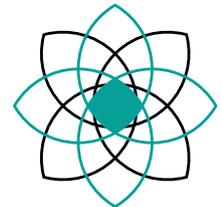
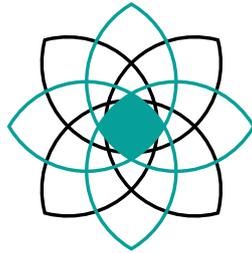


**MILLING MACHINES
OF THE FUTURE, TODAY.**



DENTALFOUR
cadcam *tecnology* partner





DENTALFOUR
cadcam **tecnology** partner

Dental Four

Born to lead the future

Dental Four was created to meet the specific needs of dental laboratories in terms of **quality, productivity, reliability and service.**

In an ever-changing landscape, our flexible, lean and competent structure allows us to provide the most efficient 5-axis milling solutions on the market, both to smaller and more structured laboratories.

Founded by professionals with **decades of experience in the world of dental cad-cam**, Dental Four was born in Bobbio, within the renowned mechatronics district, where the culture for numerical control and precision machines has been rooted for decades.

Our mission is simple: to help you develop more efficient processes by becoming your "digital" partner.



Technology

Designed with the best technology

Technology is in Dental Four's DNA. Our company has always looked at **technological innovation** as a key element to help customers grow, increasing their productivity and **reducing costs**.



Predictive Maintenance

Thanks to the Ethercat protocol, which allows continuous control of all moving parts and through a proprietary **AI (Artificial Intelligence)** algorithm it is possible to perform predictive maintenance, **minimizing machine downtime**.



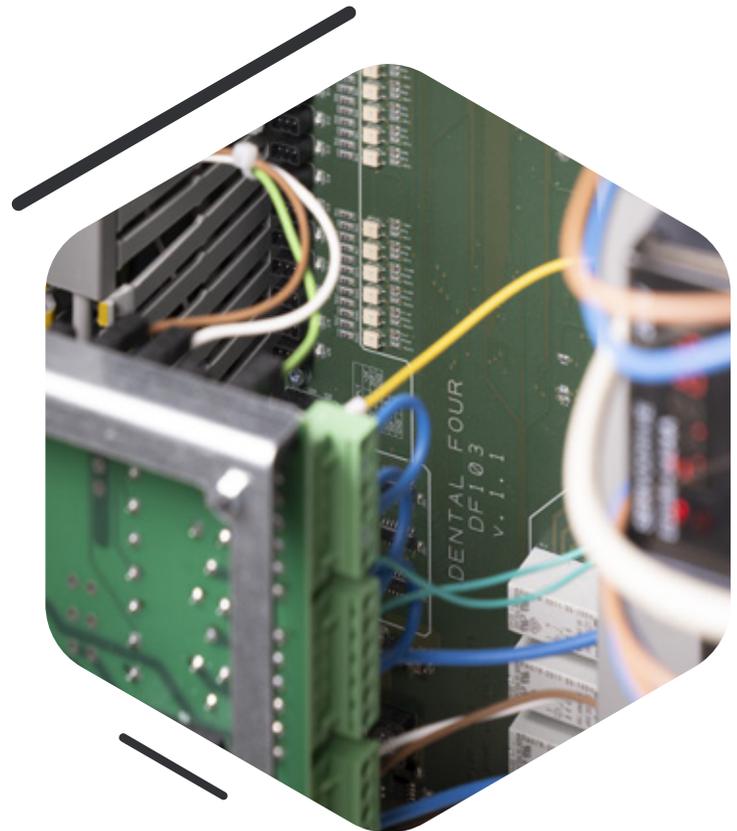
My Dental Four portal

The innovative "My Dental Four" portal allows users to directly organize and optimize all service processes of their Dental Four machines.



Ethercat Protocol

The Ethercat communication protocol allows you to **continuously monitor** the status of mechanical and electronic components and allows predictive maintenance.





Environment

Built for a sustainable future

In addition to being at the forefront of performance, our milling machines embody our commitment to environmental sustainability.

Designed with consumption reduction in mind, our milling machines have the lowest environmental impact throughout their lifetime.

INDUSTRY 5.0 READY



Low power consumption

Thanks to high-efficiency motors and servo drives, according to energy-saving criteria (ISO 14955 norm).



Possibility of regeneration of machines at the end of their life

Even after years of work, the machinery can be regenerated by updating software and parts subject to obsolescence, enjoying a second life.

Services

Your one-stop partner for dental milling

Dental Four is organized in such a way as to provide its customers **with all the necessary services to be able to mill continuously and in quality.**

In fact, we take care of everything you need to make our machines work at their best throughout their life cycle.

Formation

Through the **courses (basic or advanced)** held by our technicians, we provide the necessary training to use our milling machines. In addition, during the "**Dental Four Days**", we present to our customers the latest software and product innovations through dedicated seminars.

Service & Spare Parts

Our service plans allow each customer to keep always their machines in perfect working order, and guarantee extremely fast interventions.

Frese e Strategie Dental Four

In order to ensure less user learning time and a high quality standard, we have created **special tools optimized** for our milling machines. Thanks to a "**certified**" **strategy package**, our machines guarantee extremely fast processing times.



Production

Industrial machines built with artisanal care

All Dental Four milling machines are built entirely in our factory.

Assembly, functional tests and inspections are carried out, with artisanal care, by Dental Four specialized technicians.



Assembly

The milling machines are built with **high quality components** and our technicians provide for the assembly of every single part with great care and competence.



