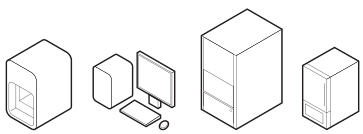
EN
1st Edition

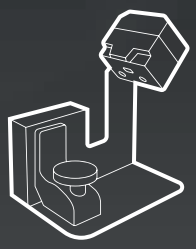
TECNO-GAZ
industries

DIGITAL WORKFLOW
THE FUTURE IS NOW

CAD/CAM Systems
support and management project

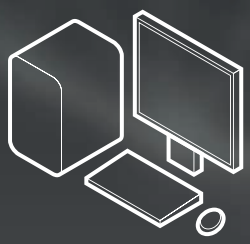


Digital workflow how to navigate and how to develop quality



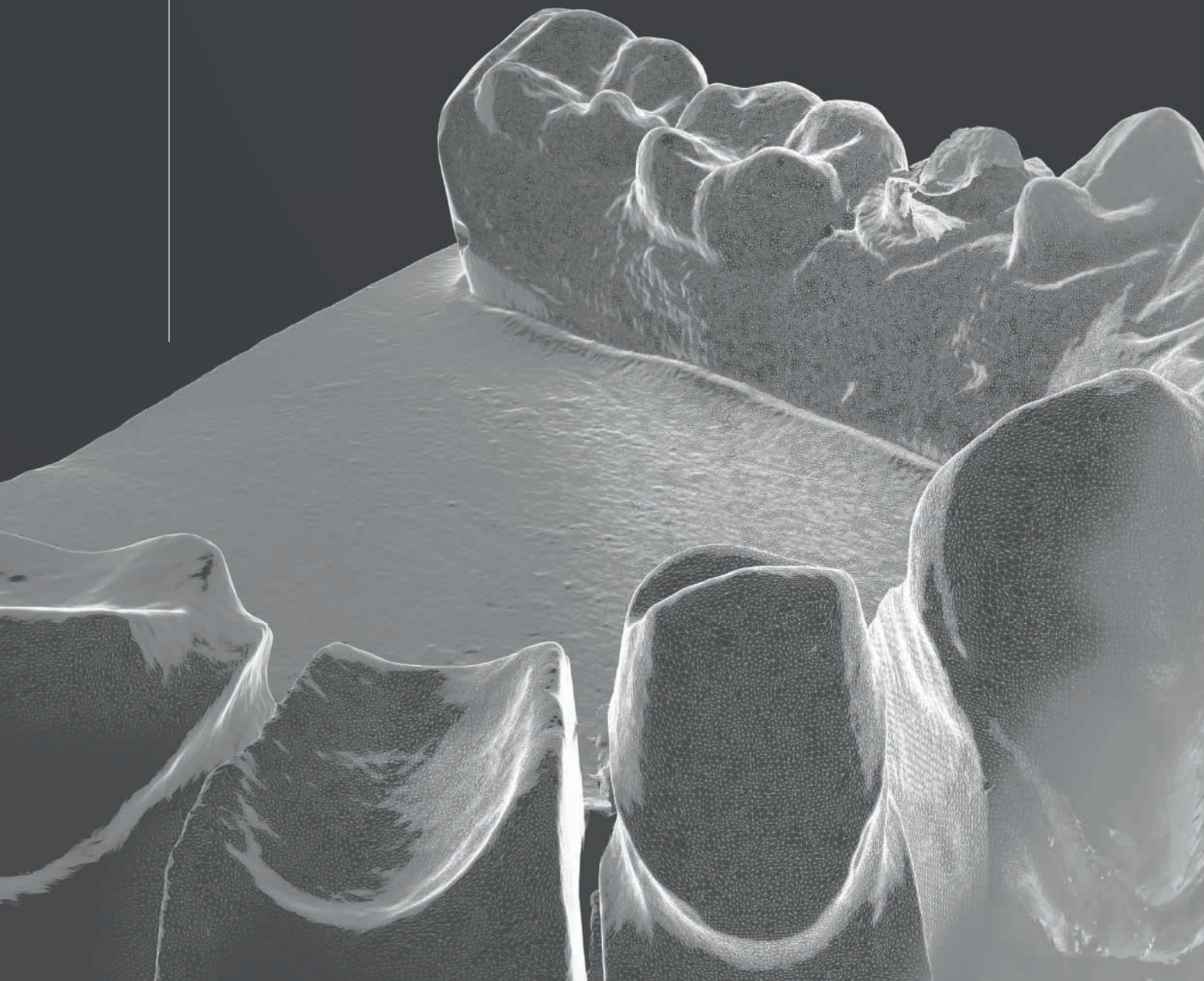
Scanning

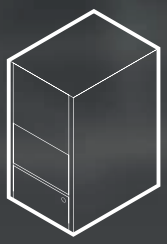
Ensuring the best starting point for quality and repeatability.



CAD/CAM

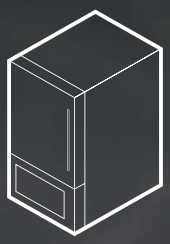
Easy and quick file management in and outside the laboratory.





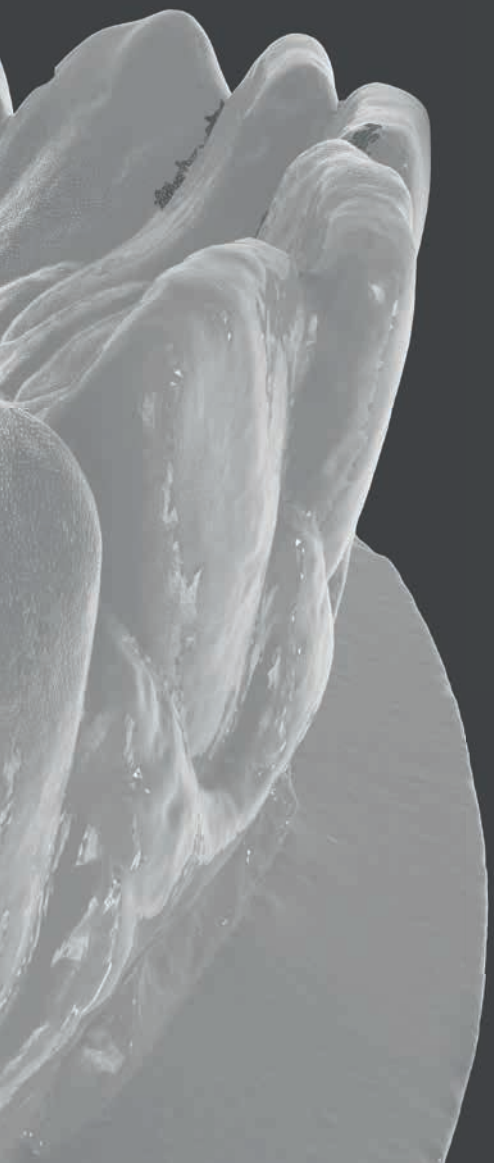
Milling

Providing the best output for all processing required by the laboratory.



Sintering

Ensuring the optimum level of finish for specific processes.



Evolving to develop opportunities

The profession of dental technician has always been linked to the manual skill and training of individual technicians. In recent years, it has started to completely change thanks to new digital technologies. Digitization, virtualisation and CAD/CAM systems are the new tools, the new language of dental technicians. At the dawn of the fourth industrial revolution, there are great opportunities to be seized for anyone who is able to intuit and master change.

Digital Workflow Tecno-Gaz

Flexibility and integration

Scanning

TecnoScan Pro

Meant for high precision implantology. Supplied with configured workstation and Exocad Software.

Accuracy, repeatability, acquisition speed and open formats

Software CAD/CAM

ExoCad

The CAD software is simple, intuitive and functional! Ideal for modeling a small size crown or more complex implant structures.

MillBox - HyperDent

CAM software perfectly optimised with the Tecno-Gaz milling flow.

Ease of use, upstream and downstream integration, complete flow

What is needed?

Services and support

Tecno-Gaz Academy Applied training center

Top quality for crucial flow stages

Milling machines

A6 Range

Compact Dental Machine milling machines. No compromise. Superior quality and reliability.
Medium volumes

C5 Range

Ideal for zirconia and glass-ceramics, as well as titanium and cobalt-chrome. Excellent metal milling performance.
Medium to high volumes with the possibility of processing metals.

