VITA VIONIC® SOLUTIONS

Workflow description with exocad®

The material system for digitally fabricated dentures

Dear Customers,

Thank you for choosing VITA VIONIC SOLUTIONS!

VITA VIONIC SOLUTIONS takes your digitally fabricated dentures to the next level, in terms of quality, esthetics, efficiency and application options. We offer the right products to match your workflow, based on your individual requirements. The open material system optimizes each process step of CAD/CAM denture fabrication. Natural tooth esthetics and time-saving production steps enable functional and patient-specific restorations.

To ensure the effective and safe use of this product, please read this brochure carefully and completely.

For detailed information on the CAD/CAM fabrication of full dentures, please refer to the manual provided by your CAD/CAM system manufacturer.

We hope you enjoy VITA VIONIC SOLUTIONS and wish you great results!

Your VITA Product Management Team

Explanation of symbols:

System/technology info
Please note
Information
Process
Links/Tutorials

1. The Material System

CAD process	Try-in: printing or milling	Fabricating the final denture base	Preparing denture teeth
1	2	3	4
VITA VIONIC VIGO® & **VITA VIONIC®** DIGITAL VIGO	**VITA VIONIC®** WAX	**VITA VIONIC®** BASE DISC HI	**VITA VIONIC** VIGO®
			
Denture tooth libraries, including seven setup concepts for designing dentures.	Dimensionally-stable, temperature-resistant synthetic wax blanks	Impact-resistant, color-stable PMMA blank	Denture teeth made of composite (SE polymer). Practical, wax-free, ready-to-use application of the denture teeth in a blister pack
Options • VITA VIONIC VIGO® • VITA VIONIC® DIGITAL VIGO	**Stains** • white • pink	**Stains** • classic pink • classic pink translucent • soft pink • dark pink	**Stains** • VITA classical A1–D4®-/Bleach shades: 0M1, A1, A2, A3, A3.5, B3, D3
CAD software partner • 3Shape • exocad	**Geometries** • Ø 98.4 mm/H 30 mm	**Geometries** • Ø 98.5 mm/H 30 mm	**Geometries** • 8 x UJ anterior tooth moulds • 4 x LJ anterior tooth moulds • 4 x UJ & LJ posterior tooth moulds

	Bonding the teeth into the base	Individualizing
VITA VIONIC® DENT DISC multiColor	5 **VITA VIONIC®** BOND	6 VITA**VM®LC** *flow* – **VITA AKZENT®** LC
or 		
Milling blank made of MRP composite for removable dentures	Self-curing two-component bonding system based on MMA	VITA**VM®LC** *flow* Composite for sealing interdental spaces **VITA AKZENT®** LC Stain/glaze system for optional characterization
Stains • VITA classical A1–D4®-/Bleach shades: 0M1, A1, A2, A3, A3.5, B1, B2, B3, C2, C3, D2, D3	**Presentation** • VITA VIONIC BOND I, jar, 2 ml • VITA VIONIC BOND II, bottle, 1 ml • Microbrush, 3 pc.	**Stains** • VITA**VM®LC** *flow*: available shades include five gingiva shades • **VITA AKZENT®** LC: Recommended items: white, cream, pink, dark-red, blue, glaze
Geometries • Ø 98.4 mm/H 20 mm		

VITA VIONIC® SOLUTIONS – Perfectly matched system components for your digital workflow.

2. System Components

2.1 VITA VIONIC Denture Tooth Libraries

YOUR OPTIONS FOR DENTURE DESIGN

VITA VIONIC VIGO® Denture Tooth Library

Information:

- **What?** VITA VIONIC VIGO is a free denture tooth library that provides you with seven setup concepts. Choose between buccalized and lingualized setup concepts or the prosthetic concept developed by Prof. Dr. A. Gerber, as well as crossbite setups.
- **What for?** For designing your try-in and final full dentures using the VITA VIONIC VIGO denture tooth.
- **With what?** The denture tooth library is available free of charge from the software providers 3Shape and exocad in the "denture module" category.

VITA VIONIC® DIGITAL VIGO Denture Tooth Library

Information:

- **What?** VITA VIONIC DIGITAL VIGO is the extended version of the VITA denture tooth library. The product enables tooth geometries to be individually modified, and for the data of the designed tooth elements to be exported for milling or printing your try-ins, temporary dentures and final dentures.
- **What for?** For designing try-ins, temporary dentures and full dentures, using both the VITA VIONIC VIGO prefabricated tooth and the VITA VIONIC DENT DISC multiColor.
- **With what?** The denture tooth library is available from the software providers 3Shape and exocad in the denture module category. Use is recommended for VITA VIONIC DENT DISC multiColor customers.

Please note:

- The denture tooth library will be activated by the software provider after verification of your USB drive number and receipt of a one-time payment.
- More information is available at: www.vita-zahnfabrik.com/VionicDigitalVigo

2.2 VITA VIONIC® WAX

VITA VIONIC WAX disc, white

Full-sized, milled wax try-in

VITA VIONIC WAX disc, pink

Milled wax base for try-in

Information:

- **What?** VITA VIONIC WAX is a millable blank made of a high-quality, millable and dimensionally stable synthetic wax with a high melting temperature.
- **What for?**
  - VITA VIONIC WAX, white, is used for the economic fabrication of full-sized try-ins. They are milled completely from wax (base, incl. teeth) and are used to test the esthetics, midline, occlusion plane and phonetics.
  - VITA VIONIC WAX, pink, is used for the fabrication of denture bases for try-in. Denture teeth and tooth elements are fixed in the milled cavities for this purpose. All parameters can be checked, and if necessary, corrections can be performed.
- **With what?** VITA VIONIC® WAX is available in the colors pink and white.

Please note:

- Not suitable for the direct fabrication of final prostheses.
- Wet machining is recommended for the milling process.
- Must be processed at room temperature.
- Must be protected from direct sunlight.
- More information can be found at: www.vita-zahnfabrik.com/VionicWax

2.3 VITA VIONIC® BASE DISC HI

VITA VIONIC BASE DISC HI

Information:

- **What?** VITA VIONIC BASE DISC HI are pre-colored dental milling blanks made of impact-resistant PMMA.
- **What for?** For milling denture bases for removable dentures.
- **With what?** VITA VIONIC BASE DISC HI is offered in four different shades (classic pink, classic pink translucent, soft pink, dark pink).

Please note:

- Must not be used in patients who are allergic to PMMA.
- Not for use in the fabrication of bars, narrow transversal bands or sublingual bars, as well as the fabrication of frameworks for clasp model casts.
- Can be relined and repaired with a commercially available cold-curing resin.
- The use of uncoated tools during the milling process is recommended.
- The following milling parameters are recommended:

Roughing		
Tool	**Ø 2.5 mm**	**Ø 1 mm (residual material)**
Speed [rpm]	18000	45000
Feed X Y [mm/min]	2500	500
Feed Z [mm/min]	1500	500
Infeed X Y [mm]	1.875 (75% of the milling cutter diameter)	0.4 (40% of the milling cutter diameter)
Infeed Z [mm]	1.25	0.2