Function test

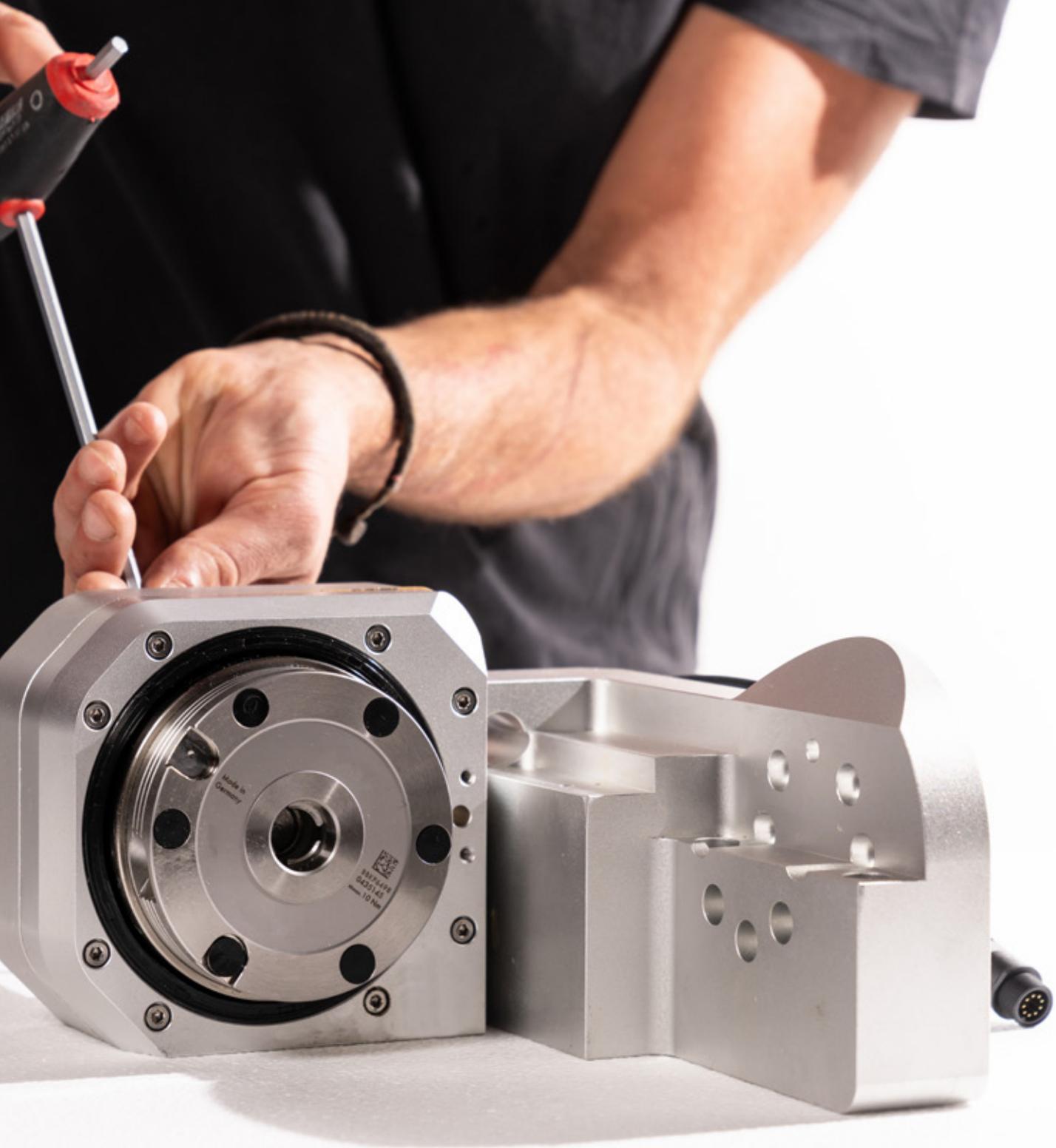
All assembled machines are subjected to **strict functionality tests** (spindle, axis movement, tank tightness, etc.) and then sent for running-in, which includes a cycle of many hours of work.



Test

After running-in, each machine is **tested according to a strict protocol**, which also includes the execution of further processing and the control of the results.





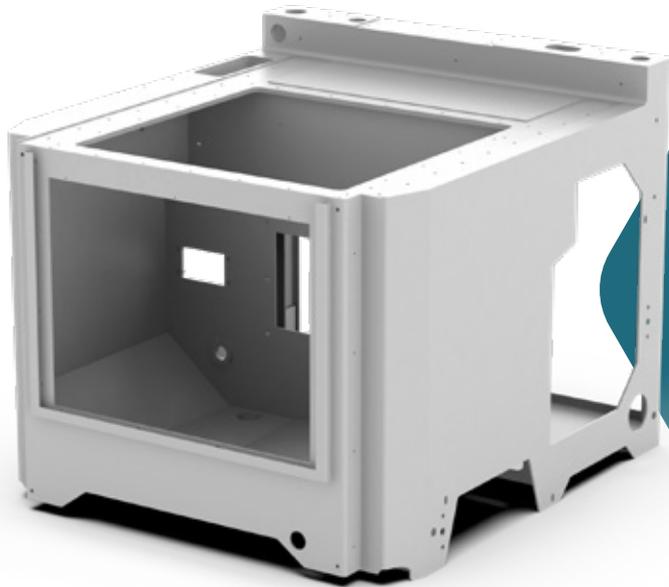
Construction philosophy

Robust, precise, reliable,
built to last.

The compact, high-rigidity mechanics, together with the management of the electronics and the **high-quality components**, guarantee levels of precision and speed never seen before. The wide inclinations of the axes make it possible to exceptionally perform machining with significant disparallelisms and to obtain detailed buccal finishes.

Although of different sizes, all Dental Four milling machines share the same **mechanical Gantry type** (gantry, where the X-Y-Z axes are arranged in the upper part of the machine, protected from chips, dust and liquids), the same architecture of the A-B axes at large angles and the same type of **stainless steel supporting frame**.

In addition, all machines are equipped with the functional DF Panel graphic interface.



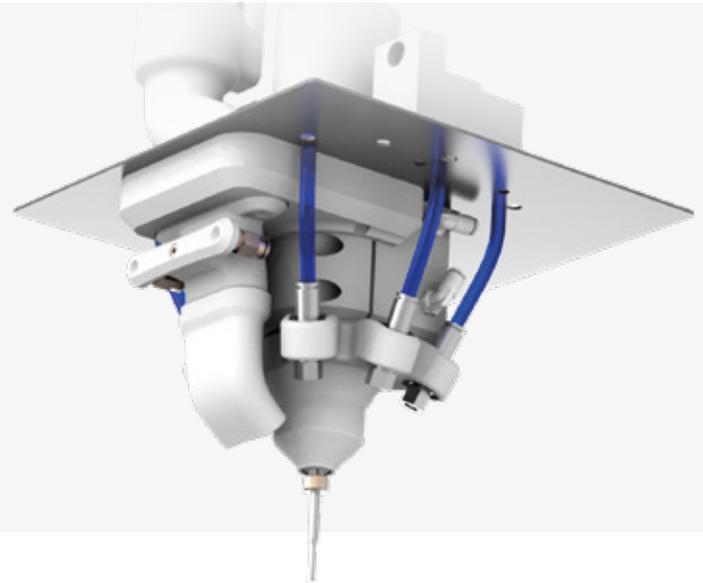
Stainless steel monocoque frame for maximum rigidity

On the entire Dental Four range, the stainless steel working chamber is integrated into the frame for maximum strength, rigidity, ease of cleaning and guaranteed tightness to dust and liquids.