G5

Optimal for implant-retained dentures and custom abutments. Maximum flexibility for high volumes.

Reliability, accuracy, repeatability and return on investment

Sintering

TecnoSint

TecnoSint
Sintering furnace for latest generation zirconia.

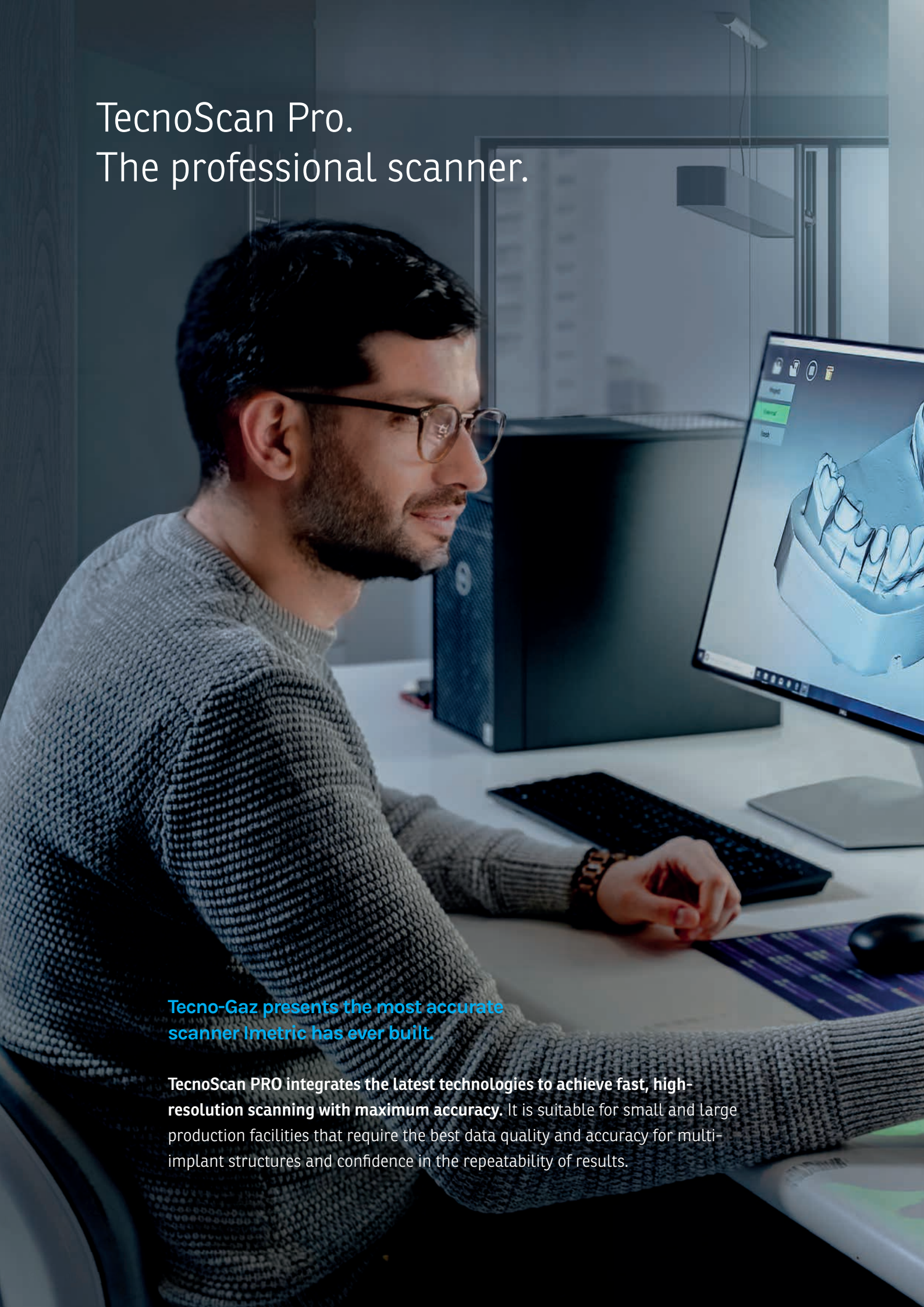
MV-R

Sintering furnace.
Max. temperature 1650°C. 8 min to 1500°C

Services and support

Tecno-Gaz Academy Applied training center

TecnoScan Pro.
The professional scanner.



Tecno-Gaz presents the most accurate scanner Imetric has ever built.

TecnoScan PRO integrates the latest technologies to achieve fast, high-resolution scanning with maximum accuracy. It is suitable for small and large production facilities that require the best data quality and accuracy for multi-implant structures and confidence in the repeatability of results.

Imetric projector. Maximum control, ultra-fast acquisition. Superior in every respect.

TecnoScan Pro.
Simply superior.

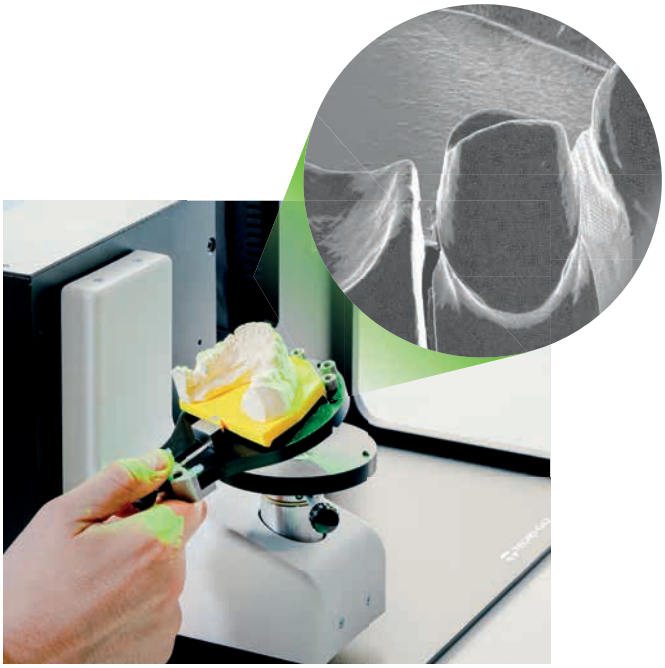
The best choice for scanning dental models and impressions

Special clamping for impressions

The optimised function for impressions means that plastic models are no longer required.

Simply place the impression tray inside the scanner and scan. It really is as simple as that! It is also possible to fix a Toronto prosthesis or a removable prosthesis for double-sided scanning and digitise it in seconds. The scanner is able to parameterise the acquired data with the reference points in order to obtain an even more precise and accurate scan.

The best shooting technology for quality and speed

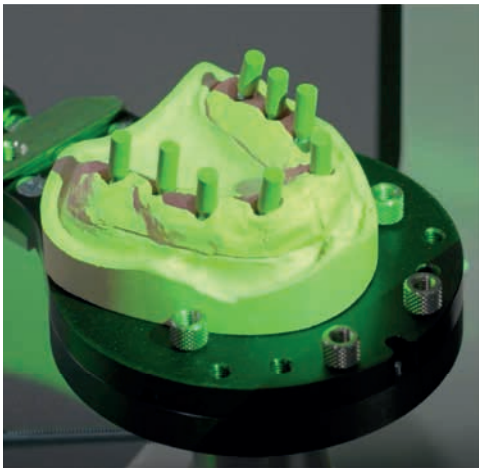


Green scanning light

An exclusive choice that cancels out all light interference in the room, ensuring a perfect scan.

Rapid arch scanning

Any type of articulator available on the market can be used in the scanner, for rapid scanning of the two arches in articulation.



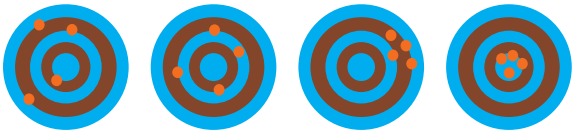
Clarification

1µm Accuracy/Repeatability:
measurement reproducibility.

3µm Accuracy:
closeness of the measurement to the 'real' value.

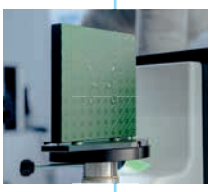
2µm Resolution:
the smallest detail that the scanner can detect.

