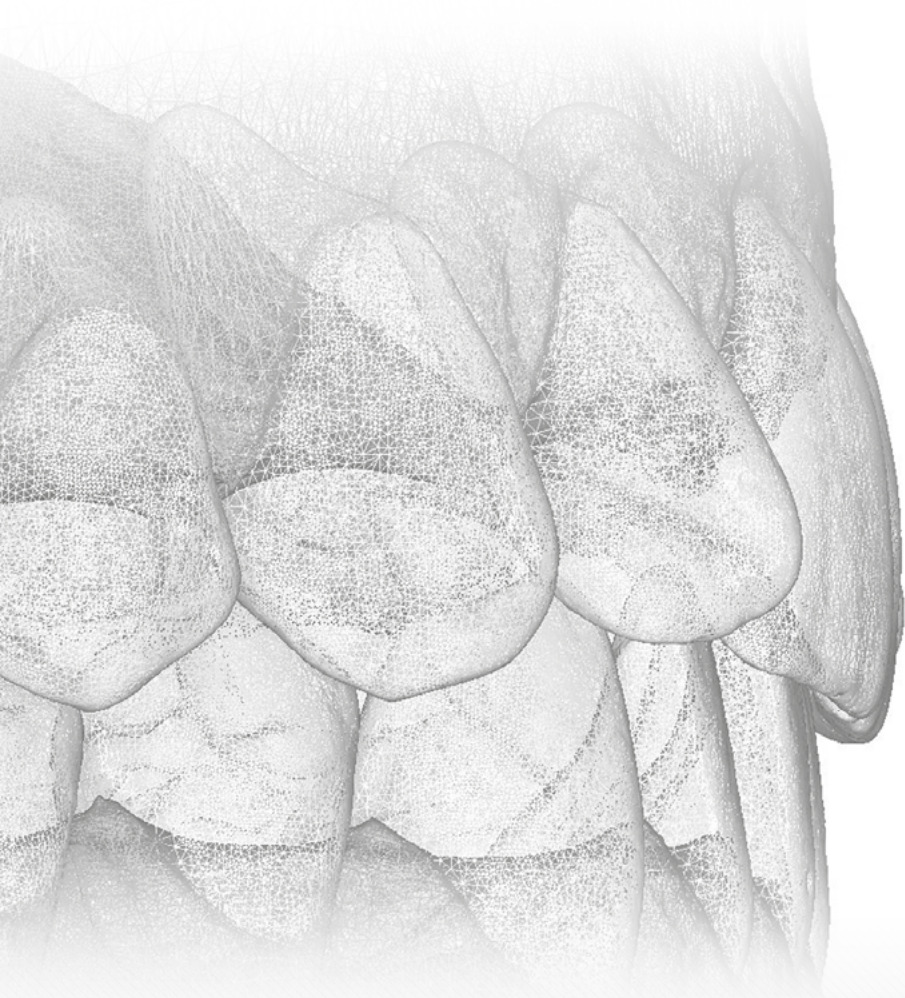


## Only with SCHEU-DENTAL:

SMART FLOW – the digital process chain for orthodontic practices and laboratories from a single source.





# A complete digital process chain



We are still fascinated by the dynamics replacing long proven manual working steps by digital ones, as it brings about significant changes to our professional world and offers possibilities to develop new competences.

Our vision is to contribute to and to shape this exciting development so that you, the user, can benefit from the efficient work processes that are made possible by these new technologies.

SMART FLOW offers you the option to complement proven

treatment approaches with innovative technologies – at your own pace and according to your personal preferences. You can get started with the digital work flow at any point. After the scanning process we offer the entire product range for each step, ranging from digital tooth transposition, 3D printing and thermoforming to patient treatment.

It's up to you to decide about the individual level of your digitalisation. Join us in the digital workflow.

We will support you.



# Digital process chain from a single source.

1 OnyxCeph3™ CA® SMART 3D 2.0: Transposition and planning.

Scanning:  
The entry portal to the digital work flow. Our cooperation partners are DENTSPLY SIRONA, 3Shape and DENTAURUM.

