

STIEFELMAYER

VENTURA DESIGN



VENTURA DESIGN

VENTURA DESIGN – Supporting the Modelling and Design Process

Since many years, **STIEFELMAYER horizontal arm measuring machines** have been used in numerous design studios worldwide.

The high robustness and absolute process reliability are the distinguishing marks of our machines.

Our customers appreciate **STIEFELMAYER machines** as valuable support in the effective execution of marking-out and measuring tasks.

Beside imagination, experience and craftsmanship, the modelling and design process also requires efficient technical equipment in order to implement and realize ideas quickly.

For this reason, **STIEFELMAYER** complements the established manual measuring technology by a CNC milling option combined in one machine – the new **VENTURA DESIGN**.

Right and middle:
VENTURA DESIGN – CMM with integrated milling capability

Left:
STIEFELMAYER horizontal arm machines – cube head for various applications

Bottom right:
View onto the Z-column: Hardened guide tracks and the attached magnetic measuring system make the machine resistant to dust and dirt.

**VENTURA DESIGN**

The combined measuring and milling solution **VENTURA DESIGN** is rounded off by a wireless control panel.

The hand-held unit, which comes in two versions, supports the user in the execution of measuring or marking-out tasks and can be used to simultaneously control the milling operation in CNC-mode.

The accompanying software package is used to process CAD-data into milling programs, execute milling programs and carry out measurements against CAD-data.

The modular construction of the uniform software platform ensures the fast learnability of the respective software elements.

With its modelling package **VENTURA DESIGN**, **STIEFELMAYER** is recommended as reliable partner for its customers in their day-to-day operations in design studios or modelling.



VENTURA DESIGN – The Machine

VENTURA DESIGN manual/CNC by STIEFELMAYER is equally suitable for measuring and marking-out as well as for the milling of clay and rigid foams.

This machine convinces with its most robust construction and very clean running performance – we only use perfectly coordinated durable high-quality components.

Special feature:

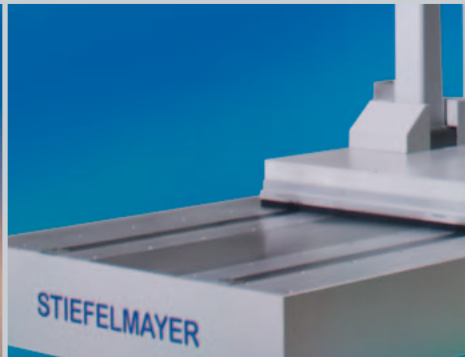
The proven ease of running of the STIEFELMAYER machine in manual mode is in no way restricted by the combined drive.

Having completely disengageable drives in both axes Y and Z, the machine can also be used as manual machine at any time – albeit its milling capability.

STIEFELMAYER machines are available both as single-column and as multi-column solutions.

Left:
VENTURA DESIGN machine – for milling of clay and rigid foams

Right:
Protected linear guides: The X-axis is protected with a protective tape and additionally with a protrusion underneath.



- Flexible textile bellows for the protection of the traversing arm: easy to mount and remove, washable, no restriction of ease of running.

Longevity:

- A multitude of adjusting elements in all axes ensures high precision and reliability of the machine also in the long run.
- On-board control unit: this reduces the number of the attached cables in the X-axis and contributes to the machine's ease of running while reducing its susceptibility to failure by cable break etc.

Additional Features:

Base plate:

- Measuring plate at floor level, walkable and driveable, in one piece or multiple parts, made of special grey cast iron, flatness according to DIN 876/II.
- Thin-bed option: the construction of the measuring plate can be reduced to up to a height of 210 mm depending on the quality of floor and foundation.

Axes:

- Motor-driven X-axis: operation via hand-held control/joystick or (optionally) electronic hand wheel.
- Manual/motor-driven Y- and Z-axes: these axes can be switched from manual to CNC mode and vice versa at any time (via hand-held control).
- High-quality gears free of clearance in all axes ensure the smooth operation and highly precise positioning without overrun.

