TAKE PART IN THE CNC REVOLUTION

Teximp®

Teximp is an established family business supplying CNC machines and parts, as well as a comprehensive range of related services and solutions. We provide tailored support to customers in a range of sectors via our network of technology and service centres, staffed by highly trained personnel. For almost 40 years, the Vukoja-Bornatico family has combined specialist knowledge with visionary thinking, enabling us to build long-term relationships with customers while putting your needs at the heart of everything we do.

Ivan Bornatico
CEO

Snezana Bornatico-Vukoja
CFO

Vlado Vukoja
Chairman

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www.teximp.com
www.teximp-retro.com

@teximp.sa

ABOUT US

Why Teximp? We're your partner for CNC solutions. Teximp is an international trading company specialising in the sales and servicing of CNC Machine Tools, Lathes and Machining Centres, with an active presence in South-Eastern Europe since 1982. Here's how we make our business stand out:

Close relationships, local support
We work closely with you to build an understanding of your unique requirements and deliver custom solutions via our network of technology and service centres in 8 countries.

Superior customer service
We focus on achieving the best results for you, from our initial proposal right through to final delivery of our products and services.

Problem-solving
We offer turnkey solutions that aim to solve your problems quickly and effectively.

Innovation
We continuously improve our customer-facing processes so that you get the results you need, as fast as possible.

Creative offerings
We get creative with our product and service packages – you get great value.

Recognised expertise
Need a solution? Speak to us – we're the experts.

Convenience
We work constantly to make sure that doing business with us is as smooth and convenient as possible.

A unique business model that reflects your values
Transparency is our watchword. We always tell our customers what we are doing, and why.

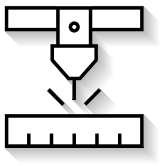
TEXIMP AT A GLANCE

- 37 years of experience
- 12 wholly-owned subsidiaries in 8 countries in South-Eastern Europe
- Installed base of 6,600 machines in our sales portfolio
- 160 employees
- 80+ certified service technicians
- 10 technology and service centres
- 70+ equipped service vans with professional tools
- Spare parts from local stocks
- In-house finance solutions

ABOUT US

SERVICE

80+ Certified Technicians
70+ Equipped Service Vans
with Professional Tools
Spare Parts on Stock
Renishaw Laser Systems

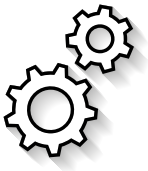


SALES

CNC Vertical Mills
CNC Horizontal Mills
CNC 5-Axis Mills
CNC Lathes
CNC Multitasking Lathes

FINANCING

Individual Financing
Solutions for
Haas Products only
12 / 24 / 36 months



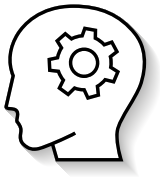
TECHNOLOGY

Cycle Time Studies
Turnkey Solutions
Testcuts on demand
Operator Training

Teximp®

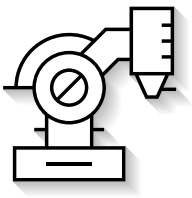
TeximpAutomation

TeximpRetro



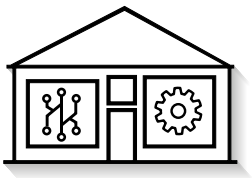
EDUCATION

Haas Technical
Education Centres
Support of Technical
Universities &
Technical Schools



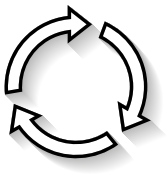
AUTOMATION

Teximp Universal Robot Cell
in cooperation with Fanuc
Bar Feeders, Auto Part Loaders
& Pallet Changers available



TEXIMP TECHNOLOGY & SERVICE CENTER

Show-Room with a variety of machine tools
prepared for demonstrations and testcuts
Training rooms
Spare Parts warehouse



PREMIUM USED HAAS MACHINES

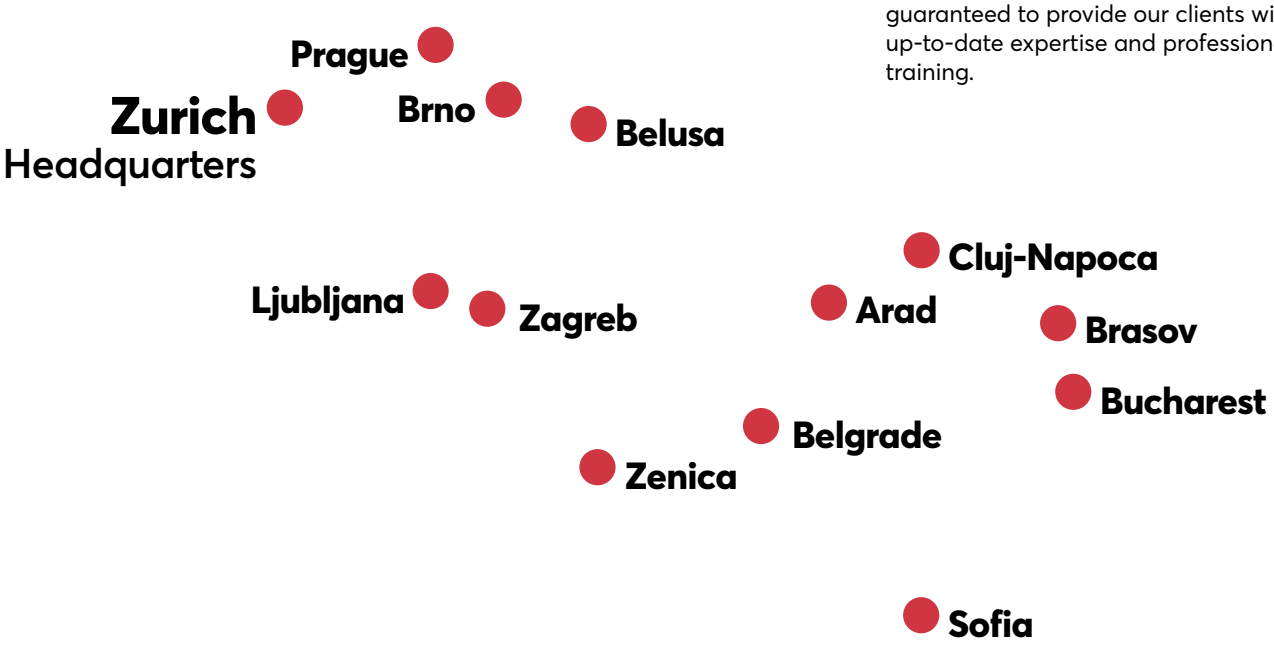
Overhauled Haas Machines
Quality Refurbishment
Buy Back used Haas Machines

Teximp's array of assets include state-of-the-art technology and service centres (also known as Teximp Technology Centres, or TTCs). Our TTCs act as your primary point of contact, allowing you to communicate quickly and easily with us, and enabling you to test the functional suitability of our products before making any investment.

Teximp's highly trained specialists assist individual visitors and provide machine demonstrations, training in parts machining, and instruction for customer employees. A whole array of brands can be tested locally.

Teximp, your trusted partner, offers the following:

- Highly trained specialists able to provide unrivalled local advice, tailored to the full spectrum of your needs.
- Products from the world's top manufacturers, such as Haas Automation, Nakamura-Tome, Matsuura, Tornos, and Shimada, all of which are available for testing.
- Machine demonstrations, parts machining, and training/instruction of your employees (guaranteed and available at any time).
- A permanent display with numerous exhibits, giving our customers an insight into the wide range of options available to meet their needs at any time.
- Technical seminars at Teximp's locations, guaranteed to provide our clients with up-to-date expertise and professional training.



ABOUT US

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bulgaria@teximp.com

OUR PRODUCT RANGE

- Haas Automation
- Nakamura-Tome
- Matsuura
- Tornos
- Shimada
- Studer
- Desktop Metal

Automation (URC)

PREMIUM USED HAAS MACHINES

TTCs 2019/2020

- New TTC in Zagreb (Croatia)
- New TTC in Sofia (Bulgaria)
- New TTC in Cluj (Romania)
- New TTC in Arad (Romania)
- New TTC in Brasov (Romania)
- Extension of TTC in Ljubljana (Slovenia)
- New TTC in Brno (Czech Republic)

HISTORY

1982
Joint Stock Company Teximp SA set up by 4 partners

1987
100 % of shares acquired by Vlado Vukoja

New sales markets opened up in the former Czechoslovakia and Yugoslavia

1994
Sales and service organisation expanded

1997
First Teximp Technology Centre (TTC) opened in Prague

1999
Sales figures increase to over 50 machines per year

2001
More than 100 CNC machines sold

2002
Teximp SA celebrates its 20th anniversary

2004
Opening of the Teximp Technology Centre (TTC) in Ljubljana (Slovenia)

Opening of the second Teximp Technology Centre (TTC) in Prague (Czech Republic)

2005
More than 60 members of staff employed

Over 250 machines sold in one year

4 Teximp Technology Centres (TTCs)

2007
Opening of two new technology and service centres in Romania (Cluj-Napoca & Bucharest)

Teximp SA celebrates its 25th anniversary

Workforce increases to over 100 employees

2012
30th anniversary of Teximp

Over 360 new CNC machines sold

Opening of technology and service centre in Zagreb (Croatia))

2003

Workforce increases to over 40 employees

Over 180 new CNC machine tools sold

Consolidated turnover of CHF 30 million achieved

2009

Opening of the Teximp Technology Centre (TTC) in Belusa (Slovakia)

2011

Over 300 new CNC machines sold

Opening of two new Technology and Service Centres in Sofia (Bulgaria) & Belgrade (Serbia)

2013

ISO 9001 certification obtained

2014

Workforce increases to over 110 employees

Sales figures increase to over 580 machines per year

Opening of the new Teximp Technology Centre (TTC) in Prague

2016

8 Teximp Technology Centres (TTCs) in Czech Republic, Slovakia, Slovenia, Croatia, Serbia, Bosnia-Herzegovina, Romania and Bulgaria

More than 2,400 satisfied customers

More than 5,000 machines installed

2015

Teximp SA celebrates its 33rd anniversary in Split (Croatia)

2017

Establishment of Teximp RETRO – your partner for premium used machines (Teximp Retro buys and resells machine tools from Teximp's own customers)

2018

Teximp starts to build its own automation systems (URC)

More than 150 members of staff employed

Sales figures increase to over 700 machines

2019

New centres to be opened in Arad, Brasov, Cluj, Zagreb and Brno

New website

New brand identity

SERVICE

Service is in our DNA: thanks to our network of Service Centres staffed by Certified Technicians, our Spare Parts storage facilities and our fleet of mobile service vans, we have what it takes to keep your Machine running.

