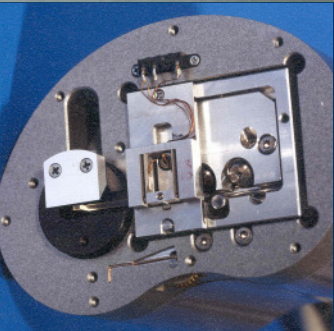


# Mechatronic Prototyping



## ASSISTANCE in R&D

VDL ETG Research's core competence is to assist in research and development by realization of the mechatronic tools needed in R&D: process equipment, product prototypes, test and measurement tools etc. Our presence at the High Tech Campus Eindhoven ensures short communication lines between its inhabitants and our assistants. A sketch and an informal talk will often result in a creative hardware solution at short notice, because our people have experience in all kinds of manufacturing technologies and know their way around in our own workshops on the campus and those in the vicinity. But if a more formal Technical Product Description is needed they are just as well able to take care after that. And for those that are only interested in a cost price development because they are evaluating a business plan we offer our "virtual manufacturing" service: a cost-down roadmap calculation with or without building the actual hardware.

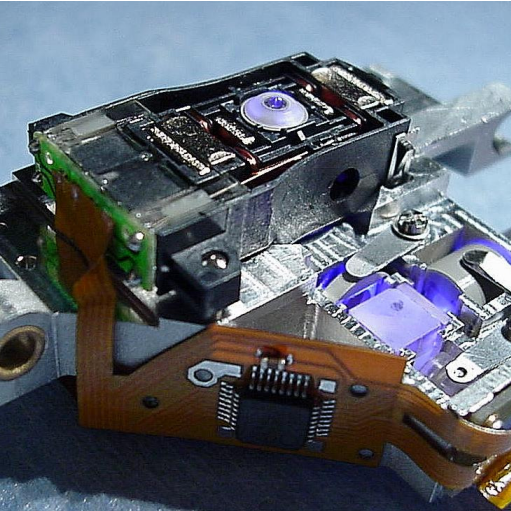
VDL ETG Research is part of VDL Enabling Technologies Group. Until the year 2000, VDL ETG Research was part of the Philips Research Laboratories for which it developed ultra precision turning equipment, prototyped the first optical recording pick-ups and stood at the cradle of many ASML and FEI products. In 2000 we became part of the Philips machine factories: the Enabling Technologies Group. In 2006 we became part of the VDL group. We continue to combine creativity and professionalism to support R&D and New Business Development in any place that can be reached from Eindhoven by bike or e-mail.

Strength through co-operation



## ASSISTANCE in R&D

- Design of tools, prototypes, measurement setups
- CAD
- Realisation of parts and assembly
- Iteration
- Costdown roadmapping

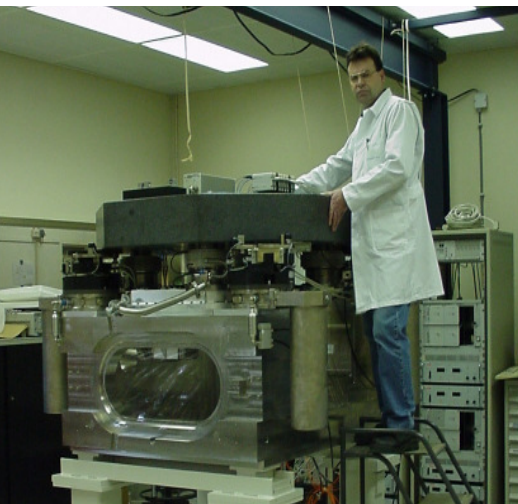


### MICRO-ASSEMBLY

Miniaturization is often needed to develop an idea into a product, whether for cost reduction or to enhance its appeal to end users. Electron-optical columns, normally of the order of magnitude of 1 meter, could be miniaturized by us to the size that fits in your hand. Also, the first of optical recording devices such as CD, DVD and Blue-ray pick-ups, were manufactured at VDL ETG Research. Not only the high precision parts were made, such as the lenses and assembly tools, but also the complete system assembly was done in house.

### DEMONSTRATORS

Showing the capabilities of a new software platform can be a daunting task, when all you have is schemes, flowcharts and an endless listing of texts in a language that is arcane to most audiences. But when a robot demonstrates the effects of the software, for instance by improving man-machine interaction, it's easy to make anyone enthusiastic. VDL ETG Research co-developed for this purpose the hardware of "i-Cat", a demonstrator that excited specialists and generalists alike.



### LARGE VACUUM SYSTEMS

With our Philips roots it's only natural that we have still many relations with former Philips companies: Original Equipment Manufacturers that produce the highest end professional equipment. We are still often involved in the manufacturing of prototypes of their systems or modules when they need to shift their capabilities even further. One of the key competences of VDL ETG Research is therefore the realization of accurately moving parts in large and complex ultra high vacuum systems.

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