- The machine is equipped with a magnetic measuring system in X, Y and Z which is highly-precise (resolution 0.001 mm) and very robust and dirt tolerant at the same time.

Dirt protection:

- Double protected guides: The linear guides in the X-axis are on the one hand protected against coarse dirt with a protective steel tape and on the other hand protected in the machine with a protrusion. Thus fine dirt, which has worked its way around the protective tape in the course of time, is prevented from depositing on the guides.
- Hardened and chrome-plated guide-ways on columns and traversing arm ensure longevity and wear resistance of the machine, particularly in more difficult ambient conditions, e.g. during milling.

User support:

- Clamping / blocking: the machine can be clamped or also blocked – for fine adjustment as support for the user – via push buttons at the machine or control panel.
- The wireless control panel (HT 1000 or HT 400) as well as the optionally available electronic hand wheel support the user in the daily occurring tasks.

VENTURA DESIGN

Milling Head MILL 20

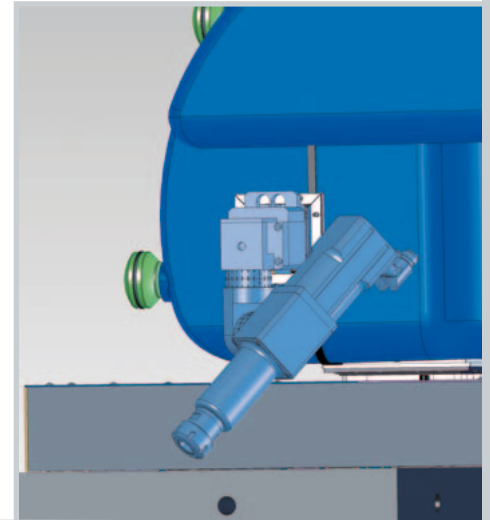
Our milling head MILL 20 is used for milling clay, polystyrene and rigid foams.

It is manually adjustable in two axes in 15°-steps. Its pretty slim design ensures the optimal accessibility at the work-piece.

The milling head MILL 20 has a solid, form-fitting adaptor for the traversing arm.

The versatile design of the milling head enables the fast, secure and user-friendly fitting also of tactile or diode probes with the existing receptacle cube at any time.

Right:
Milling head with collet chuck 20 mm – slim and robust design



Central left and right:
The milling head MILL 20 can be turned in every desired position by means of a highly precise tooth system.

Central bottom:
The VENTURA DESIGN is the right solution for scrubbing as well as finish machining.



Technical Data

Power:

■ 1050 W

Number of revolutions:

■ max. 6000 U/min

A-Axis:

■ +/- 180°, manually adjustable in 15°-steps

B-Axis:

■ +/- 180°, manually adjustable in 15°-steps

Tool holding fixture Shaft diameter:

■ 20 mm

Suitable for milling tool shafts up to max.

■ 25 mm

Our Wireless Control Panels HT 400 and HT 1000 and the Electronic Hand Wheel

Our manual control panels accompany the operator in the measuring or marking-out process and simultaneously support him/her in the milling operation.

While the control panel HT 1000 offers advantageous functions particularly for the combination „marking out in manual operation – milling in CNC“, the control panel HT 400 is especially recommended for operations in which the focus is on measuring against 3D CAD data in turn with milling.

HT 1000

The so-called positioning run is advantageous for the operation of the manual control panel HT 1000.

The operator has the possibility to traverse the measuring machine in its motor-driven axes to defined positions.

It is also possible to approach several identical distances one after the other in order to apply marker points or reference lines at the workpiece.

HT 400

The control panel HT 400 – optically designed similarly to HT 1000 – is used to support the operator during set-up operation for measuring tasks.

This includes the simple zeroing of axes, the definition of intermediate positions, a special function key for cancellation and the so-called homing function – when activating this key in combination with the axis movement, the machine traverses to the workpiece and disengages there automatically.