Comprehensive service facilities at all locations
We operate a local service department in each of our countries of operation. Spare parts are stored on site or carried in our mobile service vans, enabling us to get your machines back into service as quickly as possible. We continuously invest in training for our service staff, and in special equipment, such as precision measuring instruments, to keep our capabilities up to date.

Online service request
Go to www.teximp.com/service, click on your local service centre, and complete the online service request form. You will receive a response within a few hours.

360° CNC service solutions
Teximp's commitment to service doesn't stop when we sell you our product. Our dedicated team of highly trained professionals has the full range of expertise needed to provide unmatched after-sales service for all our customers, ensuring that your expectations for top-quality service are met – at a fair price.

Why invest with Teximp?

- Peace of mind: you're in safe hands with Teximp, every step of the way!
- We have over 37 years' experience in after-sales service.
- Our team of 80+ certified service technicians is equipped with the latest tools and measuring equipment (for example, Renishaw ballbar tester, IPS vibration analyser).
- Our corporate fleet of 70+ equipped service vans with professional tools carries spare parts to cater to your every need.
- Each of our 10 branches is fully equipped with all spare parts.
- Fair and transparent pricing for all services and spare parts.
- Customer guarantee of availability of all spare parts required due to wear and tear, for at least 10 years after the system has been commissioned.
- We use a Field Management System (FMS), with all information provided in real time.

Fast service response and completion times
Access to comprehensive real-time information is key to preparing service activities and coordinating service teams, so that machines can be repaired and returned to operation as quickly as possible.

ONLINE SERVICE REQUEST

FMS
Field Management System

Teximp service organisation

	Prague	Brno	Belusa	Ljubljana	Zagreb	Belgrade	Zenica	Cluj-Napoca	Bucharest	Arad	Brasov	Sofia
80+ Certified Service Technicians 12-hour response time Certified in-house technicians	11	10	9	6	10	6	2	14	3	2	2	6
Spare Parts from stock	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tools Renishaw, ballbar tester, IFM vibration analyser	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
70+ Equipped Service Vans with Professional Tools Fully loaded with spare parts	11	10	7	5	4	4	2	14	3	2	2	6

TECHNOLOGY

Thanks to our in-house Technology Expertise, we can train your operators, and provide comprehensive, customised support. We know how it all works.

Our team of 16 highly qualified technology specialists offers the following services:

- Support at every stage, from machine selection to process optimisation
- Training for your operators in machine programming and operation
- Ongoing support on an ad-hoc basis to suit your requirements

Teximp offers fully comprehensive, customised production cost calculations at any time, incorporating the following parameters:

- Programmes
- Tool lists
- Proposals for jigs/fittings
- Part production time from drawing or blanks
- Initial part trials
- Training

In addition to training, our technology specialists provide support for machine setup. Training can take place at one of our centres or at the customer's own premises.

We work with customers to develop and implement tailored process solutions.

OUR TEAM IS WAITING TO HEAR FROM YOU

AUTOMATION

As of late 2018, Teximp now offers an automation solution for Mills & Lathes.

TeximpAutomation

This stand-alone Universal Robot Cell includes:

- Fanuc Industrial robot type M10iA (10 kg) or M20iA (20 kg)
- Fanuc A-Cabinet
- Fanuc iPendant touch
- DCS (Dual Check Safety) position check
- Soft Float Function
- Touch Skip Function
- Payload identification
- TRI-Haas CHC/NGC
- TGI-A
- Schunk Gripper 2x JGP 100-2/2x Set ABR-PGZN
- Autodoor
- Omron laser
- Omron light curtain
- Pallet table with 3 sizes of matrix plates (10x6/7x4/5x3)

CONTACT US FOR A NON-BINDING PROPOSAL
AUTOMATION@TEXIMP.COM

FOR MORE INFORMATION VISIT
WWW.TEXIMP-AUTOMATION.COM

PACKAGE PRICE FOR TEXIMP AUTOMATION CELL WITH FANUC M10iA (10 kg) € 49,920.00

PACKAGE PRICE FOR TEXIMP AUTOMATION CELL WITH FANUC M20iA (20 kg) € 54,620.00

Price does not include VPS (Visual Programming System), clamping option (pneumatic vice), pneumatic rotary unit, transport, installation or training.

PREMIUM USED

We specialise in Premium Used Machines, opening up a world of possibilities for buyers and sellers.

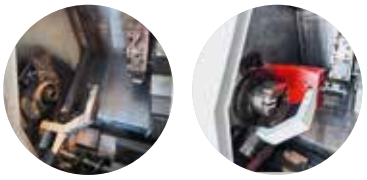
TeximpRetro

Teximp Retro gives you access to a professional marketplace for Premium Used Machine Tools

All our reconditioned machines feature original parts, and are subject to stringent quality checks, enabling us to guarantee a fair price-to-performance ratio. Teximp-Retro buys and resells machine tools from our own customers and official European Haas dealers, acting as the link between buyers and sellers. A wide range of pre-owned machine tools is now available.

Teximp Retro provides up-to-date listings of quality reconditioned machine tools for sale in the countries of South-Eastern Europe. The newly established company Teximp Retro is wholly owned by Teximp SA. With more than 30 years' experience to our name, we understand the value of quality, professionalism and reliability.

FOR MORE INFORMATION VISIT
WWW.TEXIMP-RETRO.COM



Quality refurbishment
All machines are thoroughly cleaned, and parts replaced where necessary.

Component retrofits
We can retrofit components to make sure your reconditioned machine does its job.

HAAS AUTOMATION

CONSTANT IMPROVEMENT IS A WAY OF LIFE

Haas Automation Inc. is America's leading builder of CNC Machine Tools. Best in CNC Machine value. And high-quality Haas Machines are engineered for simple maintenance, easy setup and low-cost operation.

Founded by Gene Haas in 1983, Haas Automation manufactures a complete line of vertical and horizontal machining centres, turning centres and rotary tables and indexers. All Haas products are built in the company's 102,000 m² manufacturing facility in Oxnard, California, and distributed through a worldwide network of Haas Factory Outlets that provide the industry's best sales, service and support, while offering unparalleled cost-to-performance value.

CNCA financing from Haas
From start-ups to large machine purchases, Haas is ready to help you find a financing programme.

More than 1,200 Teximp projects are financed through CNCA:

- Personalised service
- Fast credit decision
- Simple documentation

THE PILLARS UNDERPINNING HAAS VALUE

- Legendary service
- High-performance machines
- Distributor network
- The Haas Control
- Make It Your Own

Stay focused and keep building. We've produced and installed our 200,000th Haas CNC Machine, another major milestone in our history as one of the world's leading Machine Tool builders.

Haas F1 Team
OFFICIAL MACHINE TOOL

About Haas F1 Team
Haas F1 Team debuted in the FIA Formula One World Championship in 2016, becoming the first American-led Formula One team since 1986. Founded by industrialist Gene Haas, Haas F1 Team is based in the United States on the same Kannapolis, North Carolina, campus as his championship-winning NASCAR team, Stewart-Haas Racing.

CNC VERTICAL MILLS

The industry-leading Haas VF Series Vertical Mills are the best-value high-performance Machine Tools available today, with a wide range of sizes and features to fit any shop's need.

What can a VF Series Vertical Mill handle?
With our wide range of available models, the VF Series can match nearly any size and productivity range. Regardless of your requirements, there's a VF just right to meet the demands of your machine shop.

CNC Vertical Mills (40 Taper)

	VF-1	VF-2 (YT)	VF-3 (YT)	VF-4	VF-5 (XT)	VF-6	VF-7	VF-8	VF-9	VF-10	VF-11	VF-12
xyz (mm)	508·406·508	762·406·508	1016·508·635	1270·508·635	1270·660·635	1626·813·762	2134·813·762	1626·1016·762	2134·1016·762	3048·813·762	3048·1016·762	3810·813·762
xyz (mm) YT / XT		762·508·508	1016·660·635		1524·660·635							
rpm spindle	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline	8100 inline
rapids	25.4 m/min	25.4 m/min	25.4 m/min	25.4 m/min	18 m/min	15.2 m/min	15.2 m/min	15.2 m/min	15.2 m/min	15.2 m/min (yz) 9.1 m/min (x)	15.2 m/min (yz) 9.1 m/min (x)	15.2 m/min (yz) 9.1 m/min (x)
standard tool changer	20 station	20 station	20 station	20 station	20 station	30+1 side mount	24+1 side mount	30+1 side mount	24+1 side mount	24+1 side mount	24+1 side mount	24+1 side mount
optional tool changer	30+1 side mount	30+1 side mount	30+1 or 50+1 side mount	30+1 or 50+1 side mount	30+1 or 50+1 side mount	50+1 side mount	40+1 side mount	50+1 side mount	40+1 side mount	40+1 side mount	40+1 side mount	40+1 side mount

No responsibility is taken for the correctness of the technical information

KEY FEATURES

- Inline direct-drive spindle
- Side-mount tool changer (option)
- Multi-fixturing table
- High-speed machining software (option)
- Made in the USA

The industry-leading Haas VFs are the best value, high-performance Machine Tools available today

The Haas high-performance super-speed vertical machining centres provide the high spindle speeds, fast rapids and quick tool changes necessary for high-volume production and reduced cycle times. Each SS machine features a 12,000 rpm, inline direct-drive spindle, an ultra-fast side-mount tool changer and high-speed rapids on all axes.

Super Speed CNC Vertical Mills

	VF-2SS	VF-2SSYT	VF-3SS	VF-3SSYT	VF-4SS	VF-5SS	VF-6SS
xyz (mm)	762·406·508	762·508·508	1016·508·635	1016·660·635	1270·508·635	1270·660·635	1626·813·762
rpm spindle	12000 inline	12000 inline	12000 inline	12000 inline	12000 inline	12000 inline	12000 inline
rapids	35.6 m/min	35.6 m/min	35.6 m/min	35.6 m/min	35.6 m/min	30.5 m/min	30.5 m/min
standard tool changer	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount
optional tool changer			50+1 side mount	50+1 side mount	50+1 side mount	50+1 side mount	50+1 side mount

No responsibility is taken for the correctness of the technical information

Mould Machines CNC Vertical Mills

	VM-2	VM-3	VM-6
xyz (mm)	762·508·508	1016·660·635	1626·813·762
rpm spindle	12000 inline	12000 inline	12000 inline
rapids	18 m/min	18 m/min	15.2 m/min
standard tool changer	30+1 side mount	30+1 side mount	30+1 side mount
optional tool changer	50+1 side mount	50+1 side mount	50+1 side mount

No responsibility is taken for the correctness of the technical information

Accuracy, Rigidity, and Thermal Stability for the Mould Industry

The Haas VM Series machines are high-performance VMCs that provide the accuracy, rigidity and thermal stability required for mould making, tool and die work, and other high-precision industries.

