





DEKEMA DENTAL CERAMIC FURNACES

Every ceramic restoration is unique: Unique in aesthetics, precision and function – a work of art that approximates nature as closely as possible. Creative freedom is therefore the highest goal of DEKEMA. Our dental ceramic furnaces offer maximum reliability, dependable performance and consistent quality of results which combine to yield superior prosthetics.

OUR TARGET: THE NATURE

It's our aim to further optimize our already matchless dental ceramic furnaces. We have decades of experience with every component of our products. Dental ceramic furnaces by DEKEMA are made exclusively of high-quality materials and are superior in their class. As a fully independent German manufacturer, we over-accomplish the highest quality standards.

What are your benefits? The optimum in performance, reproducibility and quality embedded in an incredible ease of use. In short: top class aesthetics.

*„You have to deliver perfect work? Day after day?
You cannot afford a different product.“*

Experience the world of DEKEMA every day in your laboratory. We offer the highest level of service. Fast support is a matter of course, as is the rapid and unbureaucratic provision of replacement equipment and support for new developments. That's what we all stand for, DEKEMA and our worldwide partners.



DEKEMA CLAIM

The whole DEKEMA family of AUSTROMATs impress with premium workmanship, a unique firing chamber concept, an absolutely intuitive user interface and a functionality, which sustains any worldwide comparison.

PERFECT RESULTS – SIMPLE AS NEVER BEFORE

Conveniently control your AUSTROMAT through the high resolution touch screen or with your smart phone. We even provide solutions for one click cycle start. The user interface self-explanatory guides you through all processes. You should spend your time with more important tasks.

„As simple as possible, as detailed as necessary!“

Fine tuning is necessary? Up to four highly optimized forms offer access to all necessary parameters, even during program run.

FEELS LIKE HOME

The user interface supplies consistency throughout all models. Independently which furnace you use, you will immediately feel comfortable. Time consuming trainings have gone the way of the dodo.

EVERYTHING IS POSSIBLE

You prefer working with a computer mouse or a keyboard? Just connect them to the USB interfaces and get started.



DEKEMA FEATURES

DEKEMA BASE

Several thousand firing, pressing and sintering programs by nearly every manufacturer of dental ceramics are saved and maintained in this freely accessible DEKEMA data base. Load and start – as simple as that!

DEKEMA AUTODRY

AUTODRY simulates the object temperature and automatically regulates the distance between the firing object and the firing chamber with the vibration-free lift for precise and accelerated drying, heating and cooling phases.

DEKEMA CHECK

Internal test routines seamlessly monitor all relevant parameters while the program is running. An automatic diagnosis routine has also been integrated for all system components to determine the service intervals.

DEKEMA CUSTOMIZE

AUSTROMAT furnaces have an anodized housing. This warrants quality, diminishes wear and keeps your furnace in best shape. Some customers want to further individualize their furnace. Special paintings are possible on request.

DEKEMA CONNECT

Connect your AUSTROMAT to the internet. Benefit from almost unlimited possibilities in operation, programming, control and maintenance of your AUSTROMAT.



DEKEMA CONNECT

NEW DIMENSIONS, UNEXPECTED CAPABILITIES

Unleash your AUSTROMAT through the unlimited possibilities of DEKEMA CONNECT. Activate the software options of your AUSTROMAT. Go online and the world of furnaces will completely change.

HOW DID THAT WORK BEFORE?

Directly access the DEKEMA program data base. We supply and maintain thousands of firing, pressing and sintering programs by nearly every manufacturer of dental ceramics. Access to the internet, remote control, open protocols, even integration into ERP systems like SAP or Oracle are available. What more could one want?

„Try DEKEMA CONNECT. You won't step back.“

ENJOY CONTROL

You're in a meeting and want to know, how your AUSTROMAT feels like? With DEKEMA CONNECT and your smart phone easily control your AUSTROMAT devices, wherever you want. The firing already finished? Did you adjust the temperature? Find all the information you require in your pocket.

HOUSTON, WE HAVE A PROBLEM

Is a service technician available? When can he stop by? He's here already? I need to fire! With activated internet connection, our service technician can access the furnace remotely – if you allow us to! Analyzing your QM data, we can detect mistakes, defects and errors. Troubleshoot from far away. We want you to be operational.