2µm Noise



Not precise and not accurate | Accurate, not precise | Precise, not accurate | Precise and accurate

5µm



Automatic calibration

Calibration through the scanning of markers applied to a special carbon plate for excellent precision.

Thermal calibration

The sensor constantly monitors the inside temperature and compares it with the calibration temperature detected. If the difference exceeds 5 °C, the scanner asks for a new calibration to minimise the possibility of error due to expansion or retraction of the scanner unit.

Quick scan

Scanning: 15" (approx.)

Constant re-verification of heat differential

Imetric's scan body alignment software ensures 5 µm repositioning accuracy of the scan body.

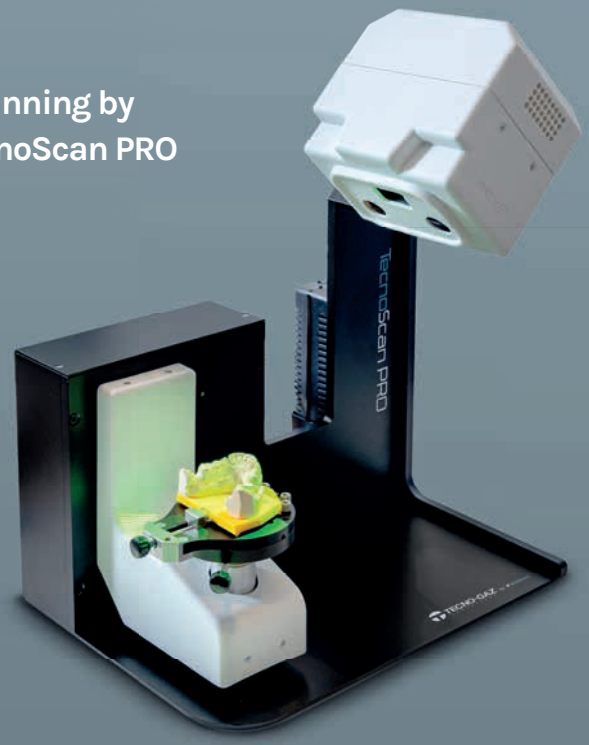
Software Cad/Cam
Tecno-Gaz

Input files

1. Client 2. Partner 3.Production centre

SCAN CAD STL OWNERS FILE

Scanning by TecnoScan PRO



Processing

Maximum integration and ease of use are essential to manage files from in-lab scanning or to dialogue with customers via universal data interchange files.

The speed and flexibility of our software has been achieved by taking advantage of the latest research findings in the field of dental modelling.

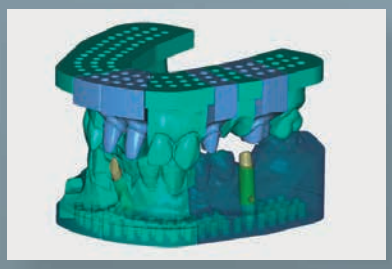
- Accuracy that provides far greater flexibility in job design
- Automatic processing control
- Link to implant geometry libraries
- Fully digital production

Compatible with all software

CAD 3shape dental wings CAM worknc Dental

Worknc Dental CAD/CAM

Is the reliability and productivity leader for milling dental prostheses automatically. Copings, bridges, abutments and implant bars are milled in soft and hard materials with perfectly optimized toolpaths which benefit from state-of-the-art technology.

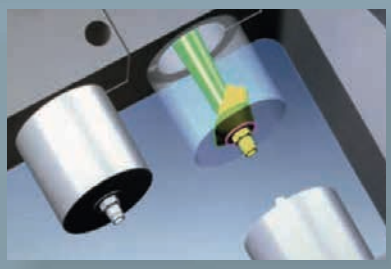


exoCAD

EXOCAD is known for its fast operation and ease of use, helping to minimise training costs and maximise productivity. It is both reliable and efficient when dealing with complex cases and everyday cases.

MillBox CAM

MillBox is the dental CAM solution developed for milling all types of material and elements. Featuring a simple yet innovative and attractive user interface, it simplifies the process of creating tooling paths.



HyperDENT® CAM

HyperDENT® incorporates efficient milling cycles derived from the industrial sector, allowing extreme stability combined with maximum quality. It can be used in different parts of the dental industry, from small- to medium-sized laboratories to milling centres.

exoCAD. All the functions you are looking for, continuously updated.

Tecno-Gaz offers two excellent CAM software packages that are perfectly optimised to make the most of our milling machines. Featuring a simple yet innovative and attractive user interface, it simplifies the process of creating tooling paths. It incorporates efficient milling cycles derived from the industrial sector, giving a system with maximum stability and quality.

Milling machines
Tecno-Gaz by Dental Machine

Choose your milling machine. Create your digital workflow.

An open workflow which can grow with you.

This concept is the basis of the whole qualitative line which is subsequently followed for every manufactured product. For the creation of lines of milling machines, Tecno-Gaz aimed at simple, practical and innovative concepts. All these characteristics reflect every structural detail of this extraordinary range of products.

A6 Range	✓	✓	✓	✓	✓	✓	✓	
C5 Range	✓	✓	✓	✓	✓	✓	✓	
G5	✓	✓	✓	✓	✓	✓	✓	

PMMA	ZrO_2	VCer	PEEK	Comp	ClnSL	ClBr
POLYMETHYL-METHACRYLATE	ZIRCONIA	FIBREGLASS	PEEK	COMPOSITES	ALL-CERAMICS AND LITHIUM SILICATES	HYBRID CERAMICS

Metal milling

- Jäger spindle
- Brushless motors
- Heavy rigid frames
- Absolute encoders

Implantology

- Jäger spindle
- Brushless motors
- Heavy rigid frames
- Absolute encoders
- Optical line
- Granite structure

Soft materials

- Jäger spindle
- Brushless motors
- Wet and dry
- 5 axis for emax
- K5 loader for new A6 line allows continuous milling of 20 to 30 blocs.

G5

Scan .stl

Perfect integration with your customers thanks to open, universal environments and standards.

	A6 PLUS/EVO WITH WETSMART		
	C5 PLUS C5 EVO	C5 PLUS C5 EVO	C5 PLUS C5 EVO
	✓	✓	✓

Pre
TITANIUM AND CHROME-COBALT PREMILLED

Ti
TITANIUM

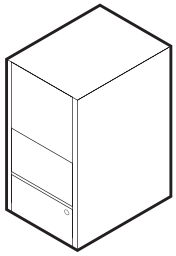
Cr-Co
CHROME-COBALT

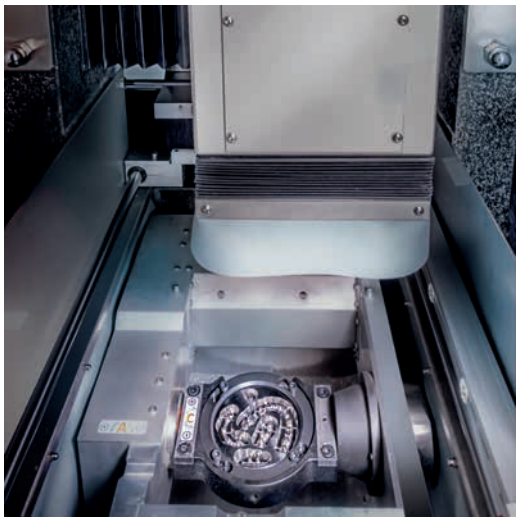
Winning design philosophy

How should the most important machine in your laboratory be built?

User friendly interface with possibility of management through an App for tablets and smartphones.

For any dental laboratory, the milling machine is the productive centre, the main source of revenue and service and, as a matter of fact, the most important element.