Haas 50-Taper provides Heavy Cutting Capacity
VF Series 50-taper machines are workhorses, well suited to high material removal rates, no matter what kind of cut you're taking. The standard 7500 rpm, 30 hp spindle delivers 450 ft-lb of torque.

CNC Vertical Mills (50 Taper)

	VF-3YT/50	VF-5/50	VF-6/50	VF-7/50	VF-8/50	VF-9/50	VF-10/50	VF-11/50	VF-12/50
xyz (mm)	1016·660·635	1270·660·635	1626·813·762	2134·813·762	1626·1016·762	2134·1016·762	3048·813·762	3048·1016·762	3810·813·762
rpm spindle	7500	7500	7500	7500	7500	7500	7500	7500	7500
rapids	18 m/min	18 m/min	15.2 m/min	15.2 m/min	15.2 m/min	15.2 m/min	15.2 m/min (yz) 9.1 m/min (x)	15.2 m/min (yz) 9.1 m/min (x)	15.2 m/min (yz) 9.1 m/min (x)
standard tool changer	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount

No responsibility is taken for the correctness of the technical information

Universal Machines –
5-Axis machining for everyone
5-axis machining is an effective means of reducing setups and increasing accuracy for multi-sided and complex parts. Haas UMC Series universal machining centres are cost-effective solutions for 3+2 machining and simultaneous 5-axis machining.

5-Axis Mills (40 Taper)

	UMC-500	UMC-500SS	UMC-750	UMC-750SS	UMC-750P	UMC-1000	UMC-1000SS
travel xyz	610·406·406	610·406·406	762·508·508	762·508·508	762·508·508	1016·635·635	1016·635·635
B-axis	+120 °, -5°	+120 °, -5°	+110°, -35°	+110°, -35°	45°, -45°	120°, -35°	120°, -35°
C-axis	360°	360°	360°	360°		360°	360°
platter size (mm)	400	400	500	500		635	635
max weight on platter (kg)	226.8	226.8	300	300	300	454	454
rpm spindle	8100 inline	12000 inline	8100 inline	15000 inline	8100 inline	8100 inline	12000 inline
rpm spindle optional	10000 / 15000	15000	12000 / 15000		12000 / 15000	10000 / 15000	15000
rapids	22.9 m/min	30.5 m/min	30.5 m/min	30.5 m/min	30.5 m/min	22.9 m/min	30.5 m/min
tool changer	30+1 side mount	30+1 side mount	40+1 side mount	40+1 side mount	40+1 side mount	30+1 side mount	30+1 side mount
tool changer optional						50+1 side mount	50+1 side mount

No responsibility is taken for the correctness of the technical information

CNC LATHE SERIES

The Haas ST Series high-performance Turning Centres were designed from the ground up to provide setup flexibility, extreme rigidity and high thermal stability. These Machines offer the best performance for the money – the best value – in their class.

Ideal for High-Volume, High-Production environments
Haas turning centres offer a wide range of capabilities, including toolroom lathes, big-bore versions, dual-spindle models, and live tooling with C and Y-axis capability.

CNC Lathe Series

	ST-10	ST-10Y	ST-15	ST-15Y	ST-20	ST-20Y	ST-25	ST-25Y	ST-30	ST-30Y
max. cutting length (mm)	406	406	406	406	521	533	533	533	660	584
max. cutting diameter (mm)	356	305	356	305	254	254	254	254	533	457
chuck size (mm)	165	165	210	210	210	210	254	254	254	254
bar capacity (mm)	44	44	64	64	64	64	76	76	76	76
swing diameter over front apron (mm)	419	419	419	419	533	533	533	533	806	806
swing diameter over cross slide (mm)	419	419	419	419	527	527	527	527	527	527
x-axis travel (mm)	200	200	200	200	236	236	236	236	318	318
z-axis travel (mm)	406	406	406	406	533	533	533	533	660	584
y-axis travel (mm)		± 51		± 51		± 51		± 51		± 51
rapids x	30.5 m/min	12.0 m/min	30.5 m/min	12 m/min	24 m/min	12 m/min	24 m/min	12 m/min	24 m/min	12 m/min
rapids z	30.5 m/min	30.5 m/min	30.5 m/min	30.5 m/min	24 m/min	24 m/min	24 m/min	24 m/min	24 m/min	24 m/min
rapids y		12.0 m/min		12 m/min				12 m/min		12 m/min
spindle rpm	6000	6000	4000	4000	4000	4000	3400	3400	3400	3400
spindle bore (mm)	ø 58.7	ø 58.7	ø 88.9	ø 88.9	ø 88.9	ø 88.9	ø 88.9	ø 88.9	ø 88.9	ø 88.9
spindle nose	A2-5	A2-5	A2-6	A2-6	A2-6	A2-6	A2-6	A2-6	A2-6	A2-6
turret / no. of tools	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations

No responsibility is taken for the correctness of the technical information

High-Performance Turning Centres
The Haas ST-55 is a heavy-duty, large-bore turning centre that provides heavy cutting ability, extreme rigidity, and high thermal stability. The twin-chuck capability, high-torque spindle, and large through-bore of this machine make it ideal for machining heavy pipes and fittings, large couplers, and long rollers. The large-capacity ST-55 offers the best combination of performance and value in its class, and is available with a wide selection of high-productivity options.

CNC Lathe Series

	ST-35	ST-35Y	ST-40	ST-40L	ST-45	ST-45L	ST-50	ST-55
max. cutting length (mm)	660	584	1118	2032	1118	2032	2032	2032
max. cutting diameter (mm)	533	457	648	648	648	648	648	648
chuck size (mm)	305	305	381	381	457	457	no chuck	no chuck
bar capacity (mm)	102	102	102	102	165	165		
swing diameter over front apron (mm)	806	806	876	876	876	876	876	876
swing diameter over cross slide (mm)	527	527	648	648	648	648	648	648
x-axis travel (mm)	318	318	432	432	432	432	432	432
z-axis travel (mm)	660	584	1118	2032	1118	2032	2032	2032
y-axis travel (mm)		± 51						
rapids x	24 m/min	12 m/min	18 m/min	18 m/min	18 m/min	18 m/min	18 m/min	18 m/min
rapids z	24 m/min	12 m/min	18 m/min	8.1 m/min	18 m/min	8.1 m/min	8.1 m/min	8.1 m/min
rapids y		24 m/min						
spindle rpm	3200	3200	2400	2400	1400	1400	1200	1000
spindle bore (mm)	117.3	ø 117.3	117.3	117.3	178	178	ø 216	ø 381
spindle nose	A2-8	A2-8	A2-8	A2-8	A2-11	A2-11	A2-15	A1-20
turret / no. of tools	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations	12 stations

No responsibility is taken for the correctness of the technical information

Automate Your Lathe Part Production
The Haas Bar Feeder is a simple and affordable way to automate part production on Haas turning centres to boost productivity. It is designed and built exclusively for use on Haas turning centres, and connects directly to the Haas control. An innovative rollaway design provides easy access to the rear of the lathe spindle for quick liner adapter and spindle liner changes.

CNC Dual Spindle Lathe Series

Dual-Spindle design for done-in-one operations, Y-Axis Milling, Drilling, Tapping
The DS-30Y Y-axis turning centre combines dual-spindle turning with Y-axis, C-axis, and live tooling to create a powerful "done-in-one" machining solution for any shop.

Off-centre milling, drilling, and tapping operations are possible for increased machining capabilities.

ST-10/ST-15/ST-20 WITH OPTIONAL DUAL SPINDLE COMING SOON (Q2/2019)

	DS-30Y
max. cutting length (mm)	584
max. cutting diameter (mm)	457
chuck size (mm)	210
bar capacity (mm)	51
swing diameter over front apron (mm)	806
swing diameter over cross slide (mm)	527
x-axis travel (mm)	318
z-axis travel (mm)	584
y-axis travel (mm)	±50.8
rapids x	12 m/min
rapids z	24 m/min
rapids y	12 m/min
spindle rpm	4000
spindle bore (mm)	ø 88.9
spindle nose	A2-6
turret / no. of tools	12 stations

No responsibility is taken for the correctness of the technical information

CNC HORIZONTAL MILLS

The highly popular Haas EC Series HMCs offer large work cubes and a maximum part capacity of 4535 kg, making them the perfect solution for your large-part machining requirements. Models are available with an integrated 4th-Axis rotary platter.

The perfect Solution for production Machining

Built for high-volume production and unattended operation, the all-new EC-400 horizontal machining centre is faster, more compact, more rigid and more capable than ever before. It features a larger 22-inch x 25-inch x 22-inch work envelope, 1400-ipm rapids, and full 4th-axis pallet indexing.

CNC Horizontal Mills (40 & 50 Taper)

	EC-400	EC-1600	EC-1600ZT	EC-1600ZT-5AX
travel xyz (mm)	559·635·559	1626·1270·813	1626·1270·1016	1626·1270·1016
rpm spindle	8100	7500	7500	7500
rpm spindle optional	10000 / 12000 / 15000	10000	10000	10000
taper	40	50	50	50
rapids (xyz)	35.6 m/min	15.2 m/min	15.2 m/min	
tool changer	30+1 side mount	30+1 side mount	30+1 side mount	30+1 side mount
tool changer optional	50+1 / 100+1 side mount	50+1 side mount	50+1 side mount	50+1 side mount

No responsibility is taken for the correctness of the technical information

Haas EC-1600 Series HMCs offer the high performance and large capacity you need to handle larger work.

CNC Gantry Routers

	GR-510	GR-712	GM-2 5AX
travel xyz	3073·1549·279	3683·2159·279	3683·2223·1000
rpm spindle	8100	8100	20000 (HSK)
rpm spindle optional	10000 / 15000	10000 / 15000	
rapids (xyz)	20.3 m/min (x) · 53.3 m/min (y) · 27.9 m/min (z)	20.3 m/min (x) · 53.3 m/min (y) · 27.9 m/min (z)	20.3 m/min (x) · 53.3 m/min (y) · 27.9 m/min (z)
standard tool changer	10+1 (20+1 option)	10+1 (20+1 option)	30+1

No responsibility is taken for the correctness of the technical information

Large-platform CNC Routers for Big Jobs
Haas GR Series gantry routers have the power to cut aluminium and other metals, as well as the speed to cut plastics and other light materials. They easily handle large sheets, or can machine small parts by the thousand.

DRILL/TAP/MILL SERIES

Built on proven Haas Designs and Technology, the Drill/Tap/Mill Series provides the perfect combination of Speed and Power to reduce cycle times.

High-productivity Machining Centre with a Compact Footprint

The Drill/Tap/Mill series machines are high-speed, lean-style machining centres with compact footprints that make very efficient use of valuable shop floor space.