Left:
Wireless hand panel (here: HT 400) in practice

Central:
A convenient solution: The integrated magnet in the hand panel (here: HT 400) enables the user to place the unit easily, for example at the support rod of the CMM.

Right:
HT 1000 unit

Electronic Hand Wheel

The electronic hand wheel is an additional option for the motor-driven X-axis of the measuring machine. The operator can move the machine in X with a turning knob in fast and also in fine gear.

Measuring points can be directly applied with the push button which is also attached to the hand wheel.

The unit is ergonomically designed and therefore fits the hand extremely well.

Special features of HT 400 and HT 1000:

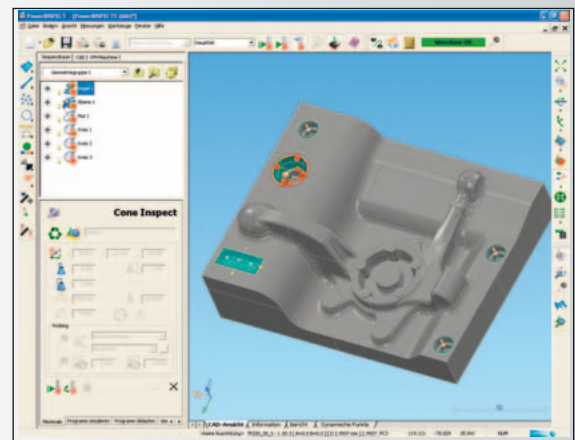
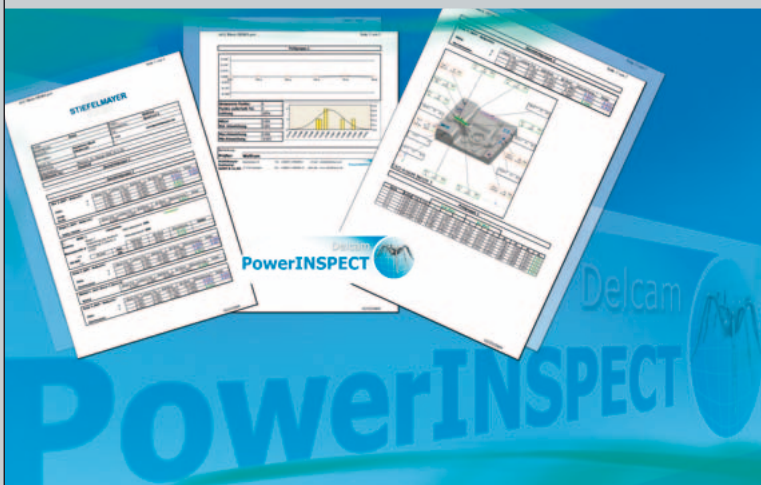
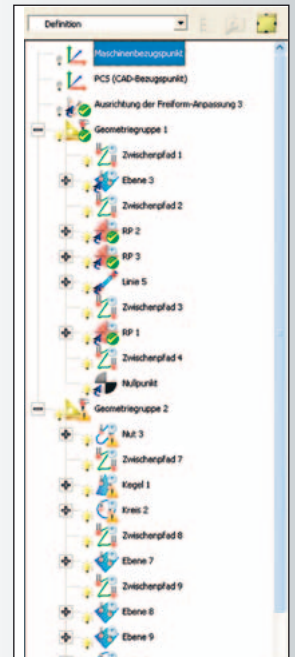
- Both control panels comply with the standard DECT and therefore meet highest security standards.
- They are suitable for one-hand operation (joystick-function).
- There are several freely programmable keys for special functions available.
- The disengagement of the axes (Y and Z) to manual or purely motor-driven (X-axis) operation and vice versa can be triggered with the manual control panel. The respective operating status (clamping on/off) is shown on the display.
- Fault reports of the CMM control are shown with an error-code key on the display of the control panel.
- Different background colours in the display show, if the machine has already carried out a reference run or not.