PLANNING

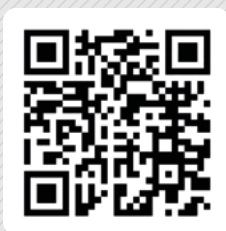


scan data

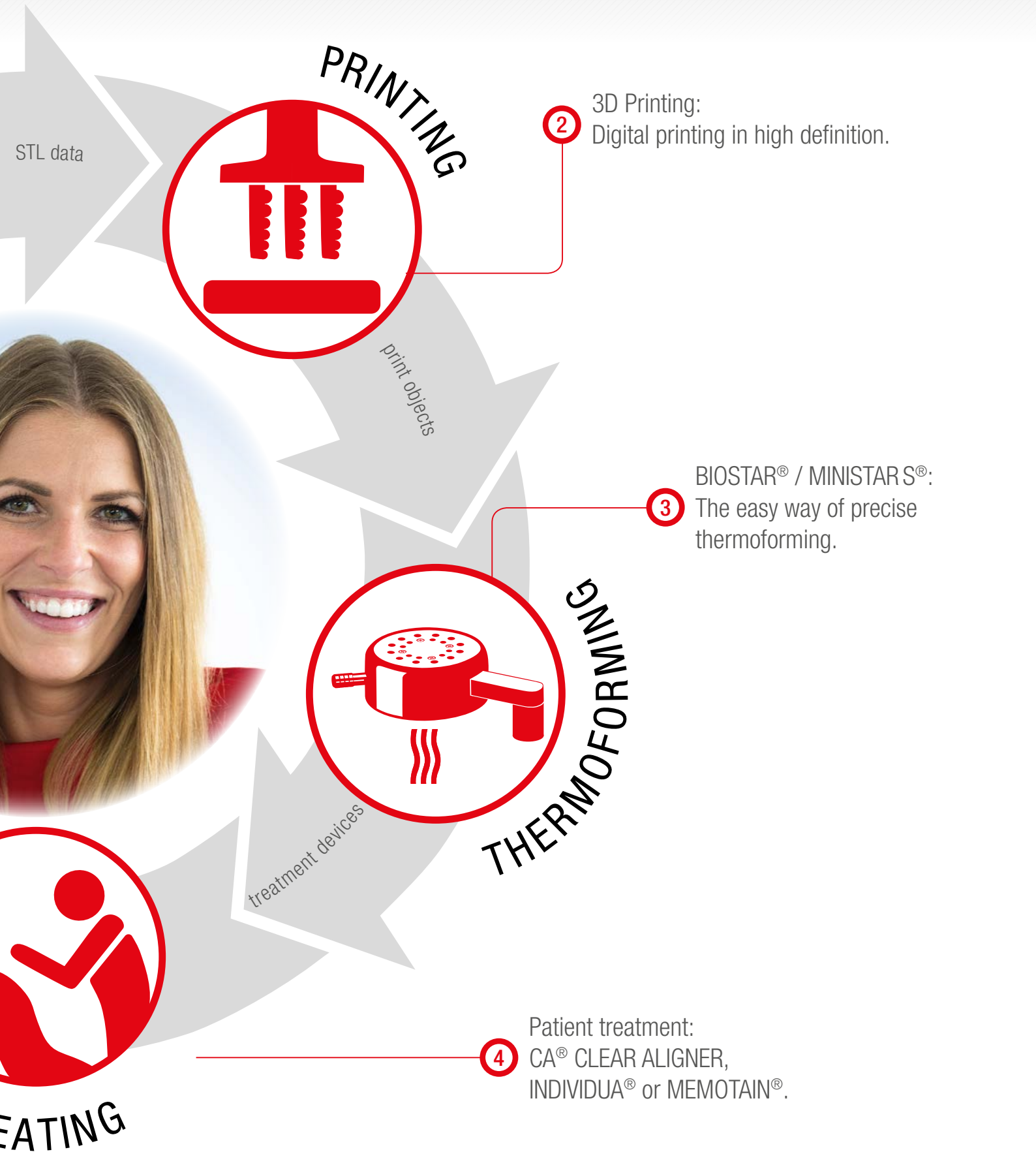


TRE

Application video:



Watch and experience SMART FLOW.



STL data

# PRINTING



2

3D Printing:  
Digital printing in high definition.

print objects

3

BIOSTAR® / MINISTARS®:  
The easy way of precise thermoforming.



# THERMOFORMING

treatment devices

4

Patient treatment:  
CA® CLEAR ALIGNER,  
INDIVIDUA® or MEMOTAIN®.



# TREATING

# STEP 1 – PLANNING



OnyxCeph3™ CA® SMART 3D 2.0 is a software solution for digital aligner planning and virtual bracket positioning with numerous interfaces to the practice software.

