



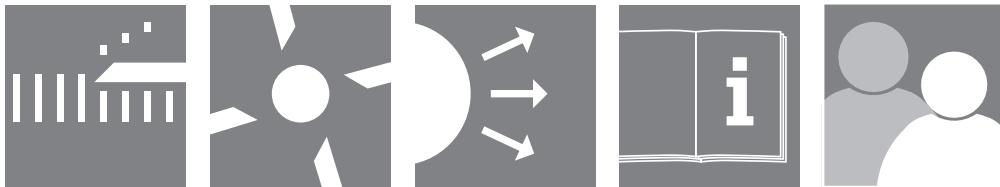
THINK PARTS THINK TORNOS



SERVICES

Customer focused, high performance, flexible.

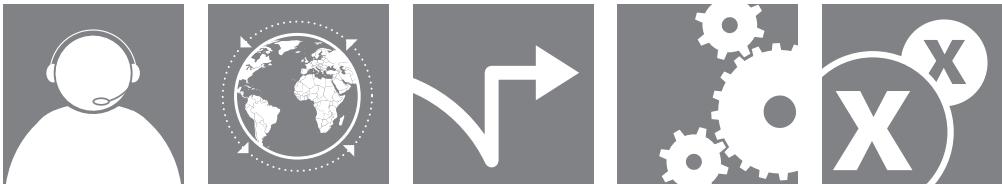
RANGE OF SERVICES



When you purchase a machine, you are actually entering into a partnership with your supplier. Who has never heard the phrase : "the first machine is sold by the Sales department, but subsequent machines are sold by After-Sales"? At Tornos, 100 % commitment to customers and the aim of reaching 100 % customer satisfaction are not just empty ideas, but the core philosophy which drives the overall culture within our company.

The aim of this brochure is to allow you to discover the various services that we have developed and perfected over the years through a summary on the pages which follow, characterised by simple logos. We therefore invite you to take a few minutes to discover all that Tornos can do for you, before you even purchase your machine and throughout the many years following its delivery. Please do not hesitate to contact the After-Sales department in your area if you have any questions or comments, or if you wish to benefit further from our range of services.

CONTINUOUS IMPROVEMENT



For us, continuous improvement is a state of mind which must involve all levels of our company and all our employees, at all times.

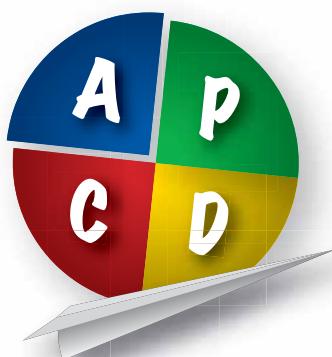
Amongst the many factors put in place through our various processes are the following:

- A clear strategy in terms of development of the various appliances and options, to best respond to the production requirements of our customers;
- A policy for the technological evolution of our products;
- Clearly defined processes, applied by all, which allow us to achieve our goals;
- A number of indicators which allow us to check the efficiency of the various

activities which link in with our Continuous Improvement policy

- A flexible and responsive Quality Department ready to listen to any problems which our customers may encounter;
- A group of manufacturing engineers experienced in the production of small turned parts are ready at all times to assist our customers with any difficulties encountered during set-up or programming;
- Teams of engineers in close proximity to the users and their concerns.

"At Tornos, Continuous Improvement as a basic philosophy allows us to constantly progress to ensure we always offer high performance"





FEASIBILITY TESTS

"Difficult parts? We are here to help you"

In order to help our customers overcome the different challenges with which they are faced, Tornos offers the option of requesting a test and/or having a new machining process created in our Techno Centre.

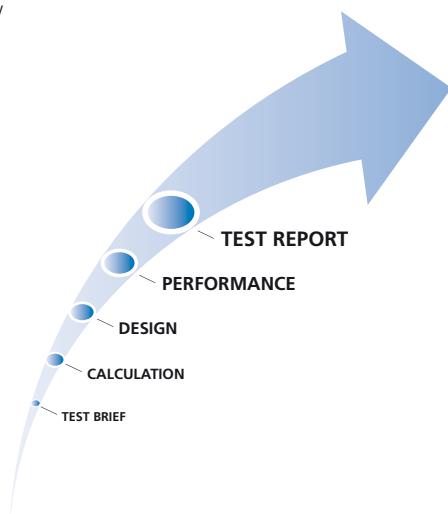
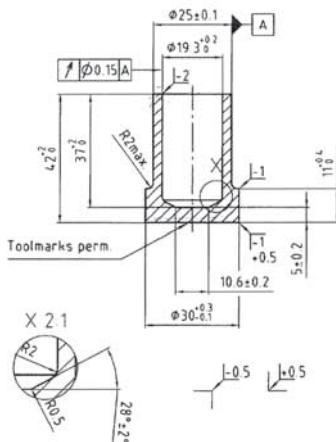
This centre is equipped with high-performance equipment for carrying out the different tests. All types of single-spindle and multi-spindle machines are covered here, along with their associated peripherals.