Optimal chip extraction and tool lubrication

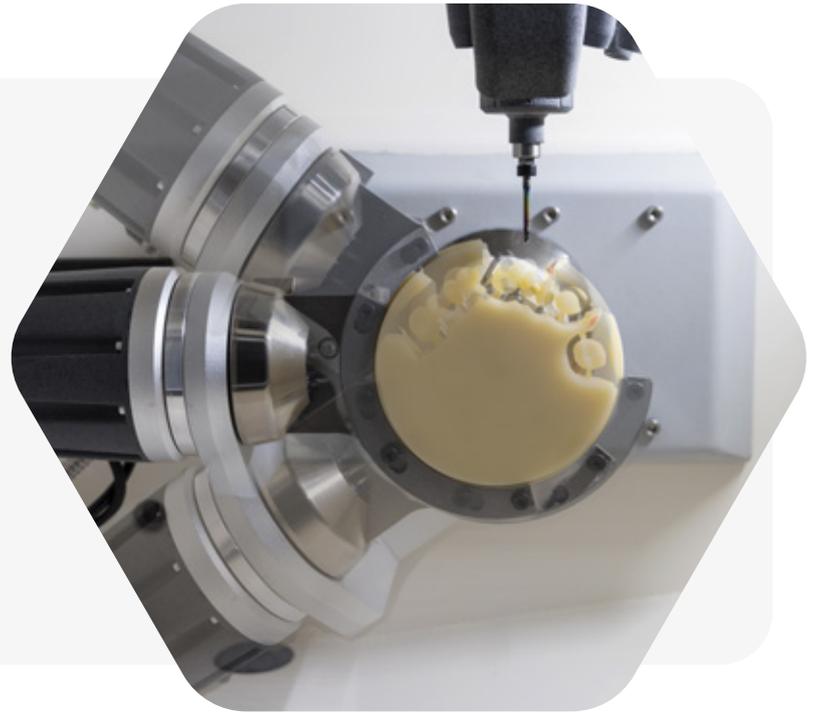
To allow the chip to be sucked up in the best possible way, the suction nozzle is integral with the spindle, so that it works in the area closest to the tool.

The air blowing nozzles for cooling and liquid spraying are also integral with the spindle, ensuring correct lubrication at all times.



A/B axis movements

The wide inclinations of the axes allow prostheses with significant disparallelisms to be performed on implant processing in both cobalt chrome and titanium and, in combination with the C-Clamp pod supports, allow vestibular processing.



Starter KIT tools for advanced machining

All Dental Four machines are already equipped with an original equipment kit that also includes cutters for advanced machining, such as inclined holes and threading.

The interface that makes everything more immediate

DF PANEL: technology made easy

Developed **in collaboration with a team of dental technicians** and web designers, DF Panel is the interface that contains all the necessary features for any type of processing. By connecting to the **"My Dental Four" portal**, it is possible, from any connected device, to check the progress of the work, perform automatic backups, check software updates or request assistance.

In addition, DF Panel simplifies the use of complex functions that are only possible with Dental Four machines, such as the Stop&Go and Restore Line functions.



Assisted Maintenance

Through simple messages, the DF Panel guides the operator through all routine maintenance operations.

Stop & Go

The function allows you to save and stop any machining at any time. This allows you to interrupt a machining process and then resume it, after checking it on the bench or after performing different machining on different supports.



Restore line

DF Panel saves the exact machining point every 10 seconds, allowing milling to resume after accidental interruptions, losing only 10 seconds of machining time.

Monitor your milling machine directly from your smartphone

View the processes and videos with Telegram

Thanks to the **integration with Telegram and the video camera** that can be installed inside the milling chamber, it is possible to check the status of the machining at any time. Thanks to this function **integrated into the DF Panel**, you can view the footage via portal or app.



Chat with your milling machine with Telegram chat



Record Video of the processing of the machine



View Status of the work in progress



Receive notifications in case of errors or fords





The best results, on any material, every time.

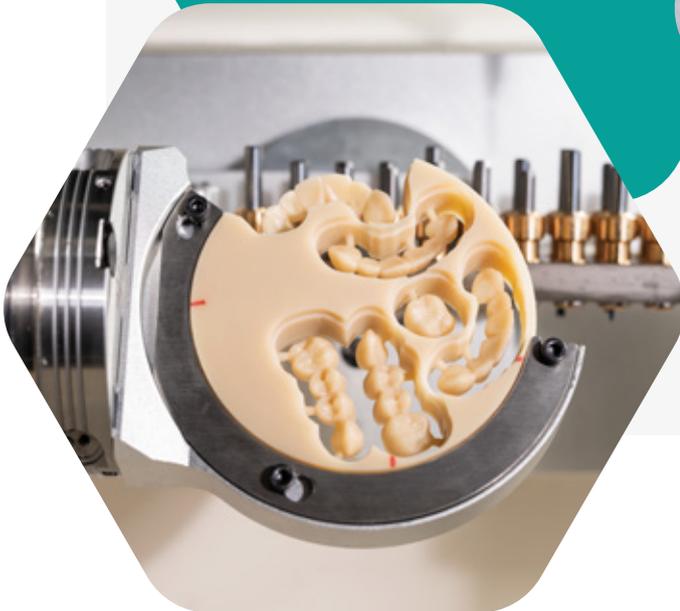
From the rapid milling of PMMA to
the most complex machining on titanium.

The range of **milling materials** on Dental Four machines **is practically endless**, the lubrication and the tool magazine (designed to accommodate cutters suitable for different materials), allow you to face any **milling job serenely**.

Soft materials

High-speed, high-precision milling of all soft materials, dry or lubricated

All our milling machines can be equipped with a lubrication system, this allows you to mill any material: technopolymers, resins, zircons, fibers and disilicates.



Metals

High-speed, high-precision resizing of all dental metals

With DentalFour milling machines, you can make any product in any material; From the simple crown, to the Toronto on screw-retained implants, etc., without any limitations.

In terms of quality, precision, repeatability and milling speed, Dental Four machines are second to none.



Slanted holes

The machine allows the production of inclined holes directly from Cam.

Locations & Connections

Implant Connections: thanks to the high precision, it is possible to make any implant connection.

Threaded holes

Dental Four milling machines are able to drill threaded holes starting from size M2 directly on the machine.





5-axis dental milling machines

SOFT POWER LINE

Processing of soft materials

The Soft Power Line range of dry and wet milling machines is optimized for the processing of soft materials such as: engineering plastics, resins, zircons, fibers and disilicates.

The wide range of accessories allows you to configure the milling machine according to your needs.

METAL POWER LINE

Processing of all materials

The Metal Power Line range of milling machines is suitable for processing all materials available on the market.

The exclusive accessories that can be installed allow you to tackle even the most complex jobs with high degrees of repeatability.



All Dental Four machines can be equipped with the wet machining kit.

SOFT POWER LINE

Dental Four DF 100

The compact milling machine for thinking big

The DF100 is the **entry-level laboratory solution** for the quick and easy production of temporary and definitive prosthetic solutions.

Like all Dental Four machines, the DF100 can also be equipped with a lubrication kit so that wet work can be performed; This makes it possible to process all the "aesthetic" materials that are increasingly entering the production process of the individual laboratory.

Thanks to the **C-Clamp system**, it is possible to perform **"90° wafer machining**, guaranteeing a unique aesthetic quality.