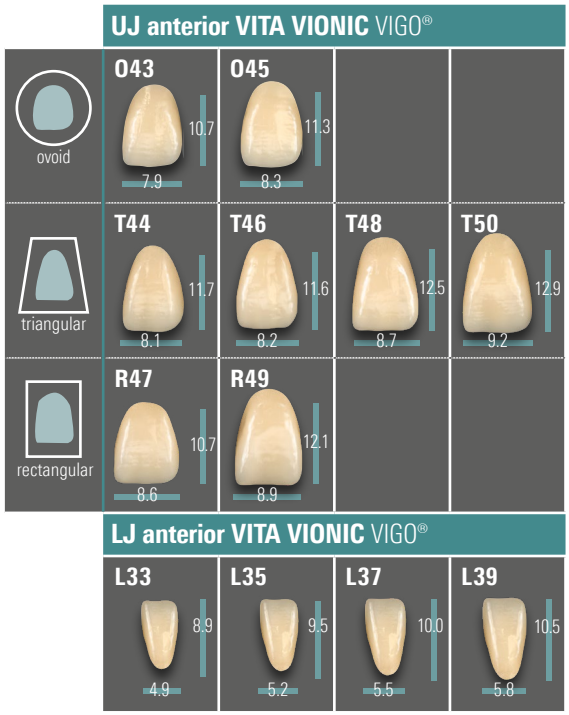
Finishing			
Tool	**Ø 2.5 mm**	**Ø 2.5 mm (tooth pockets)**	**Ø 1 mm (tooth pockets)**
Speed [rpm]	18000	18000	45000
Feed X Y [mm/min]	2000	1000	1000
Feed Z [mm/min]	1500	500	500
Infeed X Y [mm]	0.25	0.6	0.15
Infeed Z [mm]	0.25	0.3	0.15

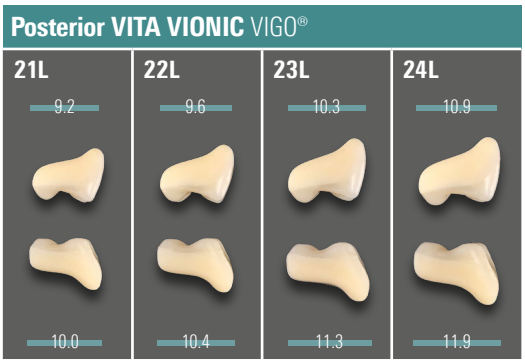
More information can be found on our website: www.vita-zahnfabrik.com/VionicBaseHi

2.4 VITA VIONIC VIGO®

Information:

- **What?** VITA VIONIC VIGO teeth are resin artificial teeth for dental treatments.
- **What for?** The VITA VIONIC VIGO denture tooth is designed for the fabrication of permanent and/or temporary full dentures.
- **With what?** Available in the following shapes and in seven VITA classical A1-D4 /Bleached shades (0M1, A1, A2, A3, A3.5, B3, D3):





VITA VIONIC VIGO Anterior	**UJ / No.** mm	**R47** 47.0	**R49** 49.0	**O45** 44.5	**T50** 49.9	**T46** 46.2	**O43** 43.3	**T44** 44.0	**T48** 48.3
	LJ / No. mm	**L37** 37.2	**L39** 39.2	**L35** 35.2	**L39** 39.2	**L37** 37.2	**L33** 33.2	**L33** 33.2	**L37** 37.2
VITA VIONIC VIGO Posterior	**UJ / No.** mm	**22L** 31.8	**23L** 34.3	**22L** 31.8	**24L** 35.9	**22L** 31.8	**21L** 30.3	**21L** 30.3	**22L** 31.8
	LJ / No. mm	**22L** 32.6	**23L** 35	**22L** 32.6	**24L** 36.9	**22L** 32.6	**21L** 31	**21L** 31	**22L** 32.6

Please note:

- Store in original packaging at room temperature.
- Store in a dry place.
- Protect from direct sunlight.
- More information can be found on our website: www.vita-zahnfabrik.com/VionicVigo

2.5 VITA VIONIC® DENT DISC multiColor

VITA VIONIC DENT DISC multiColor

Milled denture tooth elements

Information:

- **What?** VITA VIONIC DENT DISC multiColor is a tooth-colored composite milling blank made of inorganically filled PMMA.
- **What for?** For manufacturing dentures using milled or printed denture bases*. The MRP composite disc is used for milling the tooth elements for removable dentures.
- **With what?** VITA VIONIC DENT DISC multiColor is available in the following shapes and shades:
  - VITA classical A1–D4/Bleach shades: 0M1, A1, A2, A3, A3.5, B1, B2, B3, C2, C3, D2, D3
  - Ø 98.4 mm / height 20 mm

Please note:

- Store and process at room temperature.
- While work is in progress, wear suitable safety goggles/face protection.
- Carry out manual milling work under an extraction system.
- VITA VIONIC DENT DISC multiColor can be milled dry or wet.
- Recommended tools: solid carbide milling cutters with diamond coating (synonyms: carbon or DLC coating) similar to processing zirconia.
- The following milling parameters are recommended:

Roughing		
Tool	**Ø 2.5 mm**	**Ø 1 mm (residual material)**
Speed [rpm]	18000	45000
Feed X Y [mm/min]	2000	500
Feed Z [mm/min]	1500	500
Infeed X Y [mm]	1.875 (75% of the milling cutter diameter)	0.4 (40% of the milling cutter diameter)
Infeed Z [mm]	1.25	0.2

Finishing		
Tool	**Ø 2.5 mm**	**Ø 1 mm**
Speed [rpm]	18000	45000
Feed X Y [mm/min]	2000	1500
Feed Z [mm/min]	1500	1000
Infeed X Y [mm]	0.5	0.1 – 0.15
Infeed Z [mm]	0.5	0.1

More information can be found on our website: www.vita-zahnfabrik.com/VionicDentDisc

2.6 VITA VIONIC® BOND

VITA VIONIC BOND bonding system

Information:

- **What?** VITA VIONIC BOND is a self-curing, two-component bonding system (BOND I + II) based on methyl methacrylate (MMA).
- **What for?** It is used for the final bonding of VITA VIONIC VIGO or VITA VIONIC DENT DISC multiColor denture teeth in the cavities of CAD/CAM fabricated denture bases made of VITA VIONIC BASE HI*.
- **With what?** The VITA VIONIC BOND KIT consists of VITA VIONIC BOND I (glass jar), VITA VIONIC BOND II (glass bottle) and applicators (microbrushes).

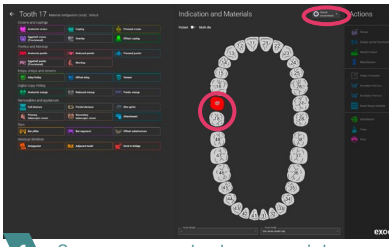
Please note:

- Store in the refrigerator between 5 and 10°C where it is dark and dry; observe the expiration date and protect from direct sunlight.
- VITA VIONIC BOND contains methyl methacrylate (MMA). MMA is a hazardous substance that is highly flammable and has a sensitizing effect. Avoid contact with skin and inhalation of the fumes.
- You can find detailed instructions in the Safety Data Sheets at www.vita-zahnfabrik.com
- More information can be found on our website: www.vita-zahnfabrik.com/VionicBond

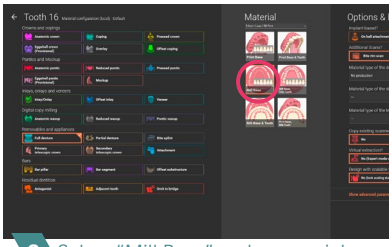
*)For compatible materials and systems please visit: www.vita-zahnfabrik.com/VIONIC_compatibility

3. Workflow with VITA VIONIC VIGO

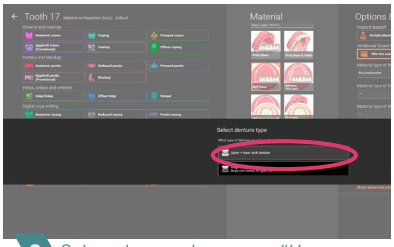
3.1 The CAD process



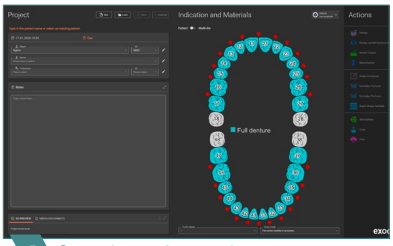
1 Create case and select material configuration “Default”. Tooth to be replaced & indication “Full Denture.”



