

# NUM Group



[www.num.com](http://www.num.com)

**NUM**   
CNC HighEnd Applications

# NUM Group & History

More than 50 years of experience in automation of CNC machines

02 Words from our Chairman and CEO

03 History

04 NUM Solutions

06 Project Management

07 Engineering

08 Products

10 NUM Service

11 NUM Worldwide

Words from our Chairman and CEO

In 1961, ten years prior to NC control finding wide acceptance among users, NUM developed the first CNC controller. With a commercial launch in 1964, NUM was one of the first CNC providers in the world. Since then, we have maintained our position as a technology leader in this segment and are eager to extend on this success.

Our market strategy is to help our current and future customers to construct a better machine and thereby securing them a competitive advantage on the market. As can be seen from our logo, we perceive ourselves as a CNC High-End Application company and we are focusing on selected market niches, where we undeniably have something extra to offer, and we have a proven track record to back up this statement.

Our long, successful track record supports this finding in an impressive manner. For decades, NUM has been a trusted supplier of solutions for the standard machine market. We will continue to utilize the openness of our systems to offer customers in this segment a competitive advantage. We will also make the necessary investments needed in R&D to ensure our standard features and functions meet the requirements of this market now and in the future.

As an international company headquartered in Switzerland, we have worldwide sales, application development and service locations (see back cover). This worldwide presence,

coupled with the flexibility and openness of our products, enables us to provide our customers with specialist engineering services that are geographically close to the machine manufacturer. Our main research and development departments in Switzerland, France and Italy are not directly involved in this decentralized approach to customer support.

Our main production facility for CNC systems is located in Italy. As part of our clearly defined strategy, we retain control over the development and manufacture of the core products of a CNC system, including the drives and motors, so that we are able to continuously influence the overall performance and flexibility of each CNC system. Beyond our catalog offering, with the support of NUM's engineering services, we are also able to propose third party products, for the realization of your unique solutions. This is done in close cooperation with our partners, which makes NUM a provider of highend CNC solutions – where customers actually get everything from one source. The success of our partners and customers is our metric for success and the direct justification of our position in the market.

Mission statement:

**NUM CNC solutions provide machine builders with a competitive advantage.**

The total cost of operations are becoming increasingly challenging for

History

our OEM customers and end users. For this reason we are very much committed to the highest product quality and reliability in combination with an efficient and responsive worldwide customer service.

NUM is in a very positive development phase and can rely on a strong financial position. The CNC market is our passion and because we think long-term, we will continue to invest in technology, production, support and service in order to remain an attractive partner for both our current and future customers.

President & CEO NUM Group

Chairman

Peter von Rüti

Peter Huber



CEO NUM Group: Peter von Rüti, Chairman: Peter Huber

The history of more than 50 years of NUM is briefly explained. NUM AG's roots can be traced back to three companies:

- 1957 Establishment of the **Güttinger AG**, Switzerland, developer of electronic systems.
- 1967 Establishment of **Servomac**, Italy, developer of motors and servo drives.
- 1978 Establishment of the **NUM SA**, France (as a subsidiary of Telemecanique), developer of CNC systems.
- 1981 Güttinger AG is taken over by NUM SA. New company name in Switzerland: NUM Güttinger AG. In the following years, branch offices will be opened in the USA, Great Britain, Italy and Spain.
- 1988 Telemecanique, the parent company of NUM SA, merges with Schneider-Electric conglomerate. NUM held a special position focusing on the CNC automation high-tech sector there.
- 1990 NUM SA takes over Servomac.
- 2006 On February 1<sup>st</sup>, NUM and all of its global subsidiaries were taken over by an investor and the management and merged into the NUM Group. Simultaneously the headquarters were transferred from Paris to Teufen.
- 2008 Integration of NUM Taiwan.
- 2013 Construction of the new logistics center at the location of the NUM headquarters in Teufen.
- 2016 NUM is celebrating its 10 years of independence as NUM Group and looks confidently towards the future.
- 2018 Founding of the Shanghai subsidiary.