Processing

- Crowns
- Anatomical crowns
- Screw-retained crowns
- Bridges & Anatomical
- Bridges Screw-retained
- Inlay | Onlay Splint
- Oclusally Bite
- Surgical guides

Materials

- Technopolymers
- Resins
- Zircons
- Disilicate
- Fibers

Compact
and reliable,
for studios
and laboratory

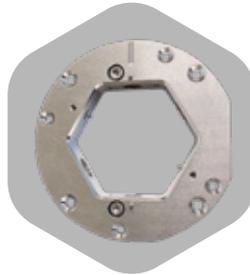
Available options



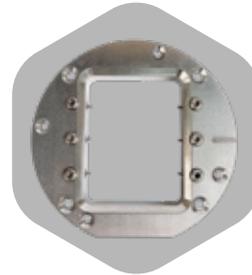
Lubrication system



Dedicated Mobile



Multiple Support



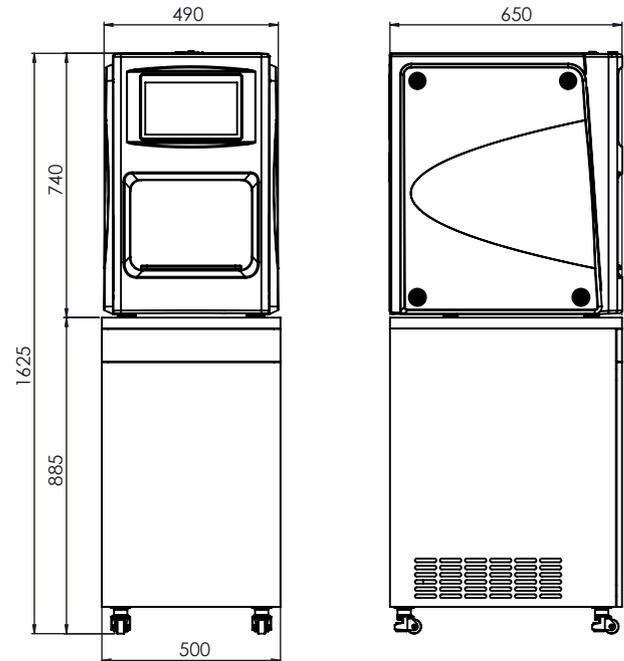
Premilled 6-position support



6-position stand Disilicates

Technical data

Milling system	5-axis continuous
Spindle	JAGER driven in 550W frequency 60,000 rpm
Tool shank	3 mm
Tool changer	Automatic with 12 positions
Motors	Steper with encoder
Tool management	Tool breakage control and Possibility of automatic shooting with reciprocating tool
Axis movement	Cartesian movements with rolled screws and ball bushings lubricated for life
Axis rotation	Axis A with harmonic gearbox with 0° backlash B-axis with class p0 planetary gearbox
Angle of rotation	A= 360° B=± 40°
Lubrication	Optional
Feeding	230 V ac 1900W; ari 5 bar 50 l/min
Dimensions	490 x 650 x 740 mm (L x P x A)
Weight	95 kg



SOFT POWER LINE

Dental Four DF 300

The solution for the processing of soft material

The high processing speed and the robustness of the construction make it the ideal machine for the **high production volumes typical of the laboratory**.

The wet milling capability allows you to mill all non-metallic materials.

It is possible to equip the milling machine with a manual release system, making it unique in its kind (page 34).

Metal power line upgrade: it is possible to upgrade to the "metal power line" version, by installing the 3.2KW electrospindle kit in order to be able to work on metal (titanium and cr-co).



Processing

Crowns
Anatomical crowns
Screw-retained crowns
Bridges & Anatomical
Bridges Screw-retained
Inlay | Onlay Splint
Oclusally Bite
Surgical guides

Materials

Technopolymers
Resins
Zircons
Disilicate
Fibers

Professional
performance
and reliability
on materials
Soft

Available options



Lubrication system



Dedicated Mobile



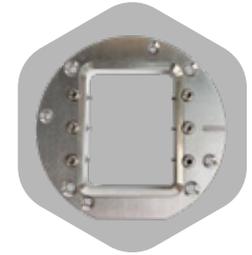
Manual pod release



C-Clamp



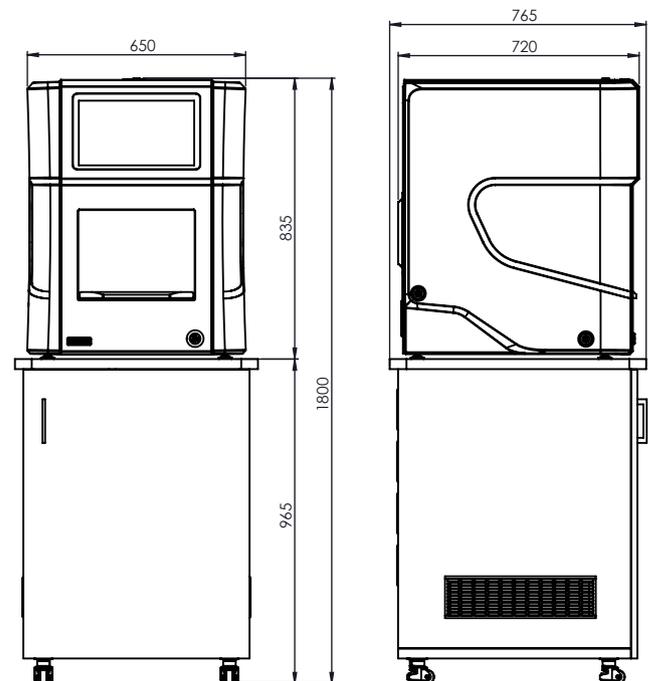
Premilled 6-position support



6-position stand Disilicates

Technical data

Milling system	5-axis continuous
Spindle	JAGER driven in 750W frequency 100,000 rpm
Tool shank	3 mm
Tool changer	Automatic with 12 positions (optional 22)
Motors	Brushless with 23-bit absolute encoders for maximum accuracy
Tool management	Tool breakage control and Possibility of automatic shooting with reciprocating tool
Axis movement	Cartesian movements with rolled screws and ball bushings lubricated for life
Axis rotation	Axis A with harmonic gearbox with 0° backlash B-axis with class p0 planetary gearbox
Angle of rotation	A= 360° B=± 40°
Lubrication	Optional
Feeding	230 V ac 1900W; air 5 bar 50 l/min
Dimensions	650 x 700 x 830 mm (L x P x A)
Weight	170 kg



SOFT POWER LINE

Dental Four DF 500

The solution for 24-hour processing of soft material

The high processing speed and the robustness of the construction make it the ideal machine for the high production volumes typical of the laboratory.

The wet milling capability allows you to mill all non-metallic materials.

It is fitted **as standard with the pneumatic release system of the pod** that allows you to pause any work, change support and processing and then resume interrupted work.

It can be equipped with a four-position pod loader that allows it to work up to 48 hours.



