MK Technology® delivers the whole spectrum of vacuum casting, from the low-priced model for beginners, the MK-Mini, up to the World's largest series-produced vacuum chamber, the System 3.

The MK-Vacuum Casting System
- Made in Germany -

The advantages of the system are:
- Solid construction, steel walls up to 20 mm and doors 40 mm
- Reusable cups and funnels
- Precise selection of pressure by "go-to" function
- Automatic silicon degassing saves time
- Integrated modem for software updates and remote maintenance
- Easy program storage
- Optional electronic differential vacuum pressure
- Large glass doors and transparent cups improve visibility
- Detailed documentation and training videos
- Chamber and components made in Germany

MK Technology’s highly reliable vacuum casting systems are currently being used by the major car manufactures: General Motors, DaimlerChrysler, Volkswagen.

The MK-Vacuum Casting System in many different sizes

The new electronically controlled MK-VACUUM CASTING SYSTEM provides a simple method of producing plastic prototypes without the need for an expensive steel tool. Starting with a pattern, produced using a rapid prototyping system or conventional means, a soft tool is created. Using this tool polyurethane plastic parts can be produced within a few hours.

MK-VACUUM CASTING SYSTEMS are available that enable the physical properties of almost all the materials used for producing plastic, rubber or glass parts. They are specifically designed to meet numerous requirements such as: strength, hot cracking and temperature resistance while molding with complex parts and reproducing fine details, textures and color.

MK-Vacuum Casting saves up to 90% of cost and time if compared to conventional techniques. It facilitates the easy and rapid production of prototypes in all shapes, textures and colors. These parts can be used to verify designs for mechanical testing, checking how fit and function are for customer evaluation.

The MK-VACUUM CASTING SYSTEM is one of the fastest, most precise and economical rapid prototyping-/rapid tooling-systems currently on the market.

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The MK-Vacuum Casting System

System 1 - One for all
Easy to operate and with reasonable maintenance costs, System 1 is our best selling unit. With more than a 1 Kg casting capacity this system has been specifically designed with mainstream rapid tooling applications in mind. It can also be equipped with an optional hot cup for producing wax patterns for investment casting.

Systems 2 and 3
The advantages of the system are:
- Solid construction, steel walls up to 20 mm and doors 40 mm
- Reusable cups and funnels
- Precise selection of pressure by "go-to" function
- Automatic silicon degassing saves time
- Integrated modem for software updates and remote maintenance
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The MK-Vacuum Casting System

System 2 - The golden mean
The System 2 is the extended version of System 1-XL, an extended version with a larger volume of System 2 and for a maximal part-length of 2 meters. It is designed to meet the requirements of larger parts and higher precision.

System 3 - The allrounder
Build according to the same principle as System 1, parts of more than half the unit can be cast in a chamber. For easy charging, the whole mixing unit can be drawn out, and pouring- and mixing-speed are extremely variable.

For those who still want more there is System 2-3XL, an extended version with the same characteristics as System 2 and for a maximal part-length of 3 meters.

MK-systems are represented in all five continents with 16 training and service centers World-Wide.
How the system works:

1. Mold making

- Preparation of the master model and adjustment inside the casting frame.
- Preparation of one or several gates and runners (depending on the shape and size of the model).
- Mating of the two-component silicon and pre-evacuation in the vacuum chamber using the automatic Saw-Tooth function.
- Casting the silicon into the mold with subsequent evacuation in the vacuum chamber.
- After the mold has been cured in the oven it is opened with a scalpel and the master model is taken out.

2. Production of plastic parts

- Sealing of the silicon mold using tape in a doppler and tempering it in the oven.
- Due weighing of the resin’s A- and B-component.
- Adjustment of the mold inside the chamber using the mold lift, and evacuation of the chamber.
- Subsequent flooding of the chamber.
- After the mold has been manually or automatically evacuated and mixed, the resin is cast into the silicon mold through the funnel.
- The silicon mold is taken out of the vacuum chamber and put into the oven for further hardening. After opening the mold, the final plastic part can be taken out.

Volla: A perfect copy of the master model.

It was invented and built in Magdeburg by the councilor Otto von Guericke who was way ahead of his time. Today he is known for the brilliant ideas he had already then in the fields of vacuum technology, pneumatics, and electostatics. His experiment with the two so-called Magdeburgian Hemispheres became famous worldwide.

That is why good ideas and products not only mean global and interdisciplinary thinking to us, but also mean the synthesis of knowledge and methods of the past with modern and innovative technologies of the present and the future.

Creativity and imagination are what it is all about, and they are the starting point for the development of innovative and economical products. To see what is technically possible is to simulate mass-production, to take imaginary or real obstacles into consideration - that is what we want to enable people to do with our machines. For this reason, we strive with all our knowledge and craftsmanship to give you an optimal implement for your customers.

All our systems are produced exclusively in Germany and built from components of first-class quality also "Made in Germany." Besides their solid construction, their functionality and their easy operation they impress by their appealing overall design - it's a pleasure working with them!

Customers from all over the world trust in our technology today. An optimal service is guaranteed by a global dealer-network.

The innovative technology for making silicon molds and functional prototypes from a master model within only one day - at only a fraction of the usual costs.