

JAWALIGNER

LOW  
UPPER JAW

## THE JAWALIGNER SYSTEM

*Plaster-free articulation of dental models – Easy to design, easy to produce*



*Driven by passion we have been working tirelessly over the past years to provide our customers with new solutions which ensure better results. With our technologies, we want to further improve the efficiency and quality of the daily workflows in clinics and laboratories. For this reason, we developed our new JawAligner – an innovative system to increase the techno-clinical cooperation.*

The image shows two handwritten signatures in white ink on a dark background. The signature on the left is 'Enrico Steger' and the signature on the right is 'Julian Steger'. Both are written in a cursive, flowing style.

## THE JAWALIGNER

*The new JawAligner are magnetic spacer plates which allow to fix in the articulator printed or milled models without using plaster. Available in different heights, they permits material saving and the articulation of models independently of their height. Moreover, the two sets – one inclined and one straight – allow to articulate models according to the occlusal plane inclination. Thanks to the standardised connection and the corresponding JawAligner, milled or printed models can be magnetically fixed in Zirkonzahn's PSI articulator, GS1 plaster articulator and Mini-Arti ZS1 to simulate patient's jaw movements. With the corresponding accessories, the JawAligner are also compatible with articulators of other manufacturers.*





# AN EVEN MORE COMPLETE DIGITAL WORKFLOW

*With the Detection Eye intraoral scanner, the P4000 system for 3D printing and the JawAligner, we provide dentists and dental technicians with a complete pre-set package where all components are perfectly compatible with each other to ensure a simple and uniform workflow. Based on the oral situation acquired with the intraoral scanner, models are designed in the Model Maker module of the Zirkozahn.Modifier software and printed by means of the pre-configured P4000 system for 3D printing or milled with Zirkozahn's milling units. The models can be then plaster-free articulated into the PSI articulator or Mini-Arti ZS1 thanks to the new JawAligner PSI or ZS1.*



## WHY USE THE JAWALIGNER?

*The hardening process of plaster might cause deformations to the printed models. For this reason, a plaster-free articulation with the JawAligner is recommended in order to avoid inaccurate results. Furthermore, the use of the JawAligner ensures a precise occlusion check, which in conventional articulation methods can be compromised due to plaster expansion. In a dentistry field more and more focused on intraoral scans, the JawAligner system also allows to easily transfer the virtual patient's jaw position into the laboratory articulator for final control or case delivery and discussion.*



# TRADITIONAL ARTICULATION VS. JAWALIGNER SYSTEM



*Long waiting times*



*Material waste*



*Risk of errors due to plaster expansion during the hardening phase, leading to a possible wrong occlusion*



*Efficiency and flexibility: models can be designed using intraoral scans or digitised traditional impressions and then virtually articulated with the JawAligner, saving a lot of time. In addition, plaster models no longer need to be created*



*No material wastefulness thanks to the different JawAligner heights*



*Any deformation of resin models or errors due to plaster expansion is avoided, ensuring a correct occlusion*



*Full digital design*



*Possibility to create the model with a honeycomb structure ensuring greater stability*



*Thanks to the two available sets, dental technicians can design models according to the patient's occlusal plane inclination, avoiding deformations caused by unbalanced front-rear height*

## COMPATIBILITY OF THE JAWALIGNER CONNECTION

*Thanks to the standardised connection and the corresponding JawAligner, milled and printed models can be fixed in Zirkonzahn's PSI articulator and Mini-Arti ZS1 to simulate patient's jaw movements. Optionally, it can also be used with the GS1 plaster articulator.*





## PS1 ARTICULATOR

*Physical and virtual articulator designed with special geometries to simulate patient-specific rotating, sliding and closing jaw movements. In Zirkonzahn scanners, models can be scanned together with the PS1 and then transferred into the virtual articulator.*



## GS1 PLASTER ARTICULATOR

*Articulator for plastering models and checking opening and closing movements, specially conceived to protect the PS1 articulator from plaster residues and water. A specific calibration key creates a synchronisation with the PS1.*