Processing

Crowns
Anatomical crowns
Screw-retained crowns
Bridges & Anatomical
Bridges Screw-retained
Inlay | Onlay Splint
Occlusally Bite
Surgical guides

Materials

Technopolymers
Resins
Zircons
Disilicate
Fibers

Maximum
productivity
and flexibility

Available options



Lubrication system



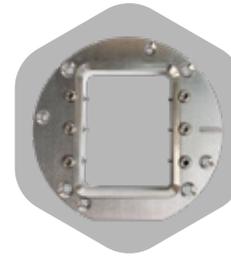
Dedicated Mobile



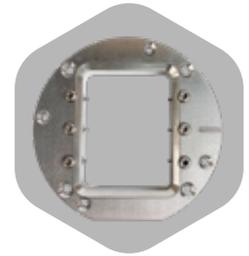
4-pod loader



C-Clamp



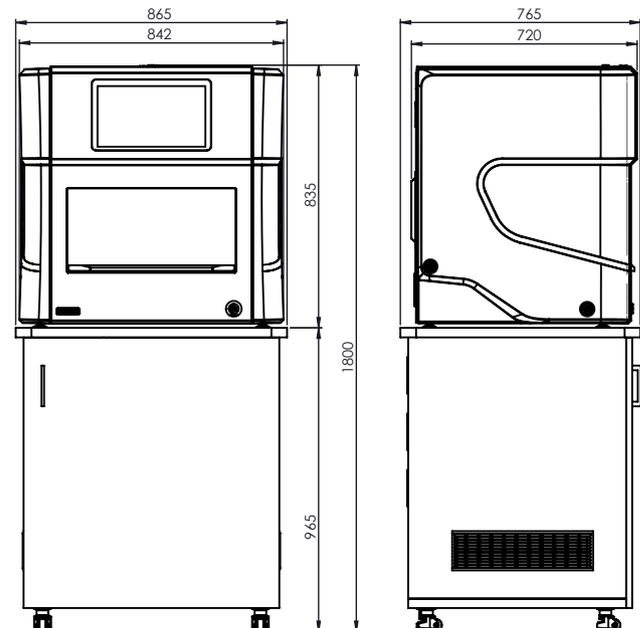
Premilled 6-position support



6-position stand Disilicates

Technical data

Milling system	5-axis continuous
Spindle	JAGER driven in 750W frequency 100,000 rpm
Tool shank	3 mm
Tool changer	Automatic with 22 positions
Motors	Brushless with 23-bit absolute encoders for maximum accuracy
Tool management	Tool breakage control and Possibility of automatic shooting with reciprocating tool
Axis movement	Cartesian movements with rolled screws and ball bushings lubricated for life
Axis rotation	Axis A with harmonic gearbox with 0° backlash B-axis with class p0 planetary gearbox
Angle of rotation	A= 360° B=± 40°
Lubrication	Optional
Feeding	230 V ac 1900W; air 5 bar 50 l/min
Dimensions	830 x 700 x 830 mm (L x P x A)
Weight	200 kg



METAL POWER LINE

Dental Four DF 400

The professional solution for metal milling

The DF400 guarantees **high machining speed for continuous milling of metals** and thanks to the robustness of the construction make it the ideal machine for the high production volumes typical of the laboratory.

If **equipped with a manual pod release system**, it allows you to pause any work, change support and processing and then resume interrupted work.



Processing

- Crowns
- Anatomical crowns
- Screw-retained crowns
- Bridges & Anatomical Bridges
- Screw-retained bridges
- Inlay | Onlay
- Splint Oclusally
- Bite
- Surgical guides

Materials

- Technopolymers
- Resins
- Zircons
- Fibers
- Disilicate
- Titanium
- Cobalt chrome

Unmatched
quality
and speed

Available options



Dedicated
Mobile



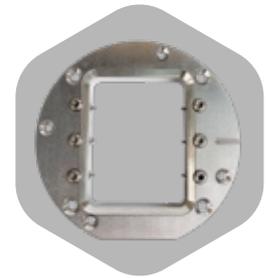
Manual pod
release



C-Clamp



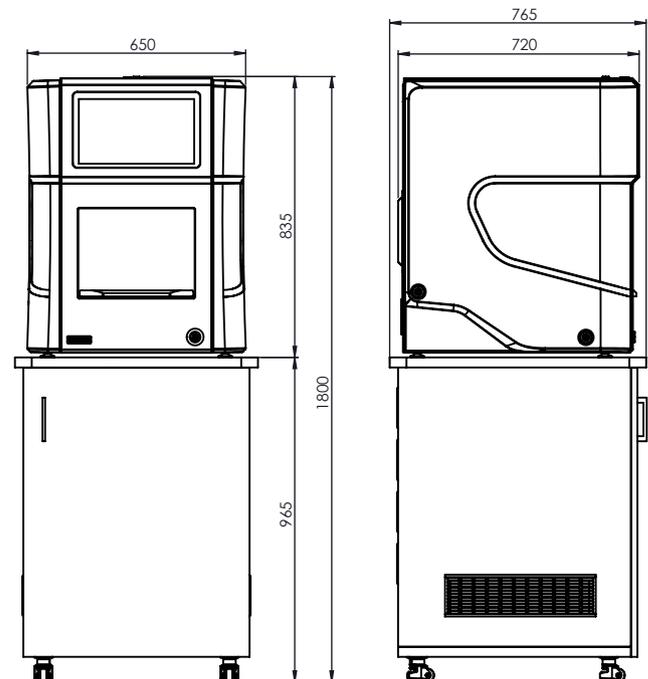
Premilled
6-position
support



6-position
stand
Disilicates

Technical data

Milling system	5-axis continuous
Spindle	JAGER driven in 3.2 KW frequency 60,000 rpm
Tool shank	6 mm
Tool changer	Automatic with 22 positions
Motors	Brushless with 23-bit absolute encoders for maximum accuracy
Tool management	Tool breakage control and Possibility of automatic shooting with reciprocating tool
Axis movement	Cartesian movements with rolled screws and ball bushings lubricated for life
Axis rotation	Axis A with harmonic gearbox with 0° backlash B-axis with class p0 planetary gearbox
Angle of rotation	A= 360° B=± 40°
Lubrication	Winged coolant pump with directional nozzles, filter tank with mixed filter and settling system
Feeding	230 V ac 3500W; air 7 bar 100 l/min
Dimensions	650 x 700 x 830 mm (L x P x A)
Weight	180 kg



METAL POWER LINE

Dental Four DF 600

Increased productivity and absolute precision

The DF600 represents **the highest expression in terms of quality and machining speed** in the field of compact milling machines. The ultra-rigid frame and high-quality mechanical components allow it to perform in a way that is unmatched.

It is fitted **as standard with the pneumatic release system of the pod** that allows you to pause any work, change support and processing and then resume interrupted work.

It can be equipped with a **four-position pod loader** that allows it to work up to 48 hours. It can also mount **absolute optical scales**, with an accuracy of 0.1 μm .