Drill/Tap Centres

	DT-1	DT-2	DM-1	DM-2
travel xyz	508 · 406 · 394	711 · 406 · 394	508 · 406 · 394	711 · 406 · 394
rpm spindle	10000	10000	10000	10000
rpm spindle optional	12000 / 15000 / 20000	12000 / 15000 / 20000	12000 / 15000	12000 / 15000
rapids (xyz)	61.0 m/min	61.0 m/min	61.0 m/min	61.0 m/min
standard tool changer	20+1	20+1	18+1	18+1

No responsibility is taken for the correctness of the technical information

Mini in Volume and Price only
Haas Mini Mills are the industry standard for compact machining centres. They are perfect for schools, start-up shops, or as a first step into CNC machining. Loaded with full-size features, they are valuable additions for shops that need a "second-op" machine, or an additional spindle where space is limited.

Small Mill Series

	OFFICE MILL	MINI MILLS				TOOLROOM MILLS						EDU
	CM-1	MM	MM2	SMM	SMM2	TM-1	TM-1P	TM-2	TM-2P	TM-3	TM-3P	MM-EDU
xyz (mm)	305·254·305	406·305·254	508·406·356	406·305·254	508·406·356	762·305·406	762·305·406	1016·406·406	1016·406·406	1016·508·406	1016·508·406	406·305·254
rpm spindle	30000	6000	6000	10000	10000	4000	6000	4000	6000	4000	6000	4000
rapids (xyz)	19.2 m/min	15.2 m/min	15.2 m/min	30.5 m/min	30.5 m/min	5.1 m/min	10.2 m/min	5.1 m/min	10.2 m/min	5.1 m/min	10.2 m/min	7.6 m/min
standard tool changer	20 stations	10 stations	20 stations	10 stations	20 stations	None	10 stations	None	10 stations	None	10 stations	None

No responsibility is taken for the correctness of the technical information

Large Travels, big Capabilities, Small Price
The Toolroom Mill series is the true definition of value, providing full CNC capabilities, including 4th and 5th-axis functionality, at affordable prices. Haas toolroom mills are found everywhere – from schools to high-end production shops. Their versatility results from a commitment to the use of common components across Haas machine tools. This results in all machines, including toolroom mills, benefiting from improvements in reliability and performance.

Good things in Small Packages
The innovative CL-1 is an ultra-compact CNC chucker lathe that comes with an eight-station automatic turret as standard, making it ideal for dedicated small-part production, second-op parts, or short runs and prototyping of small parts, such as those found in the communications, aerospace, medical and dental industries. The CL-1 can be moved easily with a pallet jack or equipment dolly, and is small enough to fit into most goods lifts.

Small Lathe Series

	OFFICE LATHE	TOOLROOM LATHES		EDU
	CL-1	TL-1	TL-2	TL-1-EDU
max. cutting length m)		762	1219	762
max. cutting diameter m)	126	406	406	406
chuck size (mm)		203	203	203
bar capacity (mm)	25			
cutting diameter over front apron (mm)	126	508	508	508
cutting diameter overcross slide (mm)	279	279	279	279
x-axis travel (mm)	305	203	203	203
z-axis travel (mm)	203	762	1219	762
rapids x	19.2 m/min	11,4 m/min	11,4 m/min	11,4 m/min
rapids z	19.2 m/min	11,4 m/min	11,4 m/min	11,4 m/min
spindle rpm	6000	1800	1800	1800
spindle bore (mm)	31,8	76,2	58	58
spindle nose	Threaded 5C Collet	A2-6	A2-5	

No responsibility is taken for the correctness of the technical information

Simplify the transition from manual to CNC
The TL-2 is very easy to learn and operate – even without knowing G-code. It's the perfect machine for start-up shops or as a first step into CNC machining.

ROTARIES & INDEXERS

Haas HA5C-Series Indexers
The ideal choice for holding smaller parts. Higher productivity through automation.
With more than three decades of refinement, Haas rotary indexers are the industry benchmark for quality, accuracy and dependability. Haas HA5C-series indexers are easy to programme, interface and set up. Our precision in-house manufacturing and machining processes ensure high quality and years of dependable operation.

Examples of Rotary Tables & Indexers

	HRT-210	TRT-100	TRT-160	TR-200Y
platter size	210 mm	100 mm	160 mm	200 mm
max. speed	100°/sec	1000°/sec	104 °/sec	100°/sec
resolution	0.001°	0.001°	0.001°	0.001°
accuracy (±)	± 15 arc-sec	± 25 arc-sec	± 25 arc-sec	± 15 arc-sec
repeatability	10 arc-sec	30 arc-sec	10 arc-sec	10 arc-sec

No responsibility is taken for the correctness of the technical information

HRT-series rotary tables:
Perfect for medium to large parts
Haas HRT-series rotary tables are the perfect solution when you need to hold medium to large parts for multi-side machining or complex contouring. These rugged, heavy-duty rotary tables can be mounted vertically or horizontally, and feature precision T-slots and large through-holes for versatile fixturing.

FOR MORE INFORMATION VISIT
WWW.HAASCNC.COM

NAKAMURA-TOME

LEADING THE WAY THROUGH CUTTING-EDGE TECHNOLOGY

Nakamura-Tome opposed two-spindle, multiple turret construction with tool changers and high power driven tools provide flexibility and machining capability for the most complex mill-turned components in a single setup.

Nakamura-Tome aims to maintain its leadership position in factory automation by sensibly embracing change, fostering unique creativity, and staying at the cutting edge of technology.

Nakamura-Tome is firmly established as a world leader in the design and manufacture of single-process Multi-Tasking Mill-Turning Machines.

WT-/WY-Series CNC Multitasking Lathes

		WT-100	WY-100II	WY-150	WT-150II	WT-250II	WY-250	WY-250L	WT-300
Capacity	Max. turning diameter (mm)	190	175 (Φ42) 200 (Φ51, 65)	225	190	250	225	225	270
	Max. turning length (mm)	503	588 (Φ42) 570 (Φ51, 65)	565	515	555	580	910	780
	Distance between spindle nose (mm)	Max. 735 Min 210	Max. 820 Min. 200	Max. 850 Max. 200	Max. 800 Min. 200	Max. 885 (L65/R51) Max. 870 (L65/R65) Min. 265 (L65/R51) Min. 250 (L65/R65)	Max. 870 Min. 255	Max.1200 Min. 255	Max. 1100 Min. 250
	Bar capacity (mm)	L/R : 42	42 / op.51 / op.65	L/R 51 Op.L65/R51	L/R 51 Op.L65/R51	L65/R51 op. L65/R65	L:65, op.71,80 R:51, op.65,71	L:65, op.71,80 R:51, op.65,71	L:65, op.71,80,102 R:65, op. 102
	Chuck size (mm)	165 (6)	165 (6)	165 (6)	165 (6), 210 (8)	165 (6), 210 (8)	165 (6), 210 (8)	165 (6), 210 (8)	210 (8),254 (10)
Axis Travel	Slide travel X1/X2 (mm)	X1 : 135 X2 : 135	X1 : 150 X2 : 135 (Φ42) X2 : 141 (Φ51, 65)	X1 : 160.5 X2 : 160.5	X1:167.5 (Φ51) X1:152.5 (Φ65) X2:167.5	X1:195 X2:195	X1:160.5 X2:165	X1:160.5 X2:165	X1:195 X2:195
	Slide travel Z1/Z2 (mm)	Z1 : 503 Z2 : 503	Z1 : 588 Z2 : 578	Z1 : 565 Z2 : 565	Z1:515 Z2:515	Z1:600 Z2:600	Z1:580 Z2:580	Z1:910 Z2:910	Z1:780 Z2:780
	Slide travel Y upper turret (mm)	Y : ±31	Y1 : ±42	Y1 : ±45	Y:±35	Y:±41	Y1: ±50	Y1: ±50	Y : ±60
	Slide travel Y lower turret (mm)		Y2 : ±32.5	Y2 : ±35			Y2:+20,-50	Y2:+20,-50	
	Slide travel B-axis (mm)	525	620	650	600	620	620	945	850
Left spindle right spindle	Left Spindle speed (min-1)	L/R : 6000	6000 (Φ42) 5000 (Φ51) 4500 (Φ65)	5000 (Φ51) 4500 (Φ65)	5000 (Φ51) 4500 (Φ65)	4500	4500 (Φ65) 4000 (Φ71) 3500 (Φ80)	4500 (Φ65) 4000 (Φ71) 3500 (Φ80)	4500 (Φ65) 4500 (Φ71) 3500 (Φ80) 2500 (Φ102)
	Left spindle motor	11/7.5 kW	11/7.5 kW	15/11 kW	15/11 kW	18.5/15 kW	18.5/11 kW	18.5/11 kW	15/11 kW
	Right Spindle speed (min-1)	L/R : 6000	6000 (Φ42) 5000 (Φ51) 4500 (Φ65)	5000 (Φ51)	5000 (Φ51)	5000 (Φ51) 4500 (Φ65)	5000 (Φ51) 4500 (Φ65) 4000 (Φ71)	5000 (Φ51) 4500 (Φ65) 4000 (Φ71)	4500 (Φ65) 2500 (Φ102)
	Right spindle motor	11/7.5 kW	11/7.5 kW	11/7.5 kW	11/7.5 kW	11/7.5 kW	15/11 kW	15/11 kW	15/11 kW
Upper turret	Number of turrets	1	1	1	1	1	1	1	1
	Spindle speed (min-1)	6000	6000	6000	6000	6000	6000	6000	3600
	Type of turret head/ Number of index positions	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24
	Driven motor power	7.1/2.2 kW	7.1/2.2 kW	5.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW
	Number of driven-tool stations	12	12	12	12	12	12	12	12
Lower turret	Number of turrets	1	1	1	1	1	1	1	1
	Spindle speed (min-1)	6000	6000	6000	6000	6000	6000	6000	3600
	Type of turret head/ Number of index positions	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24
	Driven motor power	7.1/2.2 kW	7.1/2.2 kW	5.5/3/7 kW	5.5/3.7 kW	5.5/3/7 kW	5.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW
	Number of driven-tool stations	12	12	12	12	12	12	12	12
General	Control panel	Smart-X 19"	Smart-X 19"	Smart-X 19"	Smart-X 19"	Smart-X 19"		19"	Smart-X 19"
	Floor space (L × W × H) mm	2300 × 1620 × 1940	3894 × 2257 × 1930	3814 × 2218 × 2200	3674 × 2264 × 1885.2	4059 × 2314 × 2225	4905 × 3331 × 2395	5035 × 2593 × 2395	4838 × 2487 × 2276
	Machine weight (kg)	5700	9000	10000	9000	8700	12000	13000	14000

No responsibility is taken for the correctness of the technical information

New Nakamura Tome NTRX-300 – the Fusion of a Lathe and 5-Axis

The latest innovation from Nakamura-Tome is the NTRX-300, a heavy duty multi-tasking machining centre with full 5-axis capability to offer complete component machining in a single set up. The X and Y-axis travel on the machine ensure a machining range of 250 mm, further enhanced with the X-axis having a 125 mm travel below the spindle centre to extend the machining range to 250 mm².

