be built between 2000 and 2003: Additional surface area of 8,000 m² for an investment of 15 million CHF.*

Nowadays,

companies which succeed,
guarantee quality and enjoy success thanks to
the **latest** technologies and machines!

The title of this short yet important article is the formula used by our client, the S.O.M. company at Villa Carcina (BS / Italy), in a letter of thanks addressed to TORNOS-BECHLER for its complete technical and commercial re-organisation and for the follow-through of the DECO 2000.

In my capacity as head of the commercial department, which is subject to a commercial environment that is growing fiercer by the day and to what are sometimes justified yet frequently mystifying provocations by our competitors, this positive statement by a client really makes my day.

I will therefore take this opportunity to highlight two observations:

1) *The competition is becoming more and more aggressive. The launch of the DECO system completely upset the market with its deep-rooted belief that the technology was no longer capable of evolving suddenly. With the arrival of the DECO 2000, the competition was completely turned upside down. To face up to such a technological leap, all tactics were used by the competition, even those whose ethics and correct behaviour should have led them to condemn this action. Apart from the ethical aspect, they could induce a boomerang effect.*

An example of this, is a company which threatens only to place its orders with sub-contractors in possession of a certain make of machines, thereby de facto eliminating those suppliers who could provide a superior quality at a competitive price. By becoming involved in an outside sector, this company is depriving itself of assessing other, more competitive, alternatives. This could backfire, because other companies may decide to reject the products of the company in question by way of reprisals.

2) *Our clients are now benefiting from the advantages offered by* **TORNOS-BECHLER** *and are setting up efficient ways of co-operation which, because of the flexibility and ease of adapting the DECO system, form the basis of more ambitious economic and technological aspirations.*

These two points highlight a market reality and confirm that the **DECO 2000** is now well known throughout the market, because it has demonstrated its performance and is fully geared towards the future.

Our clients' impressions are also very important, because **TORNOS-BECHLER** sees in them the partners with which to tread the path of success and development.

At Tornos-Bechler, we believe in this form of co-operation, because not only is it an important weapon to exploit, it is also the essence of the company.

Personally, I will continue to preach to our colleagues and clients, that the exchange of reciprocal experience can but only result in new ideas and future developments and that these new ideas would, undoubtedly, lead to competitive advantages.

To come back to the source of this article, I could distribute the comparative tables supplied by **S.O.M.** relating to all its machines (those of Tornos-Bechler and the competition) but I feel that this is not ethically correct and will leave this sort of action to others. I am quite content to quote some of the findings expressed by our client:

- «*...our complete satisfaction with the* **DECO** *machines recently installed on the production line, can easily be*

demonstrated, despite some teething problems, inexperience and lack of knowledge of the Windows program.»

- «*The efficiency index (hours of production compared with actual working hours) reached a value of 84,3 %, which is comparable to that of our other machines, which are better known, seeing that they have been used in our workshops for years and their reliability is well-known throughout the world market.*»
- «*The saturation index (actual working hours compared with the hours available) shows how, in 1999, these machines were running at maximum production capacity. This meant that customer satisfaction was further increased in terms of reliability and speed in supplying the most complex parts.*»

To conclude this article, I shall quote our client's slogan:

- «***Nowadays, companies which succeed, guarantee quality and enjoy success thanks to the latest technologies and machines» and complete it with the words «and this in co-operation with the manufacturers like Tornos-Bechler for whom the client represents a permanent priority».***

Bet us face the challenges of the future together.

Enzo Pitton
Commercial Manager

New layout for the DECO-Magazine

You will have without doubt noticed that the *DECO-Magazine* has undergone a change with this new edition.

This is a process of natural development, enabling the magazine to provide you with more information, the tricks of the trade & not to mention new ideas.

The layout reveals what is uppermost in our minds

The aim of providing widespread transparency can be seen by the simplification of the design whilst our objective in providing honest and clear-cut information is shown by the cloudy bands and their natural and yet plain connotations. For some time now, these aims have also been applied to other media. The relational appearance and actual depth of our commitment to satisfy our customers are illustrated by light shades, which lend a three-dimensional effect to some items.

The conventional headings are still there but now they stand out better. A glance at the top of the page will tell you the section you are in. This signage has likewise been simplified by the use of only one language in the icon – namely English. However, we shall provide the headings in the form of sub-titles in French and German.

Assuming the existence of further information, measuring elements, bibliographies and so on, a referral system illustrated by an icon at the end of the article was set up. This will allow you to complete your documentation and will enable you to go deeper into those subjects that are of interest to you.

To help you to see the contents of the various magazines at a glance and, where applicable, to order the back numbers of interest free of charge, we shall also publish with each episode, summary tables of the contents (first summary to feature in ***DECO-Magazine*** No. 14 dated September 2000). This table will be available on our website www.tornos.ch\decomag from which you can also download all the articles published (from September onwards). This service will naturally be supplemented as new editions appear.

DECO-Magazine has one single aim: to enable you to be stronger, more efficient and/or profitable with your DECO and MULTIDECO means of production. The changes made are going in this direction and we sincerely hope that you will find the enhanced value, which we have been trying to provide.