DEKEMA AUSTROMAT



AUSTROMAT 624

The Fundament:
The highest degree of safety in your fired dental restoration.



AUSTROMAT 644

The Continuance:
Fire the result you expect; press with your one plunger ring system.



AUSTROMAT 654 press-i-dent

The Ultimate:
Press several colors/ingots simultaneously;
fire without lowering your sights in quality.



AUSTROMAT 664

The Cute:
Roughly forty single copings and dental restorations up to six units can be sintered at a maximum temperature of 1.530 °C.



AUSTROMAT 674

The Universal:
Sinter milled prosthetics of any size or up to around eighty single copings with up to 1.530 °C.



AUSTROMAT μSiC

The Flagship:
For huge amounts of any kind of milled restoration with a capability of 1.600 °C.



AUSTROMAT 624

AUSTROMAT 624

The proven firing chamber concept assures excellent firing results within all temperature ranges. The combination of the intuitive user interface and an internet capable electronics ideally adapts to the practical needs of the modern dental technician. The focus is readjusted on the dental technician's daily work.

FURNACE FOR FIRING DENTAL CERAMICS

The AUSTROMAT 624 merges our firing experience with a control, leaving nothing to be desired.

The furnace is operated through a high resolution touch screen. Different data in- and output possibilities, as well as several program editing functions perfectly adapt to the individual requirements of any dental technician. Start one of the 200 active programs just by pushing one button. The program may be changed during operation, optionally even remotely over the network. In the background you may store a more or less unlimited quantity of programs inside the furnace's data base.

Since decades DEKEMA has used virtually the same firing chamber. That's the pivot for outstanding firing results in all temperature ranges. It's one of our major principles that changes on modules have to lead to further optimized firing results. Costs on most important parts have to be an also-ran.



AUSTROMAT 644



AUSTROMAT 644

The reliable firing furnace, expanded to a combi furnace for firing and pressing. Fire your dental restorations as usual. Press with the patented vacuum pressing system. It works independently of an external compressed air supply. It perfectly suits to excellent pressings with any one plunger ring system.

COMBI FURNACE FOR FIRING AND PRESSING WITH ONE-PLUNGER-RING-SYSTEMS

Ambient pressure is cleverly exploited to reliably press with the AUSTROMAT 644. This patented, high resolution process even allows controlled pressings at different, pre-defined press forces. Standard ring systems of any press ceramics' supplier with diameters up to 70 mm and total heights up to 88 mm can be processed under vacuum inside the pressing chamber.

The AUSTROMAT 644 has been built upon the AUSTROMAT 624. Therefore this unit joins all the merits of the ceramic firing furnace with extra class pressing functionality. Whether touch screen or optional network access. This furnace has already been loaded with all the equipment to future-oriented escort the dental technician on his way towards to the digital dental laboratory.





AUSTROMAT 654

AUSTROMAT 654 press-i-dent

This working horse is equipped with the innovative, controlled, electro-mechanical upwards-pressing propulsion. It opens the mind of the dental technician to a new world of unique pressing possibilities. Multicolor multi ingot pressings supply efficiency you not even dreamed of. And still it is equipped with a closed firing chamber. No hole on top, no cold spots, delivering the homogeneous temperature distribution, needed to perfectly fire every layered dental restoration.

COMBI FURNACE FOR FIRING AND PRESSING WITH ONE- OR MULTI-PLUNGER-RING-SYSTEMS

Pressing several colors with multiple plungers in one ring; Press without vacuum, Quick cooling steps during pressing; firing high and low fusion dental ceramics towards highest customer satisfaction. Only one furnace unites these properties: The AUSTROMAT 654 press-i-dent. Ensured by the closed thermal insulation system, absolutely unique for pressing furnaces. And made possible through its further developed, further optimized upwards-pressing propulsion, which has been invented especially for furnaces of the press-i-dent kind. Epic in precision and accuracy.