# NUM Solutions

## Intelligent and creative

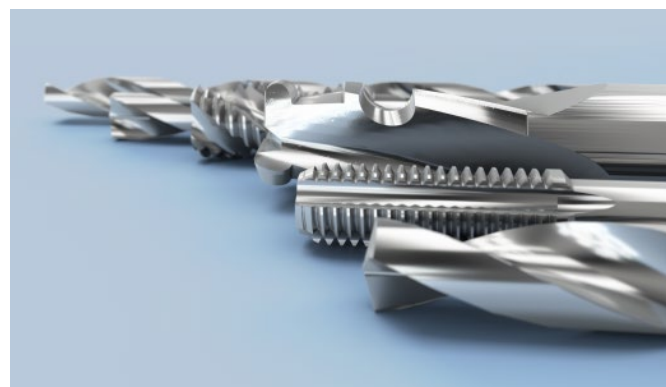
**Outstanding solutions in machine automation share a common theme: they are always the product of outstanding performance, exceptional technologies and a high degree of creativity!**

It's these core attributes that have earned NUM its exceptional reputation within the machine tool industry. We develop the most sophisticated, tailor-made CNC automation solutions, which guarantee maximum added value for both the machine manufacturer and the user.

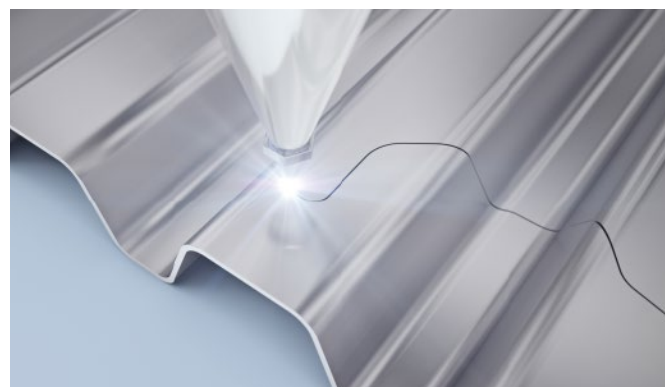
Our strength as proven CNC specialists begins where it ends for many of our competitors: with a pronounced application competence in the field of CNC-controlled production

machines. Our interdisciplinary expertise, which has grown over decades, is reflected in all our solutions – this directly benefits you as the customer, user and partner.

We have developed countless customer- and application specific solutions for diverse industries – practical solutions for professional needs. With this in mind, our engineers create groundbreaking complete solutions for demanding applications.



**NUMROTO** – Successful trendsetter in high-precision tool grinding for many years



**NUMcut** – A complete solution for advanced cutting machines



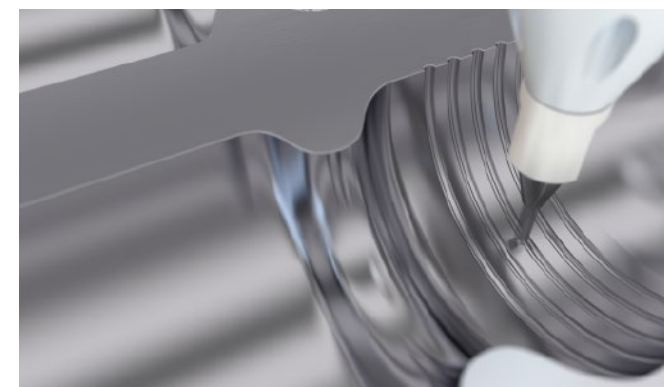
**NUMspecial** – Creative and practical solutions for your specific applications



**NUMgear** – Intelligent total solutions for new machines or as a retrofit in the field of gear machining



**NUMtransfer** – Flexible, scalable and adaptable for all types of transfer machines, including linear, rotary transfer and multi-spindle machines



**NUMhsc** – Excellent quality at the highest speeds on machines with 5 or more axes



**NUMmill** – Flexible solution with a graphical interface for extensive milling cycles, including full 3D simulation



**NUMwood** – Long tradition with powerful complete solutions in woodworking



**NUMgrind** – Grinding and dressing cycles, with intuitive shop floor entry screens and 3D visual validation



**NUMretrofit** – Rational extension of the service life of your machine by years

# Project Management

Working with you to find the best possible solution for your project

## Project Management

NUM supports you with your projects in a way that is ideal for both your business and infrastructure. However, the goal of our cooperation always remains the same: to work with you to find the most efficient solution.

