



"microplus-apostolov"ltd

design and production
of precise equipment

18 Bunaya Str. A ap.6
1505 Sofia
Bulgaria
tel. : +359-2-8462552,+359-2-9718430
mobile: 0887492352
e-mail: evstati.apostolov@gmail.com

QUALIFICATIONS

Activity

- Design of mechanical parts, modules, systems and equipment mainly for high accuracy and reliability requirements purposes. The equipment is either with high-tech production purposes, automation processes, or automation of the measuring technologies.
- Optimization and modernization of existing mechanisms and machinery.
- Unique equipment including for scientific researches.
- Design of products and devices in serial production.
- Consulting activity.

Our competitive advantages

- Our team has about 43 years of professional experience mainly in design of systems and equipment for high-tech production and processing .
The company follows specific methodologies for precise, highly precise , ultra highly precise systems.
- In accordance with the requirements of the specific project, certain design rules and principals are applied, including kinematics design, error minimizing principals for the entire system.
- We are knowledgeable of the classical mechanical technological abilities (including the limit abilities) as well as of the recent micro mechanical technologies.
- Optimization and computer design feasibility of different elements and modules qualities.
- Excellent relationship with companies with similar activity as well as with hardware and software professionals.
- Excellent relationship with Bulgarian technical universities, related with design of precise mechanisms and machines, and high vacuum equipment.

- The main constructors of the company have worked together on numerous and variable projects for several years.
- The company is experienced in the management of projects for development and implementation of new equipment and technologies.

What can our expertise and qualifications provide to our clients?

- Precise development and implementation as well as coordination with the client, best suiting the requirements of the assigned project.
- Competitive design – short deadlines.
- Complete performance of innovative projects (design, production, assembly and testing).
- Ability to participate in variable scientific and practical project.;
- Technical consulting.
- Competitive prices.

APPENDIX

During our professional expertise we have entirely designed, produced and tested hi-tech systems. We were the leading unit in the listed below projects at mechanical design and production.

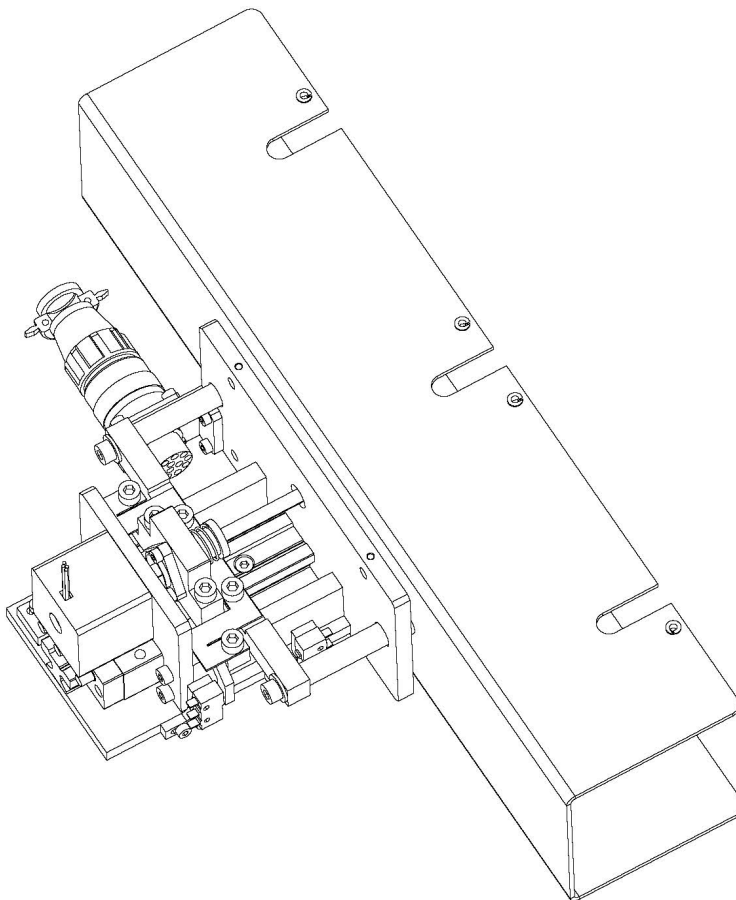
Period	Client	Project
2011	DESY Germany	Waveguide support hanging system for vertical run. For XFEL project.
2011	CRYO engineering	Design of mechanical system for Ge detectors
2010	DESY Germany	Waveguide air pressurization-type C. Waveguide frame support hanging system. For project FLASH.
2009	INRN-BAS GANIL France	Production for prototype of the-diagnostic chamber, support platforms
2009	DESY Germany	Waveguide air pressurization-type B. Waveguide support hanging system. For XFEL project.
2009	DESY Germany	<ul style="list-style-type: none"> Waveguide air pressurization-type A. For XFEL project.
2008	DESY Germany	<ul style="list-style-type: none"> Mechanical support system for RF distribution system . For XFEL project.
2008	Bulgarian academy of science – institute of chemistry	<ul style="list-style-type: none"> Mechanical design of hydrogen electrolyze cells for experimental and research working.
2008	Krus electronics	<ul style="list-style-type: none"> Card dispenser
2007	DESY Germany	<ul style="list-style-type: none"> Support system for RF distribution system
2007	DESY Germany	<ul style="list-style-type: none"> Linear actuators for application in XFEL project
2006	DESY Germany	<ul style="list-style-type: none"> Actuator for RF power splitter
2006	Nanotoolshop	<ul style="list-style-type: none"> Monitoring , testing and calibration system for sensor arrays electronic nouse
		<ul style="list-style-type: none"> Modal analysis of microbeam cantilever
2006	Global trading	<ul style="list-style-type: none"> Automatic electromechanical calendar