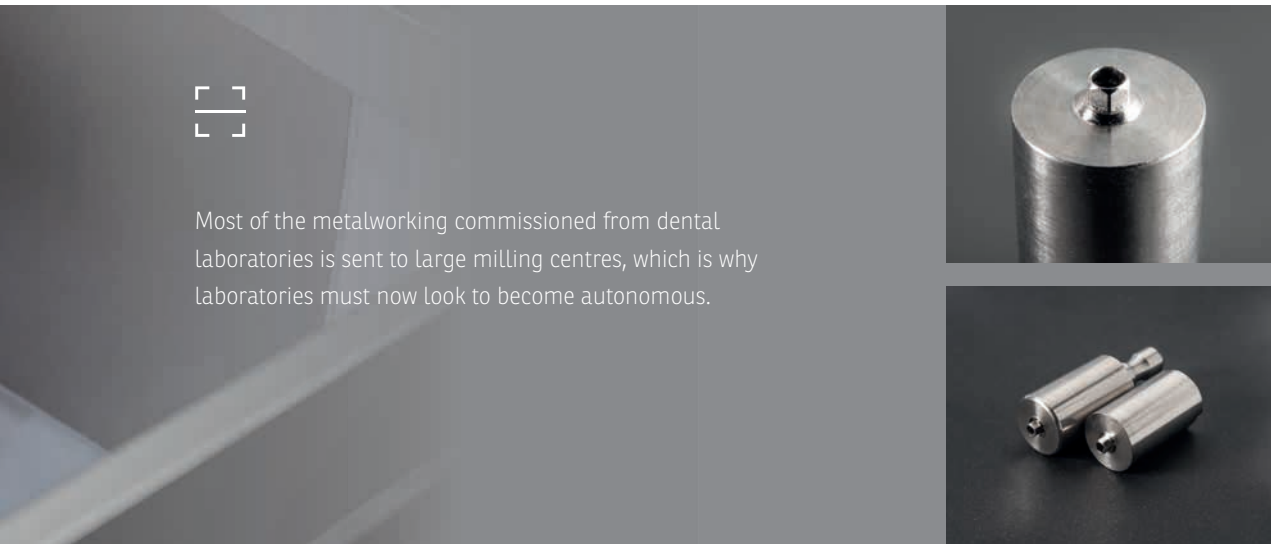


Solidity, durability, precision and efficiency are the key aspects on which Tecno-Gaz/Dental Machine have developed their entire product range.

The fundamental aim pursued by the Tecno-Gaz/Dental Machine is to build all products using the same construction logic, not leaving anything out, even on entry-level machines. This is easy to see on visual inspection.

Dental Machine
and metalworking

Extend the working autonomy of your workshop with perfect metalworking.



Most of the metalworking commissioned from dental laboratories is sent to large milling centres, which is why laboratories must now look to become autonomous.

This would lead to digital independence for laboratories. For 10 years, Dental Machine has been designing machines that allow this working autonomy.

The importance of metalworking is also directly proportional to the field of implant surgery, **as prosthetic work requires perfect metalworking, extending the working remit of laboratories.**

Dental Machine and implantology

For metal milling, the manufacturing requirements listed above are necessary: granite unit, Jäger spindle, brushless motors, threadless screws and automatic tool changer. This technology also enables the laboratory to acquire high-level prosthetic/implant work.

- **ZrO_2** ZIRCONIA
- **PEEK** PEEK
- **VCer** FIBREGLASS
- **CIbr** HYBRID CERAMICS
- **Ti** TITANIUM
- **PMMA** POLYMETHYL-METHACRYLATE
- **Pre** TITANIUM AND CHROME-COBALT PREMILLED
- **CInSL** ALL-CERAMICS AND LITHIUM SILICATES
- **Comp** COMPOSITES
- **Cr-Co** CHROME-COBALT

Dental Machine
Excellence in its uniqueness

Extend the potential of your laboratory

[A6 Evo, C5 Line, G5]

1

Servomotors

The rotation movements is much more flowing of the stepper motors and therefore less noisy, but also much less precise in angular movement. The use of bidirectional control electronics (loop system) and sensors (encoders) allow the servo motor to have better performance than a stepper motor.

Greater efficiency, power torque control.

Smooting surface, best details.

2

Jäger Spindle

Manufacturer recognized for its high quality. The motors have adequate power torque even at low rpm and this represents a great advantage in maintaining the correct rpm without loss of power and ensuring a homogeneous tool rotation.

This guarantees optimal use of the tools and correct milling of the processes.

LongTools life

3

Endless screw

The ball screw is a type of screw that can be considered as an improvement of the standard screw, with respect to which it is more precise and has a much higher efficiency.

- **High performance**
- **High wear resistance**
- Significant **axial stiffness and reduction of friction** between the parts in contact.

Best details, best implant surface tollerance

4

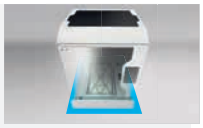
Heavy rigid frames

The steel structure ensures excellent absorption of movements during milling.
Our chassis is oversized to the power expressed during the movements of the motors.

- **More stability**
- **Less vibrations**
- **Less maintenance**
- **Durability over time.**

High quality of the final results and long-term as all moving parts are not over stressed.

Wet & Dry



All our milling machines have the possibility of being used dry or wet, according to the material you want to use.

5

Great versatility of use

Machining without constraints on all materials

Tools cone system

Special industrial system tool holders.

6

- **Better absorption of the torque**
- **Maximum static and dynamic rigidity**
- **Better and repeatable precision in tool change**
- **Less tool eccentricity**

Best surface of metal milling and tools performance.

Direct connection motors

7

The direct connection of the motors with the movements of all the 5 axes is a peculiarity of all our production. The use of endless screws with ball recirculation and mechanical motion reducers allows to work with very low error tolerances and this ensures machining with high surface details.

More control of the axes's movements

More precision, best details

Absolute Encoder

8

The absolute encoder provides a uniquely coded numerical value for each mechanical position of the shaft, memorizing the value of the current position and thus avoiding the loss of information in the event of a restart of the machine or a power failure.

More precision in anatomic details

Less calibration, best surface, less polishing time

Optical lines* [only for C5 Evo and G5]

9

It is a digital linear position measurement transducer. The optical line works with the same principle as the optical encoder but while the first is suitable for linear measurements (of elements in translation), the second performs angular measurements (of elements in rotation).

The optical line checks the axis position 1000 times per second and compensates for the thermal expansions present on the axis.

Great respect for the mechanical dimensions of the implant connections

Granite structure* [only for G5]

10

The G5 is the only milling machine for the dental sector to have not only the base but all the 3 Cartesian axes in granite, guaranteeing its precision and stability over time.

- **High dimensional stability:** material free from internal tensions
- **High thermal stability:** linear expansion coefficient much lower than that of cast iron and steel
- **High wear resistance** granular matrix that absorbs vibrations and has no high resonant frequency.

Greater precision, stability and durability

A6 Range

5-axis compact milling machines

Precision	◉◉◉◉◉
Repeatability	◉◉◉◉◉
Machinable materials	◉◉◉◉○
Production volumes	◉◉◉◉○

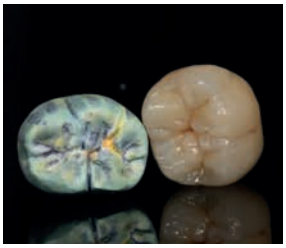


Photo Gazzano Lab

Photo Dental Style Lab

Start however you want, but start off great!

A6, the milling machine range to start your digital journey at the top.

A6

A6 **Plus**

A6 **Evo**

PMMA
POLYMETHYL-METHACRYLATE

ZrO_2
ZIRCONIA

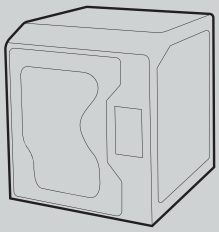
PEEK
PEEK

VCer
FIBREGLASS OPTIONAL

Pre
TITANIUM AND CHROME-COBALT PREMILLED OPTIONAL

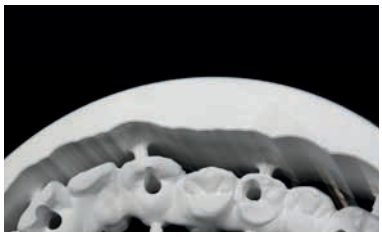
Choose A6 and you're at the heart of a digital ecosystem designed for you!

Maximum productivity, maximum control, maximum sharing. Your A6 is designed to work in an increasingly digital world, with remote access to any function using a simple smartphone, tablet or PC, just as if you were standing next to the machine. These features of the A6 guarantee excellent productivity and safety.