### Project support ProDesign Efficient consulting for optimal application solutions

This model is ideal for companies with their own development teams and automation specialists. As an external partner, we bring along our entire know-how in the field of CNC automation and take on an advisory role.

### Project cooperation CoDesign Combining knowledge – harvesting synergy

Your team of developers joins forces with our specialists. Together, we realize the automation of your machine with clearly delineated responsibilities. This type of collaboration has proved itself to be extremely efficient in many past projects and leads to a very efficient time to market.

### All-in-one solutions AllDesign Delegating responsibilities – controlling results

Acting as a general contractor, we take charge of the overall project and assume full responsibility for the successful implementation. Starting with the product requirement specifications, including development, commissioning and tuning, and finally, providing support and service.



# Engineering

Proven CNC engineering company with its own products

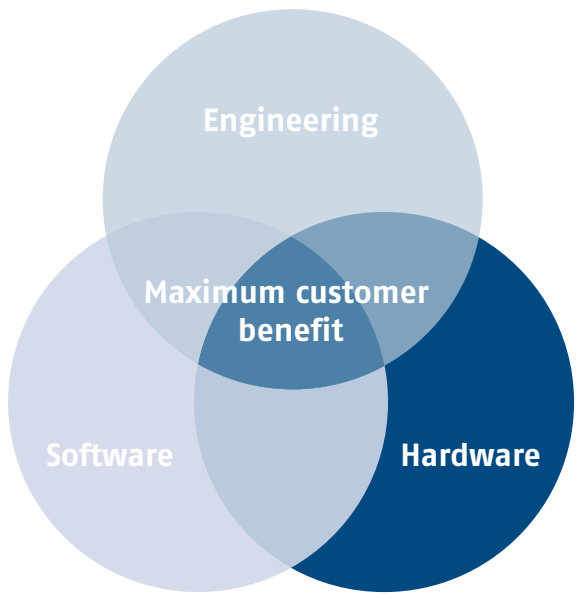
## Flexible engineering to meet to your individual needs – this is what distinguishes NUM in the market!

Brilliant automated solutions don't just happen: they are based on superb ideas! This is why we focus on more than just optimizing software and hardware – we build on the innovative abilities and creativity of our specialists.

To differentiate themselves from competitors, machine manufacturers are increasingly focusing on the development of complex, innovative high-tech solutions that provide customers with maximum added value. However, this trend requires comprehensive know-how in a wide variety of areas – and this is precisely where our strength lies, as a proven CNC engineering company with our own products.

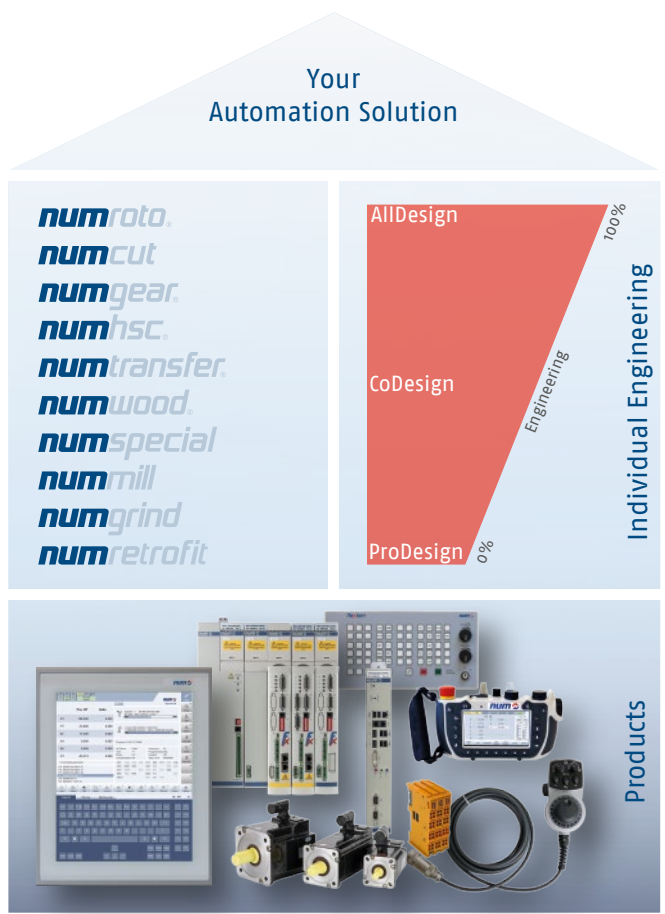
When the goal is optimizing complex production processes, it is not enough to simply combine powerful components such as machines, CNC, servo drives, motors and measuring systems.

