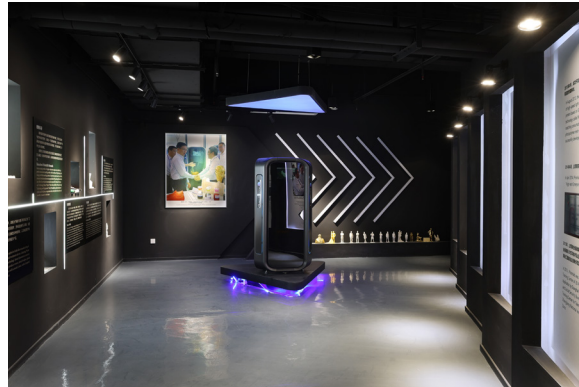




公司介绍 COMPANY PROFILE

- 2005 成立**
PrismaLab 普利生成立于 2005 年，研发、生产、销售彩扩机。
- 2013 光固化 3D 打印**
2013 年开始，PrismaLab 普利生利用其在感光技术上的积累以及批量生产的经验，跨界转型，成功开发了其原创的 MFP 光固化 3D 打印技术。
- 2018 微纳 3D 打印**
2018 年申请国家科技部重点研发计划项目 - 《微纳结构增材制造工艺与装备》，研发面投影微纳米高精度 3D 打印机，实现了微纳米 3D 打印设备全部国产化生产。
- 专利**
在近十几年的时间里凭借自身力量攻克了众多技术难题，目前已获得 70 多项国家专利技术。
- 员工**
PrismaLab 普利生也因此从 2005 年的寥寥几人的初创公司，到发展成拥有 200 余名员工的高新技术企业。公司技术研发人员占比近 50%。
- 理念**
PrismaLab 普利生利用突出的速度和成本优势，进入消费市场，颠覆传统 3D 打印机只能用于科研和测试的思维模式，聚焦工业和医疗市场，建立 B-B-C 的商业模式。普利生 3D 打印解决方案已经成功应用于牙科正畸、医疗器械等多个领域。

Founded: PrismaLab was established in 2005 to develop, produce and sell color enlarge-printing system.
Transformation: Since 2013, PrismaLab has used its accumulation in photosensitive technology and experience in mass production to successfully develop its original MFP photocurable 3D printing technology.
New products: In 2018, applied for the key research and development plan project of the Ministry of Science and Technology - "Micro-nano structure Additive Manufacturing Process and equipment", developed micro-nano high-precision 3D printer.
Patents: obtained more than 70 national patented technologies.
Employees: more than 200 employees, over 30% in R&D
Concept: PrismaLab uses outstanding speed and cost advantages to enter the consumer market, subvert the thinking mode that traditional 3D printers can only be used for scientific research and testing, focus on the industrial and medical markets, and establish a B-B-C business model. PrismaLab 3D printing solutions have been successfully applied in many fields such as dental orthodontics and medical devices.