Compact, intelligent design

Tabletop machine, designed for soft materials

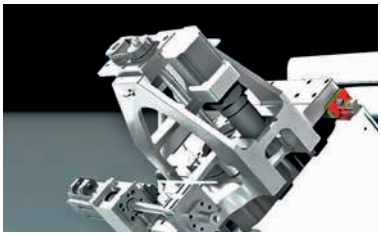


Built to work hard... using soft materials

Solid steel structure for maximum stability (150 Kg)

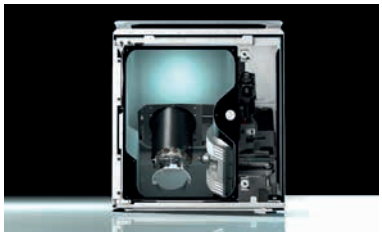
All the control you need

Optimised strategies for continuous 5-axis milling on all materials



High-end mechanical components

Cartesian movements with ground screws and recirculating ball bushings



Super-optimised operation

Automatic 11-position tool changer

Undeniable quality

Jäger high-frequency spindle, 0.4 kW or 0.55 kW and 60,000 rpm for 3 mm tool shank

A6 Range

A model to suit every requirement of the digital laboratory

Enter the digital age as a protagonist

The new A6 Dental Machine range has been designed to meet the needs of dental technicians for a compact milling machine that does not compromise the industrial construction logic that has always made our milling machine models stand out. The unrivalled quality of the materials used, and the latest generation electro/mechanical components built in, make the A6 a true masterpiece to add to the range.

Everything you need for a great start, and designed to adapt as you do

- 5-axis compact milling system
- 0.4 kW Jäger pneumatic spindle
- Stepper drive motors
- 11 tools with automatic recognition and change
- Complete with Cam
- Dry or wet processing (System available upon request)

For the advanced user looking for a practical, effective device

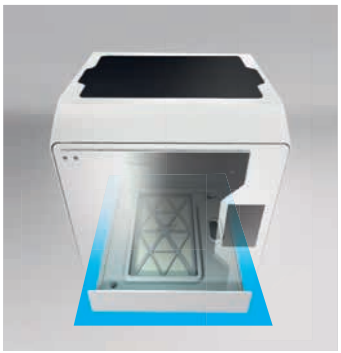
- 5-axis compact milling system
- 0.55 kW Jäger electric spindle
- Stepper drive motors
- 11 tools with automatic recognition and change
- Complete with Cam
- Dry or wet processing (System available upon request)

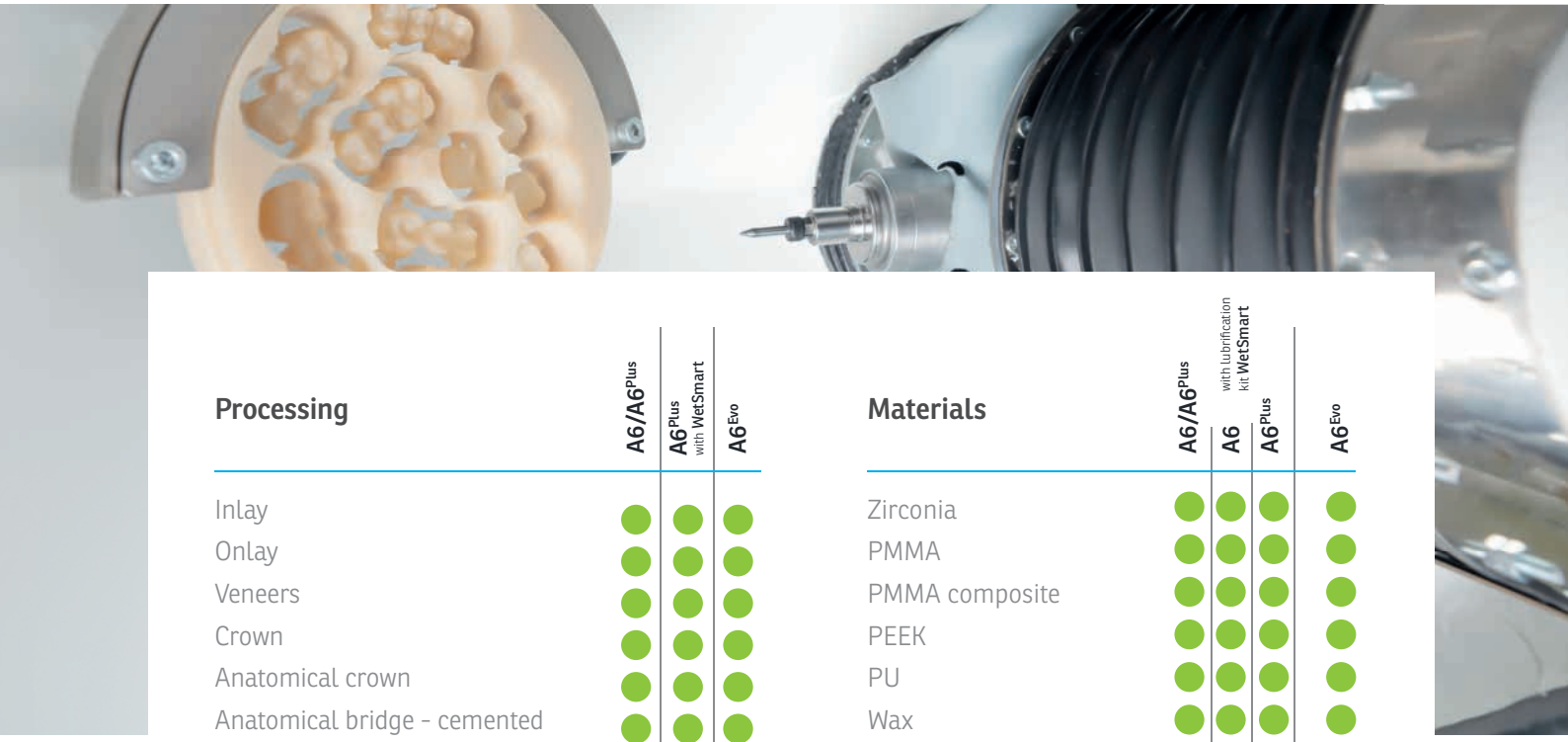
Power concentrated into a compact, functional chassis

- 5-axis compact milling system
- 0.55 kW Jäger electric spindle
- Servo motors with encoders
- 11 tools with automatic recognition and change
- Complete with Cam
- Dry or wet processing supplied

WetSmart lubrication kit

The A6 is designed for the dry milling of soft materials, but the optional WetSmart milling lubrication module can be integrated at a later stage by applying it beneath the milling machine in order to expand the range of workable materials for which a lubrication system is indispensable, such as glass ceramics.





Processing	A6/A6Plus	A6Plus with WetSmart	A6Evo
Inlay	●	●	●
Onlay	●	●	●
Veneers	●	●	●
Crown	●	●	●
Anatomical crown	●	●	●
Anatomical bridge - cemented	●	●	●
Anatomical bridge - screwed	●	●	●
Telescopic crown	●	●	●
Bar on implants - cemented	●	●	●
Bar on implants - screwed	●	●	●
Secondary bar	●	●	●
Toronto bridge	●	●	●
All-on-4 / All-on-6	●	●	●
Ti / Cr-Co abutment	●	●	●
Ti / Cr-Co hybrid abutment	●	●	●
Abutment from pre-milled material	●	●	●
Scan abutment	●	●	●
Removable prosthetics	●	●	●
Partially removable prosthetics	●	●	●
Occlusal Splint / Bite	●	●	●
Surgical template	●	●	●

Materials	A6/A6Plus	A6 with lubrification kit WetSmart	A6Plus	A6Evo
Zirconia	●	●	●	●
PMMA	●	●	●	●
PMMA composite	●	●	●	●
PEEK	●	●	●	●
PU	●	●	●	●
Wax	●	●	●	●
Fibreglass	●	●	●	●
Pre-sintered Cr-Co	●	●	●	●
Disilicates	●	●	●	●
Glass-ceramic	●	●	●	●
Aluminium	●	●	●	●
Grade 2 Titanium pod	●	●	●	●
Grade 5 Titanium pod	●	●	●	●
Cr-Co alloy pod	●	●	●	●
Pre-milled Titanium	●	●	●	●
Pre-milled Cr-Co	●	●	●	●

● Recommended/suitable ● Feasible ● Not recommended ●● Feasible with optional WetSmart kit

C5 Range

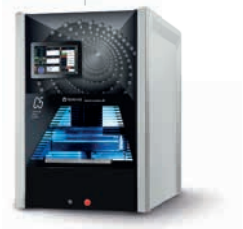
Precision and versatility

Precision	◉◉◉◉◉
Repeatability	◉◉◉◉◉
Machinable materials	◉◉◉◉◉
Production volumes	◉◉◉◉○

Numerically controlled worktop milling machine with 5-axis continuous interpolation for dry and wet milling

C5 is the medium level milling machines line developed for dental laboratories wanting to take maximum advantage of CAD/CAM technology and obtain a high ROI. Simple to use, numerically controlled worktop milling machine with 5-axis continuous interpolation.