Super Multitasking Machines with ATC

		NTRX-300	NTRX-300L	NTJ-100	NTY3-100	NTY3-150	NTY3-250	NTX	NTJX
Capacity	Max. turning diameter (mm)	640	640	175	175 (Φ42) 200 (Φ51, 65)	225	225	390	245
	Max. turning length (mm)	1100	1600	678	588 (Φ42) 570 (Φ51, 65)	685	905,5	1100	1090
	Distance between spindle nose (mm)	Max. 1350 Min. 250	Max 1850 Min 350	Max. 910 Min. 200	Max. 820 Min. 200	Max. 970 Min. 200	Max. 1200 Min. 255	1400	Max. 1290 Min. 210
	Bar capacity (mm)	L/R65, Op.L/R71, L/R80, L90	L/R65, Op.L/R71, L/R80, L90	L/R 51 op/ L/R65	42 / op.51 / op.65	L/R 51 Op.L65/R51	L:65/op.71/op.80 R:51/op.65/op.71	L/R :65 (op. 71, 90)	L:51 / op.65 R:51
	Chuck size (mm)	210 (8"), 254 (10")	210 (8"),254 (10")	165 (6")	165 (6")	165 (6")L/R	165 (6"), 210 (8")	210 (8"), 254 (10")	170 (6")
Axis travel	Slide travel X (mm)	700	700	X1:330, X2:127.5	X1: 135 (Φ42), X1:150 (Φ51,65) X2: 150 (Φ42), X2:150 (Φ51,65) X3: 135 (Φ42), X3:141 (Φ51,65)	X1, X2, X3 : 160.5	X1:160.5 X2:160.5 X3:165	X1:630 X2:255 X3:255	X1:455 X2:222.5
	Slide travel Z (mm)	1150	1625	Z1:1040, Z2:678	Z1: 245 (Φ42), Z1:227 (Φ51,65) Z2: 245 (Φ42), Z2:245 (Φ51,65) Z3: 578 (Φ42), Z3:560 (Φ51,65)	Z1, Z2 : 235	Z1:355 Z2:355 Z3:910	Z1:1150 Z2:375 Z2:375	Z1:1090 Z2:1005
	Slide travel Y upper turret (mm)	250 ±125	250 ±125	Y1:±40, Y2:±32.5	Y1:±42, Y2:±42, Y3±32.5	Y1, Y2 : ±45 Y3: ±35	Y1:-61,+51 Y2:-61,+51 Y3:-51,+61	160 ±80	Y1: ±70 Y2:+20,-50
	Slide travel B (mm)	1100	1550	710	620	770	945	1150	1008
Left spindle right spindle	Spindle speed (min-1)	4500 (Φ65)	4500 (Φ65)	5000 (Φ51) 4500 (Φ65)	6000 (Φ42) 5000 (Φ51) 4500 (Φ65)	5000 (Φ51) 4500 (Φ65)	5000 (Φ65,Φ71) 4500 (Φ65,Φ71) 3500 (Φ80)	4500 (Φ65) 3500 (Φ71) 2500 (Φ90)	6000 (Φ51) 4500 (Φ65)
	Left spindle motor	15/11 kW	15/11 kW	11/7.5 kW	11/7.5 kW	15/11 kW	18.5/11 kW	22/18.5 kW (Φ65,Φ71) 30/22 kW (Φ90)	15/11 kW
	Spindle speed (min-1)	4500 (Φ65)	4500 (Φ65)	5000 (Φ51) 4500 (Φ65)	6000 (Φ42) 5000 (Φ51) 4500 (Φ65)	5000 (Φ51)	5000 (Φ51, Φ65, Φ71) 4500 (Φ65 ,Φ71)	4500 (Φ65) 3500 (Φ71) 2500 (Φ90)	6000 (Φ51)
	Right spindle motor	15/11 kW	15/11 kW	11/7.5 kW	11/7.5 kW	11/7.5 kW	18.5/11 kW	22/18.5 kW (Φ65,Φ71) 30/22 kW (Φ90)	11/7.5 kW

OPPOSED TWIN-SPINDLE TURRET

WORLD'S FASTEST B-AXIS TOOL SPINDLE

NAKAMURA-TOME

The super NTY3-150 is a high-productivity, Multi-Tasking Turning Centre that ist at the cutting edge of speed

Nakamura-Tome has introduced a unique three turret three Y-axis multi-tasking machine centre. Compact footprint, with an ergonomic 60° slant bed. The ultimate high precision, high-performance multi-tasking machine.

In addition to the advantages of simultaneous machining on the left and right-hand spindles, introducing the Y-axis on all three turrets contributes to increased productivity. By using Y-axis for simultaneous machining with the upper and lower turrets, machining process layout optimisation becomes a reality. Whether machining with multiple tools simultaneously on one side or on both the left and right-hand sides, the cycle time is dramatically reduced.

		NTRX-300	NTRX-300L	NTJ-100	NTY3-100	NTY3-150	NTY3-250	NTX	NTJX
Tool spindle	Tool spindle speed (min-1)	8000 (12000 op.)	8000 (12000 op.)					8000 (12000 op.)	8000 (12000 op.)
	Tool shank type	Capto C6 (HSK-A63 op.)	Capto C6 (HSK-A63 op.)					CAPTO C6 (HSK-A63 op.)	CAPTO C6 (HSK-A63 op.)
	Number of tool stock	40 op. 60 / 80 / 120	40 op. 60 / 80 / 120					24 (40, 80, 120 op.)	40 (80, 120, 160 op.)
	Max tool diameter (mm)	90	90					90 (120)	70 (90)
	Max tool length (mm) / max tool weight (kg)	300/12	300/12					300/8	280/8
Upper turret	Number of turrets			1	2	2	2		
	Spindle speed (min-1)			6000	6000	6000	6000		
	Type of turret head/ Number of index positions			Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24		
	Driven motor power			7.1/2.2 kW	7.1/2.2 kW	5.5/3.7 kW	5.5/3.7 kW		
	Number of driven-tool stations			12	12	12	12		
Lower turret	Number of turrets			1	1	1	1	2	1
	Spindle speed (min-1)			6000	6000	6000	6000	3600	6000
	Type of turret head/ Number of index positions			Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24	Dodecagonal / 24
	Driven motor power			7.1/2.2 kW	7.1/2.2 kW	5.5/3/7 kW	5.5/3.7 kW	5.5/3.7 kW	7.5/3.7 kW
	Number of driven-tool stations			12	12	12	12	12	12
General	Control panel	Smart-X 19"	Smart-X 19"	Smart-X 19"	Smart-X 19"	Smart-X 19"	Smart-X 19"	Smart-X 19"	Smart-X 19"
	Floor space (L × W × H) (mm	4917 × 2670 × 2615	5744x 2670x 2615	3799 × 2100 × 2565	3894 × 2240 × 1930	3814 × 2218 × 2200	5350 × 3350 × 2395	5855 × 3656 × 3171	5551 × 2922 × 2445
	Machine weight (kg)			10000	9500	10500	14425	22000	14000

No responsibility is taken for the correctness of the technical information

Turret-Type Super Multitasking Machine SC-100

Nakamura-Tome unveils the new compact single-spindle models with a 6-inch chuck. The maximum machining diameter is φ200 mm, and the maximum machining length is 400 mm. The milling function and the Y-axis have been standardised to produce high value added components. NC tailstock and NC sub-spindles are also available. The setup is easy to operate on Nakamura-Tome's proprietary inter-face, NT-Nurse.

AS & SC Series CNC Lathe

		AS-200	AS-200L	SC-100	SC-200	SC-200L	SC-250	SC-300II	SC-300IIL	SC-450	SC-450L	SC-450LL
	Max. turning diameter	290	290	230	432 (without Y axis) 410 (with Y axis)	410	300	360	360	465	480	480
	Max. turning length (mm)	300	570	300 (tailstock) 400 (sub-spindle)	330	530	500	600 (tailstock) 635 (sub-spindle)	1100 (tailstock) 1135 (sub-spindle)	785	1520	2520
Sub spindle	Distance between spindle nose (mm)	427	800	430	509	800	780	910	1310	1050	1752	2752
	Bar capacity (mm)	65 (71 op.)	65 (71 op.)	51	65	65	51 (65 op.)	71 (89 op.)	71 (89 op.)	80 (90 op.)	80 (90 op.)	81 (89, 165 op.)
	Chuck size (mm)	210 (8")	210 (8")	165 (6")	210 (8")	210 (8")	215 (8")	250 (10") / 300 (12")	250 (10") / 300 (12")	300 (12")	300 (12")	305 (12")/381 (15")/455 (18")
	Slide travel X (mm)	202.5	202.5	150	261 (without Y axis) 277 (with Y axis)	277	177.5	232.5 (ϕ71) 216 (ϕ89)	232.5	315	322.5	322
Axis travel	Slide travel Z (mm)	320	585	400	365	580	550	635	1135	825	1610	2610
	Slide travel Y (mm)	±41	±41	±40	±41	±41	±41	±60	±60	±70	±75	±75
Left spindle right spindle	Spindle speed (min-1)	4500 (ϕ65) 4500 (ϕ71)	4500 (ϕ65) 4500 (ϕ71)	5000	4500	4500	5000 (ϕ51) 4500 (ϕ65)	3500	3500	2500	2500	2500 (ϕ81,89) 1200 (ϕ165)
	Spindle motor	15/11 kW	15/11 kW	11/7.5 kW	11/7.5 kW	11/7.5 kW	15/11 kW	22/18.5 kW	22/18.5 kW	30/22 kW	30/22 kW	30/30 kW
	Number of turrets	1	1	1	1	1	1	1	1	1	1	1
	Spindle speed (min-1)	6000	6000	6000	6000	6000	3600	6000	6000	3600	3600	3600
Upper turret	Type of turret head/ Number of index positions	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12	Dodecagonal / 12
	Driven motor power	5.5/3.7 kW	5.5/3.7 kW	7.1/2.2 kW	5.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW	7.5/3.7 kW	7.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW	5.5/3.7 kW
	Number of driven-tool stations	12	12	12	12	12	12	12	12	12	12	12

The SC-300L is a rugged, High-Speed precision CNC Turning Centre offering maximum Versatility and Productivity

SC300L offers a high-torque, wide range, 30 horse power main spindle motor. Combined with its massive cast-iron 45 degree slant bed, this unit ensures full power is available under the heaviest cutting conditions with no vibration or chattering.