A cutting edge metrology laboratory is available for taking dimensional and geometrical measurements of the parts produced.

All the tests carried out are logged and protected in our technological database, guaranteeing you absolute confidentiality. After each test is carried out, we know exactly how a process must be designed to fulfil the customer's requirements and the product specifications.

The main aim of the Techno Centre is therefore to provide reliable solutions in the following domains:

- Qualification of new machining processes;
- Research of the appropriate technological data;
- Validation of the Process;
- Technology transfer.





START-UP ASSISTANCE

"Following the installation of a new machine, we will be there to guide you in your first steps with your new production tool"

We won't leave you to deal with your brand new machine alone after installation.

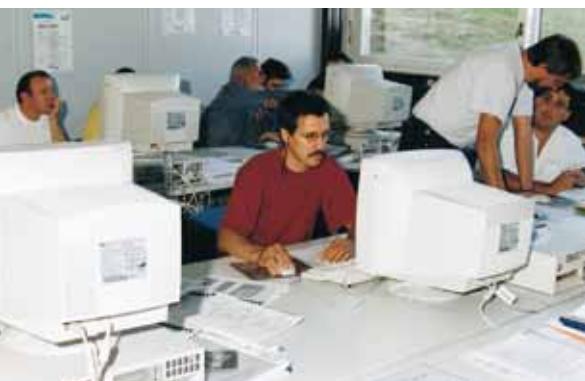
If necessary, we will assist your staff (after having trained them in our Training Department) by replying on-site, in your workshop, to any questions they may have concerning the use, repair and maintenance of the machine, including set-up and programming.

We will ensure that your new machine starts production under the best possible conditions and at maximum efficiency.





TRAINING



"An essential component of your success is well-trained staff. They will ensure production is efficient at the lowest cost"

We have a training centre with highly-qualified instructors dedicated to training to ensure our customers are comfortable with the machines they have purchased. It is not that the machines are so complicated that they require a specialist to operate them, but simply that Tornos products offer such a vast range of options and processes, and that they often have special features to enable them to fulfil a particular requirement.

The aim of the Training Department is to pass on to customers the knowledge which will enable them to use the machines that they have purchased in the best possible way (use of TB-Deco programming software, handling and maintenance, for both single-spindle and multi-spindle machines).

The most recent products are to be found in the Training Department's premises, along with several rooms fully equipped with modern resources in order to ensure quality training.



INSTRUCTIONS

"Rapid referencing ensures you have the solutions to your daily challenges"

We ensure our documentation is suited to the customer by customising it; it is configured to your order.

The documentation can be supplied in the user's language; we offer 5 languages as standard and 20 languages upon request. Each machine is supplied with a set of different supporting documents: digital on CD-ROM or by PC interface, or paper printed version (in binders).

The documentation fulfils the requirements of European and international standards, such as:

- SN EN ISO 12100-1 & 2 - 2006/42/CE
- SN EN 60204 -1 - SN EN 62079
- ISO 2972 - ISO 7000 – ISO 3864 – ANSI 535.4/6 or ISO 5964

Tornos has tools and equipment for archiving through computerised document management and centralisation, and is therefore able to meet all requests following the delivery of a machine.

Flowchart (Fig. 34):

- Start up the machine with the TORNOS key.
- Select the "Controlbox" (key) or "Setting" mode.
- If you open the doors at that instant, the power is immediately disconnected.
- Press "F1" to unlock the machining block in "Setting" mode.
- Opening machining block possible.
- The "F1" key lights up indicating the doors are unlocked.
- After 10 seconds, the doors are locked again and the "F1" key must be pressed again to open the doors again.
- At that instant you turn the safety key from the "Setting" mode to "Controlbox" mode again, the power is disconnected.
- Automatic modes.
- Manual modes.