Operation, user guidance or editor, are identical to the AUSTROMAT 624/644. And surely functionality has even been extended. You feel immediately at home. No matter, whether you want to operate the furnace through his large, high resolution touch screen, or, as an option, remotely through the network.





AUSTROMAT 664

AUSTROMAT 664

Merging user-oriented operation, short sintering cycles, low energy consumption and a very small footprint? Materialized through the AUSTROMAT 664, the DEKEMA specific SiC heating technology makes it possible. Approximately forty copings or restorations with up to six units can be reliably sintered in one cycle with up to 1.530 °C.

FURNACE FOR SINTERING COPINGS UP TO 1.530 °C

The high temperature furnace AUSTROMAT 664 is equipped with two silicon carbide heating elements to safely and consistently operate at temperatures up to 1.530 °C. All components of the AUSTROMAT 664 sintering chamber are made of highest purity, durable materials to ensure very homogeneous heat distribution in a clean atmosphere.

A patent pending, DEKEMA specific Platinum/Platinum Rhodium thermocouple monitors the temperature inside the sintering chamber. Approximately 20 copings with a maximum diameter of 65 mm might be simultaneously sintered on top of the patented insulation table, optionally in two levels doubling capacity. Our time tested AUTODRY system has been further improved, providing both, precise drying steps, as well as quick and direct heating and cooling steps, for extremely short sintering cycles.





AUSTROMAT 674

AUSTROMAT 674

The SiC-heating concept for every kind of milled dental prosthesis sintered under atmosphere for as many as approximately forty parts per level. Three heating elements realize a homogeneous temperature distribution up to as high as 1.530 °C. Remote control and quality management are optionally integrated and provide a reliable partner of your milling or grinding machine.

FURNACE FOR SINTERING COPINGS UP TO 100 MM IN DIAMETER

The AUSTROMAT 674 is equipped with three silicon carbide heating elements, perfectly fitting for sintering at temperatures up to 1.530 °C. These heating elements feature robustness and durability and won't discolor copings.

The firing chamber is closed through the vibration free lift system. The AUSTROMAT 674 also uses our unique, well-established system, to realize safely shortest sintering durations with highest heating and cooling rates. This so-called AutoDry system controls temperature gradients through lift movement, dependent on chamber temperature. On each sintering level approximately forty sintering units can be placed. Equip the furnace with two levels to reach highest throughput. Diameters of sintering goods may reach up to 100mm.

Sintering programs are already factory preset, loaded through a thumb drive or optionally downloaded from the huge DEKEMA sintering program internet data base. Optionally these cycles might even be programmed by one click QR scanning. The furnace is operated through its large 7.5" touch panel. It also shows the state of the furnace and all relevant data.





AUSTROMAT μ SiC

AUSTROMAT μ SiC

The sintering flagship, especially designed for sintering huge amounts of milled dental restorations. Three SiC heating elements ensure an even temperature distribution inside the sintering chamber. Process safety and traceability is already integrated through quality management modules and internet connectivity for remote access.

FURNACE FOR SINTERING ZIRCONIA UP TO 1.600 °C

Large milling centers all over the world cherish the efficiency of the AUSTROMAT μ SiC; efficiency in throughput, efficiency in energy consumption, efficiency through reliability.

Several levels of diameters up to 100 mm can be placed on top the multilayered insulation table, up to a height of 150 mm; thus, sintering of more than 120 units is possible at a time. Discoloration can be neglected through the use of clean SiC heating technology. Energy saving heating and cooling processes extremely reduce sintering times. Depending on the material, typically around 70 % shorter cycles can be realized as with conventional heating techniques in standard high temperature ovens. This is future-oriented, eco-sensitive state-of-the-art technology for the process safety of tomorrow's digital dental laboratory.

Editing and programming functions allow generation of incredible sintering cycles. The network compatible AUSTROMAT μ SiC can remotely be operated. Use your mobile device or let us diagnose the unit remotely. Use a QR reader to optionally one button program or safely start a cycle. Even during program run you remotely may adapt data. Comprehensive backup and recovery functions and power failure features round up this furnace.