Choose the right milling machine for your needs



C5

C5 Plus

C5 Evo

PMMA
POLYMETHYLMETACRILATO
METHACRYLATE

ZrO_2
ZIRCONIA

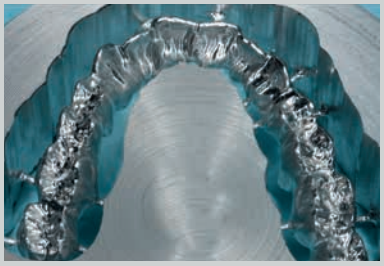
PEEK
PEEK

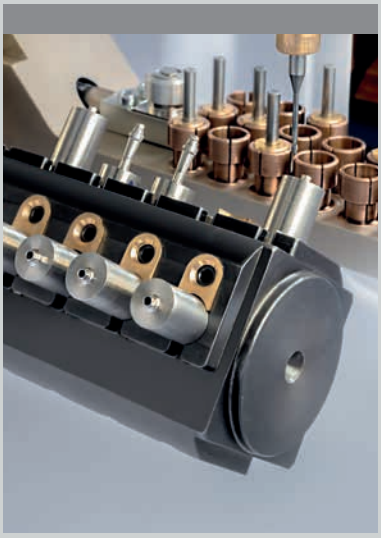
VCer
VETROCERAMICHE

Pre
PREMILLED TITANIO
E CROMO-COBALTO
PREMILLED

Ti
TITANIUM

Cr-Co
CROMO-COBALTO





Jäger High Performance Spindles

Jäger spindle 3.1 kW - 60.000 rpm

The 3.1-KW electrospindle [C5 Plus - C5 Evo] means that any type of 'hard' material can be worked in any kind of processing. Screw-retained prostheses, abutments, bars, etc. can be milled independently with excellent quality and time scales.

Materials usable

All the pre-sintered metals + soft materials and silicates, as well as thermoplastic materials can be milled. Wax, PMMA, different resins, composite, pre-sintered zirconium dioxide and aluminium oxide, etc.

Prosthetic products

* Version for Premilled available on request

- Bridges and Crowns
- Inlays
- Bars and implant bridges through bonding links
- Personalized abutments [C5 Plus - C5 Evo]
- Premilled
- Bars & Implant Bridge: Rotational Connections [C5 Plus - C5 Evo]
- Abutment: Antirotational Connections [C5 Plus - C5 Evo]

Movements on 2 rotation axes

Movements on 2 rotation axes with brushless motors and low backlash planetary gearboxes. No belt transmissions.

Movement on 3 Cartesian axes

Movement on 3 Cartesian axes by means of ground ball screws, directly controlled by brushless motors and encoders for continuous position control.

Automatic tool changer

16 [C5] or 18 [C5 Plus - C5 Evo] tools with automatic tool changer, using measurement and control technology by means of a very high precision sensor.

C5 Range

A model to suit every requirement of the digital laboratory

C5 represents a complete range of milling machines capable of meeting all dental laboratory requirements. Thanks to continuous interpolation on five axes, C5 milling machines ensure high precision in wet and dry milling. Options such as a more powerful spindle [C5 Plus] and optical scales [C5 Evo] also enable this model to achieve excellence in dental milling.

C5

- 1 kW - 60,000 rpm Jäger spindle
- 16 tools available
- Standard 98.3-mm wafer with rim
- Adapter for blocks and pre-milled (on request)
- Automatic tool changer with 16 tools on board
- Automatic precision tool length measurement
- Tool breakage control
- Aluminium alloy construction (Anticorodal 6082)

C5 Plus

- **3.1 kW - 60,000 rpm Jäger spindle**
- **Liquid cooling with heat exchanger**
- **18 tools available**
- **Standard Ø98.5-mm wafer with rim**
- **Ø98-mm wafer clamping with tailstock system**
- Adapter for blocks and pre-milled (on request)
- Automatic tool changer with **18 tools on board**
- Automatic precision tool length measurement
- Tool breakage control
- Aluminium alloy construction (Anticorodal 6082)

C5 Evo

- **3.1 kW - 60,000 rpm Jäger spindle**
- **Liquid cooling with heat exchanger**
- **18 tools available**
- **Standard Ø98.5-mm wafer with rim**
- **Ø98-mm wafer clamping with tailstock system**
- Adapter for blocks and pre-milled (on request)
- Automatic tool changer with **18 tools on board**
- Automatic precision tool length measurement
- Tool breakage control
- Aluminium alloy construction (Anticorodal 6082)
- **Optical lines**

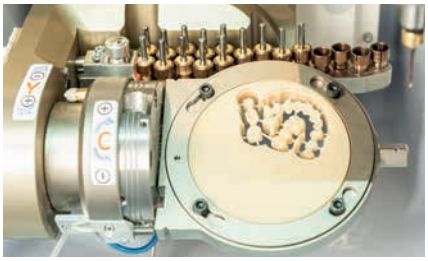
K10. Automatic disc changer

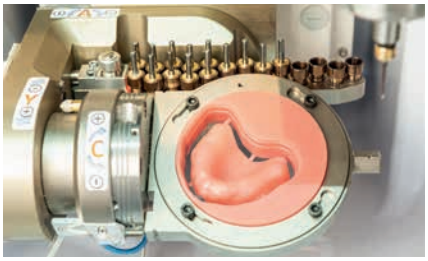
No compromise between work volume and performance.

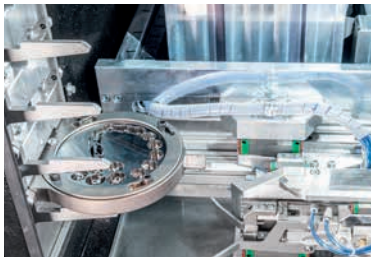
With the same construction philosophy as our milling machines, we have developed the disk loader system called K10 It was created with a joint quality of electro-pneumatic-mechanical systems. The development is designed to offer maximum ease, flexibility of automatic production, the dental milling machine with automatic disk change expands the production and profits of the laboratory. With an automatic disc changer from 5 to 10 slots, it offers to the users exceptional powerful, efficient and economical dental restoration solutions. (Supplied with 5 discs).

Optimise your work

- Fully Automatic
- 10 disk holders
- Zero Clamping System
- Remote control via mobile App
- Works with all the materials in a single cycle





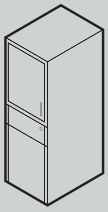


Special K10 holder

Milling machine G5

Maximum quality for high volumes

Precision	◉◉◉◉◉
Repeatability	◉◉◉◉◉
Machinable materials	◉◉◉◉◉
Production volumes	◉◉◉◉◉



Universal milling machine for dental laboratory. 5-axis continuous interpolation for dry and wet milling.

G5 has been specifically developed for the dental laboratory sector comprising many relatively small laboratories. It is a universal machine: it can mill any kind of prosthetic work from any kind of material. Thanks to the 5-axis continuous interpolation, it can produce personalised abutments and undercuts, create excellent surface finishes and reduce manual finishing times.