*If desired, this articulator can also be used in combination with the JawAligner system, without using plaster.*



## MINI-ARTI ZS1

*Small articulator conceived for checking the occlusion of small bridges and single crowns, which can also be used for full-arch models. Functional and easy to use, it has been designed for prototyped models (milled or printed) and as valuable instrument for simulating opening, closing, protrusion, retrusion and laterotrusion movements.*



## DIFFERENT HEIGHTS

*The JawAligner are available in different heights, permitting the articulation of models independently of their height. Depending on model requirements, the different JawAligner heights can be combined with each other to save resin during printing.*



# INCLINED AND STRAIGHT

*The JawAligner system consists of two sets, one inclined and one straight, which allow to articulate models according to the patient-specific occlusal plane inclination. These two different sets were specially developed to provide models with great stability, avoiding deformations caused by an unbalanced front-rear height and permitting their articulation regardless of the inclination degree. Thanks to the different heights and inclinations of the two JawAligner sets, any model can be placed in the articulator, even, for example, implant models with particularly long laboratory analogs.*



*JawAligner PSI Straight Low*



*JawAligner PSI Straight Medium*



*JawAligner PSI Straight High*



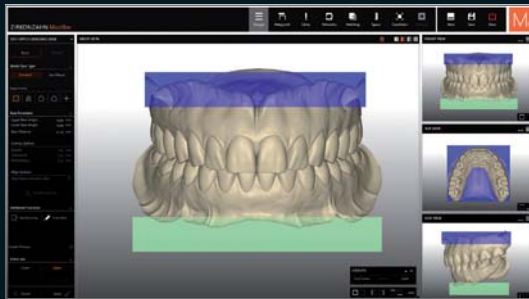
*JawAligner PSI Inclined Low*



*JawAligner PSI Inclined High*

## MODELS CREATION WITH THE JAWALIGNER SYSTEM

*Especially when dealing with printed models, the hardening process of plaster might cause deformations. The innovative JawAligner system, completely integrated into Zirkonzahn's digital workflow, not only ensures a plaster-free articulation but saves also time and material.*



*After taking a digital impression of the oral situation with the Detection Eye intraoral scanner, the acquired data can be transferred into the Zirkonzahn.Modifier software for models design.*



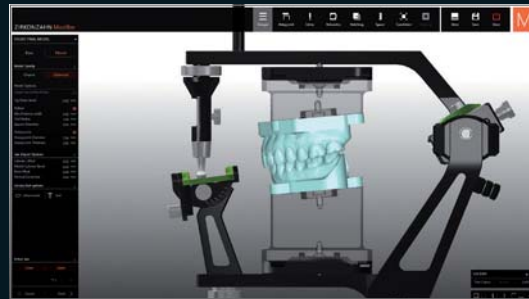
*To use the JawAligner, first of all choose the articulator in the Model Maker module of the Zirkonzahn.Modifier software.*



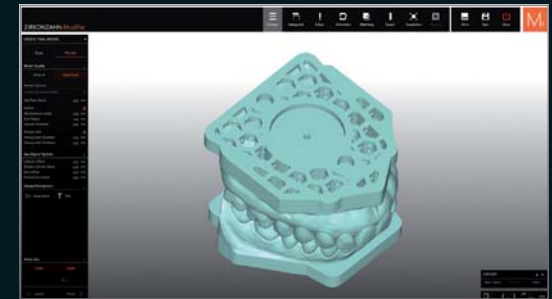
*Then choose the JawAligner set and the most suitable spacer plate, depending on model size and articulator used (PSI, or other articulators from other manufacturers).*



*Depending on model requirements, the spacer plates can be combined with each other to save resin during printing.*



*Once the creation of the models is complete, the software creates the corresponding attachments in the model bases.*



