

voxeljet



Always a layer ahead



The models are produced automatically in a layering process, based on CAD data.



voxeljet

voxeljet is your partner for digital production. The high-tech company specializes in the automatic, patternless manufacture of sand casting moulds and components made of plastic. voxeljet's innovative 3D printing technology allows moulds to be generated directly from CAD data quickly and economically, using layering techniques.

voxeljet is active in the business fields of services and the manufacture of 3D printing systems. At our Augsburg location, we produce metal-casting moulds and plastic models in Europe's leading service centre.

Another business area is mechanical engineering, specifically the development, manufacture and sale of industrial 3D printing systems for plastic components. These machines are among the fastest and most powerful products on the market.

Founded in 1999 by Dr. Ingo Ederer, the company received the „Top 100“ award in July 2010, and it is thus a member of the exclusive circle the top 100 innovators in Germany. Our customers include well-known automobile manufacturers as well as innovative companies from a wide range of industries. The expertise of our young, motivated team guarantees future-oriented developments in the rapid manufacturing sector.

voxeljet
SYSTEMS

systems

voxeljet vx500

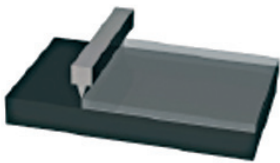


Outstanding detail accuracy and precision characterise the moulds.

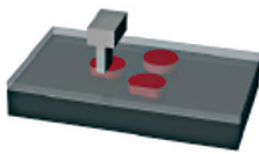


Success layer by layer

The components are created by layered application of a particle material that is selectively bonded. The use of technical plastic as the base material is unique.



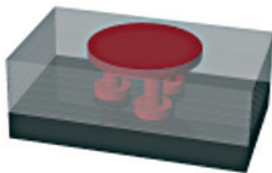
1. Application of plastic powder



2. Selective addition of binder



3. Lower the building platform



4. Repeat steps 1-3



5. Removal of unbound plastic powder



The 3D printing systems earn high marks in build speed, while keeping operating costs low.



voxeljet systems: Fast, precise and economical

voxeljet's innovative 3D printing systems are the perfect choice for the patternless, fully automatic manufacture of high-quality plastic components. These machines enable manufacturers to quickly and economically produce plastic models for investment casting and functional components based on CAD data. The components are built automatically in a layering process and feature outstanding accuracy of detail.

Thanks to voxeljet's ground-breaking technology, the industrial 3D printers set standards in many different respects. The printers combine speed and durability with reliability even under the harshest industrial conditions.

The operating costs are low, despite the machines' unique performance. In its in-house laboratory, voxeljet has developed materials that guarantee especially economical operation. Our product portfolio currently consists of four machines: VX 500, VX 500 HD as well as VX 800 and VX 800 HP. The HD and HP designations identify the high-performance versions of the standard machines. Optional unpacking stations, material preparation systems and finishing cabins can be added to the machines to provide complete production systems.

With its finely coordinated range of 3D printers, voxeljet's portfolio contains the right machine for nearly every application of the suitable system. Fast, precise and economical – these are the attributes that characterise all voxeljet systems in equal measure.

System features

The VX 500 and VX 800 systems, print plastic components in „almost“ any quantity, fast, economical and straight from the CAD-File.

- 30 seconds for a complete layer
- Outstanding printing-resolution up to 600 dpi
- Up to 190 l of usable building volume
- Time-saving, automatic printing process
- 100 % of the unprinted powder is recyclable
- Optional system expansion
- Smooth surfaces and ultra-fine details
- Effective in continuous operation
- Ideal for investment casting, functional parts and design models

Technical data systems

3D printer	VX 500	VX 800
Dimensions		
Outer dimensions W x D x H	1.840 x 1.855 x 1.160 mm	2.600 x 2.350 x 2.300 mm
Installation space	3.000 x 4.000 x 2.200 mm	5.300 x 4.300 x 3.000 mm
Weight	ca. 1.200 kg	ca. 2.500 kg
Process		
Build space W x D x H	500 x 400 x 300 mm	850 x 450 x 500 mm
Resolution X x Y	40 x 40 µm	100 x 100 µm
Layer thickness	80/150 µm	100/150 µm
Build speed	10-15 mm/h	15-25 mm/h
Parts		
Build material	PolyPor - PMMA	
Accuracy	0,3 %; min. +/- 100 µm	
Tensile strength	4,4 MPa	
Yield point	1,3 %	
Melting temperature	73 °C	
Data preparation		
STL	STL	
Ethernet	Ethernet	
PC	latest windows operation software	
Environment		
Temperature	24 °C +/- 2 °C	
Humidity	50 % – 70 %	

Last revision: 11/2010. We reserve the right to make technical changes.
voxeljet technology is ISO 9001-certified.

Use of Equipment: The Equipment (including any use of the Equipment), is subject to limitations imposed under a Nonexclusive Patent Sublicense Agreement between voxeljet and Z Corporation, and is to be used solely for the fabrication of plastic parts having a polymer matrix phase that is prepared utilizing a powder that contains at least 90 % synthetic organic polymeric powder in a process that does not require post-processing other than liquid infiltration of printed parts. Other uses of the Equipment are strictly prohibited and may expose the user to liability for patent infringement.