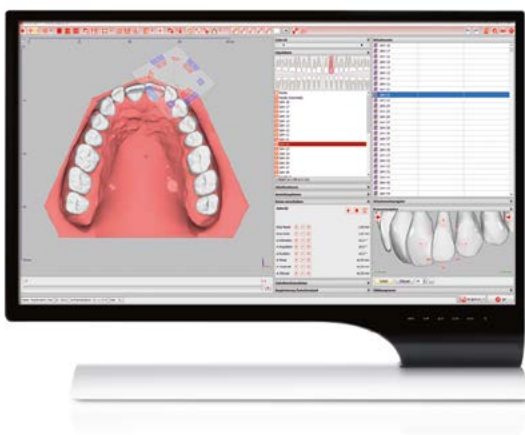
- // Processing data sets
- // Cephalometric measurement
- // Virtual teeth segmentation
- // Transpositions/set-ups controlled by the CA® philosophy defined in the software
- // Creating and exporting print data
- // Generating 3D reports
- // Directly exporting data to the Asiga Composer software

Once the scanning process using a model or intraoral scanner has been completed, the data is imported via interface to OnyxCeph3™ CA® SMART 3D 2.0. In this context it is crucial to scan upper and lower jaw in occlusion. Optionally, patient data can be imported via an existing interface.

In the next step, the imported data can be repaired and aligned for further processing. Before starting the set-up transposition the scanned jaw models have to be trimmed and a model base has to be selected.

The software carries out an automatic control of transpositions during the set-up that is based upon the CA® CLEAR ALIGNER treatment philosophy of Dr. Pablo Echarri. During the whole treatment process, treatment control and value creation remain all in one hand.

OnyxCeph3™ CA® SMART 3D 2.0 is available with license for up to 20 workstations in the network and one additional independent single-user license.



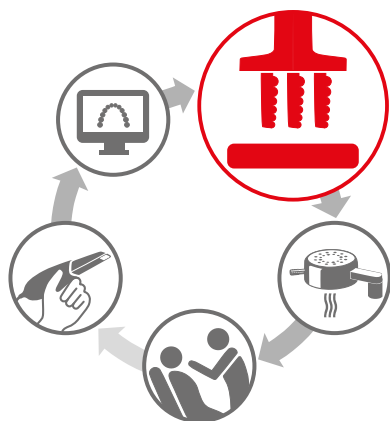
## System requirements

Network server	Intel 2.3 GHz (or higher)
Storage	8 GB of RAM, 64 bit system, 200 GB HD space
Operating system	Windows 7 (or higher)
Server	OS, 1000 Mbps Ethernet
Graphic card	NVIDIA, GeForce GTX   GTS (or equivalent)

	REF
// OnyxCeph3™ CA® SMART 3D 2.0	6514
// Module Aligner 3D for OnyxCeph3™	6514.002
// Module Bonding Trays 3D for OnyxCeph3™	6514.003

Purchase of the OnyxCeph3™ CA® SMART 3D software is subject to a one-day software training. For training dates and further information please visit [www.scheu-dental.com/en/scheuacademy/seminars](http://www.scheu-dental.com/en/scheuacademy/seminars).

# STEP 2 – PRINTING



3D-printers for beginners, advanced users and experts:

- // Compact, quiet and fast: 4.0 cm/hour using the printer resin IMPRIMO® LC model (Asiga MAX™)
- // Easy start-up
- // Validated process for the use of a large range of consumables
- // SPS®: Smart positioning system for precise printing results
- // Matching material portfolio for all applications in laboratory and practice
- // Equipment for curing and cleaning

For model printing with a 3D printer STL data is required. With one click, the OnyxCeph3™ CA® SMART 3D 2.0 software generates STL data in the export module and transfers it to the 3D printer. The printer software Asiga Composer positions the imported model data on the build platform in the build space. Asiga Composer is a mere nesting software designed for positioning data and creating support structures to stabilize the objects. The printing software does not process STL data.

Once the objects are finally aligned, the corresponding material is selected, e.g. IMPRIMO® LC Model for models. The final step before starting the print job is to determine the layer thickness. Using the slicing function, the print object is sliced into layers and the images for projecting are calculated.

The material parameters that are stored in the software ensure that the resin polymerizes properly in the corresponding

layer thickness. Once printing has been completed, the objects are removed from the build platform and cleaned – for example in the cleaning unit IMPRIMO® Clean – before being cured in a light oven.

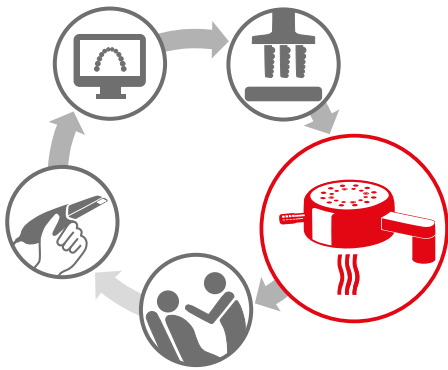
In order to ensure biocompatibility, a light oven with UV-light and protective gas is required - such as IMPRIMO® Cure. The models are now ready for thermoforming.

Our whole range of printing material does contain no or very little diluting monomer and is therefore odourless.