*You can also set parameters between spacer plates and models (e.g. creation of a honey comb structure for more stability, increase of base thickness, attachment adaptation or compensation of possible layer imprecisions).*





*At this point, models can be printed with the 3D P4000 System or milled in Zirkonzahn's milling units.*



*Fix the threaded screw up to its halfway point.*



*Remove the screw and clean the screw housing from all resin shavings left from the screwing process.*



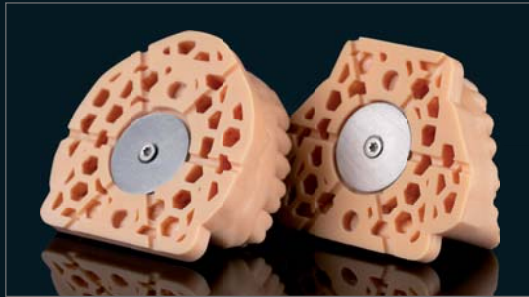
***Note:** according to the model weight, two different metal plates can be used, showing lower or higher magnetic strength:  
1 mm and 1.5 mm.*



*Place the magnetic plate in the attachment and fix the screw. If desired, it is also possible to glue the plate directly to the model.*



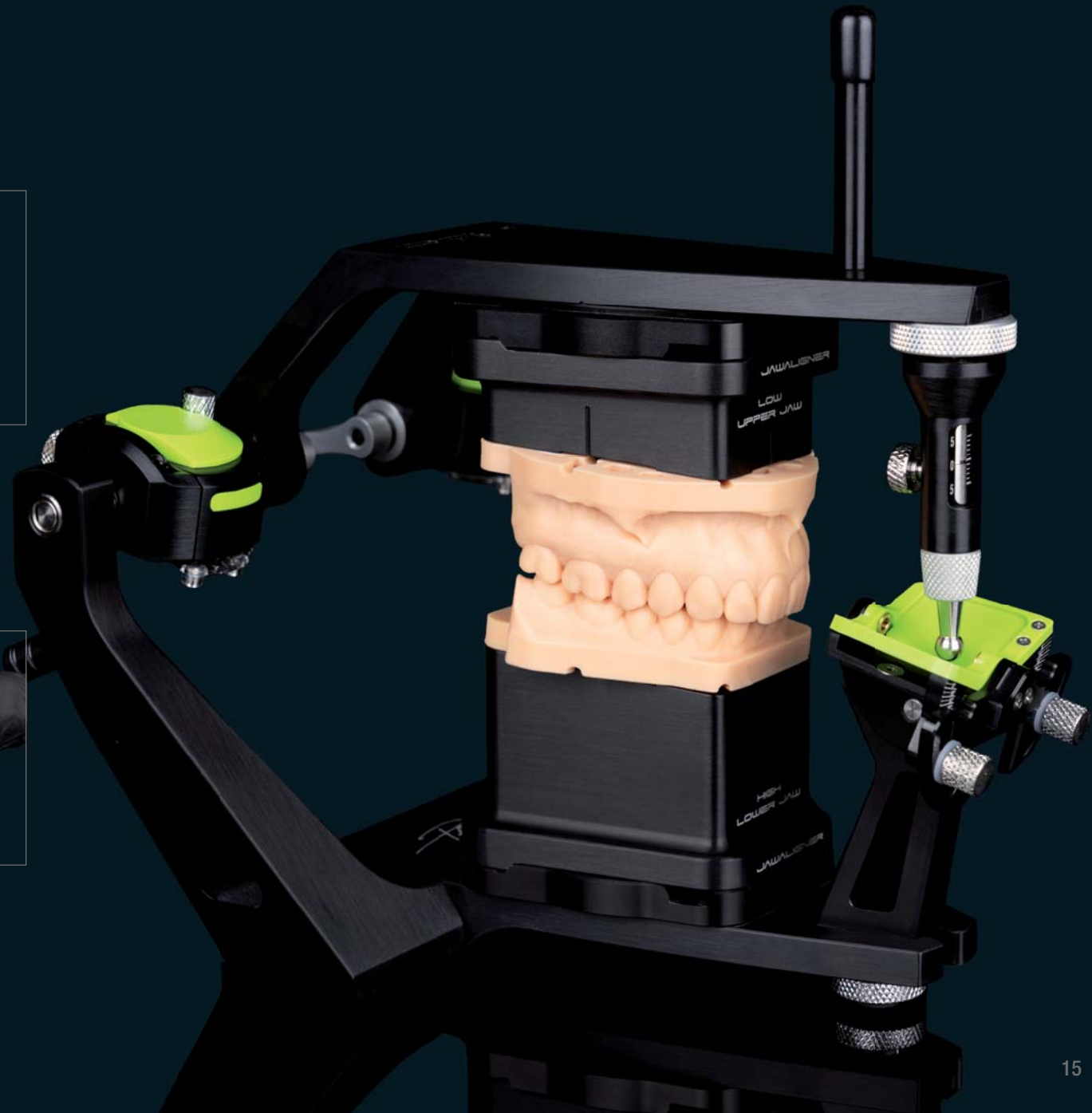
*If there is any resin excess in the two small anti-rotation attachments, use a scalpel to remove it.*