Part Catalog (Fig. 34):

- SINGLE SPIND MACH MICRO 8 (SIGMA-8)**
 - 2122 | Support plate 8 tools section 12x12.7mm (not compatible with 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136)
 - 2123 | Supp. plate 8 tools section 12.7x12.7mm
 - 2124 | Support plate 8 tools section 12.7x12.7mm (not compatible with 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136)
 - 2125 | Set of TH for slide X2 action 12x12mm (Set of tool holders for system with precision slides (one X2) section 12x12mm (not compatible with 2121, 2122, 2123))
 - 2126 | Set of TH for slide X2 action 12x12mm (Set of tool holders for system with precision slides (one X2) section 12x12mm (not compatible with 2121, 2122, 2123))
 - 2127 | Set of TH for slide X2 action 12x12mm (Set of tool holders for system with precision slides (one X2) section 12x12mm (not compatible with 2121, 2122, 2123))
 - 2128 | Set of TH for slide X2 action 12x12mm (Set of tool holders for system with precision slides (one X2) section 12x12mm (not compatible with 2121, 2122, 2123))
 - 2129 | Set of TH for slide X2 action 12x12mm (Set of tool holders for system with precision slides (one X2) section 12x12mm (not compatible with 2121, 2122, 2123))
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 - 2136 | Set of TH for slide X2 action 12x12mm (Set of tool holders for system with precision slides (one X2) section 12x12mm (not compatible with 2121, 2122, 2123))

Safety Diagram (Fig. 2):

2.1.4. Danger in the loading zone

Diagram illustrating the danger zone around the machine during loading. Yellow hazard symbols indicate the area where caution is required.



COACHING

"We are more than a manufacturer of machines; We are a partner at your side"

Tornos is customer-focused in its approach to the market. We differ from our competitors by offering machining solutions which increase the productivity of our customers rather than just one machine corresponding to one technical specification.

One of these solutions is coaching. Coaching is a tool used more and more frequently to guide an individual or team in their new assignments, or even to help a company overcome a change in organisation.

The process of improving performance starts with a comprehensive diagnostic assessment of your manufacturing process.

You may then be offered professional guidance on the use of various tools such as the SMED (Single Minute Exchange of Die) and OEE (Overall Equipment Effectiveness).

Together we will find solutions which will enable you to get the most out of your production tool.





HOTLINE

"Access to highly-qualified specialists who speak your language ensures understanding and rapid resolution of all your problems"

All Tornos machine customers benefit from the assistance provided by our Hotline, with a perfect understanding of the latest technical developments. The Hotline also forms a link between development, production and the customer's requirements, to ensure solutions are rapidly found and to help you improve your productivity.

For questions relating to the handling or programming of our machines, we have engineers who specialise in machine software.

We use the most modern methods of communication, and these are fitted to some models of our machines, allowing us to give you assistance remotely; this ensures the highest level of responsiveness, wherever you are based.





ON-SITE OPERATIONS



"When we are needed to carry out operations on-site, we must be quick and efficient"

The team of After-Sales department technicians works with our customers with professionalism and to the shortest possible deadlines. The speed of the operation is our main objective and it is a quality parameter which is closely monitored. Thanks to this, we can guarantee the customer's production tools run at full capacity.

Our technicians deal with the installation, start-up, repair and maintenance of your machines. They are trained by our own Training Department and kept constantly up-to-date with new developments so as to ensure a high level of knowledge. Even if the aim is to repair your machine as quickly as possible, they will take the time to listen to you and to advise you about the use, repair and maintenance of your machines.





PREVENTIVE MAINTENANCE

"With good maintenance, you can significantly reduce the risk of a machine breaking down"

Did you know that approximately 70 % of machine breakdowns could have been avoided through adequate maintenance ?

Our preventive maintenance contracts are custom-designed, taking into account the intended use of the machine, and allowing our customers to minimise unexpected hiccups.

Everything is included; a list of parts and consumables to be replaced, the checklists for inspections, adjustments and lubrication.

At the end of the maintenance operations, we will inform you about the general condition of your machine. The date of this maintenance is set by mutual agreement with the customer. We therefore service your machine when a temporary stoppage will not affect your production.





SPARE PARTS



"When you need spare parts, you have the right to demand impeccable quality within a very short turn-around time"

Only original Tornos spare parts can guarantee perfect compatibility and quality. Our policy of continuous improvement ensures technical developments which allow our spare parts to achieve an ever-increasing level of functionality and reliability. When you purchase a Tornos spare part, you are replacing a defective part with a new part with an improved service life.