		AS-200	AS-200L	SC-100	SC-200	SC-200L	SC-250	SC-300II	SC-300IIL	SC-450	SC-450L	SC-450LL
Tailstock	Tailstock diameter	70	80		80	80	80	90	90	120	120	2020 (stroke)
	Tailstock stroke	80	80		80	80	80	100	100	100		
	Tailstock taper	MT-4	MT-4	MT-3	MT-4	MT-3	MT-4	MT-5	MT-4	MT-4	MT-5	MT-5
Sub spindle	Sub-spindle Chuck size / Bar capacity (mm)		165 (6") / ϕ42	165 (6") / 42	165 (6") / ϕ34	165 (6") / ϕ42	215 (8") / 51	165 (6"), 210 (8") / 51	165 (6"), 210 (8") / 51			
	Sub-spindle speed (min-1)		6000	60000	5000	6000	5000	5000	5000			
	Sub-spindle motor		7,5 / 5,5 kW	7.5/5.5 kW	5.5/3.7 kW	7.5/5.5 kW	11/7.5 kW	15/11 kW	15/11 kW			
	Distance between spindle nose (max / min) mm		800	430	509	800	780	910	1310			
General	Floor space (L × W × H) mm	1655 × 1665 × 1852	3160 × 1805 × 1935	3294 × 1700 × 1780	2430 × 1825 × 1965	2771 × 1884 × 1965	2777 × 1725 × 2065	4480 × 2130 × 2300	5550 × 2130 × 2400	4709 × 2075 × 2575	4740 × 2165 × 2185	7137 × 2478 × 2213
	Machine weight (kg)	5000	6000	4500	4000	5000	4500	8000	10000	8000	9000	15000

No responsibility is taken for the correctness of the technical information

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WWW.NAKAMURA-TOME.CO.JP

SC SERIES

A versatile lineup, from small to large-scale machines, for a wide range of machining needs.

MATSUURA

THE ULTIMATE IN PRODUCTIVITY & FLEXIBILITY

Matsuura

Matsuura has been making Machine Tools in Japan since 1935, and has played a pioneering role in the innovative design, development and manufacture of high-quality Machining Centres.

5-Axis Products
Renowned the world over in a wide range of different industries for their performance, reliability and accuracy, Matsuura's 5-axis products have led the field for over 20 years.

Horizontal Machining
All Matsuura H.Plus-series machines are available with a wide range of pallet, spindle and ATC configurations - tailored to your process and workload and with proven reliability and exceptional performance as standard.

Vertical Machining
Matsuura's history and heritage as a pioneer in vertical machine tools are second to none among global manufacturers.

Hybrid Metal 3D Printer
The Lumex Avance-25 is a single-machine platform integrating a fibre laser for state-of-the-art metal sintering and a machining centre for performing high-accuracy, high-speed milling. The ability to "grow" a metal component in layers with complex internal features, and mill those features as the layers are added to give a perfect surface finish, are what makes the Lumex Avance-25 such a distinctive and remarkable tool.

CONFIGURED BY MATSUURA MACHINERY

to maximise process efficiency for your specific workload.

5-Axis High-Speed Machining Centres

		MX-330	MX-520	MX-850	MAM72-35V	MAM72-63V	MAM72-70V	MAM72-100H
Max Work Size	(mm)	ø420x320	ø520 × H350	ø760 × H450	ø350 × H315	ø720 × H450	ø700 × H500	ø1020 × H770
Travel	Travel x (mm)	435	630	900	550	760	1200	1050
	Travel y (mm)	465	560	780	440	845	720	920
	Travel z (mm)	560	510	650	580	660	710	960
Working surface	(mm)	ø250	ø300	ø500	ø130	ø500	500x500	630x630
	optional		ø500	ø700				
Travel	A/C (deg)	-125 ~ +10/360	-125 ~ +10/360	-125 ~ +10/360	-125 ~ +65/360	-120 ~ +120/360	+30 ~ -125 /360	-120 ~ +30/360
Loading capacity	(kg)	80	200	500	60	400	500	780
Spindle	Spindle speed (min-1)	15000	12000 (BT40)	12000 (BT40)	12000 (BT40)	12000 (BT40)	15000 (BT40)	12000 (BT50)
	optional	20000	20000 (BT40)	15000 (BT40), 20000 (BT40)	15000 (BT40), 20000 (BT40)	12000 (BT50) 20000 (BT40) 30000 (BT40)	20000 (BT40)	10000 (BT50) 15000 (BT50)
Rapids	Rapid x (m/min)	40	40	40	60	60	60	60
	Rapid y (m/min)	40	40	40	60	60	60	60
	Rapid z (m/min)	40	40	40	60	60	60	50
Tools	Number of tools	30	60: BT40	60: BT40	60: BT40	51: BT40	90: BT40	60: BT50
	optional				120 / 160 / 200 240 / 280 / 320	120 / 150 / 180 210 / 240 / 280	130 / 170 / 210 250 / 290 / 330	
		60/90	90	90	360 / 400 / 440 480 /520	320 / 520 :BT40	:BT40	120 / 150 / 180 /
					:BT40	150 / 180 / 210 / 240 / 270 / 300 :BT50		210 / 245: BT50
Pallets	Number of pallets				2		2	2
	optional	10	4	4	32 / 40	2 / 6 / 18	6 / 18	6
NC System	Matsuura	G-Tech 31i	G-Tech 31i	G-Tech 31i	G-Tech 31i	G-Tech 30i	G-Tech 31i	G-Tech 31i

No responsibility is taken for the correctness of the technical information

The Matsuura H.Plus-300 – largest working areas in its class

The Matsuura H.Plus-300 horizontal machining centre is the most compact HMC available and offers high-speed, high-precision and efficient production. Travels and part capacity are equal to typical 400 mm horizontals, while using only 70 % of the space. These machines are known for their consistent high-accuracy in a variety of conditions with thermal compensation standard.

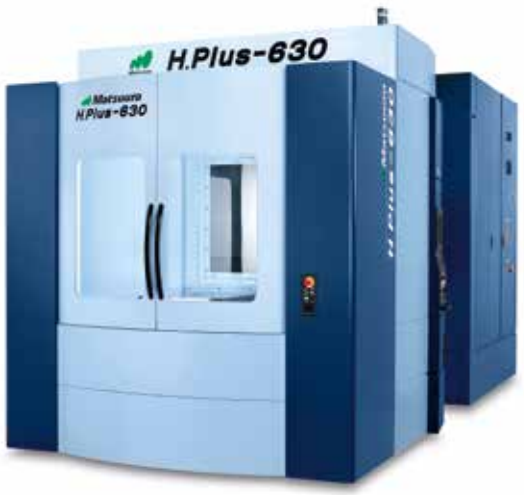
CNC Horizontal Mills (40 & 50 Taper)

		H.Plus-300	H.Plus-400	H.Plus-405	H.Plus-504	H.Plus-500	H.Plus-630
Max Work Size	(mm)	ø530 × H760	ø 630 × H900	ø 700 × H850	ø800 × H1000	ø850 × H1050	ø1050 × H1115
Travel	Travel x (mm)	500	560	660	730	800	1050
	Travel y (mm)	560	640	660	730	800	920
	Travel z (mm)	500	640	660	800	800	990
Working surface	(mm)	300 × 300	400 × 400	500 × 500	500 × 500	500 × 500	630 × 630
Loading capacity	(kg)	250	400	400	750	750	1200
Spindle	Spindle speed (min-1)	15000 (BT40)	15000 (BT40)	12000 (BT40)	12000 (BT40)	12000 (BT50)	12000 (BT50)
	optional	20000 (BT40), 30000 (BT40)	20000	20000	15000 20000	15000	10000 (BT50) 15000 (BT50)
Rapids	Rapid x (m/min)	60	60	60	60	60	60
	Rapid y (m/min)	60	60	60	60	60	60
	Rapid z (m/min)	60	60	60	60	60	60
Tools	Number of tools	60: BT40	60	60	60: BT40	60: BT50	60: BT50
	optional	120 - 520	60 – 330	120 - 520	60 – 330	120: BT50, 150 / 180 / 210 240: BT50	120: BT50, 150 / 180 / 210 / 240: BT50
Pallets	Number of pallets	2	2	2	2	2	2
	optional	5 / 11 / 15 / 17	6 / 12	6 / 12	6	6	6
NC System	Matsuura	G-Tech 30i	G-Tech 31iB	G-Tech 30iB	G-Tech 31iB	G-Tech 31iB	G-Tech 31iB

No responsibility is taken for the correctness of the technical information

The Matsuura H.Plus-630 – high rigidity, high speed, compact all-rounder

The recently redesigned Matsuura H.Plus-630 horizontal machining centre is a rugged, high-speed precision horizontal machining centre offering maximum versatility and productivity. Delivering long periods of reliable, unmanned operation, high accuracy, and exceptionally efficient production, the H.Plus-630 horizontal machining centre offers high rigidity, high speed with a compact footprint.



The Matsuura VX-660 –
a truly, high speed, precision VMC
This versatile 3-axis vertical machining centre boasts high-speed, high-precision and high accuracy within a compact footprint. With a very large Y-axis of 550 mm, the VX-660 is equipped with: a high-performance and high-rigidity BT40/15K spindle; and 30 tools as standard with conveyor and 48/60 optional.

CNC Vertical Mills

		VX-660	VX-1000	VX-1500	V.PLUS-500
Travel	Travel x (mm)	660	1020	1524	550
	Travel y (mm)	550	610	700	410
	Travel z (mm)	560	610	610	560
Working surface	(mm)	940 × 550	1200 × 600	1700 × 700	860 × 400
Loading capacity	(kg)	500	500	2000	400
Spindle	Spindle speed (min-1)	15000	15000	15000 (BT40)	15000
	optional	20000	20000	15000 (BT50)	20000
Rapids	Rapid x (m/min)	48	40	36	40
	Rapid y (m/min)	48	40	36	40
	Rapid z (m/min)	48	36	36	40
Tools	Number of tools	30: BT40	30: BT40	48: BT40	30: BT40
	optional	48: BT40, 60: BT40	48: BT40, 60: BT40	60: BT40 / 30: BT50	60: BT40, 90: BT40
NC System	Matsuura	G-Tech 31i	G-Tech 31i	G-Tech 31i	G-Tech 31i

No responsibility is taken for the correctness of the technical information

The Matsuura VX-1000 – a cost-effective
Vertical Machining Centre providing
heavy-duty performance. Its high-tech spindle is reliable and accurate. Compact 30 station ATC as standard – 48/60 chain magazine optionally available.