*The final models with magnetic plates can be now plaster-free articulated.*



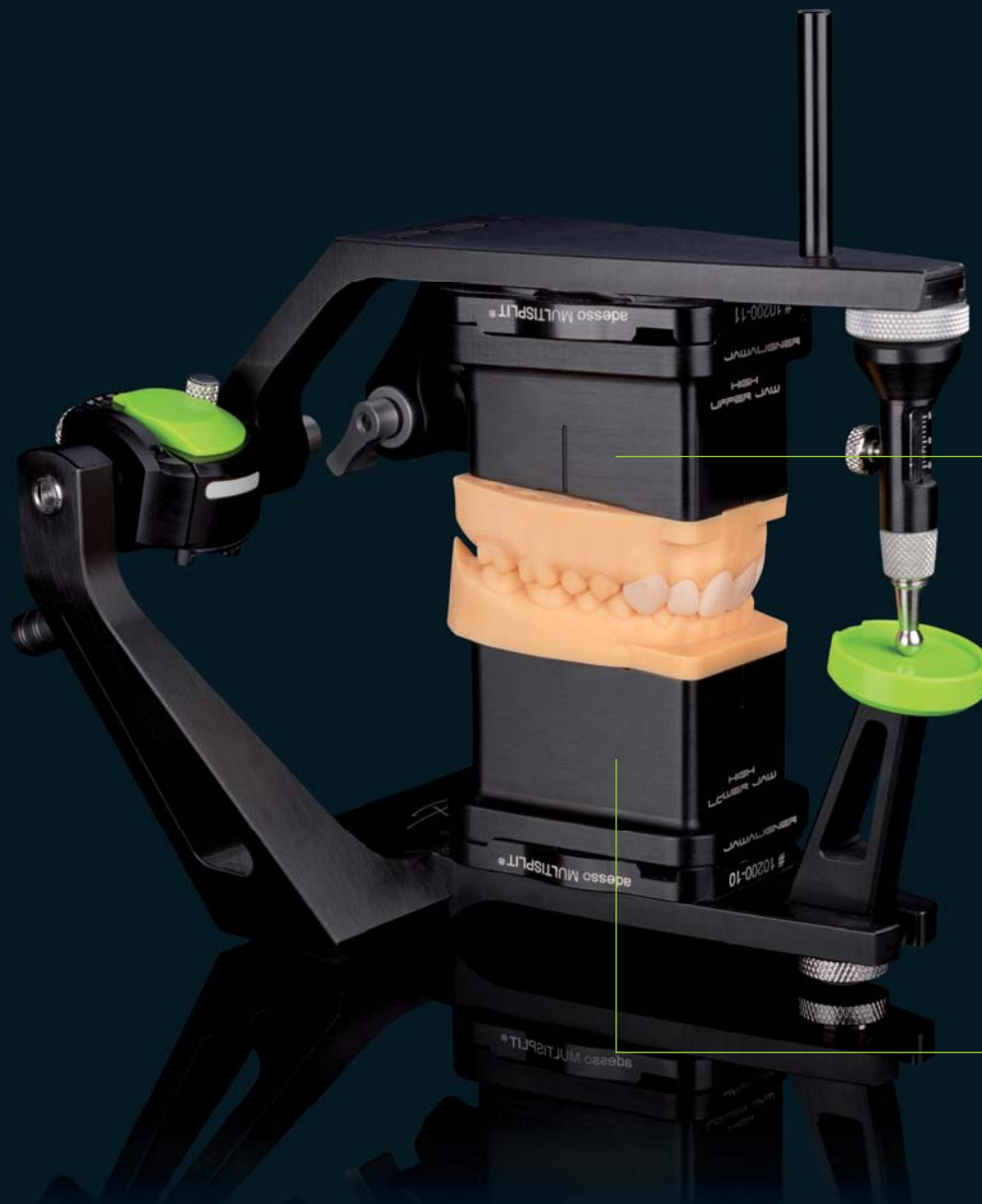
*Models are finally attached to the JawAligner in the articulator to simulate patient's jaw movements.*