Thanks to our new online catalogue, you can benefit from easier access to parts identification, and find out both price and availability. You can order directly on the internet, 24 hours a day, 7 days a week. Access is free upon request from spr@tornos.ch





X-CHANGE MODULES

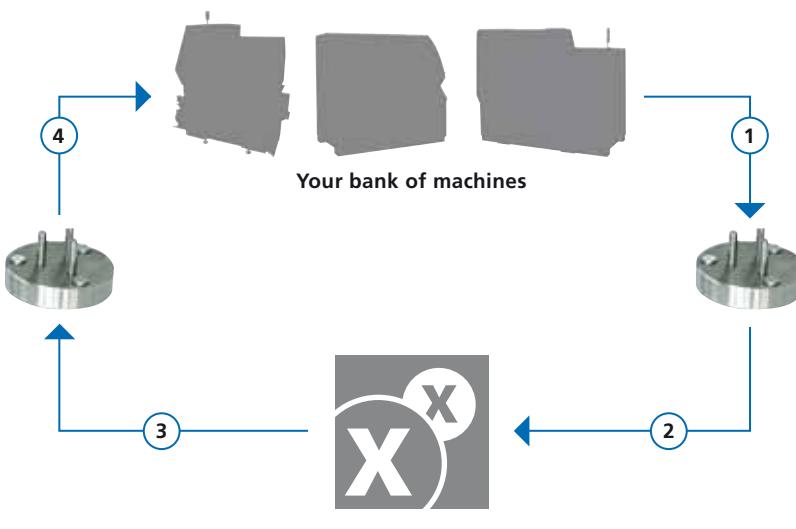
"100 % reliability, 100 % quality, but with a reduction in price of up to 50 %, and without losing any time"

At the request of our customers, we have developed an exchange programme for when modules are being repaired which we call "X-change Modules". When you need to replace a defective module, all you need to do is call us and we will supply another one in perfect condition. This gives you two advantages:

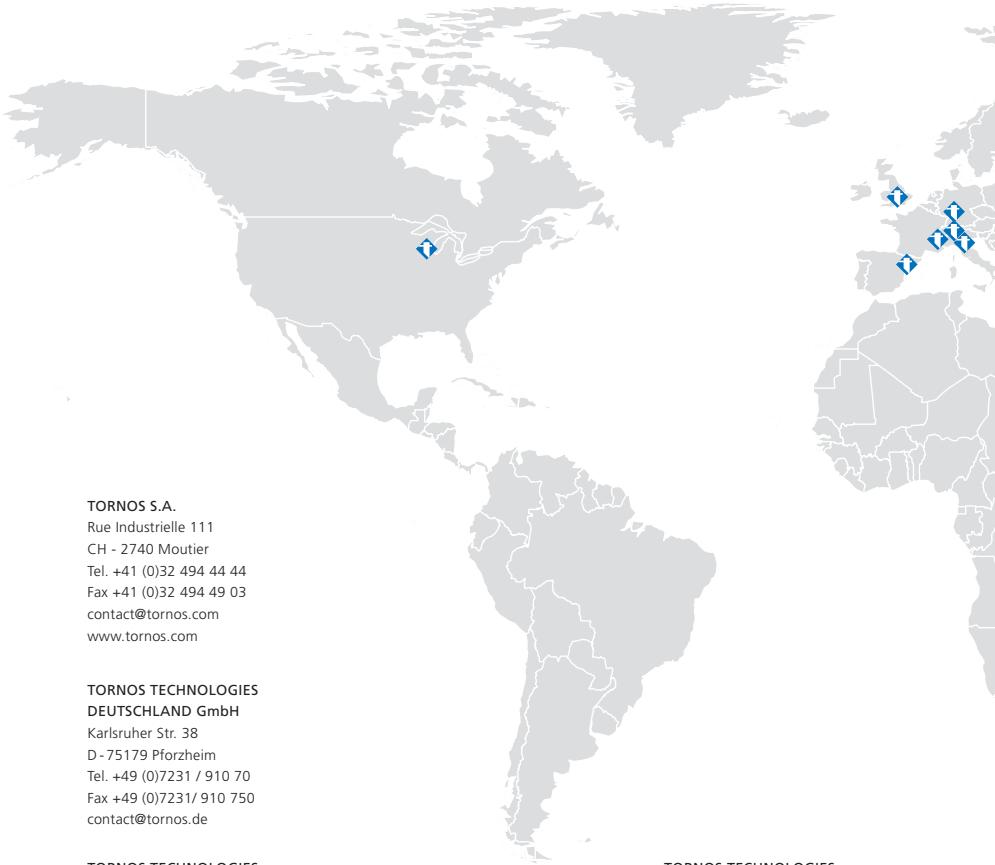
- Very fast delivery with impeccable quality, reliability and service life so that production can continue.