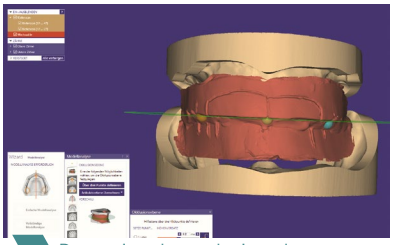
2 Select “Mill Base” under materials.



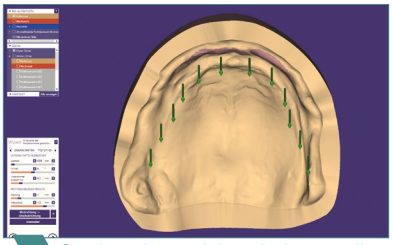
3 Select denture base type “Upper + lower arch Denture.”



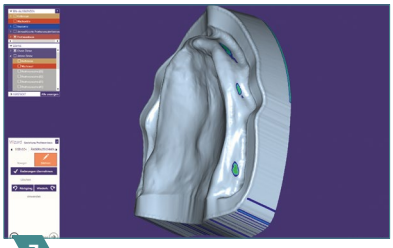
4 Save the project and start scanning or designing (when importing scan data).



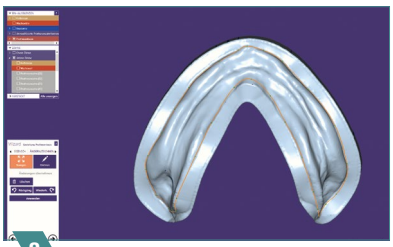
5 Determine the occlusion plane.



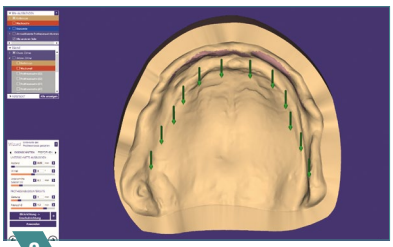
6 Conduct the model analysis according to TiF (UJ and LJ).



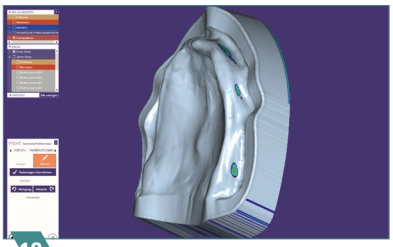
7 Design upper jaw boundary dimension.



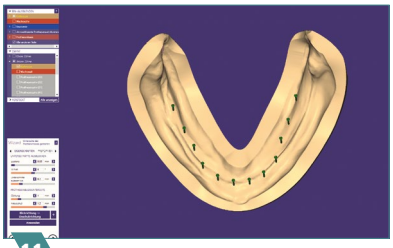
8 Design lower jaw boundary dimension.



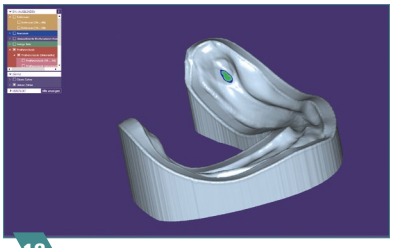
9 Define the insertion direction. Pay attention to undercuts.



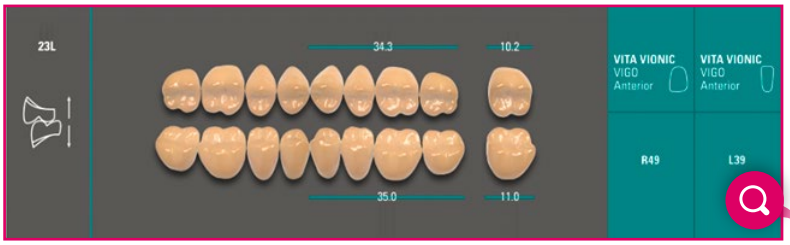
10 Block out undercuts/wax trimming of upper jaw.



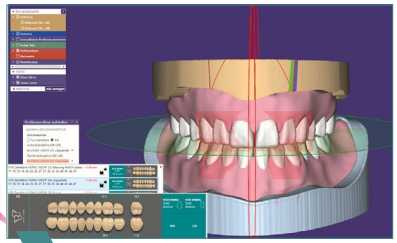
11 Define the insertion direction. Pay attention to undercuts.



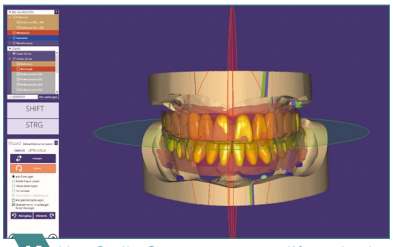
12 Define the insertion direction. Pay attention to undercuts.



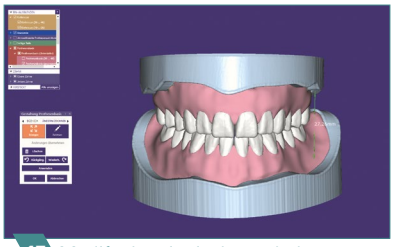
! Note: Different setup concepts are available by clicking the selection arrow. Select separately for the left and right quadrants. Bilateral and unilateral crossbite setups are available.For example here: VITA VIONIC VIGO 23L Lingualized.



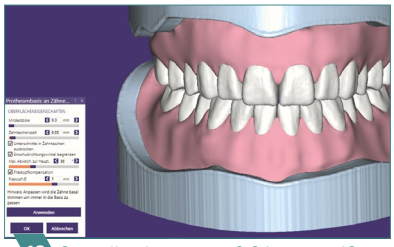
13 Selection of VITA VIONIC VIGO teeth according to setup concept.



14 Use Smile Composer to modify esthetic and functional position of teeth. Use the scan of the wax wall for alignment.



15 Modify the gingival morphology, if necessary



16 Set adhesive gap to 0.04 mm or 40 µm as default.

Information:

- The VITA VIONIC VIGO Denture Tooth Library is free of charge and is required for working with VITA VIONIC VIGO prefabricated teeth. After downloading, it can be found in DentalCAD under the "Non-scalable" selection filter.
- The VITA VIONIC VIGO Denture Tooth Library offers seven different setup concepts (incl. bilateral and unilateral crossbites). All angle classes can be mapped.
- Use bite wall reference points such as the masticatory plane, canine position and incisal point for the model analysis.
- The choice of concept is selected according to quadrants. The upper and lower corresponding quadrants always have the same functional structure.
- After analyzing the model, select the suitable anterior and posterior teeth and the desired setup concept.
- Use the group function or the symmetrical movement function to maintain the functional relationship of the teeth. The single tooth movement function should be limited to anterior esthetic modifications.
- Use the bite rim to modify the setup suggested by the software.
- Use the Sculpt toolkit of the wizard as needed to design the gingiva individually, according to your preferences.
- Do not fall below the minimum wall thickness of 1 mm for the VITA VIONIC BASE DISC HI denture base. When nesting in the CAM software, ensure that the denture base is positioned in the center of the blank and does not exceed a total height of 28 mm.
- Set the adhesive gap to 0.04 mm or 40 µm for the milling denture bases to achieve a precise but stress-free fit of VITA VIONIC VIGO prefabricated teeth in the cavities.
- The milling cutter radius correction in exocad should correspond to the radius of the milling cutter used to process the VITA VIONIC BASE DISC HI in the milling machine. The smallest recommended tool for the VITA VIONIC BASE DISC HI is 1 mm. Smaller tools are not required for milling the tooth pockets.
- Printed (3D printing) denture bases may require different settings.
  For further information, please contact your printing material provider and/or visit the following URL:
  www.vita-zahnfabrik.com/vionic_compatibility.