## IMPROVED COMMUNICATION

*Dental models designed with the JawAligner system can be articulated in both PS1 and Mini-Arti ZSI articulators, as the heights of the JawAligner ZSI recreates the same of the JawAligner PS1 Inclined. The Mini-Arti ZSI is the ideal tool a dental technician can use to deliver or discuss with the dentist any kind of dental job produced from intraoral scanners. This means this articulator stands out not only for its suitability, but also for being a useful professional tool for improved clinic-laboratory communication.*





JawAligner PS1 Inclined  
Upper Jaw High

JawAligner PS1 Inclined  
Lower Jaw High



JawAligner ZS1  
Upper Jaw Low  
+  
JawAligner ZS1  
Upper Jaw High

JawAligner ZS1  
Lower Jaw High  
+  
JawAligner ZS1  
Lower Jaw Low

# CALIBRATION OF THE ARTICULATORS

*A correct calibration ensures the right distance between the upper and lower split-cast, allowing the correct transfer of the digitally recorded occlusion into the laboratory articulator. For calibrating the articulators, specific kits are available, containing Adjusting Key and corresponding Zero Adjusting Pin.*

## HOW TO CALIBRATE THE PS1 ARTICULATOR

*To use the JawAligner with the PSI articulator, this has to be previously calibrated as follows in order to achieve maximum precision:*

- 1. Insert the Adjusting Key PSI and the Zero Adjusting Pin PSI into the PSI articulator without the upper split-cast.*
- 2. Place the upper split-cast on the calibration key, apply a glue layer and close the articulator.*
- 3. To avoid any distortion while the glue is hardening, place a light weight on the anterior part of the articulator.*
- 4. After the glue hardening is complete, unscrew the screw which joins the two parts of the calibration key and open and close the articulator, checking that the two parts of the Adjusting Key PSI fit together correctly.*