2006	Bulgarian academy of science – institute of chemistry	<ul style="list-style-type: none"> • Mechanical design of hydrogen cells for experimental and research working.
2006	Bulgarian academy of science – SENEK	<ul style="list-style-type: none"> • Cooling jacket and special adapter for hot stage for optical microscope analyzer
2006	EPIQ EA	<ul style="list-style-type: none"> • Technical support of production • Fixtures and tooling for PCB wave soldering • Semiautomatic connector pin inserting • Special vertical self adjusting table for automatic pick and place machine
2005	Bulgarian academy of science – institute of physics	<ul style="list-style-type: none"> • High vacuum temperature stage for nuclear research activity
2005	Krus electronics	<ul style="list-style-type: none"> • Design of mechanical system for automatic access control
2005	Kraft foods-Bulgaria	<ul style="list-style-type: none"> • Risk analysis in coffee production factory
2005		Projects for high-tech production line
	Nanotoolshop	<ul style="list-style-type: none"> • Micromechanical production design include clean room project for MEMS and biosensors
	Okto-7	<ul style="list-style-type: none"> • Design facilities for electronic module production
	Conel	<ul style="list-style-type: none"> • Design facilities for electronic module production
2004	Institute for nuclear research and nuclear energy	<ul style="list-style-type: none"> • X-Y positioning and scanning table in high vacuum system. • Metrological aspect for measurement equipment for emittance of electron ray.
2003	Liliahiv Ltd.	<ul style="list-style-type: none"> • Technological project for automation of coffee beans treatment facility.
	Conel Ltd.	<ul style="list-style-type: none"> • Si high speed etching system for the construction of MEMS and biosensors (3", 4", 6", 8" wafers).

	ISMA Ltd, Bulgaria	<ul style="list-style-type: none"> • Single crystal diamond tool lapping technology and equipment.
2002	XPEQT AG, Belgium	<ul style="list-style-type: none"> • Nano and micro pore thin film measuring equipment applied in microelectronics;
		<ul style="list-style-type: none"> • Atomic layer chemical vapor deposition system (ALCVD).
2001	ISMA Ltd, Bulgaria	<ul style="list-style-type: none"> • Fusser rollers PTFE coating technology and production line for fusser roller coating.

Sample devices realized by the company

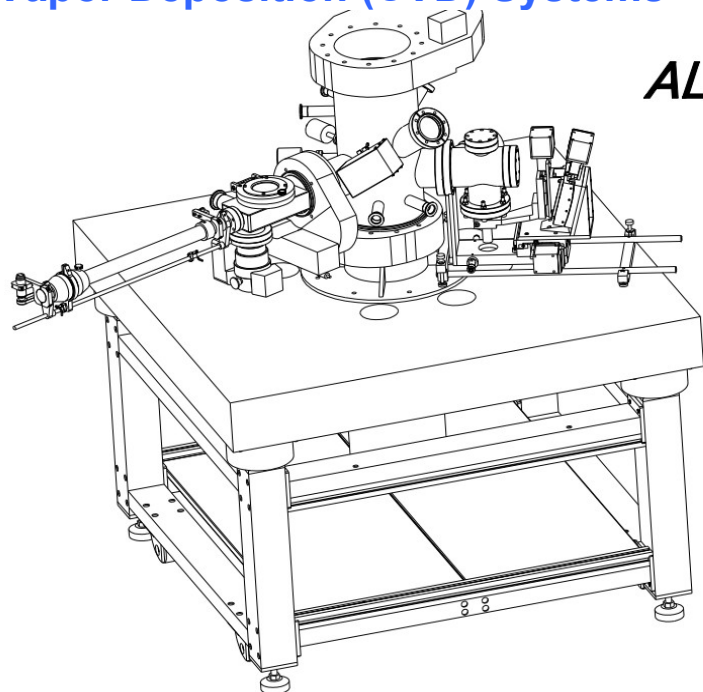
ACTUATOR PS-Y



Waveguide Pressurization System WPS 100



Chemical Vapor Deposition (CVD) Systems



ALCVD