Processing

Crowns
Anatomical crowns
Screw-retained crowns
Bridges & Anatomical Bridges
Screw-retained bridges
Inlay | Onlay
Splint Oclusally
Bite
Surgical guides

Materials

Technopolymers
Resins
Zircons
Fibers
Disilicate
Titanium
Cobalt chrome

Quality
&
High-volume
speeds

Available options



Optical scales



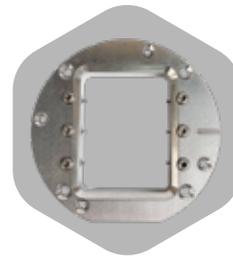
Dedicated Mobile



4-pod loader



C-Clamp



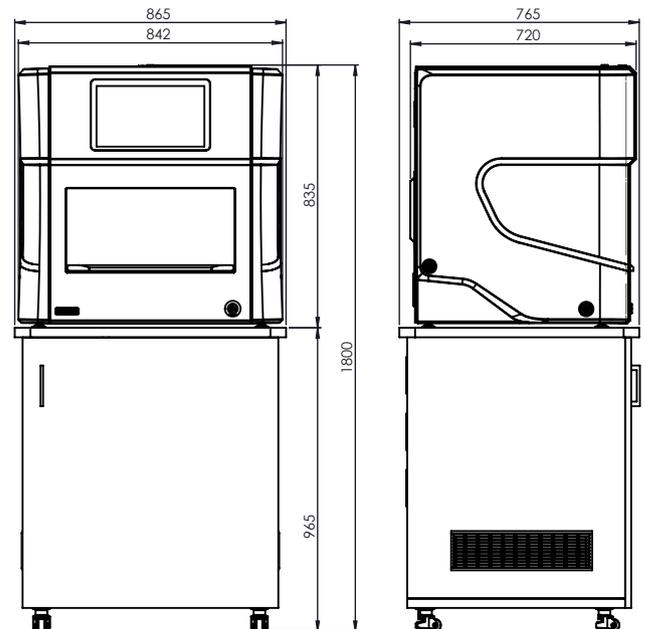
Premilled 6-position support

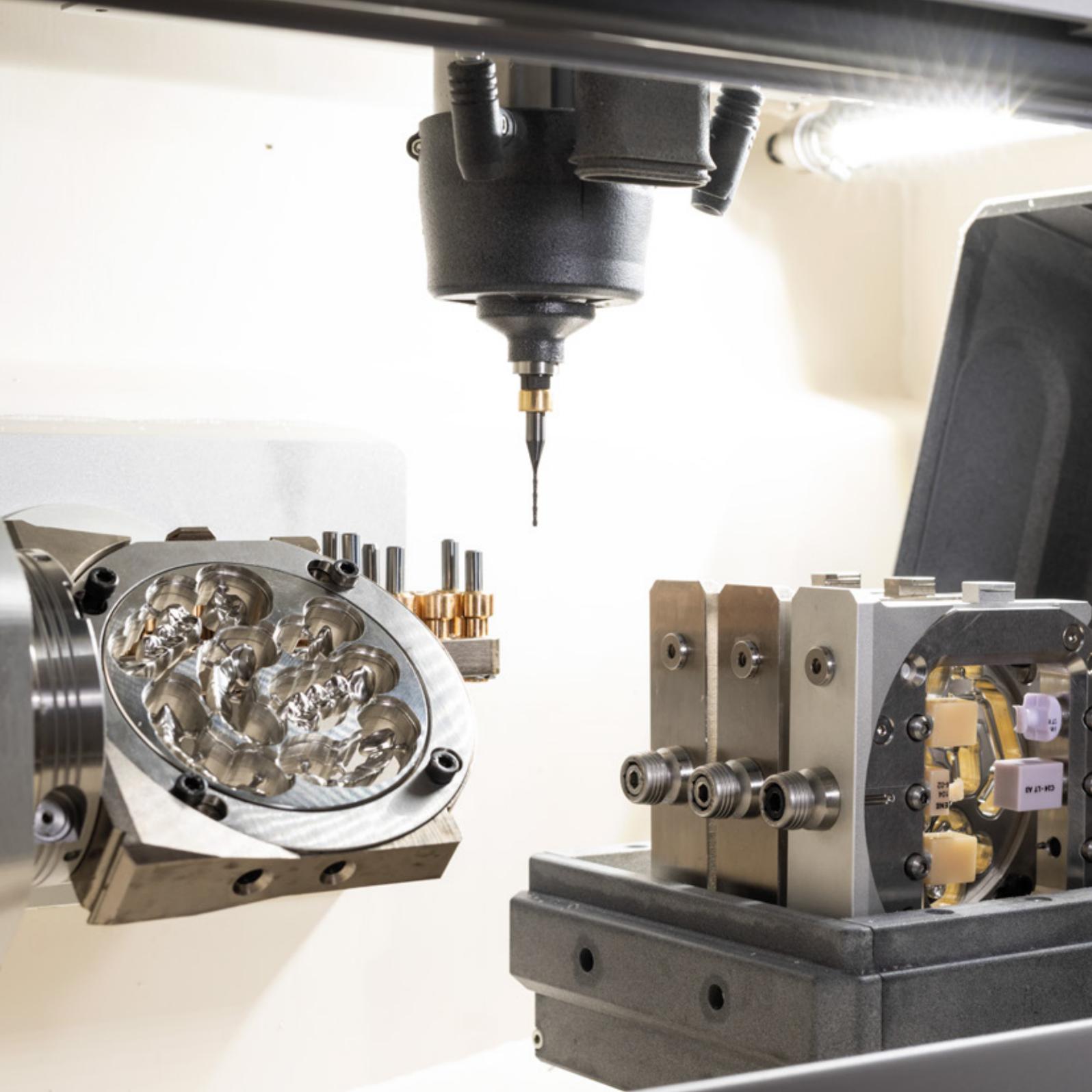


6-position stand Disilicates

Technical data

Milling system	5-axis continuous
Spindle	JAGER driven in 3.2 KW frequency 60,000 rpm
Tool shank	6 mm
Tool changer	Automatic with 22 positions
Motors	Brushless with 23-bit absolute encoders for maximum accuracy
Tool management	Tool breakage control and Possibility of automatic shooting with reciprocating tool
Axis movement	Cartesian movements with rolled screws and ball bushings lubricated for life
Axis rotation	Axis A with harmonic gearbox with 0° backlash B-axis with class p0 planetary gearbox
Righe ottiche	Assi X Y - assolute con risoluzione di 0,1 µm (optional)
Angle of rotation	A= 360° B=± 40°
Lubrication	Winged coolant pump with directional nozzles, filter tank with mixed filter and settling system
Feeding	230 V ac 3500W; air 7 bar 100 l/min
Dimensions	830 x 700 x 830 mm (L x P x A)
Weight	200 kg





Optional

The perfect milling machine according to your needs.

Even if they perform similar jobs, the various laboratories may have **different needs depending on their work cycle**, the materials they mill, and their customers.