INSTRUCTION: CALIBRATION OF  
THE PS1 ARTICULATOR





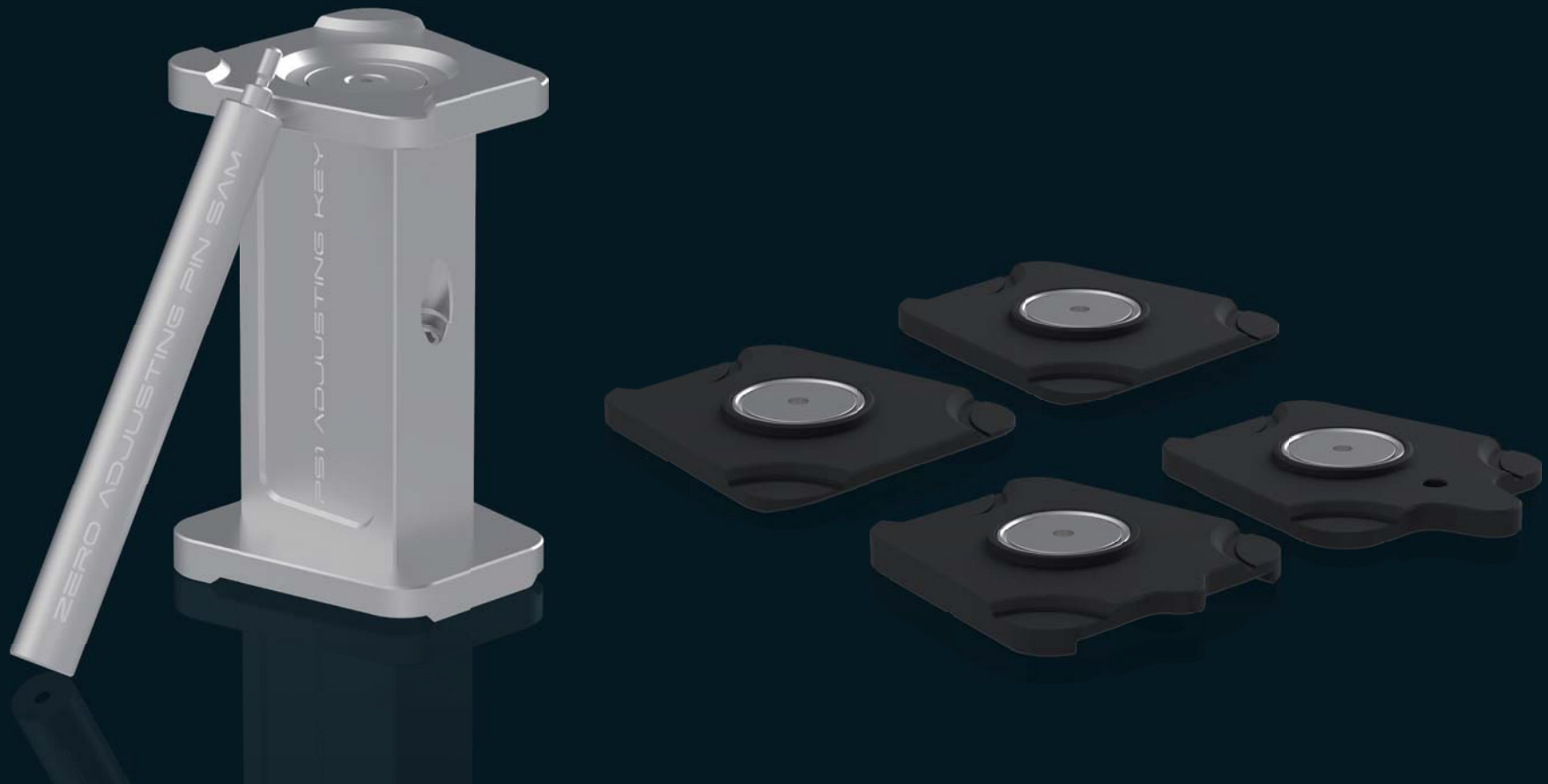
PS1 Articulator



Zero Adjusting Pin PS1 + Adjusting Key PS1

## COMPATIBLE WITH ARTICULATORS OF OTHER MANUFACTURES

WITH THE CORRESPONDING ACCESSORIES, THE JAWALIGNER ARE ALSO COMPATIBLE WITH ALL ARTEX ARTICULATOR OF 126 mm HEIGHT, WITH SAM 2P, 2PX AND 3 ARTICULATORS (NOT WITH +15 VERSIONS) AND KAVO.