FOR MORE INFORMATION VISIT
WWW.MATSUURA.CO.JP

TORNOS

YOUR SWISS MACHINE-TOOL MANUFACTURER

TORNOS

Tornos keeps you turning with a wide range of automatic Lathes, Bar Feeders and Software to meet your needs across a wide range of manufacturing applications.

Tornos uses a range of machining technologies with integrated swarf removal capabilities to produce parts requiring extreme precision and quality. Whether machining simple or highly complex parts, in small or large runs, Tornos machines can offer you a solution guaranteed to meet your needs. The company also has a worldwide sales and services network.

Tornos keeps you turning with the machines, software and services essential to your high-precision results. From micromechanics and medical and dental to automotive and electronics, our tailored solutions keep you successful in an increasingly competitive global manufacturing environment.

KEY FEATURES OF THE TORNOS RANGE

- CNC single-spindle sliding headstock turning machines for parts less than 36 mm in diameter
- Multi-spindle machines with numerical or cam control for parts up to 32 mm in diameter
- Machining centres for complex parts 1 dm^3 in volume requiring high precision

MultiSwiss Machines
Tornos' comprehensive MultiSwiss range offers solutions for producing parts measuring 4 to 32 mm in diameter.

MultiSwiss bridges the gap between multi-spindle and single-spindle machines. MultiSwiss machines feature six mobile spindles that use torque motor technology for barrel indexing. It is very fast, and can deliver cycle times equal to those of cam-operated multi-spindle lathes.

Multi-Spindle Lathes

	MultiSwiss 6x16	MultiSwiss 8x26	MultiSwiss 6x32
Bar capacity	4 - 16 mm	8 - 26 mm	8 - 32 mm
Max. workpiece length	40 mm	65 mm	65 mm
Max. remnant length	70 mm	140 mm	140 mm
Number of linear axes	14	18	14
Number of Y Axes (option)	1	3 / 6	3
Number of rotating C axes	6+1	8+1	8+1
Powered spindle max. speed	8000 rpm	8000 rpm	6000 rpm
Powered spindle power	5.6 kW	11 kW	11 kW
Powered spindle torque (Nm)	8.00 / 10.00	12.00 / 15.50	12.00 / 15.50
Max number of tools	18	31	23
Max number of tools back operation	2	4	4
Dimension (L × W × H)	5920 × 1440 × 2120 mm	9000 × 2260 × 2160 mm	9000 × 2260 × 2160 mm
Weight	7000 kg	15000 kg	14800 kg

No responsibility is taken for the correctness of the technical information

Swiss DT & CT Lathes

	Swiss DT 13	Swiss DT 26	Swiss CT 20
Maximum diameter	13 mm	25.4 mm	20 mm
Number of linear axes	5	5	5
Number of C axes	2	2	2
Number of independant tool systems	2	2	2
Total number of tool positions	21	22	26
Position for rotating tools	7	8	10
Floor space (L × W × H)	2122 × 870 × 1720 mm	2166 × 1300 × 1720 mm	2050 × 1270 × 1670 mm
Weight (kg)	2300	2400	2400

No responsibility is taken for the correctness of the technical information

Swiss DT – The gateway to the Tornos world
The Swiss DT range, part of the Swiss-type lathe product line, is designed to meet requirements for typical long and short turned parts.

Swiss GT Lathes

	Swiss GT 13	Swiss GT 26	Swiss GT 26 B	Swiss GT 32	Swiss GT 32 B
Maximum diameter	13 mm	25.4 mm	25.4 mm	32 mm	32 mm
Number of linear axes	6	6	6	6	6
Number of C axes	2	2	2	2	2
B-axis	–	–	Yes	–	Yes
Number of independant tool systems	2	2	2	2	2
Total number of tool positions	30	40	36	40	36
Position for rotating tools	12	14	16	14	16
Floor space (L × W × H)	2170 × 1140 × 1890 mm	2710 × 1270 × 1990 mm	2710 × 1270 × 1990 mm	2710 × 1270 × 1990 mm	2710 × 1270 × 1990 mm
Weight kg	2800	3550	3550	3550	3550

No responsibility is taken for the correctness of the technical information

The versatile Swiss GT range
The simple, ergonomic Swiss GT range of automatic lathes, part of the Swiss-type product line, features a complete standard equipment package at a competitive price, offering easy access to all tool positions. The automatic lubrication unit, swarf tray, and high-volume removable oil pan help ensure easy operation and maintenance.

TORNOS

EvoDECO – The most productive and powerful Machines on the market

- Unique productivity thanks to 4 independent tool systems
- Powerful motor
- Flexibility to produce highly complex workpieces thanks to modular tool system
- B-axis (EvoDECO 16)

EvoDECO Lathes

		EvoDECO 10/10		EvoDECO 10/8		EvoDECO 16/10		EvoDECO 20		EvoDECO 32	
		Main	Counter	Main	Counter	Main	Counter	Main	Counter	Main	Counter
Spindle	Max bar capacity (mm)	10	10	10	10	16	16	25.4	25.4	32	16
	Standard workpiece length with rotating guide bush (mm)	100	100	100	100	180	150	200	150	240	150
	Spindle speed of rotation (rpm)	14000	14000	14000	14000	12000	12000	10000	10000	8000	12000
	Spindle output (kW)	6.5 / 10.1	05.01.07	6.5 / 10.1	05.01.07	09.08.12	09.08.12	9.5 (12.8)	9.5 (12.8)	9.5 (12.8)	09.08.12
	Max constant torque (Nm)	4.8 / 6.5	3.4 / 4.8	4.8 / 6.5	3.4 / 4.8	12.1 / 15.8	12.1 / 15.8	15.1 (20.4)	15.1 (20.4)	15.1 (20.4)	12.1 / 15.8
	Spindle stoppage time (8000 to 0) (sec)	0.5	0.5	0.5	0.5	0.7	0.7	1	1	0.8	0.7
	Mild steel drilling capacity (mm)	6	6	6	6	10	10	14	14	14	10
	Mild steel tapping capacity	M6	M6	M6	M6	M10	M10	M12	M12	M12	M10
Guide bush holder	Number of tool positions on guide bush	8/2×4		8/2×4		10/2×5		10 (5+5)		10 (5+5)	
	Cross section of rotating tools	8×8		8×8		12×12 / 12.7×12.7		16×16		16×16	
	Positions for rotating tools	4		4		6/2×3		6 (4+2)		6 (4+2)	
	Rotating tools speed of rotation (rpm)	12000		12000		8000		8000		8000	
End attachment	Number of tool positions	3				4		4		4	
	Positions for rotating tools	3				3		3		3	
	Speed of rotation of rotating tools (rpm)	1200				8000		6000		6000	
General information	Floor space (L×W×H) (mm)	1870×1140×1850		1870×1140×1850		2135×1250×2004		2289×2070×2300		2289×2070×2300	
	Weight (kg)	1500		1650		2700		3500		3500	

No responsibility is taken for the correctness of the technical information

SwissDECO Lathe

		SwissDECO 36	
		Main	Counter
Spindle	Max bar capacity (mm)	32 (36)	36
	Standard workpiece length with rotating guide bush (mm)	300 (200)	
	Spindle speed of rotation (rpm)	8000	8000
	Spindle output (kW)	10	10
	Max constant torque (Nm)	53	53
	Drilling capacity (9SMnPb36) (mm)	16	
	Tapping capacity	M12	
Plattens	Number of tool positions in main operations	57	
	Positions for rotating tools	15	
	Deep drilling capacity (mm)	200	
	Rotating tools speed of rotation (rpm)	6000	
	Nominal power of rotating tools (kW)	2.4 (15 Nm)	
	Drilling capacity (9SMnPb36) (mm)	12	
	Tapping capacity (9SMnPb36) (mm)	M12 × 5 mm / M10 × 10 mm	
General information	Floor space (L × W × H) (mm)	3000 × 1600 × 2000	
	Weight (kg)	5900	

No responsibility is taken for the correctness of the technical information

SwissDECO – Taking Performance to new Heights

Tornos presents its vision for the future of bar turning with SwissDECO, part of the Swiss-type product line.

The SwissDECO range offers no fewer than three machines available in a choice of two diameters: 25.4 mm and 36 mm. All equipped with three independent tool systems, SwissDECO machines are designed to provide exceptional operating flexibility, while remaining extra-ordinarily user-friendly. The SwissDECO range distils more than 100 years of experience into a single machine. More than simply a range of machines, this is Tornos' vision of the future of bar turning.

TORNOS

SwissNano Lathes

		SwissNano 4/6	SwissNano 7
Main Spindle	Max bar capacity (mm)	4	7
	Standard workpiece length with fixed guide bush (mm)	28	50
	Spindle power (nominal/ max) (kW)	1.3 / 1.5	2.5 kW
	Torque (nominal/max) (Nm)	0.8 / 1	0.8 / 1
	Number of tools on guide bush	7	11
	Turning tool section	8 × 8	8 × 8
	Positions for radial rotating tools (option)	2	3
	Rotating tool speed of rotation (RPM)	8000	8000
Guide Bush Holder	Number of tool positions	3 × ø16	4 × 16 mm
	Positions for rotating tools	3	3
	Max bar capacity (mm)	4	7
	Insertion length of workpiece into counter spindle (mm)	26	40
	Spindle rotation speed (RPM)	16000	16000
	Spindle power (nominal/ max) (kW)	1 / 2	2.5 kW
General information	Floor space (L × W × H) (mm)	1800 × 650 × 1575	750 × 1850 × 1655
	Weight (kg)	700	

No responsibility is taken for the correctness of the technical information

SwissNano
The SwissNano range was designed to meet demand for small workpieces requiring a very high level of precision.

For example, its kinematics enable the machine to produce two thirds of watch movement components, from the simple to the most complex, including cutting, with excellent finishes. Its capability extends beyond horological applications to include any type of workpiece requiring extreme quality and precision. The kinematic structure was designed for exemplary balance, and thermal management enables the operating temperature to be achieved very rapidly.

FOR MORE INFORMATION VISIT
WWW.TORNOS.COM

SHIMADA

THE MULTI-SPINDLE SPECIALIST

Multi-Spindle Lathes provide a highly productive and efficient alternative to Single-Spindle Machines, enabling streamlined operations and drastically reduced setup and idle times.

Leading the Way
Shimada – the first company in the world to develop and produce a CNC 6-spindle automatic lathe – is Japan's leading manufacturer of camless CNC 6 and 8-spindle automatics and dual-spindle indexers, designed to maximise production output. Turning bar material can be space and time-consuming: Shimada's machines challenge this notion.

An Array of Options
Shimada's automatics can be configured with various optional and custom features that can help further reduce cycle times for large-volume runs.

"Load while machining" Capability
Shimada's dual-spindle CNC lathe allows loading with one spindle while machining is carried out with the other. This design, with the chucking position outside the machine, enables easy manual loading/unloading and chuck exchange.