Please note:

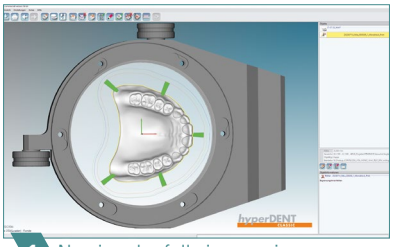
- For detailed information on the CAD process, please see the working instructions of your software provider.

Links/Tutorials:

- Find out more and watch the tutorial videos: www.vita-zahnfabrik.com/tutorial/vionic/all/vigo.

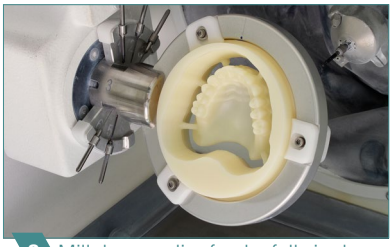
3.2 CAM processing

Fabrication of full-sized wax try-ins (alternative process 1)



1 Nesting the full-size wax inserts (UJ and LJ)

2 Clamp the white wax disc in the holder system.



3 Mill the wax disc for the full-sized wax try-in (maxilla).

4 Mill the wax disc for the full-sized wax try-in (mandible).

5 Separate out the try-in with a hot wax knife. Blend in the protrusions evenly.

6 The full-sized try-ins on the master models.

7 Conduct the intraoral try-in.

Information:

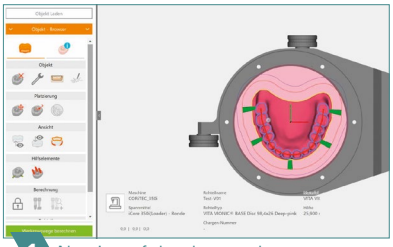
- This process is used to manufacture full-sized wax try-ins (note: there are two processes for the fabrication of try-ins, see next page).
- Blend in or smooth out the rest of the protrusions flush with the denture base.
- Central parameters, such as the midline, course of the occlusion plane and phonetics, must be examined during the try-in.
- Any necessary adjustments after the try-in are performed digitally with the CAD software.
- The final prosthesis is then fabricated using the CAM process (based on the modified and finalized setup).

Please note:

- Wet machining is recommended for the milling process.
- Based on CAM technology, a final prosthesis can only be fabricated after checking the wax try-in.
- In the case of comprehensive adjustments after the wax try-in, conduct another try-in as a control, if necessary.
- The full-sized try-ins must be disinfected before and after the try-in.

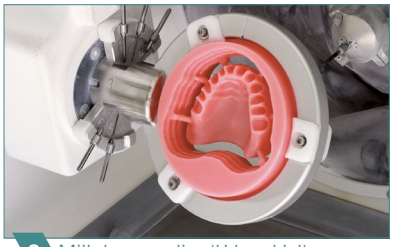
3.2 CAM processing

Fabrication of the wax try-in with denture teeth (alternative process 2)



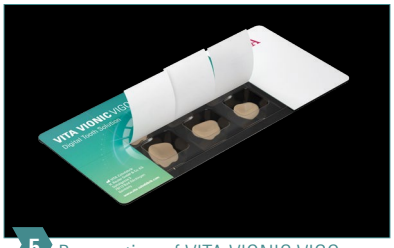
1 Nesting of the denture bases (maxilla and mandible).

2 Clamp the pink wax disc in the holder system.



3 Mill the wax disc (UJ and LJ) for the try-in.

4 Separate out the try-in with a hot wax knife. Smooth out the protrusions evenly.



5 Preparation of VITA VIONIC VIGO.

6 Fix the denture teeth in the cavities with wax.

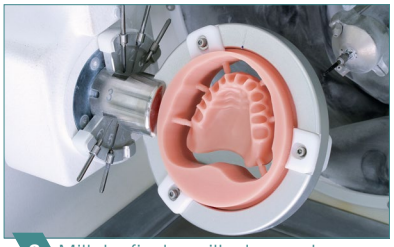
7 The finished wax base with denture teeth secured with wax.

Information:

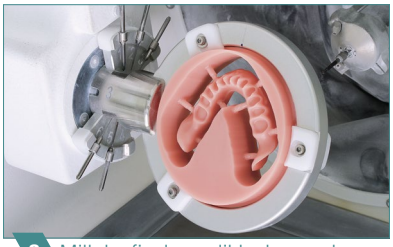
- Wet machining is recommended for the milling process.
- This process is used to manufacture denture bases for wax try-ins. The VITA VIONIC VIGO teeth are fixed in the milled cavities (note: there are two processes for the fabrication of try-ins, see previous page).
- Blend in the rest of the protrusions flush with the denture base and fix the denture teeth in the cavities with wax for the try-in.
- Central parameters, such as the midline, course of the occlusion plane and phonetics, must be examined during the try-in.
- Any necessary adjustments after the try-in can be conducted digitally (CAD software) or manually (by hand).
- If significant changes have been applied to the anterior setting, the try-in is scanned as a new bite rim and the setup of teeth will be modified using the CAD software.
- If all parameters are in order, you can mill the final denture base, print or perform the conventional fabrication.
- The wax dentures must be disinfected before and after the try-in.
- If the same denture teeth are also to be used for finishing the final denture, they must be carefully cleaned of wax and dried. Residues from wax or moisture, for example, can impair the adhesive bond with VIONIC BOND.

Fabrication of the final denture bases

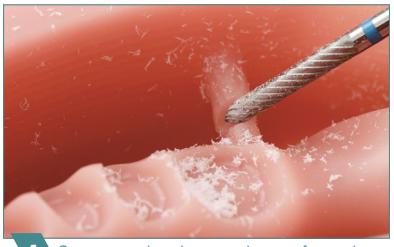
1 Clamp the PMMA disc in the holder system.



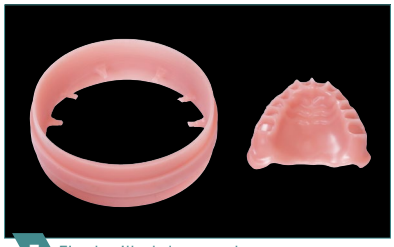
2 Mill the final maxilla denture base.



3 Mill the final mandible denture base.



4 Separate the denture bases from the disc. Grind the protrusions evenly.



5 Final milled denture bases (here, maxilla).

6 Sandblast the milled cavities of the denture bases.

Information:

- Separate the denture bases from the discs with a mill suitable for PMMA and grind the excess (protrusions) flush with the base.
- Carefully sandblast the milled cavities in the denture bases with Al_2O_3 (50 to 125 µm, 1–2 bar) and remove the mill chippings with compressed air (with water separator). Observe the operating instructions for the blasting unit used. We do not recommend cleaning with steam or water, as moisture in the subsequent step may impair the adhesive bond using VIONIC BOND.
- Denture bases made of VITA VIONIC BASE DISC HI can be relined and repaired with a commercially available PMMA cold-curing resin.
- Alternatively, a denture base can be printed for the VITA VIONIC VIGO denture tooth. You can find verified system partners on our website: www.vita-zahnfabrik.com/vionic_compatibility

Please note:

- Please use appropriate safety glasses and wear face protection/respiratory protection.