To make a daily production operation profitable, software that is perfectly optimized for the specific production process is required. It also needs an experienced team of engineers with diversified skills who know the industry-specific requirements in detail and are able to pursue a clear goal. In short, you need our help to optimize the overall production process and sustain its successful long-term operation, using the latest technological advances combined with superior support.



NUM employs experts with experience in various technical fields.

As a customer, you have the security of knowing that your partner operates at the cutting edge of CNC technology. Our goal is to provide you with the engineering, software and hardware, to allow you to fully exploit the advantages of the latest CNC developments.





# Products

Modern, scalable, open, powerful,  
user-friendly, comprehensive

Using our own products as a basis for the development and engineering of customer-oriented solutions.

## CNC Controls

NUM offers a wide range of products for the automation of CNC machines. The modern, scalable, open and high quality system guarantees high machine availability and investment security.

The CNC control itself is a key element of the solutions and systems of NUM. Powerful processors with high computing speed and an intelligent layout with potential for expansions ensure a high preservation of value. The PLC is programmed according to IEC 61131-3 and the modern development environment provides new tools for development, commissioning and servicing.

With a capability of more than 200 axes, over 40 channels, 4,000 I/Os, more than 1 GB of PLC memory and more than 40 MB of user memory, Flexium+ can easily control the most demanding applications. Thanks to the full scalability, small configurations can of course also be optimally represented.

## Operating Panels

Various control panels are available, which can be combined freely with the CNC controllers. The control panels are delivered either with an integrated PC or are intended for operation with an external PC. The control panels can be supplemented by machine control panels, which contain important operating elements for controlling the machine.

## Drives

Modern, compactly designed NUM servo drives in conjunction with the high-performance NUM CNC controllers lead to perfect results. Modular in design, compact in dimensions and low in power consumption, they ideally meet the requirements of modern systems. The software is readily adaptable to meet customers' specific requirements at every level.

## Motors

Our broad portfolio comprises more than 7,000 servo and spindle motor variants, torque motors and motor components, and covers the power range from 0.5 Nm to over 240 Nm.

The so-called "single-cable" motors only need one connecting cable instead of the usual two. This is particularly worthwhile for machines with long lengths of cable of several yards.



From top to bottom: FS194i control panel, NUMDrive X drive amplifier, three SPX series servo motors ("Single Cable"), MPo8 machine control panel, nPad wireless hand-held terminal.

## Accessories

A comprehensive range of supplies rounds off the spectrum of automation products made by NUM. The supplies are determined by our specialists, together with the customer, and can fulfill all the specific project requirements.

## Safety

NUMSafe is the comprehensive and easy-to-use safety architecture of the CNC personal protection system.

## Flexium Tools

Life is made easy by supporting instruments such as: PLC system programming, NCK and servo drive parameterization, SDK for NUMpass and Flexium HMI, as well as communication with the CNC, field buses and NUMSmartBackup.

## IIoT / Industry 4.0 / Smart Factory

The NUM CNC system contains various communication options and thus fulfills the basic prerequisite for a possible Smart Factory. Fieldbuses such as EtherCAT or CAN are mostly used for horizontal integration. Vertical communication to SCADA, MES and ERP systems can be carried out via OPC, MTConnect and other freely definable communication interfaces – which can be implemented efficiently and comprehensively using NUM's FXserver.

## NUMROTO

NUMROTO is a comprehensive software package for producing and reshaping a wide range of tools.