ACCESSOIRES

THE SYSTEM: DEKEMA TRIXPRESS

The DEKEMA trixpress system includes ring sizes of 100 g, 200 g and 380 g, adapted to the functions of the AUSTROMAT press-i-dent. The three sizes cover all pressing and overpressing techniques from individual crowns to 14 unit bridges.

Since the disposable placeholders can be arranged as desired, you can simultaneously process up to 30 g of porcelain and/or five different colors simultaneously during one single pressing. The use of the press ingots can be optimized by distributing the porcelain to several plungers.

THE RESULT: ACCOMPLISH PRESS EFFICIENCY

It's the whole process you've got to reconsider to see the real potential of trixpress. Processing several press ingots in several colors shrinks the whole procedure to an absolute minimum. Build up one ring, where you made three four or even five rings before. One wax up step, one investing step, one heat out cycle, one pressing cycle, one divesting step. Ultimate press efficiency, ultimate time efficiency.

Take a look:



INCORPORATE YOUR DESIGN

What color is your car? How are you represented?

Let your equipment reflect your personality. An individual screensaver, your logo or your corporate color – DEKEMA customizes your 6-series AUSTROMAT.



ACCESSOIRES



QR READER

Program a cycle by just one click. All furnaces of the current product range allow to program cycles through a DEKEMA specific QR reader. QR codes are freely provided on the DEKEMA internet data base. Cycles also can be started temporarily. Associated information, like operator, program, program parameters, time, etc. will be stored inside the internal quality management module of the furnace.

VACUUM PUMP

DEKEMA offers customized pumps for the vacuum ceramic furnaces. Together with DEKEMA the internationally recognized pump manufacturer KNF has developed and adapted its pumps to the requirements of dental technology. The outcome is exclusively delivered by DEKEMA. Special coatings on the pump heads diminish condensation and reduce deposits and wear. The low-maintenance pump achieves a reliable vacuum down below 20 mbar.



ACCESSOIRES

GRIPPER

The sintering tools of the AUSTROMAT 664 are designed to be picked with standard DEKEMA tweezers.

The side openings in the rings of the AUSTROMAT 674 and the AUSTROMAT μ SiC allow you to grip below the base with a gripper tool and easily load and unload the high temperature furnace.

SINTERING TOOLS

Sintering objects must not contaminate. DEKEMA spends a lot of time and efforts in creating the right support for your sintering objects, to guarantee a clean atmosphere inside the sintering chamber. A patented system of tailored rings and plates made of customized material is optimized for durability and stability, even at high temperature gradients.

The AUSTROMAT 664 is delivered with a sintering plate of 65 mm diameter. It optionally can be equipped with a second pair of rings and plates to sinter in two levels.

The AUSTROMAT 674 sinters in one level optionally in two levels. It also sinters uncovered units with a diameter of up to 100 mm.

The AUSTROMAT μ SiC uses the same plates and rings as the AUSTROMAT 674. It provides a total stackable height of 150 mm and can be divided into several levels.

MICRO-PEARLS

Micro-Pearls allow to safely position and support dental restorations leading to an effectively frictionless shrinkage during the sintering process for temperatures up to 1.550 °C.

Micro-Pearls are made of high temperature ceramics. The spherical shape with minimal variation between 0.4 mm and 0.6 mm in diameter perfectly fits for dental applications. This size ensures that sintering beads cannot pinch the dental restoration, leading to distortion during shrinkage. The chemical composition of Micro-Pearls on the one hand guarantees clean sintering of the dental restorations. On the other hand we reach long usability of the bedding.

We recommend application of just one layer of Micro-Pearls to ensure minimal friction. DEKEMA therefore created an optionally available, adapted sintering plate for the AUSTROMAT 674 und AUSTROMAT μ SiC. The original plate of the AUSTROMAT 664 already has been adapted to the sintering on Micro-Pearls.