Links/Tutorials:

- Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/vionic/all/vigo/denturebase

3.3 Bonding

Unpacking the VITA VIONIC VIGO denture teeth

1 Check labeling to ensure correct tooth selection.

2 Open the blister lid carefully to avoid teeth falling out.

3 The instructions for use indicate which tooth number is in which blister section.

4 Use tweezers, for example, to remove teeth from blister pack.

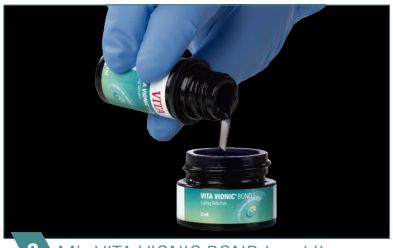
Explanation of VITA VIONIC VIGO labeling

Information:

- Please wear talcum powder free protective gloves to avoid contamination of the adhesive surfaces of the VITA VIONIC VIGO teeth.
- Please open the single blister pockets carefully to avoid teeth falling out.
- Please read the instructions for use.

Bonding of the VITA VIONIC VIGO denture teeth in the base

1 Check the fit of the teeth for any slight proximal interferences.



2 Mix VITA VIONIC BOND I and II with each other.

3 Mix the two components for 30 seconds to prevent air bubbles.

4 Apply the adhesive system to the adhesive surfaces of the teeth.

5 Moisten the milled cavities generously with the adhesive system.

6 Position the denture teeth in the cavities.

7 Fix the denture teeth using light pressure.

8 The final bonded denture teeth ready for curing of the VITA VIONIC BOND.

Information:

- Before bonding, position all teeth in the cavities of the milled or printed denture base one after the other so that any proximal interferences can be identified and eliminated.
  The teeth should be able to be positioned in the cavities without any tension at all, but not with any noticeable rotation.
- One portion of VITA VIONIC BOND is enough for a full denture (one upper and one lower jaw denture / for 28 teeth)
- Mix the two components using the applicator for 30 seconds to prevent air bubbles
- Then apply and process the adhesive quickly at room temperature (>20°C). The adhesive begins curing after 10 minutes.
- Adhesive with a low viscosity may evaporate if it is handled for too long. To ensure that the adhesive surface is completely moistened, a generous application is recommended.
- To create a secure bond, the denture must rest for at least 30 minutes without load after the teeth have been inserted.
- After 20 minutes in the water bath of a pressure pot (55 C, 2 bar), curing is complete. Alternatively, curing can be achieved by storing the denture for 12 hours at room temperature without any load.
- Any excess can be removed by careful blast polishing (1 – 2 bar) after curing the teeth.

Please note:

- The mixing ratio of the two components is ideally matched to one another and may not be changed.
- If the low-viscosity consistency of the bonding system changes and threads begin to appear, for example, VITA VIONIC BOND can no longer be used.
- VITA VIONIC BOND is approved for extraoral use only.
- Please use appropriate safety glasses and wear face protection/respiratory protection.

Links/Tutorials:

- Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/vionic/all/vigo/bond

3.4 Finalization

Finalization of the final denture bases with VITA VM LC and VITA AKZENT LC

1 Use VITA VM LC MODELLING LIQUID for moistening.

2 Moisten the sandblasted areas with VITA VM LC MODELLING LIQUID.

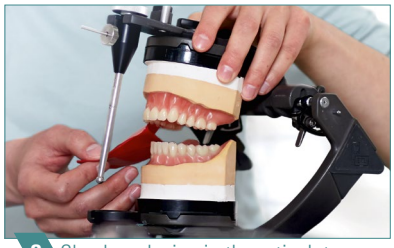
3 Use VITA VM LC flow materials for closing interdental spaces.

4 Close the interdental spaces with VITA VM LC flow.

5 Use VITA AKZENT LC stains for extraoral characterization.

6 Finalize and polish the denture surfaces.

7 Final digitally fabricated full dentures.



8 Check occlusion in the articulator.

Information:

- VITA VM LC flow and VITA AKZENT LC are suitable for extraoral use only.
- Sandblast the affected areas of the dentures with Al_2O_3 (50 µm, 2–3 bar) to ensure a good bonding of VITA VM LC flow to the base material and the denture teeth.
- Clean the sandblasted surfaces with compressed air (water separator).
- Moisten the sandblasted areas with VITA VM LC MODELLING LIQUID for the bond between the denture teeth and VITA VM LC flow materials.
- Then use VITA VM LC flow to close small gaps (five gingiva shades and Window are available among others).
- Optional: Individualize the sandblasted denture surface with VITA AKZENT LC and VITA VM LC flow gingiva materials.
- Please conduct the surface processing and polishing according to the analogous full denture.
- Check the occlusion in the articulator. After adjustment of the muscle balance, a reocclusion by the practitioner is recommended after a wearing time of about two days.

Please note:

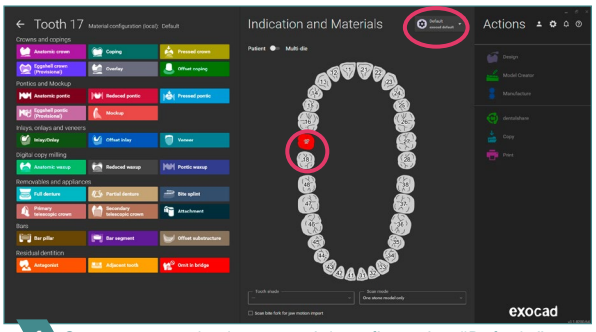
- For the use of the light-curing microparticle composite VITA VM LC flow and the stain/glaze system VITA AKZENT LC, please observe the instructions for use for these products.
- The curing parameters may vary depending on the device used. Please observe the manufacturer's recommendations (detailed instructions can be found at www.vita-zahnfabrik.com/akzentlc and www.vita-zahnfabrik.com/vmlc).
- Please use appropriate safety glasses and wear face protection/respiratory protection.

Links/Tutorials:

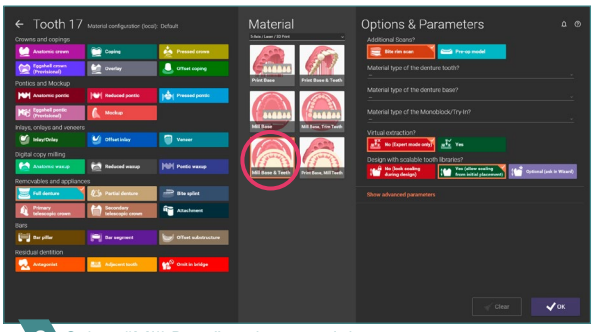
- Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/vionic/all/vigo/finalization

4. Workflow with VITA VIONIC DENT DISC multiColor

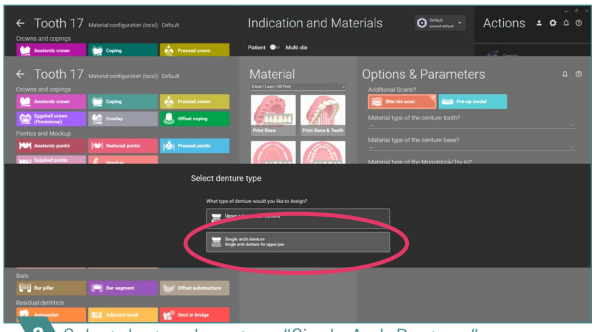
4.1 The CAD process



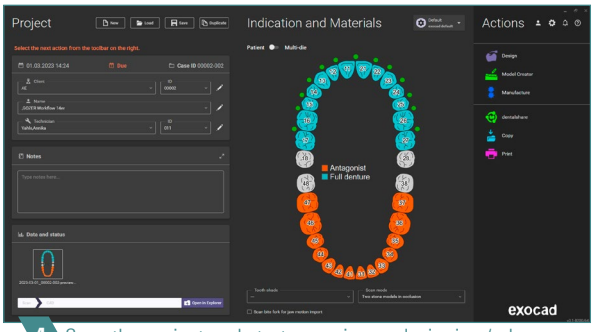
1 Create case and select material configuration "Default." Tooth to be replaced & indication "Full Denture."



