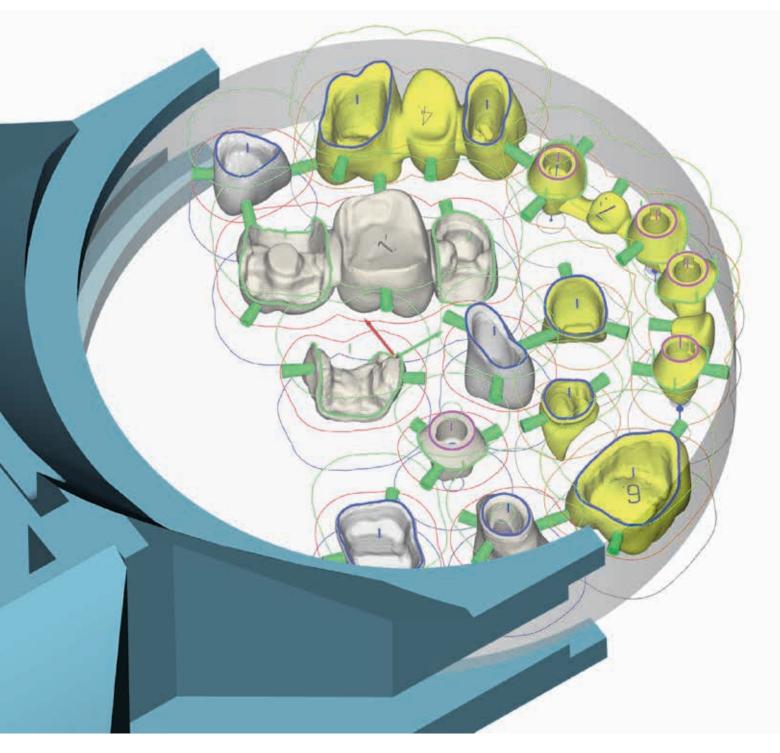


## AT THE FOREFRONT OF DENTAL ENGINEERING







*hyper*DENT<sup>®</sup> is the world leading software system in the dental CAM market and is valued among experts for its modular product structure. Our customers are provided with CAM solutions tailored to their specific application and implementation needs. Regardless of company size and whether for dental or practice labs, FOLLOW-ME! offers suitable *hyper*DENT<sup>®</sup> product bundles for a perfect interaction between CAM and machines.



### hyperDENT<sup>®</sup> Overview:

- Open, highly automated and flexible system
- Complete production process coverage with a single CAM software
- Simple, intuitive operation
- Maximum precision and time efficiency throughout the entire process
- Material-independent
- Flexible addition of software modules
- Maximum freedom in creating templates
- Additive manufacturing and milling all-in-one
- Automatic material offset for post milling during the hybrid process
- Automatic part identification using ID tags
- Optimum surface finish quality due to proven tool path calculation
- Consistent software enhancement and development
- Worldwide premium support service



## hyperDENT® CLASSIC

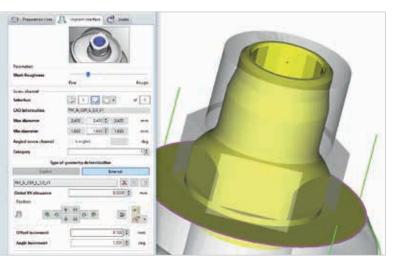
**hyperDENT**<sup>®</sup> **Classic** was developed for the advanced user. This open CAM solution is No. 1 amongst milling centers where flexible and optimized manufacturing processes are crucial. However, dental labs can also benefit from the advantages of *hyper*DENT<sup>®</sup> Classic. Once the user becomes familiar with the software, all possibilities are open utilizing the various *hyper*DENT<sup>®</sup> Options (modules). The simultaneous processing and calculation of multiple projects using the Multiple Start function is very intuitive and a huge timesaver. With the Template Generator, the user can develop individual milling strategies. These tailor-made solutions meet challenging market requirements precisely, resulting in higher customer satisfaction. With the provided interfaces to machine automations, more efficient machining is achieved and blanks can be processed automatically with ease. In addition, the Implant Module enables machining of one-piece abutments and bridge constructions. *hyper*DENT<sup>®</sup> Classic's professional functionality and variety of complementary options deliver high performance to demanding users.