	REF
// Asiga MAX™ (385 nm)	6501
// Asiga MAX™ Tray 1 liter	6516
// Asiga MAX™ Tray 2 liter	6515
// Asiga MAX™ Tray 5 liter	6517
// Asiga MAX™ Tray 10 liter	6518
// Asiga PRO 4K 65 (385 nm)	6538
// Asiga PRO 4K 80 (385 nm)	6539
// Asiga PRO Tray 2 liter	6521
// Asiga PRO Tray 5 liter	6523
// Asiga PRO Tray 10 liter	6524



# STEP 3 – THERMOFORMING



The pressure moulding units **BIOSTAR®** and **MINISTAR S®** stand for maximum performance when it comes to any thermoforming application in practices and laboratories:

- // Working temperature is reached in just one second
- // Scanning technology for simple programming
- // Patented thermostatic radiator control
- // Clearly structured display
- // Acoustic and optical user prompting
- // Ergonomic pellet receiver
- // Superfluous pellets fall back into the container to be reused
- // **MINISTAR S®**: 4 bar working pressure
- // **BIOSTAR®**: 6 bar working pressure, data base on scanned material and indications, application instructions and video animations

**BIOSTAR®** and **MINISTAR S®** are validated for the digital work flow.

These pressure moulding devices guarantee extremely accurate moulding results. Current models are equipped with scanning technology and a patented radiator control. The **BIOSTAR®** library is accessible via a large format display and leads you through the single working steps.

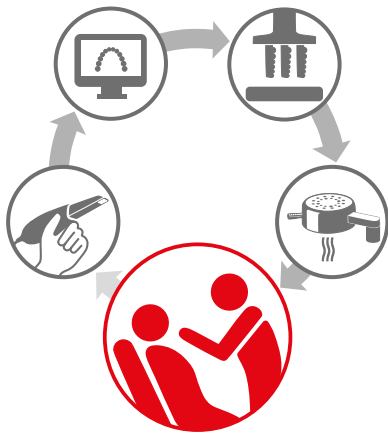
The **CA® CLEAR ALIGNER** splints for the set-up are thermoformed one after the other using **CA®** foil in the corresponding thickness (soft, medium, hard) with the printed dental arcade model being placed on the model platform. Prior to the first thermoforming process the model should be insulated using **ISO FOLAN®** foil. The exact procedure can be found in the **BIOSTAR®** library.

Our pressure moulding material has been tested and approved in terms of cell biology and in accordance with the international standards **ISO 10993** and **ISO 7405**.

	REF
// <b>BIOSTAR®</b> , 230 V	3001
// <b>BIOSTAR®</b> , 115 V	3011
// <b>BIOSTAR®</b> , 100 V	3021
// <b>MINISTAR S®</b> , 230 V	3501
// <b>MINISTAR S®</b> , 115 V	3511
// <b>MINISTAR S®</b> , 100 V	3521



# STEP 4 – TREATING



For patient treatment, you have a variety of products to choose from, depending on the therapeutic progress.

- // CA® CLEAR-ALIGNER: Invisible and gentle teeth correction
- // INDIVIDUA®: Precise indirect bonding system
- // MEMOTAIN®: Retainer stabilizing the current teeth alignment

The digital work flow ends exactly where it has begun - in the dental chair. Depending on the current therapeutic state, various treatment devices can be used. The first choice for invisible and gentle correction of malocclusion is the CA® CLEAR ALIGNER technology with its clinically proven 3-splint system.

INDIVIDUA®, the transfer mask for the indirect bonding technique, is best suited for quick and easy bracket positioning.

MEMOTAIN®, the retainer made from Nitinol®, maintains and stabilizes the current teeth alignment once treatment has been completed. Computer-controlled production guarantees high precision fit to the individual teeth alignment of the patient.



INDIVIDUA® and MEMOTAIN® are available exclusively through CA DIGITAL.







# DIGITAL ORTHODONTICS

For a wide range of applications:



**Working /study models**  
Material: IMPRIMO® LC Model  
ivory



Material: IMPRIMO® LC Model  
beige



Material: IMPRIMO® LC Model  
grey



**Occlusal splints**  
Material: IMPRIMO® LC Splint



**Transfer masks**  
Material: IMPRIMO® LC IBT



**CA® CLEAR ALIGNER**  
Material: CA® Foil



**Functional impression  
trays**  
Material:  
IMPRIMO® LC Impression



**INDIVIDUA®  
Transfer masks\***  
Material: INDIVIDUA® Foil  
\*available from CA DIGITAL only.



**MEMOTAIN® Retainer\***  
Material: Nitinol®  
\* available from CA DIGITAL only.

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