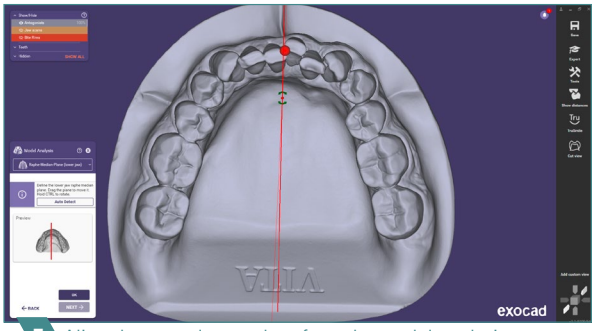
2 Select "Mill Base" under materials.



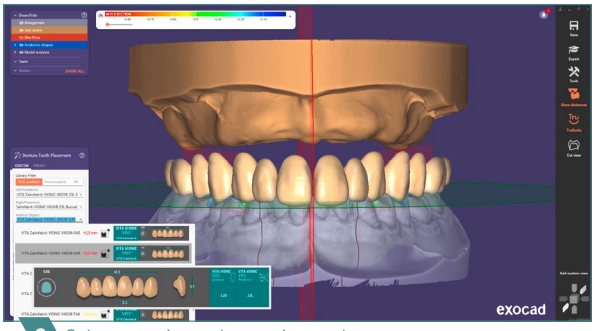
3 Select denture base type "Single Arch Denture."



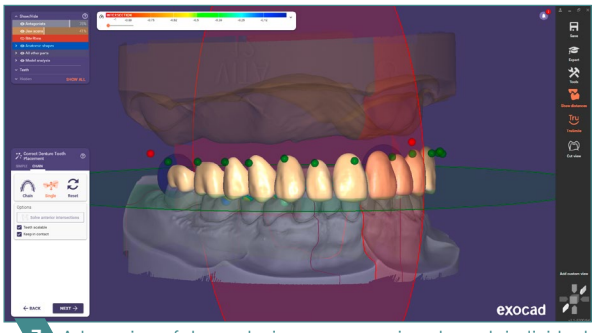
4 Save the project and start scanning or designing (when importing scan data).



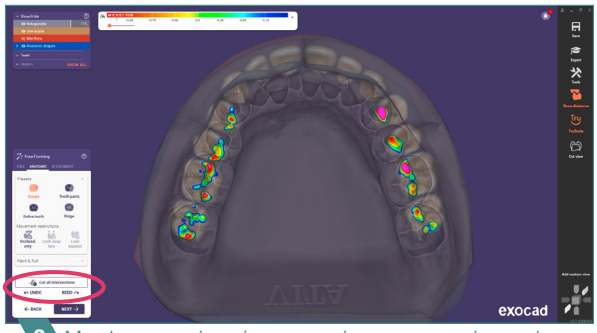
5 Align the scan data and perform the model analysis.



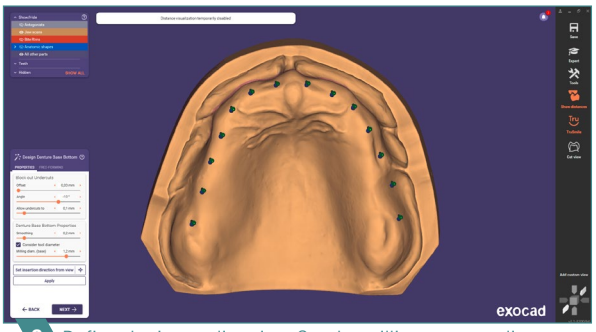
6 Select anterior and posterior tooth sets.



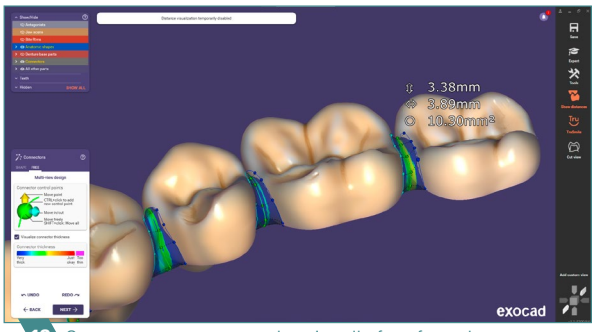
7 Adaptation of the occlusion to antagonists through individual tooth positioning (chain or single tooth mode). Optional: Morphing of the tooth geometry.



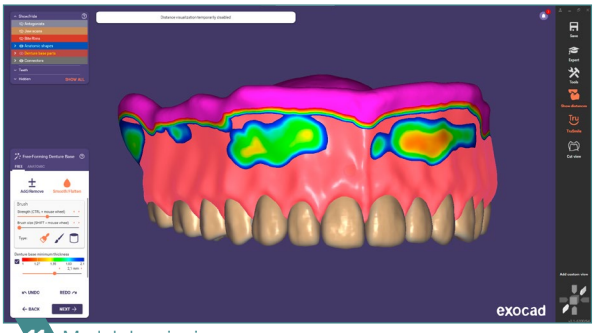
8 Match penetrations / contact points to antagonists and check from basal view.



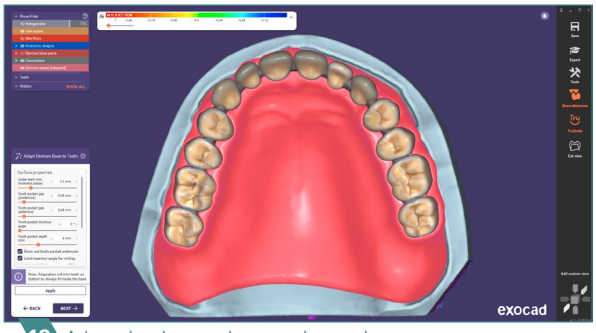
9 Define the insert direction. Set the milling cutter radius correction according to the diameter of the smallest tool used and the cavity width. Mark the extension of the denture base.



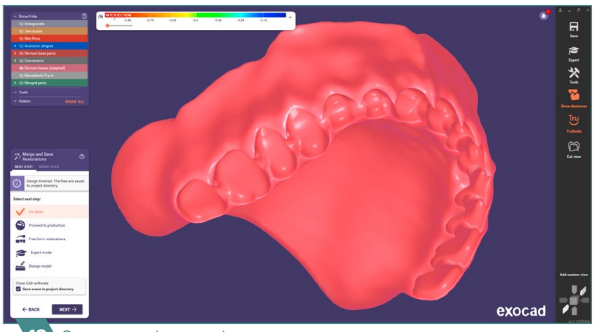
10 Generate connectors and optionally free-form them.



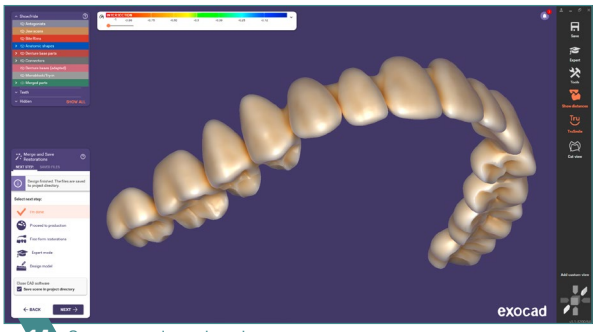
11 Model the gingiva.