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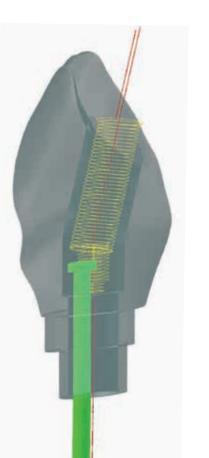
### **Creation of customized templates**

The *hyper*DENT<sup>®</sup> Template Generator Module enables you to create customized machining templates for all part types which can then be tested using material removal simulation. Thanks to the simple and intuitive user interface, an experienced CAM user can immediately begin creating and modifying machining templates (i.e. cutting data, tools, milling strategies).



### Milling of implants and geometries

With the *hyper*DENT<sup>®</sup> Implant Module, customized abutments, implant bridges and bars can be manufactured from circular blanks. Due to intelligent categorization, only one master template is required for all systems. This module can also be combined with a millable interface geometry library for the most commonly-used implant systems. This library can be linked to a corresponding CAD dummy geometry library. It is easy to implement your own geometries as well. Despite possible inaccuracies in upstream systems, an automated exchange mechanism for geometries ensures that high precision parts are manufactured.

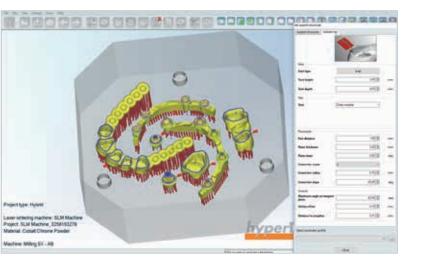


### Angled screw channels

With *hyper*DENT<sup>®</sup>, milling angled screw channels is not a problem. In fact, it is just as easy as milling normal screw channels due to the manual or automatic recognition. Optimized milling jobs using slot milling cutters ensure an easy milling process.

A current list of the *hyper*DENT<sup>®</sup> Implant Components is available at: **order.follow-me-tech.com** 





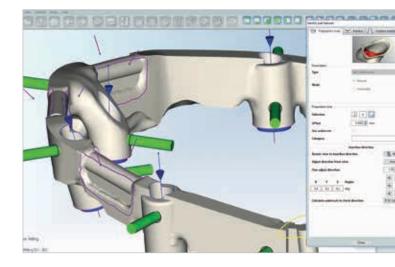
### Hybrid manufacturing of dental indications

The *hyper*DENT<sup>®</sup> Hybrid Module enables the combination of additive and subtractive technologies in one workflow. Complex geometries, inner cavities and previously non-millable dental indications can be manufactured in high quantities with very high surface quality while using minimal material. Automated workflows, such as optimal nesting of the parts on the building platform, creating support structures or generating part-offsets in the areas to be post-milled, round off this all-in-one solution.



### User defined areas

By establishing user defined areas, a high degree of flexibility can be achieved using specific strategies and tools. The categorization of user defined areas enables many application possibilities (i.e. attachment, customized milling of residual material), even using the same milling part.





# hyperDENT®

**hyperDENT**<sup>®</sup> **Compact** was designed for use in dental labs and can be utilized on all open milling machines. The simplified user interface with a managed workflow provides real added value for high-end newcomers and those who wish to become quickly familiar with CAM. Provided databases allow fast, secure, efficient and precise milling. With the exception of one-piece abutments and bridge constructions, all indications can be manufactured using *hyper*DENT<sup>®</sup> Compact. Within no time, users will achieve optimal results to match their requirements.