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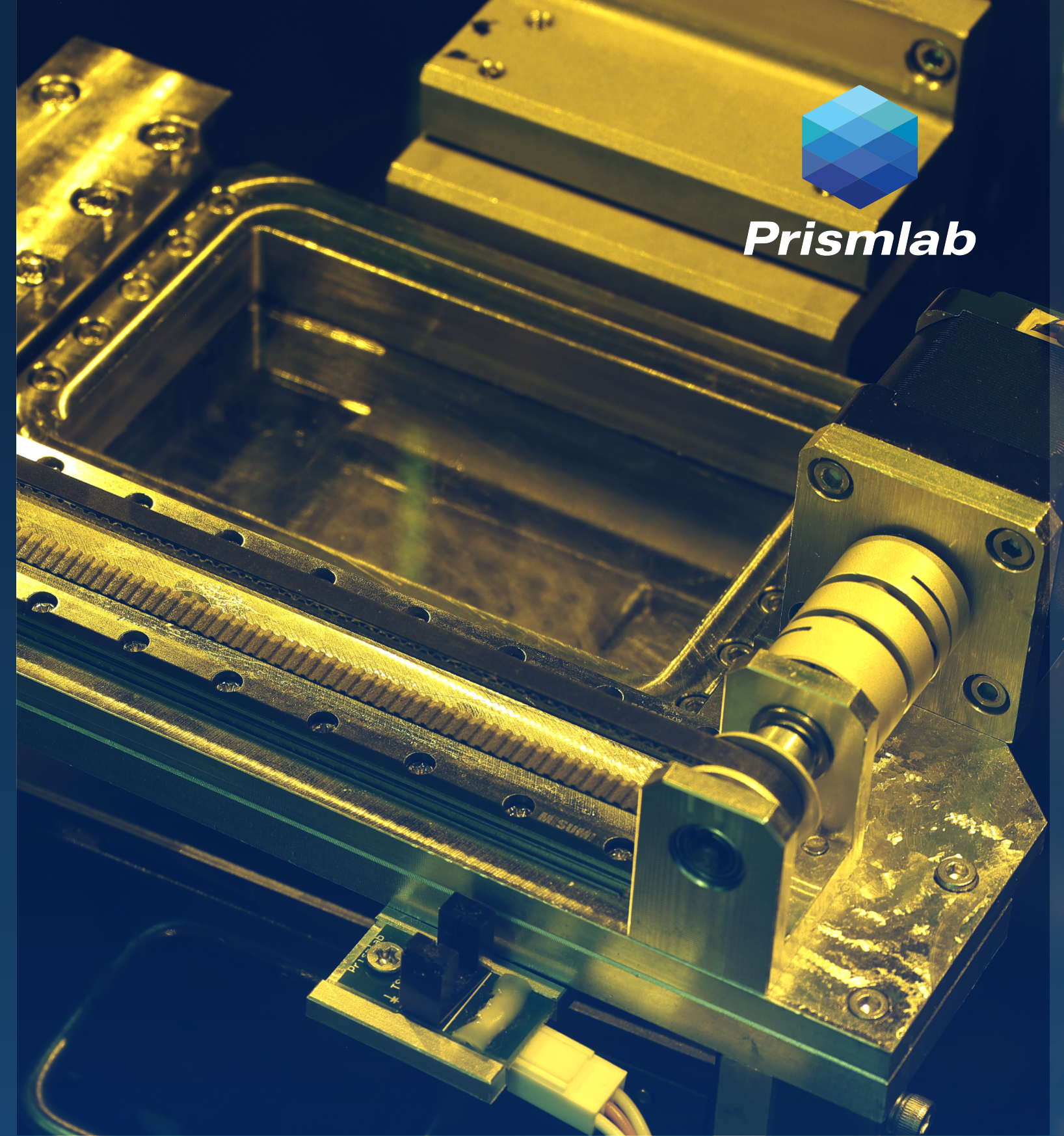
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工业化手段满足个性化需求 TO SATISFY INDIVIDUALIZATION BY INDUSTRIALIZATION

www.prismalab.cn (中文)
www.prismalab.com (EN)