Software Package

The accompanying software package consists of the following modules

- PowerINSPECT Design – software for measuring, evaluation and design tasks.
- ClayMILLING – creation and running of milling programs, tool management.

Both PowerINSPECT Design and ClayMILLING are each independent, Windows-based products which are at the same time perfectly coordinated due to their common platform.



Measuring-Software PowerINSPECT Design

PowerINSPECT Design is an easy to use measuring, evaluation and design program for manual and CNC measuring machines. The Windows-based software applies the data of all common CAD-systems, supports all current alignment strategies and has the simple routines of measuring probe selection and calibration.

The creation of measuring programs is either carried out using teach-and-learn mode or by offline programming. PowerINSPECT Design digitises unknown curves, but also compares measuring results against 3D-CAD models. Both geometry and free form surfaces can be measured with a single program.

The measuring program is presented in a tree structure (similar to Explorer). The operator can insert comments, drawings or annotations at any point and modify the measuring sequences by "drag & drop" functions.

There are extensive digitising functions available for designing. The user can digitise unknown curves/cuts, modify the point list and use it further for marking-out tasks.

During the measuring operation a report is generated, is continuously updated and can be viewed at any time. It also visualises the measured elements and their position as well as potential deviations.

A comprehensive online help describes and explains the functions of Power INSPECT in detail, including numerous examples.

Already the standard version of Power INSPECT contains numerous CAD-interfaces, such as IGES, STEP, VDA and AutoCAD (DXF and DWG).

Furthermore, there are many more optionally available interfaces, e.g. CATIA or UG.

VENTURA DESIGN – ClayMILLING

ClayMILLING is an independent software package which has been specially developed for design processes.

The simplified operator interface concentrates on the functions which are necessary and applied in designing.

This reduces the training requirements for learning ClayMILLING to a minimum.

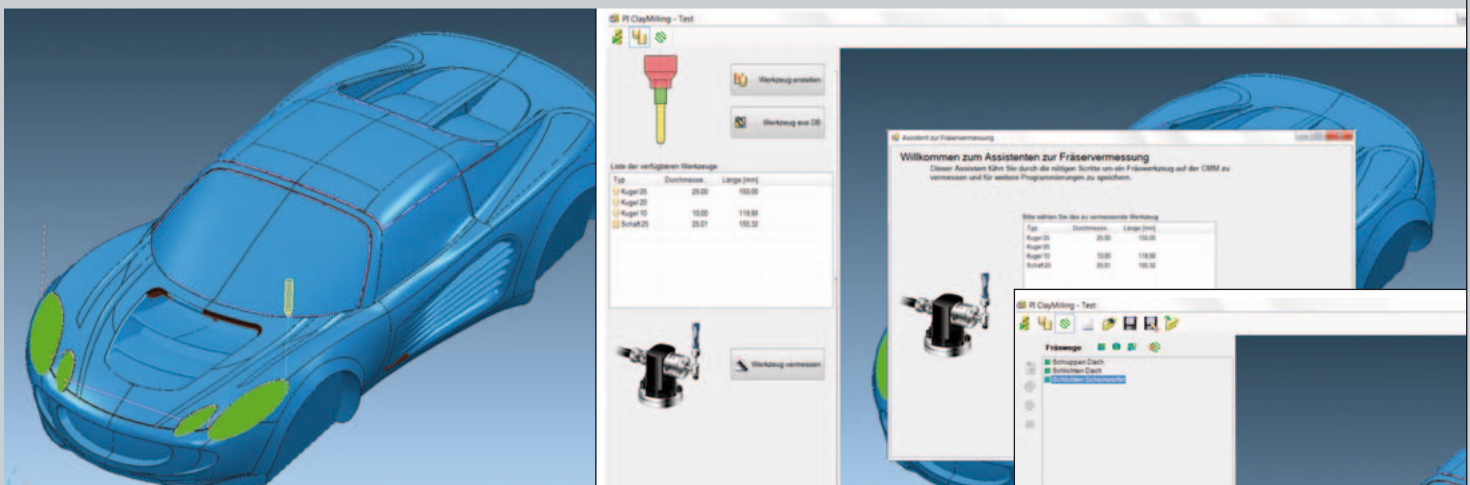
In the background, ClayMILLING reverts to the well-known, extremely powerful milling software PowerMILL (also from Delcam).