To meet these needs, Dental Four has provided a series of accessories that allow you to **customize the individual machine**, both at the time of the order and, in many cases, even after installation at the customer's site.

Optical scales

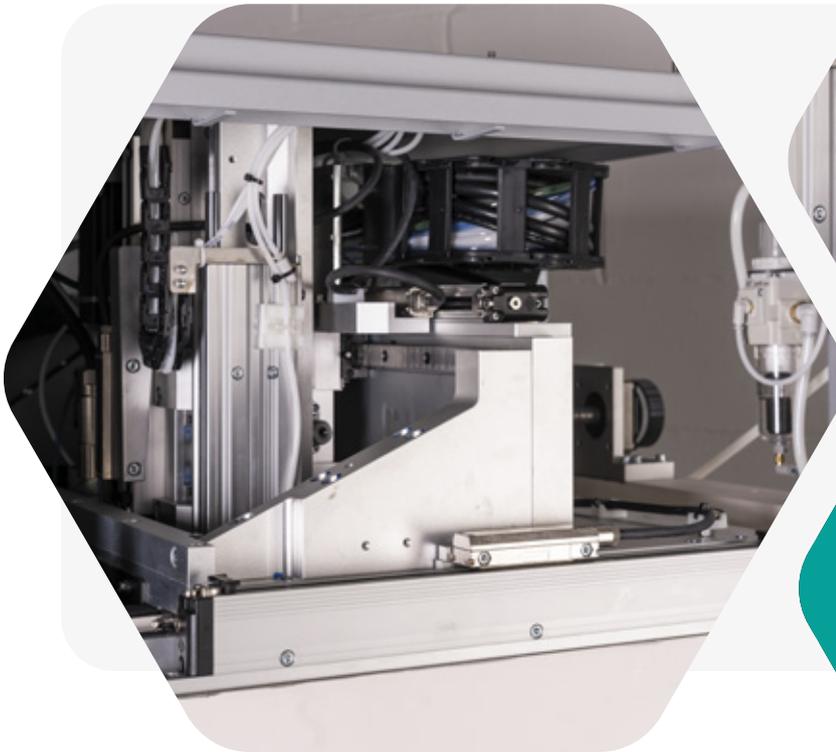
The guarantee of precision down to a tenth of a micron

Optical scales are a measuring instrument that allows you to monitor the position of the X-Y axes in real time with an **accuracy of 0.1 μm (0.0001mm)**.

The machine management software instantly recognizes the position of the axes and implements micro positioning corrections that **allow you to obtain practically absolute precision and repeatability**.

By allowing the position of the axes to be monitored and corrected throughout the life of the machine, the optical scales compensate for the micro expansions due to changes in ambient temperature and the minimal clearances that the mechanics can accumulate after long periods of work.

Absolute optical scales can be installed on the DF600



Absolute Optical Scales
with an accuracy
of 0.1 μm

Self-calibration

Extreme precision, error-free

To maintain high precision, each milling machine must be cyclically calibrated to its internal handling parts. On request, Dental Four provides a fully automatic calibration system.

The heart of the KIT is the **electronic probe**, which, once mounted on the spindle, verifies with absolute precision the position of the pod at different angles, correcting the calibration of the axes.

Being fully automatic, the process completely eliminates any human error, making calibration operations extremely simple.

Fully integrated into the **DF Panel**, the system is simple and intuitive to use even for non-experts.



No measurement errors

Average time:
5 minutes

Mechanical quick pod release

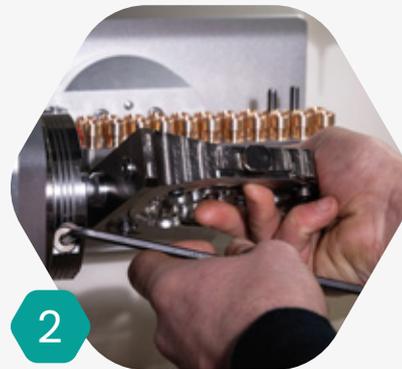
Flexibility, precision, productivity

The system allows you to remove the pod support being processed and reposition it at a later time in exactly the same position.

Combined with the **Stop&Go system**, it is possible to interrupt the work in progress, load a different process (even on other materials) and be able to resume it at a later time.

In particular, in metal milling, **it allows you to remove the wafer from the milling chamber, check on the bench the correct fitting** of the processing and, in the case of need, to be able to carry out further recovery and/or grinding processes.

In addition to the Stop&Go system, the quick pod release allows the use of different suitable and specific pod supports for individual materials, such as the "closed pod" support for heavy machining on metals, C-Clamp support for "90°" machining for extremely detailed aesthetics, etc ...



Automatic pod changer

Be more productive with an automated workflow

The 4-pod loader, which can be installed on the DF500 and DF600, **allows you to automate the work cycle on four different pod supports**, which can mount pods of different materials, thicknesses, or even premilled and disilicates.

The system is extremely reliable and precise as it uses the same axes as the milling, controlled with absolute encoders.

The system allows the pod to be changed in less than a minute.

The system offers all the advantages of manual quick release, but, thanks to the addition of the magazine, allows the machine to **work for up to 48 hours in total autonomy**.



Greater productivity
Pod change in less than 1 minute

Pod holder assortment

The right support for any job

With the **pod release system**, both in the optional manual version for DF 300/DF400, and in the pneumatic version standard on DF500/DF600, it is possible to mount the **perfect pod support for any application**.



C-Clamp, the open support, for the processing of soft materials that allows a wide processing of the buccal region.



Closed, high-rigidity support for precision machining on metal, the holder is suitable for mounting in the warehouse loader.

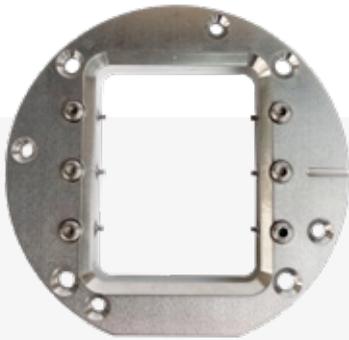


Palletizable C-Clamp, allows the processing of the buccal area, the support is suitable to be mounted in the warehouse loader.

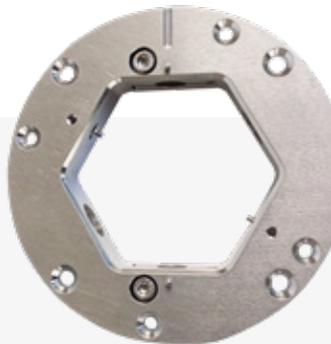
Supports for premilled and disilicates

For milling all types of blocks and supports

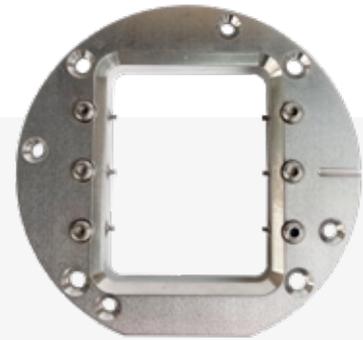
All Dental Four machines can be equipped with holders for premilled and disilicates. The special multifunctional support for premilled and disilicates allows the insertion of custom bushings, adaptable to any type of connection.