12 Adapt the denture base to the teeth.
Recommended adhesive gap: 80µm or 0.08 mm.



13 Construct denture base.



14 Construct dental arch.

Information:

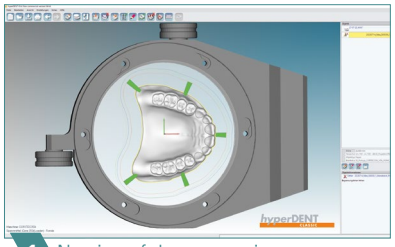
- VITA VIONIC DIGITAL VIGO Denture Tooth Library can be ordered here: After activation and downloading, it can be found in the exocad software under the “Only scalable” selection filter.
- The setup suggested by the software can be modified.
- Use the Sculpt toolkit of the wizard as needed to design the gingiva individually according to your preferences.
- Set the adhesive gap to 0.08 mm or 80 µm for the milling denture bases to achieve a precise but tension free fit of milled denture teeth and the cavaties.
- The milling cutter radius correction must be set according to the smallest tool used for processing the VITA VIONIC DENT DISC multiColor and the VITA VIONIC BASE DISC HI.
- Printed (3D printing) denture bases may require different settings. For further information, please contact your printing material provider.

Please note:

- For detailed information on the CAD process, please see the working instructions of your software provider.

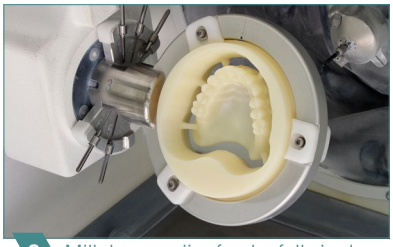
4.2 CAM processing

Fabrication of full-sized wax try-ins using VITA VIONIC WAX



1 Nesting of the wax try-in.

2 Clamp the VITA VIONIC WAX White in the holder system.



3 Mill the wax disc for the full-sized wax try-in (here: UJ).

4 Separate out the try-in with a hot wax knife.

5 Conduct the intraoral try-in.

Information:

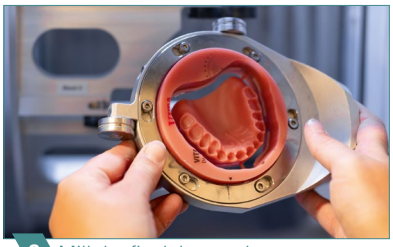
- This process is used to manufacture full-sized wax try-ins.
- For the full-sized try-in, blend in or smooth out excess (protrusions) flush with the denture base.
- Central parameters, such as the midline, course of the occlusion plane and phonetics, must be examined during the try-in.
- Any necessary corrections after the try-in are performed digitally with the CAD software.
- The final prosthesis is then fabricated using the CAM process (based on the modified and finalized setup).

Please note:

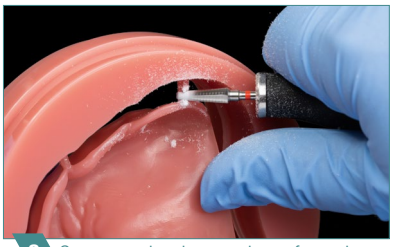
- Wet machining is recommended for the milling process.
- Based on CAM technology, a final prosthesis can only be fabricated after checking the wax try-in.
- In the case of comprehensive adjustments after the wax try-in, conduct another try-in as a control, if necessary.
- The full-sized try-ins must be disinfected before and after the try-in.

Fabrication of the final denture base using VITA VIONIC BASE DISC HI

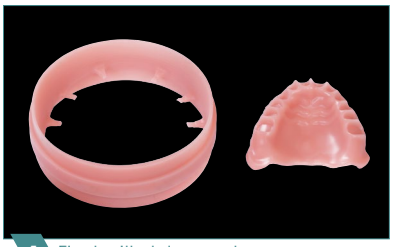
1 Clamp the PMMA disc in the holder system.



2 Mill the final denture base (hier: upper jaw).



3 Separate the denture base from the disc. Grind the protrusions evenly.



4 Final milled denture base (here; upper jaw).

5 Sandblast the milled cavities of the denture base.

Information:

- During the CAD process, ensure that the wall thickness does not fall below a minimum of 1 mm. When nesting in the CAM software, ensure that the denture base is positioned centrally in the blank and does not exceed a total height of 28mm.
- Separate the denture bases from the discs with a mill suitable for PMMA and grind the excess (protrusions) flush with the base.
- Carefully sandblast the milled cavities in the denture bases with Al_2O_3 (50 to 125 µm, 1-2 bar) and remove the mill chippings with compressed air (with water separator). Observe the operating instructions for the blasting unit used.
- We do not recommend cleaning with steam or water, as moisture in the subsequent step may impair the adhesive bond using VIONIC BOND.
- Denture bases made of VITA VIONIC BASE DISC HI can be relined and repaired with a commercially available PMMA cold-curing resin.

Please note:

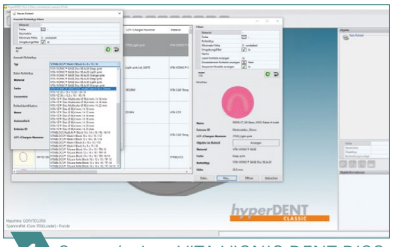
- Please use appropriate safety glasses and wear face protection/respiratory protection.

Links/Tutorials:

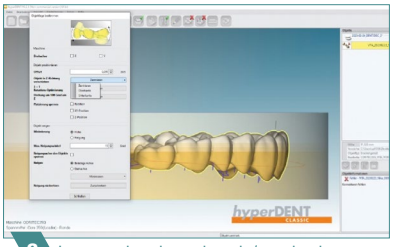
- Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/vionic/all/vigo/denturebase

4.2 CAM processing

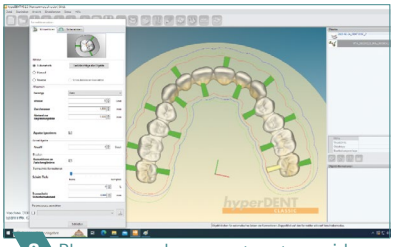
Fabrication of dental arch using VITA VIONIC DENT DISC multiColor



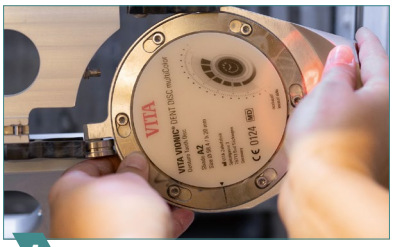
1 Create/select VITA VIONIC DENT DISC in CAM software.



2 Import the dental arch/tooth element into CAM software and position it in the disc.



3 Place enough connectors to avoid exposing the restoration to vibrations during the milling process.



4 Clamp the VITA VIONIC DENT DISC multiColor into the holder of the milling machine. Mill dental arch/tooth elements.

5 Cut out the dental arch/tooth element from the disc using crosscut carbide cutters.

6 Grind the protrusions with a crosscut carbide cutter.

7 Blasting of the basal bonding surface with Al_2O_3 (50µm, 2-3 bar).

Information:

- The shade gradient can be modified by the height positioning of the restoration within the blank. Select a suitable template for the composite. Suitable milling parameters are listed on page 10.
- When clamping the VITA VIONIC DENT DISC multiColor, make sure that the light or dark side of the disc is aligned according to the nesting in the CAM software. The incisal side of the disc is the printed side.
- The surface topography of the teeth can be reworked manually as an option.
- Before bonding, blast the bonding surfaces of the tooth elements with Al2O3 (50µm, 2-3 bar) and clean them with separate compressed air. We do not recommend cleaning with steam or water, as moisture in the subsequent step may impair the adhesive bond using VIONIC BOND.

Please note:

- Please use appropriate safety glasses and wear face protection/respiratory protection.