微纳3D立体光刻系统

MICRO-NANO 3D PRINTING SYSTEM

设备介绍

EQUIPMENT INTRODUCTION



系统性能

3D PRINTING SYSTEM

设备名称 System Series

MP-36-3L / MP-100-6L / MCP-36-3L

成像技术 Technology

亚像素微扫描全幅面投影技术

subpixel micro-scanning SMS

光学精度 Pixel

2μm / 5μm / 2μm

光源 Light System

405nm UV Light 紫外光

打印材料 Printing Material

光敏树脂 / 光敏树脂 / 陶瓷

photopolymer / photopolymer / ceramic

打印层厚 Thickness of Single layer

1-50μm / 5-80μm/1-50μm

打印样品尺寸 Max Printing Size

21mm x 37mm x100mm / 55mm x
100mm x 100mm / 21mm x 37mm x
70mm

特点

CHARACTERISTIC

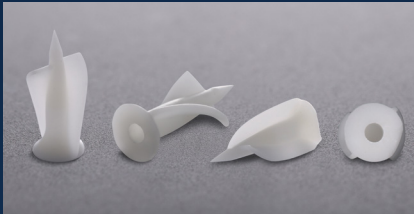
MP-36-3L / MP-100-6L

MCP-36-3L

无拼接技术 No Splicing	全幅面一次性曝光，无需拼接，无拼接痕迹，平面光滑 One-time printing in the same plane, no splicing trail, smooth surfac	
超高精度 High Precision	2-5μm pixel	2μm pixel
定制化软件 Customized Printing Software	打印软件自带切片功能，无需借助第三方软件 Automatic slicing in software, No third-party software required	
高精度运动系统 High Precision Motion System	定位误差小于 0.1μm Localization error no more than 0.1μm	
极高的打印效率 Extremely High Printing Efficiency	适用于大批量生产 Suitable for mass production	
多种类打印材料 Various Types Of Printing Materials	可选耐高温、耐腐蚀、高韧性、高强度、高透明等多种材料 High Temperature Resistance, Corrosion Resistance, High Toughness, High Strength, High Transparency, Etc	氧化铝、氧化锆等等 Al2O3, ZrO2

普利生 – MCP 系列 超精密微纳陶瓷 3D 产品

MCP Series – High Precision Micro-Nano 3D Printing Ceramic Parts

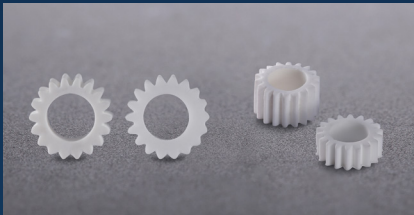


陶瓷桨叶 – 心室辅助装置

特点：超高的全表面光滑度、公差小于 5 微米，高耐磨性，良好的生物相容性

Ceramic Blade - Ventricular Assist Device (Vad)

Features: Ultra-high smooth on all-surface, tolerance less than 5μm, wear resistance, biocompatibility



精密齿轮 – 精密齿轮泵

特点：高精度、公差小于 2 微米、高使用寿命、高同轴度、高耐磨性、抗酸碱性

Precision Gear - Precision Gear Pump

Features: High precision, tolerance less than 2μm, long lifetime, coaxiality, wear resistance, chemical inert

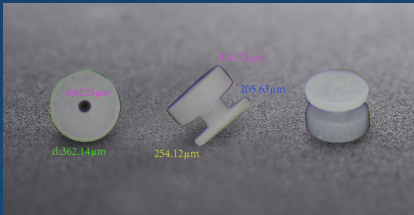


内窥镜镜头 – 医用内窥镜设备

特点：异型结构、多孔结构、最小壁厚 30 微米

Endoscope End - Medical Endoscope Device

Features: Complex structure, multi-channel structure, min. wall thickness 30μm



其他精密异型结构 – 医疗领域

特点：超微尺寸，成体尺寸小于 360 微米，通孔 60 微米

Other Precision Complex Paart - Medical Application

Features: Ultra-small, Height 360μm, Diameter : 360μm, Inner Diameter : 60μm

普利生 – MP 系列 超精密微纳树脂 3D 产品

MP Series – High Precision Micro-Nano 3D Printing Polymer Parts



类器官芯片 – 精准医疗

特点：表面光滑无拼接，最小沟槽宽度 0.02mm，最小台阶高度 0.01mm

Organochips - Precision Medicine

Features: Smooth surface without splicing, min. groove width 0.02mm, min. step height 0.01mm

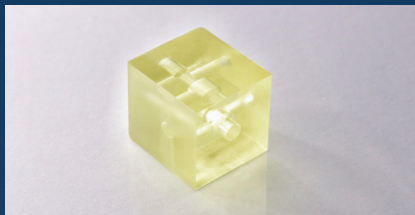


一次性内窥镜镜头

特点：黑色不透光，异型多孔结构，壁厚 0.05mm

Disposable Endoscope End - Medical Endoscope Device

Features: Black opaque, complex multi-channel, wall thickness 0.05mm



微球制备

特点：精准的流道和喷嘴尺寸、良好的生物相容性、多孔道设计

Microsphere Preparation

Features: Precise channel and nozzle size,biocompatibility, multi-channel



阵列微孔

特点：细小孔道 0.02-0.1mm，多阵列微孔，光滑内表面

Micropore Array

Features: Inner diameter 0.02-0.1mm, multi-array micropores, smooth inner surface