6-position disilicate support .



Multiple support, it allows you to machine two disilicates, two premilled and, thanks to the interchangeable bushings, two custom supports.



Premilled 6-position support.



Equipped support table

Everything in its place

All Dental Four machines can be equipped with a dedicated support table that accommodates the filtering and lubrication system, the cooling system and the aspirator in a practical and functional way.

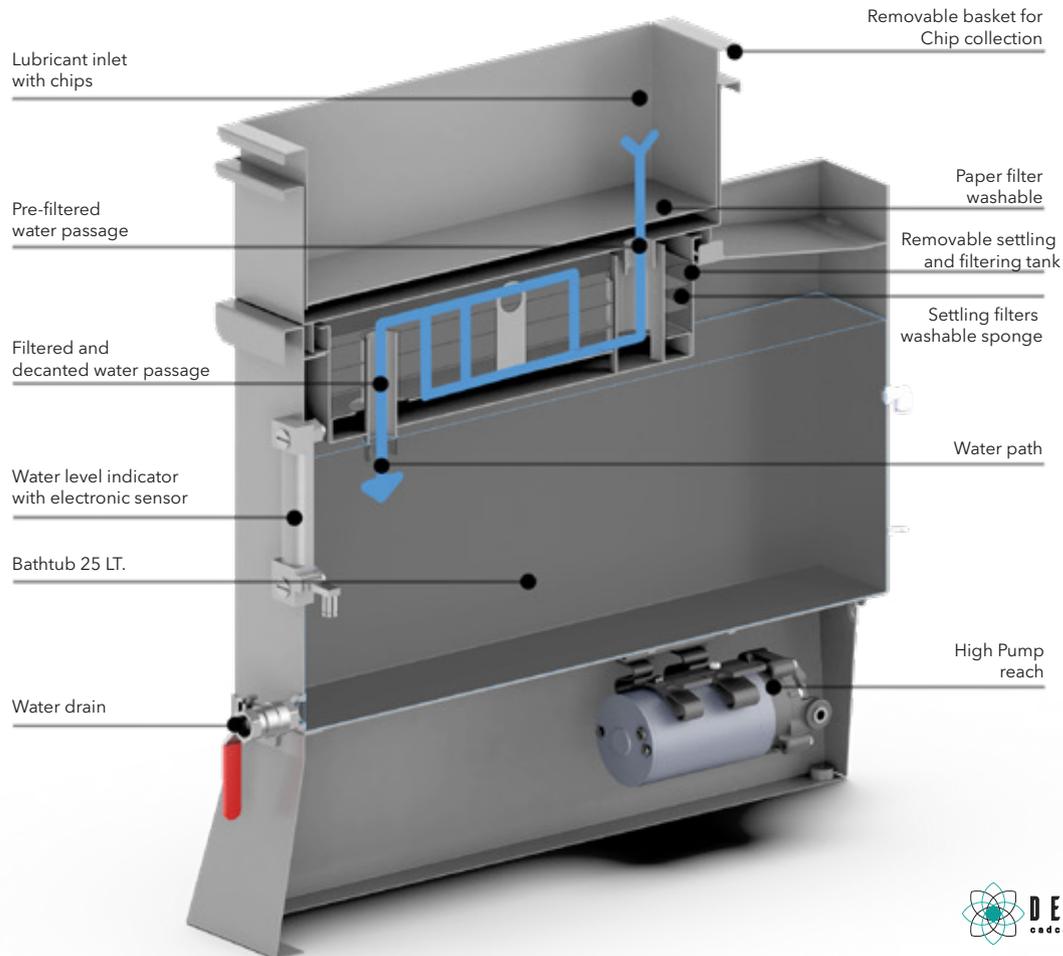
To make cleaning even easier, the table is equipped with wheels with an integrated foot. The rational arrangement of the accessories, the ease of cleaning and the elegance of the design, make the table the perfect complement to your milling machine.

Filtration System

25 litres of liquid, always clean

The filtering system combines the effect of **4 filters and 2 settling tanks**. The coarse shavings are collected in the **BASKET** and filtered by a first **PAPER FILTER** (pre-cut and supplied as a spare part); the liquid, already partially filtered, enters the **SETTLING TANK**, and then passes through the **SPONGE FILTERS** and finally flows into the 25l capacity **TANK**.

The tank is equipped with an optical level indicator, idle sensor and drain valve located at about 30cm above the ground.



Optional

TABLE OF DENTAL FOUR OPTIONALS	DF100 Soft Power Line	DF300 Soft Power Line	DF400 Soft Power Line	DF500 Soft Power Line	DF600 Soft Power Line
Lubrication system	●	●	DI SERIE	●	DI SERIE
Dedicated Mobile	●	●	●	●	●
Aspirator	●	●	●	●	●
Camera	DI SERIE	●	●	●	●
Removable tool magazine with 22 positions	X	●	DI SERIE	DI SERIE	DI SERIE
Mechanical quick pod changer	X	●	●	DI SERIE PNEUM.	DI SERIE PNEUM.
Loader with 4 pods magazine	X	X	X	●	●
Optical scales	X	X	X	X	●
Self-calibration system	●	●	●	●	●

OPTIONAL FIXED POD SUPPORT	DF100 Soft Power Line	DF300 Soft Power Line	DF400 Soft Power Line	DF500 Soft Power Line	DF600 Soft Power Line
Multiple Support 2 premilled 2 disilicati 2 custom	●	●	●	●	●
Support 6 disilicates	●	●	●	●	●

OPTIONAL MOBILE POD SUPPORT (MECHANICAL/PNEUMATIC)	DF300 Soft Power Line	DF400 Soft Power Line	DF500 Soft Power Line	DF600 Soft Power Line
Multiple Support 2 premilled 2 disilicati 2 custom	●	●	●	●
Support 6 disilicates	●	●	●	●
C-Clamp mobile	●	●	●	●
Mobile C-Clamp for Loader	●	●	●	●
Movable closed magazine holder (for metal)	●	●	●	●

LEGENDA: ● Optional X Non installabile



Dental Four S.r.l.

Headquarter e produzione
29022 Bobbio (PC) - Via del Commercio, 1

Email: info@dentalfour.it
Tel. +39 05231410904

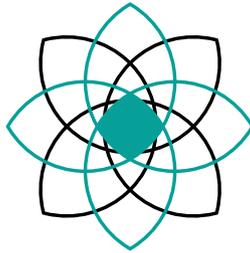
www.dentalfour.it



“

THINK, DRAW
AND REALIZE WITH
DENTAL FOUR

”



DENTALFOUR
cadcam *tecnology* partner



DENTALFOUR
cad/cam **technology** partner