▪ The defective module which you have in your possession is of value both to you and us. When you return it to Tornos, we will credit you with up to 50 % of the value of a new module.

Modules returned to us in this way will be completely disassembled, all the worn parts will be replaced in our workshop and the module will be returned to the stock of reconditioned items.



CONTACTS



TORNOS S.A.

Rue Industrielle 111
CH - 2740 Moutier
Tel. +41 (0)32 494 44 44
Fax +41 (0)32 494 49 03
contact@tornos.com
www.tornos.com

TORNOS TECHNOLOGIES

DEUTSCHLAND GmbH
Karlsruher Str. 38
D - 75179 Pforzheim
Tel. +49 (0)7231 / 910 70
Fax +49 (0)7231/ 910 750
contact@tornos.de

TORNOS TECHNOLOGIES

FRANCE

Boîte postale 330
ST-PIERRE EN FAUCIGNY
F - 74807 La Roche
S / FORON CEDEX
Tel. +33 (0)4 50 038 333
Fax +33 (0)4 50 038 907
contact@tornos.fr

TORNOS TECHNOLOGIES

IBERICA

Pol. Ind. El Congost
Avda. St Julia, 206 Nave 8
E - 08403 Granollers
Tel. +34 93 846 59 43
Fax +34 93 849 66 00
commercial.tti@tornos.com

TORNOS TECHNOLOGIES

ITALIA SRL

Via Cesare Pavese.21
I-20090 Opera / MI
Tel. +39 02 57 68 15 01
Fax +39 02 57 68 15 230
italia.contact@tornos.com

TORNOS TECHNOLOGIES

US CORPORATION

840 Parkview Boulevard
US - Lombard, IL 60148
Tel. +1 630 812 2040
Fax +1 630 812 2039
info-us@tornos.com
www.tornos.us

TORNOS TECHNOLOGIES

UK LTD

Tornos House
Whitwick Business Park
Coalville
UK - Leicestershire LE67 4JQ
Tel. +44 (0) 1530 513100
Fax +44 (0)1530 814212
sales@tornos.co.uk

TORNOS TECHNOLOGIES

POLAND Sp. z o.o.

Ul. Brukelska 44 lok. 21A
PL - 03-973 Warsaw
Poland
Tel. +48 226 72 91 81
Fax +48 226 16 55 81
poland.contact@tornos.com



**TORNOS TECHNOLOGIES
(Shanghai) LTD**
Hui Feng Creativity Garden
Feng Yu Building, 1-2F
No. 239, Xital Rd. Xu Hui District.
CN - Shanghai 200232
Tel. +86 21 6235 1235
Fax +86 21 6235 1938
china.contact@tornos.com

TORNOS BEIJING OFFICE
Rm.1706, Tower A
Dongyu Office Building
Jia #1 Shuguang Xili
Chaoyang District
CN - Beijing 100028
Tel. +86 10 5979 8583
Fax +86 10 5822 0483
beijing.contact@tornos.com

**TORNOS TECHNOLOGIES
ASIA LTD**
Unit 4, Ground Floor, Transport City
Building
1-7 Shing Wan road
Tai Wai, Shatin
N.T., Hong Kong
Tel. +852 2691 2633
Fax +852 2691 2133
asiapacific.contact@tornos.com

**TORNOS S.A. THAILAND
REPRESENTATIVE OFFICE**
Flat 1B, The U.N. Residence
27/28 Sukhumvit Soi 33
Bangkok 10110
Thailand
Tel. +66 2 662 3908
Fax +66 2 662 3910
thailand.contact@tornos.com

**TORNOS TECHNOLOGIES ASIA LTD
MALAYSIA
REPRESENTATIVE OFFICE**
Suite 8.07, 8th Floor, MWE Plaza
No. 8, Lebuh Farquhar
10200 Penang
Malaysia
Tel. +6 04 2630118 / 2635118
Fax +6 04 2624118
malaysia.contact@tornos.com



Special package



Premium Services



Customer Care



Quality Circle

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TO FIND OUT ABOUT
THE OTHER SERVICES
OFFERED BY
OUR COMPANY.



Used machines



User Groups



Retrofit



Financing

TORNOS S.A.
Rue Industrielle 111
CH - 2740 Moutier
Tel. +41 (0)32 494 44 44
Fax +41 (0)32 494 49 03
contact@tornos.com
www.tornos.com