PMMA POLYMETHYL-METHACRYLATE

ZrO_2 ZIRCONIA

PEEK PEEK

VCer FIBREGLASS

Pre TITANIUM AND CHROME-COBALT PREMILLED

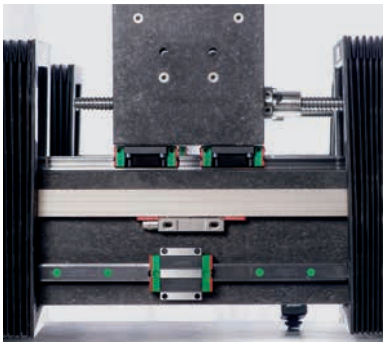
Ti TITANIUM

Cr-Co CHROME-COBALT

Jäger spindle Maximum power 2.1 kW at 50,000 rpm

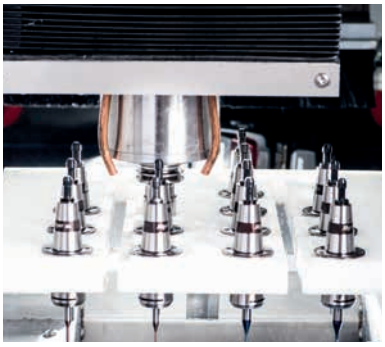
German market leading manufacturer: quality guarantee, performances and durability for optimal milling both at low speed (e.g. alloys, Cr-Co and titanium), and at high speed (e.g. ceramics). Wet cooling with external unit supplied.

Extra power spindle 8 kW
Optional



Granite supports on all 3 Cartesian axes

A device as a milling machine, which must offer high precision production and be extremely productive with a 60,000 rpm rotation, must be solid, resistant and extra powerful with regard to the actual work strain. For this reason, all Tecno-Gaz milling machines can rely on a structural logic which allowed us to manufacture very solid products, built to last.

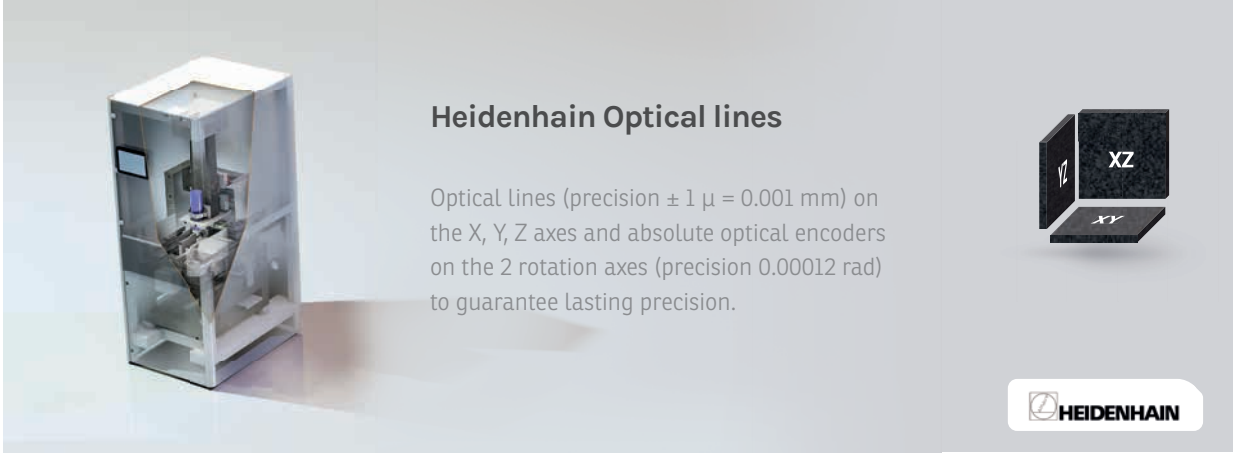


Cone changer: 20 tools with automatic tool changer Optional

20 tools with automatic tool changer using ATC* technology, which allows the machine to compensate for the inevitable tool wear during milling in real time.

Recirculating balls

High efficiency mechanisms not requiring lubrication.



Heidenhain Optical lines

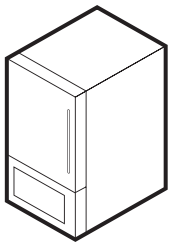
Optical lines (precision ± 1 µ = 0.001 mm) on the X, Y, Z axes and absolute optical encoders on the 2 rotation axes (precision 0.00012 rad) to guarantee lasting precision.

Tecno Sint

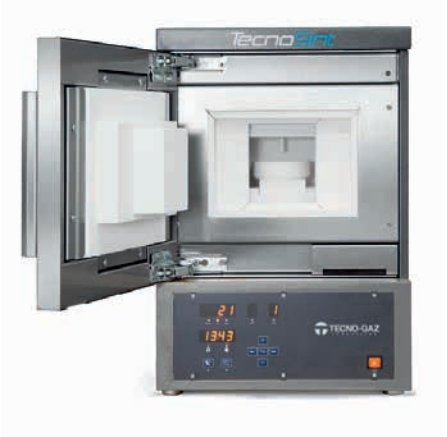
Ideal for digital workflow

The TecnoSint kiln is ideal for integrating smaller CAD/CAM systems through to larger workshops and milling centres. The optimal synthesis of price and high quality.

TecnoSint is ideal for zirconia



TecnoSint is the compact furnace for sintering zirconia and is a device that fully meets the most varied requirements, not only in terms of economic efficiency and reliability, but above all as with respect to sintering quality of modern materials.



Precise control at high temperatures

Resistances in molybdenum disilicide (MoSi2) offer a maximum furnace temperature of 1650° C.

Operational flow optimization

The capacity of the sintering tray equals to Ø = 100 mms and can contain up to 20 elements; the 9 sintering programs can be easily inserted and stored in the furnace panel, moreover each program contains 4 steps for optimal sintering control.

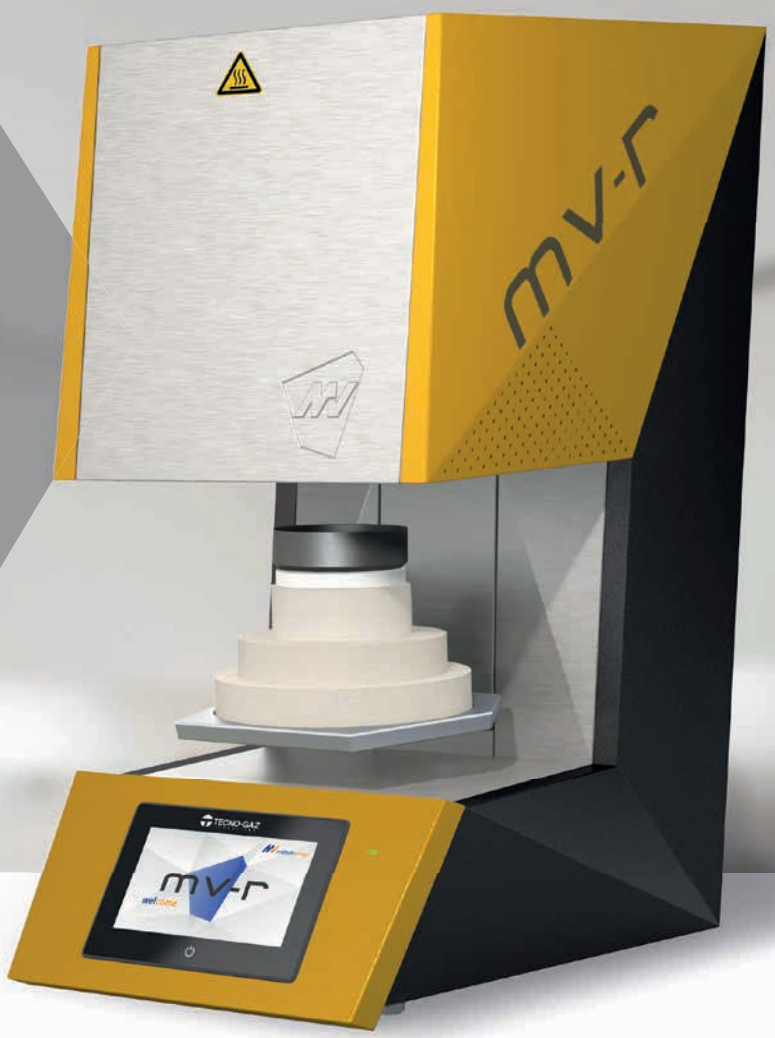
Avoiding contamination risks

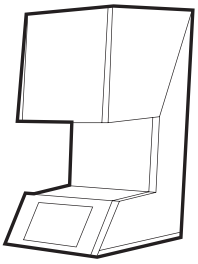
The pre-set support programs will help you during routine maintenance and to remove resistance elements to avoid any kind of contamination.

MV-R

A revolution in zirconia sintering

From 0 to 1500°C in 8 minutes!
Fast furnace for sintering zirconia.
High productivity and maximum operational flexibility.