## ALL ARTEX ARTICULATORS OF 126 MM HEIGHT

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All Artex articulators  
of 126 mm height



Set Adjusting Key Artex  
Item number: ZBAC3611

The range of compatible  
articulators is constantly  
expanded.

## SAM 2P/2PX/3 ARTICULATORS (NOT WITH +15 VERSIONS)

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SAM 2P/2PX/3



Set Adjusting Key SAM  
Item number: ZBAC3621



Set JawAligner PS1 Adapter SAM  
Item number: ZBAC3622

## KAVO

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KaVo Protar evo 7/evo 9



Set Adjusting Key KaVo  
Item number: ZBAC3631



Set JawAligner PS1 Adapter KaVo  
Item number: ZBAC3632

## MODELS IN THE MINI-ARTI ZS1

*If models have been designed using the PSI virtual articulator and the Set JawAligner PSI Inclined, they can also be fixed in the Mini-Arti ZS1 once milled or printed by means of the Set JawAligner ZS1.*





*Set JawAligner ZSI: two magnetic spacer plates (High and Low) for each dental arch, screws, Allen key and magnetic plates*



*Step 1: screw the Upper Jaw Low spacer plate at the top of the Mini-Arti ZSI*



*Step 2: screw the Lower Jaw Low spacer plate at the bottom of the Mini-Arti ZSI*



*Step 3: if models have been designed in the software using the High spacer plates of the JawAligner PSI Inclined, attach in the Mini-Arti ZSI the respective additional plate (Upper Jaw High/Lower Jaw High)*



*Step 4: at this point, fix the models into the Mini-Arti ZSI ...*



*Step 5: ... and check the restoration occlusion*



## OVERVIEW OF THE JAWALIGNER SETS



### SET JAWALIGNER PS1 INCLINED

- 4 magnetic spacer plates (2 x dental arch) with an inclination of 5° and two different heights (High and Low)
  - Upper Jaw High
  - Upper Jaw Low
  - Lower Jaw High
  - Lower Jaw Low
- Magnetic plates Ø25 x 1,5 mm
- Magnetic plates Ø25 x 1 mm
- Countersunk-head self-tapping screws TX10
- Allen key TX10
- Wooden toolbox

Item number: ZBAC3561



### SET JAWALIGNER PS1 STRAIGHT

- 6 magnetic spacer plates (3 x dental arch) in three different heights (High, Medium and Low)
  - Upper Jaw High
  - Upper Jaw Medium
  - Upper Jaw Low
  - Lower Jaw High
  - Lower Jaw Medium
  - Lower Jaw Low
- Magnetic plates Ø25 x 1,5 mm
- Magnetic plates Ø25 x 1 mm
- Countersunk-head self-tapping screws TX10
- Allen key TX10
- Wooden toolbox

Item number: ZBAC3591



### SET JAWALIGNER ZS1

- 4 magnetic spacer plates (2 x dental arch) for two different heights (High and Low)
  - Upper Jaw High
  - Upper Jaw Low
  - Lower Jaw High
  - Lower Jaw Low
- Magnetic plates Ø25 x 1,5 mm
- Magnetic plates Ø25 x 1 mm
- Countersunk-head self-tapping screws TX10
- Hexagon countersunk-head screws
- Hexagon Allen key
- Allen key TX10