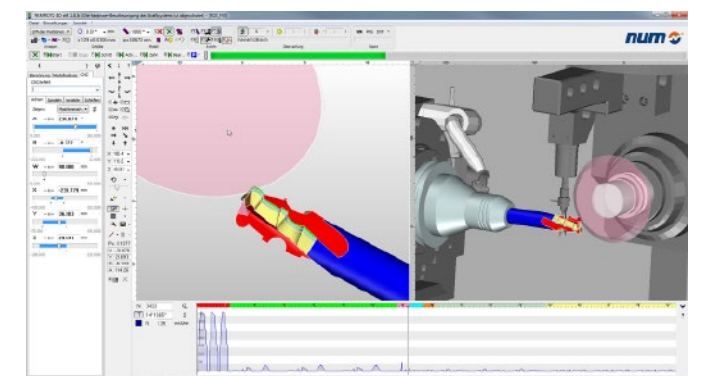
NUMROTO was NUM's first complete solution, and is now the market leader and trendsetter in tool grinding. Our proven software range has been the first choice of tool manufacturers and grinders for over 25 years. Since then, innovative high-tech solutions, continuous development and comprehensive user know-how have guaranteed quality and economy for all standard and special tools. The NUMROTO team is made up of specialists with comprehensive crossdepartmental knowledge of all tool grinding and CNC controlled machine areas. Product development is made in close cooperation with users and machine manufacturers alike.

NUMROTO complete solution combines the NUMROTOplus software programming system and all elements used to

transfer this system to the tool. The system can be expanded with functions such as 2D and 3D simulation, comprehensive probe cycles for tools and wheels, wheel truing during the process, job control and much more.



The complete system solution is comprised of the CNC, servodrives, motors and complete switching cabinet. The system is rounded off by training according to customer needs and remote diagnosis methods.



Example of a NUMROTO 3D simulation.



# NUM Service

## Assistance and support during the entire product life cycle

### NUM Service, Customer Service and Training

Your decision to procure a system and a solution from NUM marks a long-term investment. We see ourselves as your partner from the idea, design and synthesis stages, to on-site customer service. Our motto is, "One Step Ahead", we use our worldwide presence to be there for you before a problem arises by providing international support and assistance throughout the entirety of a product life cycle.

Our claim for the future is defined by NUM Service in a clear, customer-specified, proactive support agreement. Together with our customers, we draw up an inventory in order to identify any potential for improvement. We can then offer these in a targeted and customer-specific manner. We focus less on the standard that is customary in the industry, but rather on individual customer's needs.



Machine manufacturers and end users can make equal use of NUM's service. Usually the end user first contacts the machine manufacturer, who knows the machine best, and whenever necessary NUM provides direct and uncomplicated support. The same applies to end users if the machine manufacturer does not support them.

Spare parts can be delivered as quickly as possible thanks to our national agencies and partners. Also, spare parts delivery times can be minimized thanks to the local storage of each NTC.

NUM has a global and efficient network of service points and branches. Our proven 3-level concept is structured as follows:

- NTC:** NUM Technology Center – Competence Center with its own spare parts warehouse
- Agent:** Independent partner company of NUM with local spare parts warehouse. Support and regular training by our specialists
- Contact:** Contact person on site, communicating in the respective national language for our customers

To keep machine downtimes as short as possible in the event of a motor failure, NUM Service can offer the production and delivery of new servo motors within 48 hours.

Customers with a service contract achieve even greater security. This guarantees the availability of parts in the NUM branches, taking into account the CNC systems installed at the user's site. This is particularly applicable for older systems, where the availability of spare parts is becoming more complex.

NUM attaches great importance to the long-term support of its control and drive systems to guarantee customers the longest possible machine running times. Most components are available for well over 10 years or are replaced by compatible successor products. An example of this is the customer service still offered for discontinued products that were launched on the market over 30 years ago.

#### Training

NUM is committed to transferring its know-how on a regular basis. In training courses, our specialists share their comprehensive CNC knowledge with you, as well as their special product expertise and drive and application techniques. Our extensive range of training courses is oriented towards your individual requirements; whether it be operator training, maintenance, repair and service training, or programming training in PLC, CNC, HMI, etc., NUM has you covered.

#### Support

For professional analyses, a perfect infrastructure is available to our experts in all centers of excellence. This ensures we are able to provide you fast and efficient support, anywhere in the world. We leverage the benefits provided by the latest communication technologies, such as remote maintenance over the internet.