玻璃基微流控芯片 – POCT检测

特点：无需键合，复杂结构，透明度高，量产效率高

Glass-Based Microfluidic Chip - Poct

Features: No bonding, complex structure, high transparency, mass production efficiency

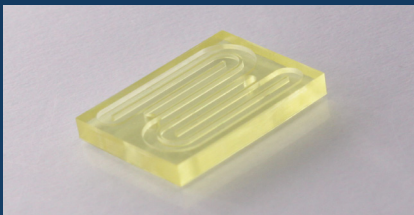


微针母版

特点：针尖 0.006mm，针长 0.2-1.3mm，柔性设计

Microneedle Plate

Features: Tip dia. 0.006mm, length 0.2-1.3mm, flexible design

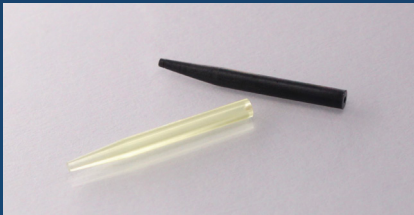


微流控芯片

特点：异型结构，流道宽度 0.02-0.05mm，高效率低成本量产

Micro-Fluidic Chip

Features: Complex channel, channel width 0.02-0.05mm, high efficiency and low cost mass production



毛细管

特点：细小流道 0.01-0.10mm，通孔长 15mm，内表面光滑

Capillary

Features: Channel 0.01-0.10mm, hole length 15mm, smooth inner surface

产品性能 DATASHEET

陶瓷产品性能

CERAMIC PRODUCT PROPERTIES

材质 Material	密度 Density g/cm³	弯曲强度 Bending Strength MPa	抗压强度 Compressive Strength MPa	杨氏模量 Young modulus GPa	泊松比 Poisson's Ratio	维氏硬度 Hardness Hv	热导率 Thermal Conductivity (20°C) W/m.k	比热 Specific Heat kJ/kg.k	电阻率 Electrical Resistivity @20°C	介电强度 Dielectric Strength kV/mm	介电损耗 Dielectric Loss
氧化铝 Al2O3	3.95	500	4000	400	0.23	1900	30	0.9	5×10 ⁻¹⁴	19	5×10 ⁻³ (9GHz)
氧化锆 ZrO2 3Y-TZP	6.06	1200	2200	210	0.3	1200	10	0.4	1×10 ⁻¹²	19	2×10 ⁻³ (1GHz)
碳化硅 SiC	3.1	850	300	300	0.25	1600	100	0.5	5×10 ⁻⁷	NA	NA

树脂产品性能

POLYMER PRODUCT PROPERTIES

材质 Polymer	高强度树脂 High Strength	高韧性树脂 High toughness	高透树脂 High Transparency	耐高温树脂 High temperature	生物相容树脂 Biocompatibility	高附着力 High Adhesive
拉伸强度 MPa Tensile Strength	85.6	28.2	52.5	88.9	68.6	43.6
弹性模量 MPa Elasticity Modulus	2988	674	1899	3041	2602	1685
断裂伸长率 % Elongation	12.50%	53.60%	18.60%	5.10%	12.40%	26.50%
弯曲强度 MPa Bending Strength	131.2	/	67	142.3	89	64
弯曲模量 Gpa Bending Modulus	4.1	/	1.7	3.9	2.7	1.7
硬度 ShorD Hardness	88	66	80	90	85	82
抗冲击 J/m Shock Strength	47	97	69	42	52	78
热变形温度 @0.45MPa°C Distortion Temperature	121.2	< 30	65	213.8	104	63.5
颜色 Color	半透明黄 / 黑 Translucent Yellow/Black	半透明黄 / 黑 Translucent Yellow/Black	透明 Translucent	半透明黄 / 黑 Translucent Yellow/Black	半透明黄 Translucent Yellow	半透明黄 / 黑 Translucent Yellow/Black
其他 Other					1. 体外细胞毒性试验通过 (MTT 法) In vitro cytotoxicity test, Pass; 2. 口腔粘膜刺激实验通过 Oral mucosa stimulation test, Pass; 3. 皮肤致敏试验通过 Skin sensitization test, Pass	与金属, 玻璃, pvc 等有优秀的附着力 High adhesive on Metal, Glass, PVC base

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