Item number: ZBAC3571



PS1 articulator



GS1 plaster articulator



Mini-Arti ZS1



JawAligner PS1 Straight



JawAligner PS1 Inclined



JawAligner ZS1

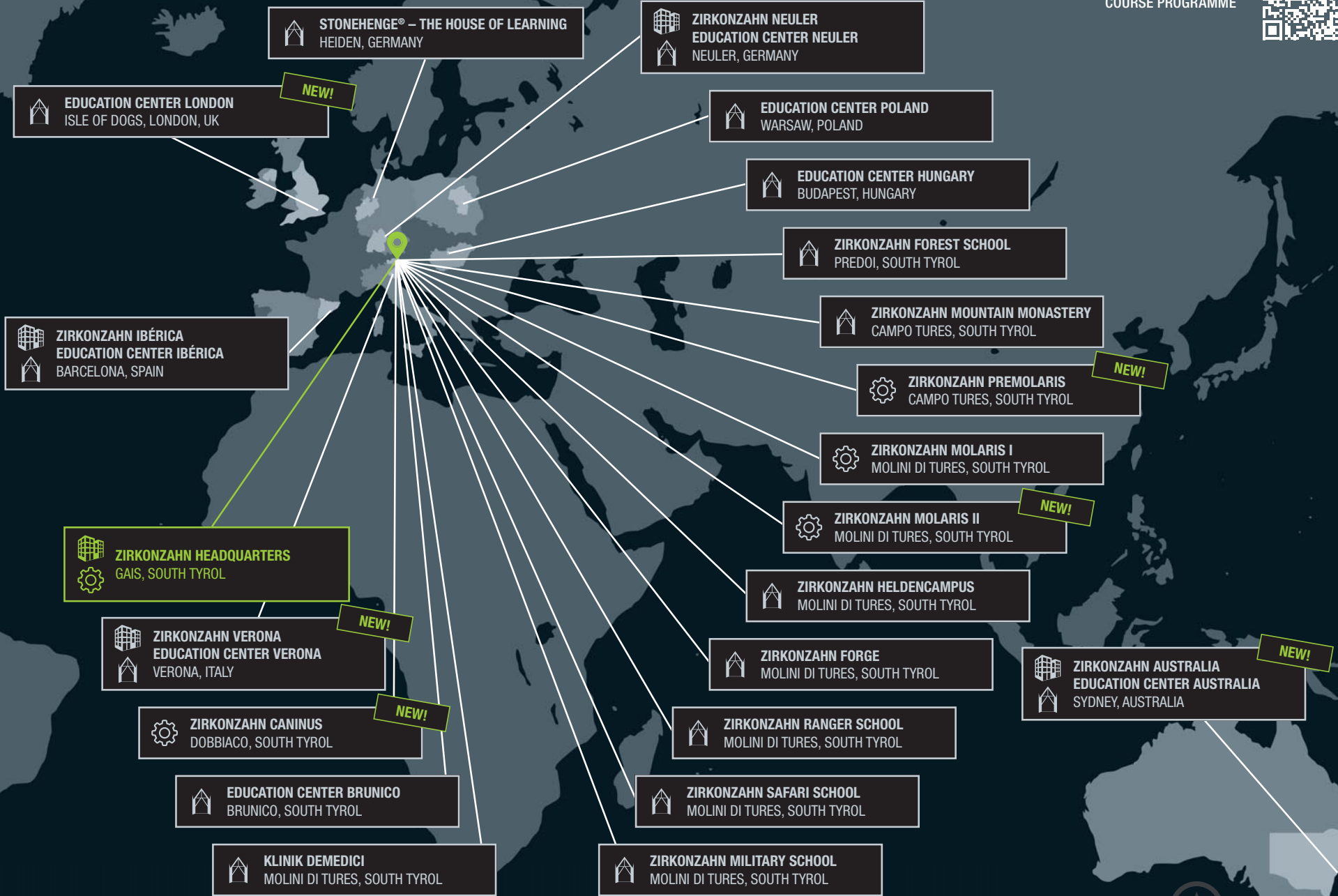


## ZIRKONZAHN WORLDWIDE

*In our headquarters in Gais (South Tyrol, Italy) we take care of all tasks: from research and development, to customer support for technical and dental technical issues, all the way through the sale of our products. In order to offer all our customers the best possible support as well as optimal access to our training courses, we have established additional offices and education centres in ten countries.*



MORE INFORMATION ON OUR  
COURSE PROGRAMME





JAWALIGNER

LOW  
UPPER JAW

## THE JAWALIGNER SYSTEM

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