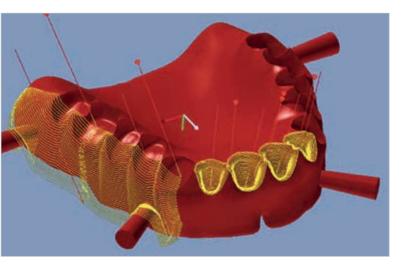
Not all modules available in *hyperDENT*<sup>®</sup> Classic can be utilized with *hyperDENT*<sup>®</sup> Compact. An upgrade to *hyperDENT*<sup>®</sup> Classic is possible at any time.



### Angulated screw channels

The following parameters can be assigned to a screw channel:

- Inner and outer angular height above the screw seat area
- Machining of conical or parallel walls
- Straightening of angled channels
- Angulation of straight channels



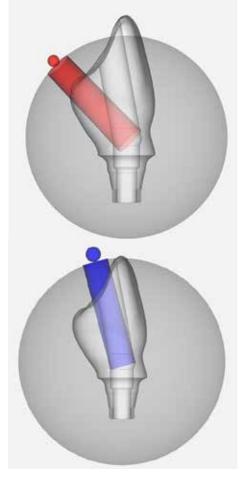
### Manufacturing of full dentures

The *hyper*DENT<sup>®</sup> Denture Module enables digital manufacturing of full dentures with a significantly reduced processing time compared to the analog process. *hyper*DENT<sup>®</sup> is one of the first CAM software systems to provide specified and automated tool paths for this indication type. With the Denture Module, you can produce different workflow variations such as fully completed rows of teeth or pre-milled tooth pockets. Interfaces to diverse CAD systems are available and guarantee easy handling.

### **User Interface**

The *hyper*DENT<sup>®</sup> Compact user interface design has been completely revised in line with user requirements. A higher degree of automation has been achieved due to the extremely simplified user interface and also due to the managed workflow. The calculation of a project can now be completed in just three steps with the workflow bar continuously displaying the current process step.

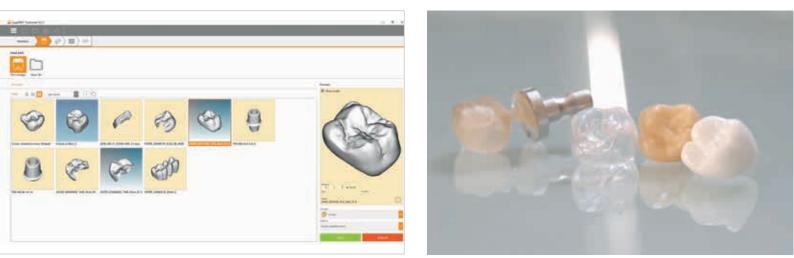






## hyperDENT® PRACTICELAB

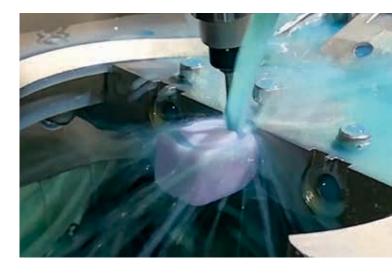
**hyperDENT**<sup>®</sup> **Practicelab** is geared to the needs of practice labs and is optimally suited for CAM newcomers. The user interface is highly automated, which facilitates handling significantly. The managed workflow and minimized range of functions enable the user to calculate tool paths for individual blanks, such as glass ceramic blocks and preform abutments, in just a few steps and send them to the machine for milling.



The ideal blank is recognized already during the automatic loading process and suggested to the user. The positioning of the blank and setting of the connector are also automated. For machines with multiple slots, multiple blanks can be loaded and calculated within a project, saving the user valuable time. Predefined milling strategies ensure high process stability and efficiency.

### **Glass ceramic grinding**

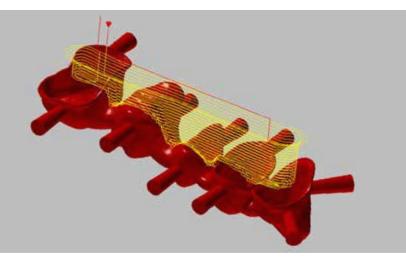
*hyper*DENT<sup>®</sup> enables simple and easy grinding of glass ceramic using special strategies for the optimal generation of tool paths. Where possible, the full tool circumference and length is used to extend tool life and guarantee high process stability.