4.3 Bonding

Bonding of dental arch using VITA VIONIC DENT DISC multiColor in the denture base

1 Check the fit of the teeth for any slight interferences between the dental arch and the denture base.

2 Mix VITA VIONIC BOND I and II with each other.

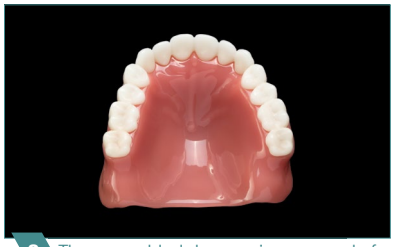
3 Mix the two components for 30 seconds to prevent air bubbles.

4 Apply the adhesive system to the adhesive surfaces of the teeth.

5 Moisten the milled cavities generously with the adhesive system.

6 Position the denture teeth in the cavities.

7 Attach the denture teeth using light pressure.



8 The assembled denture is now ready for the adhesive to be cured.

Information:

- Check the fit of the dental arch/tooth elements in the cavities of the denture base before bonding and remove any interferences. In case of any tension occurring (i.e., tooth elements do not fall out of the denture base when turned over), perform manual adjustments. Ensure an absolutely tension-free fit of the tooth elements in the denture base!
- One portion of VITA VIONIC BOND is enough for a full denture (one upper and one lower jaw denture or 28 teeth)
- Mix the two components using the applicator for 30 seconds to prevent air bubbles
- Then apply and process the adhesive quickly at room temperature (>20°C). The adhesive begins curing after 10 minutes.
- Adhesive with a low viscosity may evaporate if it is handled for too long. To ensure that the adhesive surface is completely moistened, a generous application is recommended.
- To establish a secure bond, the dentures must be set aside for at least 30 minutes without any load after the teeth have been inserted.
- After 20 minutes in the water bath of a pressure pot (55 C, 2 bar), curing is complete. Alternatively, curing can be achieved by storing the denture for 12 hours at room temperature without any load.
- Any excess can be removed by careful blast polishing (1 – 2 bar) after curing the teeth.

Please note:

- The mixing ratio of the two components is ideally matched to one another and may not be changed.
- If the low-viscosity consistency of the bonding system changes and threads begin to appear, for example, VITA VIONIC BOND can no longer be used.
- VITA VIONIC BOND is approved for extraoral use only.
- Please use appropriate safety glasses and wear face protection/respiratory protection.

4.4 Finalization

Finalization of the final denture bases with VITA VM LC and VITA AKZENT LC

1 Use VITA VM LC MODELLING LIQUID for moistening.

2 Moisten the sandblasted areas with VITA VM LC MODELLING LIQUID.

3 Use VITA VM LC flow materials for closing small interdental spaces.

4 If necessary, close the interdental spaces with VITA VM LC flow.

5 Individualization of the denture base and the dental arch using VITA AKZENT LC is a possible option.

6 Application and curing of the light-curing stains VITA AKZENT LC

7 Finalize and polish the denture surfaces.

8 Final digitally fabricated full dentures.

9 Check occlusion in the articulator.

Information:

- VITA VM LC flow and VITA AKZENT LC are suitable for extraoral use only.
- Blast off any small spaces that may occur with Al2O3 (50 µm, 2-3 bar) to ensure a good bond between VITA VM LC flow and the base material and the denture teeth.
- Clean the sandblasted surfaces with compressed air (water separator).
- Moisten the sandblasted areas with VITA VM LC MODELLING LIQUID for the bond between the denture teeth and VITA VM LC flow materials.
- Then use VITA VM LC flow to close small gaps (five gingiva shades and a transparent Window material are available among others).
- Optional: Individualize the processed denture base surface with VITA AKZENT LC and VITA VM LC flow gingiva materials. Tooth elements can also be individualized with VITA AKZENT LC.
- Please conduct the surface processing and polishing according to the analogous full denture.
- Check the occlusion in the articulator. After adjustment of the muscle balance, a reocclusion by the practitioner is recommended after a wearing time of about two days.

Please note:

- For the use of the light-curing microparticle composite VITA VM LC flow and the stain/glaze system VITA AKZENT LC, please observe the instructions for use for the products.
- The curing parameters may vary depending on the device used. Please observe the manufacturer's recommendations (detailed instructions can be found at www.vita-zahnfabrik.com/akzentlc and www.vita-zahnfabrik.com/vmlc).
- Please use appropriate safety glasses and wear face protection/respiratory protection.

Links/Tutorials:

- Learn more now in the workflow video: www.vita-zahnfabrik.com/vionic

5.1 Information and explanations on symbols

Medical device	MD	Manufacturer	
For professionals only	Rx only	Date of manufacture	
Observe instructions for use		Expiration date	
Do not use if the packaging is damaged. Follow the instructions for use		Product number	REF
Store in a dry location		Batch description	LOT
Protect from sunlight		Single use only	
Storage temperature		Shade	
Size			

5.2 Product safety

VITA VIONIC BOND I		
	Danger	H225 Highly flammable liquid and vapor.
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.
VITA VIONIC BOND II		
	Danger	H225 Highly flammable liquid and vapor.
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.
VITA VM LC MODELLING LIQUID		
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
VITA VM LC flow GINGIVA		
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
VITA VM LC flow WINDOW		
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
VITA AKZENT LC		
	Danger	H225 Highly flammable liquid and vapor. H315 Causes skin irritation. H 317 May cause an allergic skin reaction. H 318 Causes serious eye damage H335 May cause respiratory irritation. H 412 Is harmful to aquatic life with long lasting effects. P280 Wear protective gloves/protective clothing/eye and face protection. P305+P351+P338 IN CASE OF CONTACT WITH EYES: Rinse carefully with water for some minutes. Remove any contact lenses worn if possible. Continue rinsing. P310 Immediately call POISON CENTER/physician. P403+P235 Store well-sealed in an adequately ventilated location. Keep at a cool temperature.
	Safety at work and health protection	When working with the product, wear suitable safety goggles/face protection, light respiratory protection and protective clothing.

We are happy to help.

Hotline Sales Support

Our Internal Sales Department team will be glad to assist you when taking orders or if you have questions about the delivery, product data and marketing materials.

Phone +49 7761 562-884
Fax +49 7761 562-299
8 a.m. to 5 p.m. CET
info@vita-zahnfabrik.com

Technical Hotline

Please feel free to contact us if you have any technical questions concerning VITA product solutions.

Phone +49 7761 562-222
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8 a.m. to 5 p.m. CET
info@vita-zahnfabrik.com

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Please note:

Our products must be used according to the instructions for use. We accept no liability for any damage resulting from incorrect handling or usage. The user is furthermore obliged to check the product before use with regard to its suitability for the intended area of application. We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers that are not compatible or not authorized for use with our product and this results in damage. The VITA Modulbox is not necessarily a component of the product. Date of issue of this information for use: 2024-03

On publication of these instructions for use, previous versions will no longer be valid. The current version in each case is available at www.vita-zahnfabrik.com

VITA Zahnfabrik has been certified and the following products bear the CE mark CE 0124: **VITA VIONIC** VIGO®, **VITA VIONIC®** DENT DISC multiColor, **VITA VIONIC®** BOND, VITA**VM®LC***flow*, VITA**VM®LC** MODELLING LIQUID **VITA AKZENT®** LC

gebdi DENTAL–PRODUCTS GmbH has been certified in accordance with the Medical Devices Directive, and the following product bears the CE mark CE: **VITA VIONIC®** WAX

Dental Direkt GmbH has been certified in accordance with the Medical Devices Directive, and the following product bears the CE mark
CE 0482: **VITA VIONIC®** BASE DISC HI

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Rx only MD

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For more information on VITA VIONIC SOLUTIONS, simply scan the QR code.
www.vita-zahnfabrik.com/vionic