Maximum temperature 1650°C.

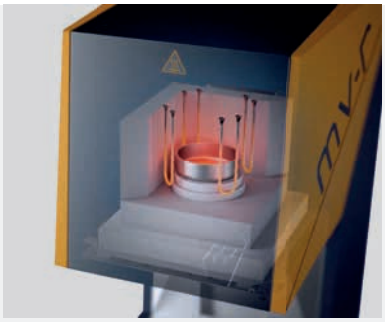
Due to significant further development of our heating technology, we have achieved a heating rate of up to 200 ° C / min. and can thus meet our customers' demands for shorter sintering times.

Touch display and sintering programs

Molybdenum disilicide (MoSi2) resistors offer a maximum furnace temperature of 1650 °C.

40 Single crowns or Sintering disc ø 100

- Possibility of inserting up to 40 zirconia elements with support with a diameter of 100 mm.
- 7" Touch Screen Display.
- Error reporting via QR code.
- USB interface for software updates.
- Controlled cooling.
- Timer: scheduled start.



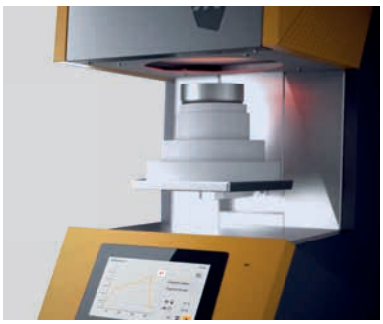
Intelligent functionality

- Temperature control (only with test kit)
- Cleaning of the heating chamber
- Regeneration of resistors

SPEED PLUS (200°C/MIN) | 7" TOUCH DISPLAY | HEATING STAND-BY | ERROR DIAGNOSIS VIA QR CODE | DATA TRANSFER VIA USB | CONTROLLED DEVICE COOLING | LINEAR COOLING

Up to 200°C / min.

- Sintering with pre-drying of all commercially available zirconia in the traditional to fast cycle
- Linear cooling
- USB interface for software updates
- Resistors (MoSi2 - Molybdenum Disilicide)
- Accuracy to 1,500 °C +/- 1 °C



Services and support
At the service of your productivity.

Maximum customer support

Technology-oriented pre-sales courses

Pre-sales information courses for customers to find out about the most appropriate technology for their needs.

Technical support via help desk centre

Technical, operational and procedural support for the use and management of milling machines/ scanners and user protocols.

Installation service and certified education

Installation only by authorised technicians and certified education through issuing training documents.

Give your investment a greater value in time

- Post-sales training (Academy project)
- 2nd level training (Academy project)
- Subscription to 1st level technical support
- Subscription to 2nd level technical support
- Subscription to 3rd level technical support

Services offered

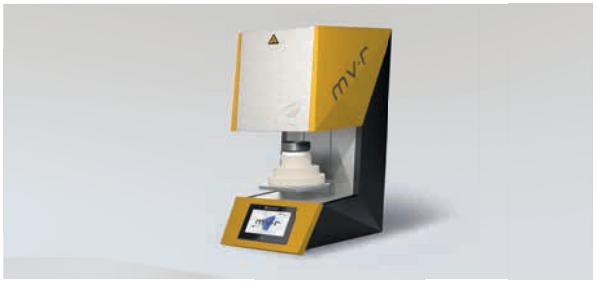
- Installation
- Level 1 education
- Level 2 education
- Help Desk support

Accademy project

Accademia Archimede
Applied training center for dentistry

The Academy project is the package of high value training services for Tecno-Gaz digital workflow. High profile trainers are able to teach the operators in the use of the most advanced technologies, in order to achieve the maximum quality and profit throughout the investment lifecycle.

Technical Features



MV-R

Dimensions (WxHxD) 39 x 78 x 54 cm

Weight 65 kg

Power max. 3500 W

Voltage range/Frequency 220-240 V / 50-60 Hz

Shortest heating period 1500°C in 8 min.

Max. temperature 1650°C

Heating elements $MoSi_2$ (4 element)

Heating chamber height 75 mm

Thermocouple type PtRh-Pt, type S

Max. heating-chamber capacity 2 trays - 100/30 mm

TecnoSint

Dimensions (WxHxD) 40 x 60 x 40 cm

Weight 55 kg

Power max. 1500 W

Voltage range/Frequency 220-240 V / 50-60 Hz

Process capacity Classic

Max. temperature 1650° C

Heating elements MoSi2 (4 element)

Heating chamber height 42 mm

Max. heating-chamber capacity 100/30 mm

TecnoScan PRO

Dimensions (WxHxD) 27 x 50 x 37 cm

Weight 15 kg

Voltage range/Frequency 100-240 V AC, 50-60 Hz, 2A

Accuracy/Repeatability 1µm

Accuracy 3 µm

Camera resolution 2 Mega pixels

Noise < 2 µm

Toronto scan/mobile prosthesis
yes, with Top/Bottom support

Open export format
Open STL can dialogue with all major dental software. Integrated with Exocad workflow. Format: STL binary, texture obj, texture ply, texture wrz, and .xml for implant position

Technology
Structured green light based on heterodyne displacement combined with photogrammetry

Scan volume
diameter 120 mm, height up to 80 mm

Scanning speed
complete model: 12 sec.

Connection: USB 3.0

Technical Features

A6 Range

Dimensioni (WxHxD) 59x75x60,5 cm

Number of Axes 5 continuous

Weight 150 Kg

Tool change Automatic

Number of tools installed 11

Electrospindle
A6: Jäger 0.4 kW - 60,000 rpm
Change tools: Pneumatic
A6 Plus - A6 Evo: Jäger 0,55 kW - 60,000 rpm
Change tools: Electric

Spindle torque 8 Ncm

Spindle torque A 10° + -(tot 30°)

Disc diameter 98mm

Tool breakage detection Automatic

Power supply (single-phase) 220÷240 V - 50÷60 Hz

Compressor Optional

Linear axis resolution ± 0.003 mm (3µm)

Duplicated tool management Optional

Dry processing Yes

Wet processing
A6 - A6 Plus: Optional
A6 Evo: Standard

External suction predisposition: Automatic

C5 Range

Dimensions (WxHxD) 66x100x95 cm

Weight 220 Kg

Tool changer Automatic

Number of tools installed
C5: 16 - C5 Plus/Evo: 18

Spindle
C5: Jäger 1 Kw - 60.000
C5 Plus/Evo: Jäger 3,1 Kw - 60.000

Axis rotation angle A = 30° C = 360°

Blank Ø = 98,5 mm with rim

Thickness 10-30 mm

Tool diameter (shaft) 4 or 6 mm

Tool length 37 – 50 mm

Tool measurement precision ± 0,001 mm (1 µm)

Tool failure detection Automatic

Power supply (single phase) 220÷240 V; 50÷60 Hz

Compressed air 7 atm (esterna) - 80 lt/min

Motors Brushless with absolute encoder

Noise level <60 dB

Linear axis resolution ± 0,00005 mm (0.05 µ)

Rotation axis resolution ± 0,0008 rad

Tool duplicate management Optional

External suction predisposition: Automatic

G5

Dimensions (WxDxH) 76 x 196x 104 cm

Weight 800 Kg

Tool changer Automatic

Number of tools installed
20 positions, cone change

Spindle Jäger 2,1 Kw 10-50.000 rpm

Axis rotation angle A = 30° C = 360°

Blank Ø = 98,5 mm with shoulder

Thickness 2-10 mm

Tool diameter (shaft) from 2 to 10 mm

Tool length up to 60 mm

Tool measurement precision ± 0,001 mm (1 µm)

Tool failure detection Automatic

Power supply (single phase) 220÷240 V; 50÷60 Hz

Compressed air 7 atm (external) - 120 lt/min

Motors Brushless with absolute encoder

Noise level <60 dB

Linear axis resolution ± 0,00005 mm (0.05 µ)

Rotation axis resolution ± 0,0008 rad

ATC (automatic tool compensation) Optional

Tool duplicate management Optional

External suction predisposition: Prepared

EN
1st Edition

DIGITAL
WORKFLOW

CAD/CAM Systems support
and management project

GraphoServiceParma
MTGZD0133 - Rev. 01/04/2021

TECNO-GAZ industries

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