ClayMILLING consists of the following modules

- Milling: running of NC-programs
- Tools: tool adjustment and management
- CAM: Creation of NC-programs on the basis of CAD-models

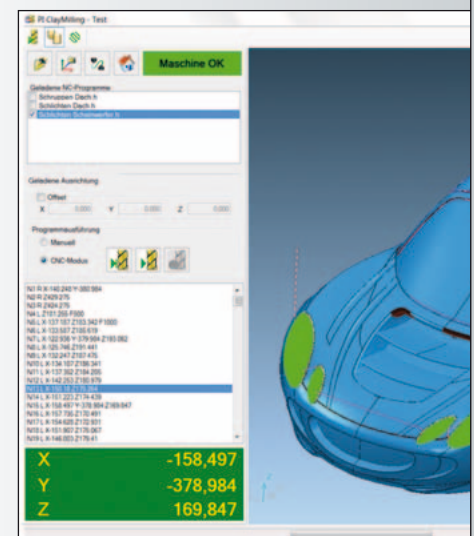
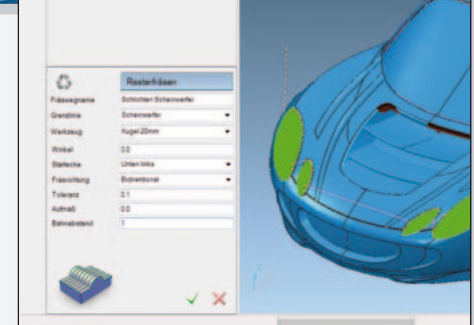
All pictures:

Tool management with software wizard; creation and running of milling programs



Important features of ClayMILLING:

- Easy programming with the aid of the CAD-data set.
- Running of NC-programs from the data of random CAM-modules.
- A software wizard facilitates the calibration of milling tools and the management of the tools in a data base.
- Module milling: NC-programs are imported and visualised at the screen.
- Current standard milling strategies (templates) are available (raster milling, Z-constant for steep areas, residual material milling). Owing to the extensive background functionality of PowerMILL, it is possible to generate additional templates and supplement them.
- CPU-multikernel support.



STIEFELMAYER – The Company Group at a Glance



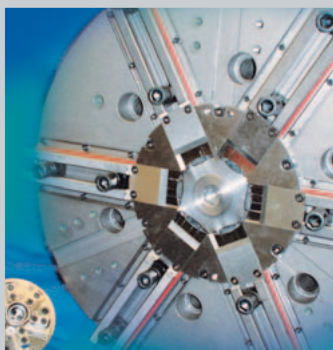
STIEFELMAYER- Metrology

- 3D coordinate metrology
- Measuring software
- Accessories



STIEFELMAYER- Laser Technology

- Laser hardening
- Laser welding
- Laser cutting



STIEFELMAYER- Clamping Tools

- Special chucks
- Special mandrels

STIEFELMAYER Metrology – the product range:

Horizontal arm measuring machines

- FUTURA manual · motorised · CNC version
- VENTURA manual · motorised · CNC version
- ACTURA manual · motorised

Modernisations / Upgrades

- Measuring counter MZ 2000 for manual machines
- Controller modernisations
- Upgrades manual to motorised/CNC version

Accessories

- Probe tools
- Auxiliary equipment
- Marking-out tools
- Centering tools
- 3D probe accessories
- Threaded styli
- Extensions
- Scanning sensors

Measuring software

Service

- Calibrations
- Repairs
- Installations
- Machine moving

Second hand machines



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