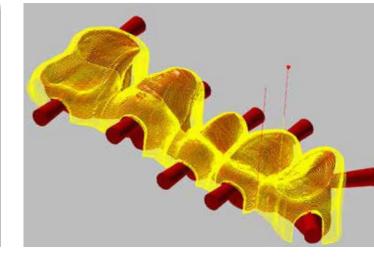


### **Power Milling**

In this strategy, roughing and finishing are combined in one job. The tool mills the CAD file at full depth. This saves time above all.

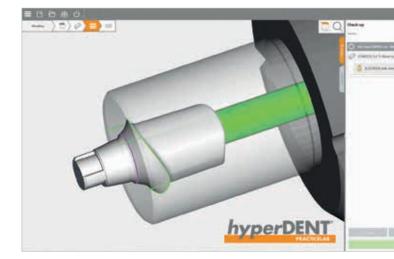
Typical application examples: Zirconator of the company Hufschmied/Ceramic discs





### Prefab milling

It is also possible to mill prefab blanks without the *hyper*DENT<sup>®</sup> Implant Module (4 and 5-axis milling in a closed fixture or 5-axis simultaneous mill turning). By utilizing various milling strategies in different areas, an optimum surface quality is guaranteed. The required blank is automatically selected through the configuration of the database, which saves time and prevents errors.





## hyperDENT® OPTIONS

With **hyperDENT**<sup>®</sup> **Options**, additional modules can be added to *hyper*DENT<sup>®</sup> Compact as well as *hyper*DENT<sup>®</sup> Classic licenses enabling the CAM software to perfectly match user requirements. Individual modules can be added easily at any time.



### The following modules are available:

- hyperDENT<sup>®</sup> Template Generator Module
- hyperDENT® Hybrid Module
- hyperDENT<sup>®</sup> Implant Module
- hyperDENT<sup>®</sup> Denture Module



## hyperDENT

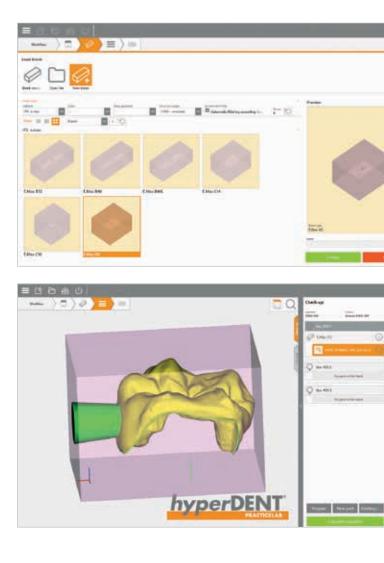
There are many **hyperDENT**<sup>®</sup> **basic functions** which facilitate users' daily work with the FOLLOW-ME! CAM Software and significantly accelerate internal processes. The following section describes some of these basic functions, which are generally included in all *hyper*DENT<sup>®</sup> versions.

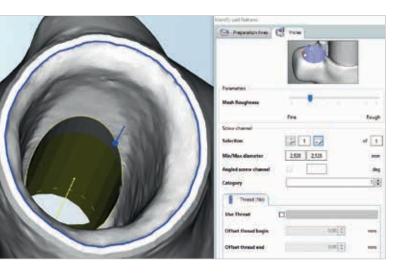
#### Intelligent blank suggestion

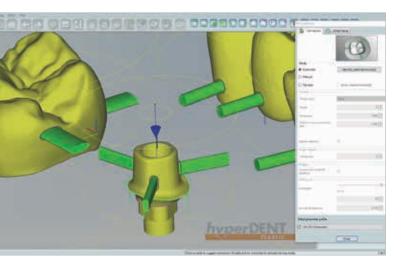
hyperDENT<sup>®</sup> automatically recognizes the blank required for processing and suggests this in a dialog box including all known parameters, such as material and part measurements.