The shortest Idle time industry-wide
The 2SI models uniquely connect 2 spindles, one turret and a Fanuc controller into a highly productive machine tool package. This 2-spindle 1 NC lathe was developed from the architecture of "reducing idle time to the utmost limit".

Dual-Spindle Lathe with Robotic Automation

		2SI-6	2SI-8	2SI-10	
Range	Max.turning diameter	180 mm (7.0")	210 mm (8.2")	310 mm (12.2")	
	Max.turning length	120 (4.7")		120 (4.7")	
Spindle	No. of spindles	2		2	
	Chuck size	6"	8"	10"	12"
	Spindle motor	7.5/5.5 kW (10/7.5HP)		15/18.5 kW (20/25HP)	
	Spindle RPM	50 - 5000	35 - 3500	30 - 3000	
Tool Turret	No. of tool stations	8 or 12 or Chaser type		8 or 12 or Chaser type	
	Max. no. of power tools	6 tools		6 tools	
	Tool spindle RPM	200 - 5000		200 - 5000	
NC slide	X-axis travel	120 mm (4.7")		170 mm (6.7")	
	Z-axis travel	170 mm (6.7")		205 mm (8.0")	
	Rapid feed rate	15 m/min (600"/min)		15 m/min (600"/min)	
Weight and dimensions	Floor to spindle centre	960 mm (37.8")		1100 mm (43.3")	
	Floor space	1900 (74.8") × 1600 (63")		2450 (96.5") × 2200 (86.6")	
	Weight	3600 kg (8000 lb)	3800 kg (8400 lb)	5500 kg (12200 lb)	

No responsibility is taken for the correctness of the technical information

4-spindle CNC Horizontal Lathe with Robot
This is 4-spindle CNC rotary type horizontal with robotic loading. With such machine the production time lost is minimised and productionis maximised without skilled labour.

4-Spindle Twin-Turret Lathe

		HS 4200
Range	Max.turning diameter	ϕ200 mm (7.8")
Spindle	No. of spindles	4
	Chuck size	8"
	Spindle motor	11/15 kW (15/20HP) × 2
	Spindle RPM	45-4500 min-1
Tool Turret	Tool turret	8 Tools or Gang type × 2
	X-axis travel	160 mm (6.3")
	Z-axis travel	250 mm (9.8")
	Rapid feed rate	24 m/min
Weight and dimensions	Floor space	2400 (94.5") × 3220 (127")
	Weight	7500 kg (16600 lb) (with Loader)

No responsibility is taken for the correctness of the technical information

CNC Vertical 4-Spindle Twin-Turret Lathe

			VT4-350
Range	Max.turning length		ϕ375 (14.7") × 270 mm (10.6")
Spindle	No. of spindles		4
	Chuck size		15"
	Spindle	(Standard)	18.5/22 kW (25/30HP) × 2
	Motor	(Option)	22/26 kW (30/35HP) × 2
	Spindle	(A)	23-2300 min-1
	RPM	(B)	32-3200 min-1
Tool Turret	Turret		6 Tools × 2 (Option:8 Tools × 2)
	X-axis travel		300 mm (11.8")
	Z-axis travel		450 mm (17.7")
	Rapid feed rate		20 m/min
Weight and dimensions	Floor space		3025 (119") × 2980 (117.3")
	Weight		12000 kg (26620 lb)

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VT4-350 Productive CNC 4-Spindle Vertical Lathe
Part loading/unloading time is ZERO:

- As a FM cell, the machine facilitates automation of a manufacturing line.
- Vertical design enables handling of heavy workpieces.
- Loading spindle is covered to protect from coolant and chips.
- Spindle offset function compensates for errors between spindles in the microns.
- Spindle speeds can be independently controlled for each spindle.

6-Spindle CNC Lathe – High-production CNC Lathe with High-Speed part loading

This 4-chuck (front) turning centre features an exclusive system for fast, automatic centring of two parts at a time in just 1.5 seconds. This enables parts to be changed in masked time, delivering a significant boost in productivity, especially in the case of parts with sufficiently short machining cycles.

CNC Multi-Spindle Lathe

CN 660					
Function	Item	No NC Slide	1 NC Slide	2 NC Slides	3NC Slides
Turning Capability	Chucking diameter	Φ60 (Φ2.36") or 5 inch chuck			
	Max. turning length	200 mm (7.8")			
Spindle	No. of spindles	6			
	Max. spindle RPM	3000 min-1			
	Motor	Select from 5.5 kW, 7.5 kW, or 11 kW			
End Tool Slide	Tool diameter	Φ55 mm (Φ2.16)			
	Drive system	Camless oil pressure (optional: NC drive)			
	Stroke	200 mm (7.8")			
NC Slide	Number of axes		Two axes	Four axes	Six axes
	X-axis stroke		120 mm	120 mm/70 mm	120 mm/70 mm/50 mm
	Z-axis stroke		120 mm	120 mm/60 mm	120 mm/60 mm/50 mm
	X-axis rapid feed speed		15 m/min		
	Z-axis rapid feed speed		15 m/min		
Machine Size	Machine height	1800 mm (70.9")			
	Floor space	2300 × 2000 mm	2300 × 2300 mm		
	Machine weight	3500 kg (7800 lb)	3800 kg (8500 lb)	4300 kg (9500 lb)	4500 kg (10000 lb)

No responsibility is taken for the correctness of the technical information

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WWW.SMD.CO.JP

STUDER
THE ART OF GRINDING.

STUDER

Fritz Studer AG, established in 1912, is one of the market and technology leaders in universal, external and internal cylindrical grinding as well as noncircular grinding. With around 24,000 delivered systems, STUDER has been synonymous with precision, quality and durability for decades.

The name STUDER stands for hardware, software, system integration and Swiss quality service. With a customized complete solution for each grinding task, the customer also receives our knowledge and know-how about the grinding process.

STUDER makes your company more successful – and has been doing so for over 100 years. The customers can rely on a global network of representatives and service support centers. Regional contact partners respond to your concerns quickly and simply – irrespective of which machine is involved. As technology leaders in universal, external and internal cylindrical grinding STUDER focus on sophisticated processes and is a reliable partner for your future investments.

MORE THAN 100 WHEELHEAD OPTIONS

The optimum solution for every grinding job thanks to the modular machine concept.

The favorit is a CNC universal cylindrical grinding machine for the individual and batch production of short to long-sized workpieces.
STUDER has machines from the entry level machine for the most important applications to the all-rounder for complex grinding tasks. Small to large workpieces for individual, small and large-scale production.

CNC Universal external cylindrical grinding machines

	favorit	favoritCNC	S33	S31	S41
Max. Travel X	370 mm	285 mm	370 mm	370 mm	350 mm
Max. Travel Speed X	15'000 mm/min	10'000 mm/min	15'000 mm/min	15'000 mm/min	20'000 mm/min
Max. Travel Y					100 mm
Max. Travel Z	500 / 800 / 1150 / 1750 mm	800 / 1150 mm	500 / 800 / 1150 / 1750 mm	500 / 800 / 1150 / 1750 mm	1150 / 1750mm
Max. Travel Speed Z	20'000 mm/min	20'000 mm/min	20'000 mm/min	20'000 mm/min	20'000 mm/min
Max. Spindle Power	8 kW	9 kW	8 kW	8 kW	15 kW
Max. Number of Revolutions	3'200 /min	2'810 /min	3'200 /min	3'200 /min	4'500 /min
Max. Grinding Wheel Diameter	508 mm	508 mm	508 mm	508 mm	508 mm
Max. Grinding Wheel Width	80 mm	80 mm	80 mm	80 mm	100 mm
Max. Workpiece Lenght	400 / 650 / 1000 / 1600 mm	650 / 1000 mm	400 / 650 / 1000 / 1600 mm	400 / 650 / 1000 / 1600 mm	1000 / 1600 mm
Workpiece Diameter	0-349 mm	0-349 mm	0-349 mm	0-349 mm	0-549 mm
Max. Workpiece Weight	150 kg	80 kg	150 kg	150 kg	250 kg
Distance Between Centers	400 / 650 / 1000 / 1600 mm	650 / 1000 mm	400 / 650 / 1000 / 1600 mm	400 / 650 / 1000 / 1600 mm	1000 / 1600 mm
Center Height	175 mm	175 mm	175 mm	175 mm	275 mm

No responsibility is taken for the correctness of the technical information

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WWW.STUDER.COM

DESKTOP METAL

3D METAL PRINTING

Desktop Metal™

Desktop Metal is reinventing the way engineering and manufacturing teams produce metal parts - from prototyping through mass production.

Desktop Metal today announced the launch of Shop System™, the world's first metal binder jetting system designed for machine shops and metal job shops. For the first time, shop owners can leverage affordable, high-quality binder jetting technology to print end-use metal parts with unparalleled speed, print quality, and productivity.

The Studio System is a three-part solution that automates metal 3D printing. Tightly integrated through Desktop Metal's cloud-based software, it delivers a seamless workflow for printing complex metal parts in-house – from digital file to sintered part.

Shop System™
introduces high quality binder jetting to an entirely new market of machine shops.
Shops can now cost effectively print end use metal parts with unparalleled speed and productivity.

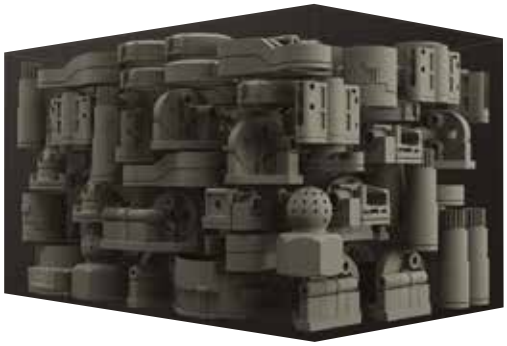
Metal 3D Printing

STUDIO SYSTEM +	
Build envelope	30 x 20 x 20 cm
Max build rate	16 cm^3 /hr (1 in^3/hr)
Layer height	50 µm
Max build weight	65 kg
Workload envelope	30 x 20 x 20 cm
Max temperature	1400°C
Average heat load	8'100 BTU/hr
Max head load	15'600 BTU/hr for 2 hours
Thermal uniformity	±5°C at sintering temperatures

No responsibility is taken for the correctness of the technical information

SHOP SYSTEM	
Build envelope	35 x 22.2 x 5 cm
DPI	1600 dpi 1 pL drop size
Layer height	40-100 µm
Dimensional tolerance of parts	+/- 3.0%
Binder jetting module	70k nozzles 5x redundancy
Printhead configuration	1 easily replaceable printhead
Print technologies	Binder Jetting
Print direction	Unidirectional
Furnace	138.0 x 75.4 x 161.8 cm

No responsibility is taken for the correctness of the technical information



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