# NUM Worldwide

## Get in touch with us

**Would you like to be regularly informed about engineering and product news from NUM? Do you prefer personal contact at a trade fair? Is social media your thing? Let us get in touch with you!**

Trade fairs, website, customer magazines and social media channels, in addition to that all-important direct contact with you, are the platforms we use to communicate our engineering and product news.

#### Website

Visit us at [num.com](http://num.com). With a few mouse clicks you will find all relevant information in five languages. The website also hosts a short video which introduces all our services and products.

#### Social Media

NUM is active on LinkedIn, WeChat, Twitter, Facebook and Co. On the back of this brochure you will find the direct links to our channels. Follow us today!

#### NUMinformation / NUMROTO flash

All issues of our customer magazines can be downloaded from our website. If you register with us, we will be happy to send you these magazines in paper form.

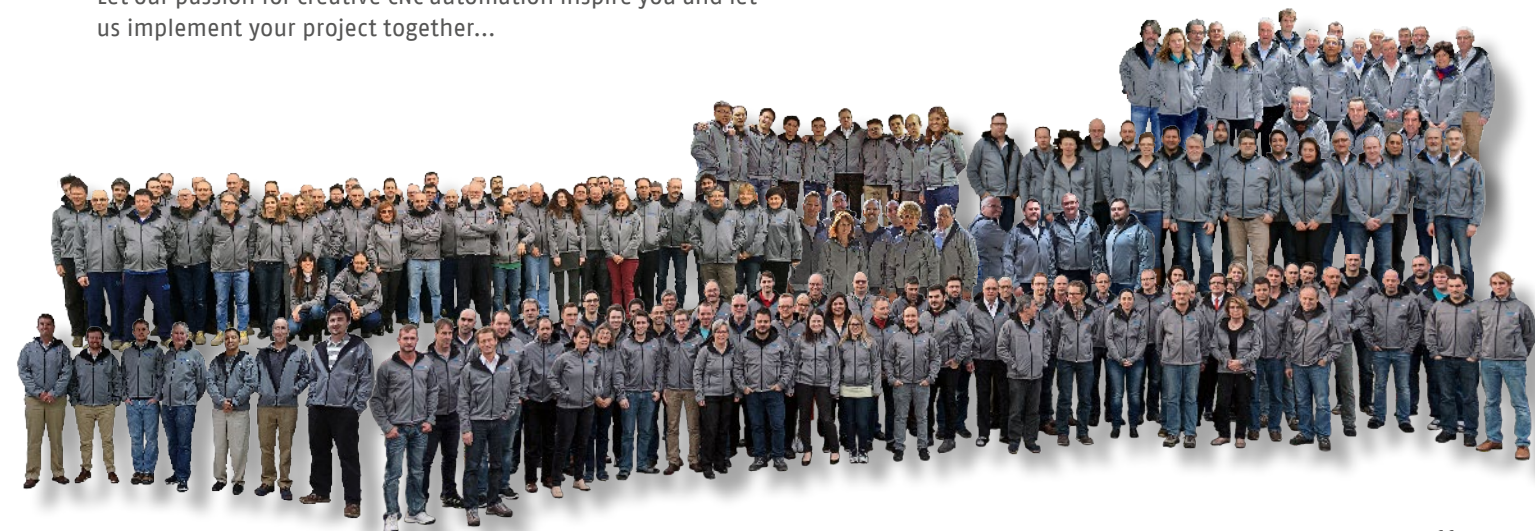


#### International Fairs

We look forward to your visit at one of our numerous exhibition stands. You will find a current list of trade fairs on our website. Our branch managers, product managers and engineers look forward to an interesting exchange with you.

#### We are NUM

Let our passion for creative CNC automation inspire you and let us implement your project together...



# Complete CNC Solutions Worldwide



## NUM systems and solutions are used worldwide.

Our global network of sales and service locations guarantees professional service from the beginning of a project to its execution and for the complete life cycle of the machine.

NUM has service centers around the world. Visit our website for the current list of locations.

[www.num.com](http://www.num.com)



Follow us on our social media channels for the latest information and news on NUM CNC applications.

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