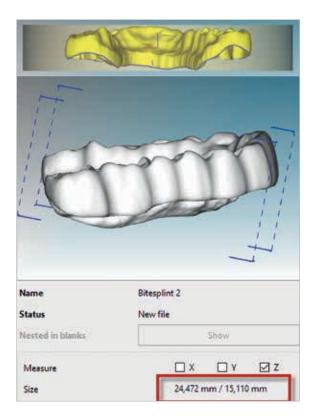
#### Automatic placement of parts and setting of connectors

The optimal placement of parts to be machined occurs directly after blank selection. If rotating or tilting is required, this will be done automatically according to machine capability. Simultaneously, the connector (holding pin) will be set using the default parameters.









### **Cavity milling**

The milling of cavities/holes is required repeatedly and *hyper*DENT<sup>®</sup> is capable of milling these with all part types. Through categorization, different requirements can be managed easily, even for the same part.

### **Connector profile and sintering frame**

Using the connector and sintering frame profile, which can be set specifically for part types, special requirements can be managed for each indication. Form and position can be edited individually. The algorithm for optimized nesting of the connector position guarantees a quick and easy workflow for the tool path calculation, even for overlapping milling areas.

### **Environment filter**

Using automatic recognition of the blank required for milling, all known parameters (i.e. material, machine, part measurements) are considered for the selection. Only blanks that fit will then be included in the dialog, which simplifies the blank selection enormously.

### Automatic tilting and nesting

The part is loaded in the blank, tilted according to the settings and machine capabilities and then nested as per selected strategy. This automation guarantees that machine limits are not exceeded.

### **CAD** interfaces

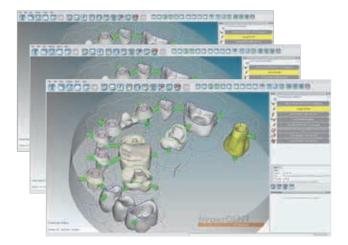
*hyper*DENT<sup>®</sup> features interfaces to the CAD systems from 3Shape, DentalWings and Exocad. With the utilization of CAD metadata in *hyper*DENT<sup>®</sup>, the entire workflow can be simplified and the cycle time can be reduced significantly. It is possible to start *hyper*DENT<sup>®</sup> directly from 3Shape.

### **Multiple Instances**

*hyper*DENT<sup>®</sup> Classic can be started multiple times in order to work on multiple projects simultaneously. While one or multiple projects are calculating, additional projects can be prepared. This results in high CAM workstation utilization.

### Engraving

Engraving objects after production simplifies the subsequent identification and allocation of parts. The engraving can be placed individually for parts using the symbol in the workflow bar or placed automatically using parameters. Materialdependent profiles can also be created.





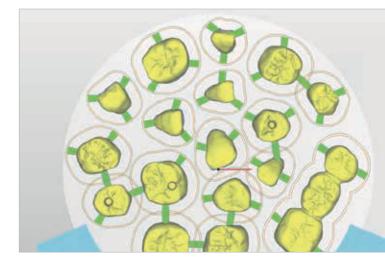
### Autonesting

During loading, *hyperDENT*<sup>®</sup> automatically places parts optimally in the blank. An additional local nesting assists during manual nesting to find the ideal position within the radius.

### **Project document**

With the output of project documents, individually determined specifics, such as estimated processing times, blank and tool information, are documented for each project. A PDF as well as a screenshot are generated to improve the allocation of the project.











**hyperDENT**<sup>®</sup> **EXPERTS** is a closed Facebook group, in which *hyper*DENT<sup>®</sup> users and prospective users can exchange ideas about the FOLLOW-ME! CAM Software. It does not matter if group members are CAM beginners or

experts. Exciting stories, great work results and topics concerning the use of individual functions make interesting conversation around the clock. Our FOLLOW-ME! employees are also there to provide valuable information about the use of *hyper*DENT<sup>®</sup>, so that everyone in the group can benefit and apply it to their daily work. Support requests will be handled via the following channels:

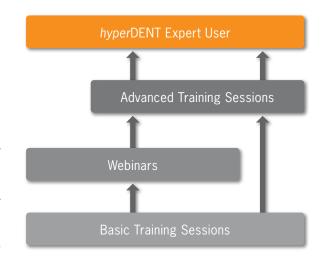
email (support@fm-dental.com), telephone (+49 (0)89 452170630) or Contact Form (Support area of our homepage).