OVERVIEW

Features	AUSTROMAT					
	624	644	654 press-i-dent	664	674	µSiC
Size (H x W x D)	653 x 383 x 343 mm³	757 x 383 x 343 mm³	653 x 383 x 343 mm³	780 x 383 x 343 mm³	780 x 383 x 343 mm³	990 x 416 x 602 mm³
Weight	17,5 kg	18,5 kg	22 kg	21 kg	24 kg	78 kg
Power Supply	230 V / 50 to 60 Hz	230 V / 50 to 60 Hz	230 V / 50 to 60 Hz	230 V / 50 to 60 Hz	230 V / 50 to 60 Hz	100-240 V / 50 to 60 Hz
Maximum Power Consumption	1,5 kW	1,5 kW	1,5 kW	2 kW	2 kW	2 kW
T _{max}	1.200 °C	1.200 °C	1.200 °C	1.530 °C	1.530 °C	1.600 °C
T _{max} 1.560 °C				optional	optional	
Touch Screen	7,5" color	7,5" color	7,5" color	7,5" color	7,5" color	
USB-Terminal						●
Programming languages	Easy Professional Classic	Easy Professional Press Classic	Easy Professional Press Classic	Classic	Classic	Classic
DEKEMA vacuum pump	●	●	●			
DEKEMA AUTODRY	●	●	●	●	●	●
Program resumption after power failure				●	●	●
Press functionality		●	●			
PTA (P ress T ime A utomatic)		●				
MPTA (M ultiple P ress T ime A utomatic)			●			
Housing: Anodized aluminum	●	●	●	●	●	●
Corporate Design Customization	optional	optional	optional	optional	optional	
Quartz glass heating element: DEKEMA specific heating element coil guided in pure quartz glass	●	●	●			
SiC heating element: DEKEMA specific, high purity heating elements made of SiC (silicon carbide), firing at high temperatures, no discoloration				●	●	●

Features	AUSTROMAT					
	624	644	654 press-i-dent	664	674	µSiC
Fiber insulation 6XX: DEKEMA specific fiber insulation	●	●				
Stone insulation 6XX: DEKEMA internally fabricated, specific stone insulation			●			
Multi-compound fiber insulation: Multilayer insulation for sintering at high temperatures				●	●	●
Fiber insulation table: For firing porcelain, adapted to the dimensions of the furnace	●	●				
Stone insulation table: DEKEMA internally fabricated, for firing porcelain			●			
Stone insulation table: DEKEMA internally fabricated, for pressing porcelain		●	●			
Multi-compound fiber insulation table: For sintering at high temperatures				●	●	●
trixpress: Ring former for pressing several units/shades; 100g, 200g and 380g			optional			
Sintering accessories: sintering in one level				●	●	
Sintering accessories: sintering in second level				optional	optional	
Package of µSiC sintering accessories: Three (3) bases and three (3) rings including gripper for reliably loading and unloading						●
Micro-Pearls: non-deforming sintering of dental restorations				optional	optional	optional
Sintering plate for Micro-Pearls				●	●	optional
QR Reader	optional	optional	optional	optional	optional	optional
USB interface: Transfer firing programs (dds)/ transfer image files (jpeg)/save quality management files (dfl)	2x(●/●/●)	2x(●/●/●)	2x(●/●/●)	2x(●/●/●)	2x(●/●/●)	2x(●/●/●)

OVERVIEW

Software options

	624	644	AUSTROMAT		674	µSiC
			654	664		
			press-i-dent			
DB (Internet data base): Ethernet interface for connecting to the DEKEMA Internet data base	optional	optional	optional	optional	optional	●
JAVA: For online control and monitoring of all relevant furnace functions via JAVA compatible browsers	optional	optional	optional	optional	optional	●
VNC (Virtual Network Client): For online control and monitoring of all relevant furnace functions via VNC for PC or mobile device	optional	optional	optional	optional	optional	●
FTP server: Connection for transferring files via the internal FTP server	optional	optional	optional	optional	optional	●
FTP client: Connection for transferring files via an external FTP server	optional	optional	optional	optional	optional	
QM quality management: Record of process files in ASCII format	optional	optional	optional	optional	optional	●
X-DREAM: Computer program for querying the furnace state and emailing QM data	optional	optional	optional	optional	optional	optional
OPC: Software server to incorporate quality management into ERP systems	optional	optional	optional	optional	optional	optional





DESIGN | SCANNING | 3D PRINTING | MILLING | MATERIALS | POST-PROCESSING



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