### hyperDENT<sup>®</sup> TRAINING SESSIONS

are the result of a proven training concept developed by FOLLOW-ME!

that combines the expertise and experience of the highly qualified *hyper*DENT<sup>®</sup> Team with the requirements of a premium support service. This combination guarantees maximum learning success for the participants. The wellthought-out training sessions enable users to recognize difficult tasks in their daily work and independently complete them using



*hyper*DENT<sup>®</sup>. The training sessions build upon one another, so that all participants can evolve from basic to expert users. Online webinars complement the *hyper*DENT<sup>®</sup> training sessions and communicate the latest application developments.

# hyperDENT<sup>®</sup>

## X3

### hyperDENT<sup>®</sup> FUNCTION OVERVIEW

Practicelab	Compact	Classic	Function	Description
-	0	0	Template Generator Module	Writes and edits templates. Creates customized milling strategies, adapts tools and cuts data
-	Х	х	Template Generator Lite	Modifies approved parameters
-	0	0	Implant Module	Machines one-piece abutments out of the full material
-	0	0	Implant Geometries	Prepares exchange geometries for fast and easy machining of abutments and multi-units. Implant module required
-	-	0	Hybrid Module	Controls laser sintering machines for hybrid manufacturing
0	0	0	Full Denture Module	Machines full dentures including the Merz Baltic Denture System with special strategies
х	0	0	Grinding Module	Machines glass ceramic/lithium disilicate, etc. with special, tool- protective cycles optimized for grinding
-	0	0	Multi-Machine Usage	Operates any number of machines and/or machine types with a single <i>hyper</i> DENT <sup>®</sup> license
0	х	х	Feature Detection	Detects preparation margins and screw channels without a CAD interface
-	х	Х	Power Milling Module	Ultra-fast roughing of zirconia crowns and bridges using the Huf- schmied Zirkonator tools
Х	х	х	Auto part list	Connects hyperDENT <sup>®</sup> directly to output folder of CAD system
_	Х	х	Load Wizard	Automatic initialization of workflow process steps
х	х	-	User interface with "Click-Through" Workflow	User interface with simplified workflow for intuitive handling
Х	х	х	Project Management	Manages projects and blanks using lot and ID numbers
-	х	х	Use of different tool shapes	For occlusal side machining, all tool types (ball/torus/lollipop/stem) can be supported with multi-axis mode switched off
х	х	х	Autonesting	Space-saving placement in the blank. Fixture-specific settings can be entered and various nesting parameters can be saved
-	х	х	User Defined Areas	Defines user-specific areas for machining particular areas of the part
Х	х	х	Environment Filter	Automatically suggests the suitable blank
Х	х	х	MachineConnect	Loads the milling program directly onto the machine and is activated in $\it hyperDENT^{()}$ (dependent on milling machine)
-	Х	х	Engraving	Engraves parts for identification.
-	х	Х	Blank milling	Mills all types of blanks and materials
Х	Х	Х	Block milling	Mills blocks, such as glass ceramic or hybrid ceramic blocks
Х	0	Х	Prefabs	Mills blanks with a prefabricated implant interface geometry
-	х	х	Sinter frames	Generates sinter frames for simple sintering of large bridges (i.e. zirconium oxide bridges)
-	х	х	Traverses	Saves space through spanning of traverses between multiple parts; occurs automatically for overlapping connectors
-	Х	Х	Undercut display	Displays undercut areas for the placement of user defined areas.
-	х	Х	Angulated screwchannels	Angulation of screw channels is possible in hyperDENT



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