

Contract Manufacturing For Custom Microfluidics



About Us

HiComp is a full-service microfluidics foundry trusted by leading diagnostics and biotech innovators.

We design and manufacture PDMS and thermoplastic chips (COC/COP, PMMA, PS, PC), integrate glass/silicon MEMS, and deliver turnkey cartridges—from rapid prototypes to high-volume production.

Quotes in 1-2 days; a manufacturing partner that scales with you.

What We Do

- Product Design
- 3D Printing
- CNC Micro Milling
- MEMS Manufacturing
- PDMS Manufacturing
- Cleanroom Injection Molding
- Surface Functionalization
- Reagent Storage and Lyophilization
- Bonding & Sealing
- Assembly & Automation

Why Choose Us



Speed



Comprehensive



Affordable



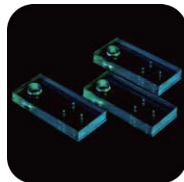
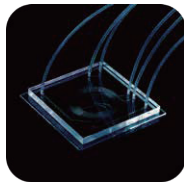
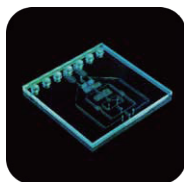
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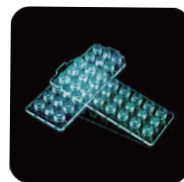
Experienced

Show Case

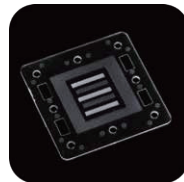
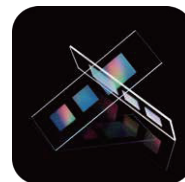
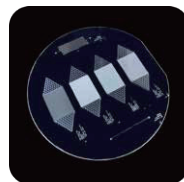
■ PDMS



■ Injection Molding



■ MEMS & Glass



Service Overview

1 Design & Prototyping

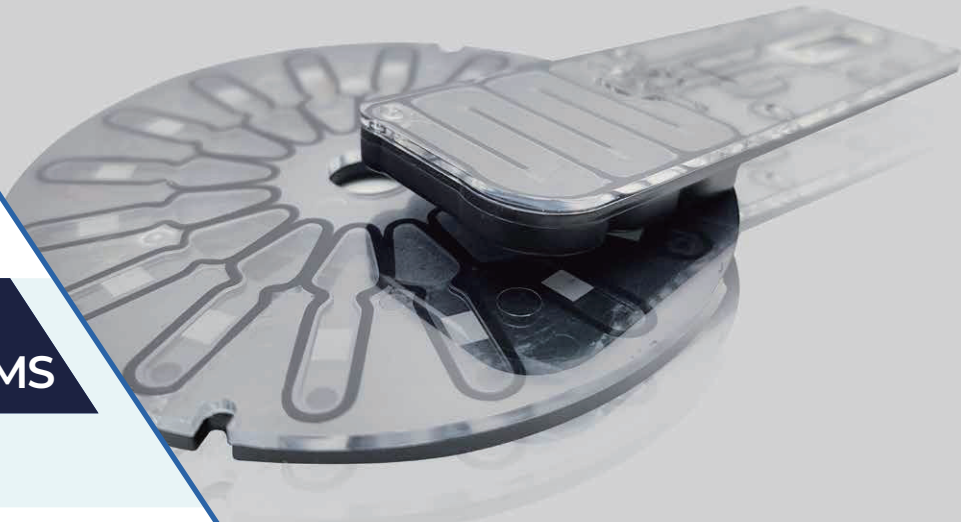
- PDMS
- CNC Machining
- MEMS
- 3D Printing

2 Scale-up Manufacturing

- PDMS at Scale
- Injection Molding
- MEMS
- Glass Fabrication

3 Assembly and Automation

- Bonding and Sealing
- Surface Functionalization
- Reagent Storage/Lyophilization
- Automated Assembly



Microfluidics Capabilities

MEMS Fabrication

Photolithography
Advanced Etching
Advanced Dicing
TSV

Bonding and Sealing

Thermal-compression bonding
Solvent Bonding
Ultrasonic welding
Laser welding
Adhesive membrane
UV bonding

Reagent Storage

Blister pouches for liquid storage
Reagent lyophilization
Precise Nanoliter Dispensing
Covalent binding of molecules

PDMS Fabrication

Minimum channel width: $\geq 2 \mu\text{m}$
Channel depth tolerance: $\pm 5\%$
Channel aspect ratio: up to 10:1
Layer count: 2-8 layers
Thickness tolerance: up to $\pm 5 \mu\text{m}$
Embedded Membranes & electrodes
Maximum capacity: 80,000 pcs/month

Injection Molding

ISO 7 Cleanroom | Class 10,000
Material : COC, COP, PP, PS, PMMA, PC, ABS
Two-shot injection molding
Silicone overmolding
Minimal Feature Size: $2\mu\text{m}$
Aspect Ratio: up to 1:5
Micropillar/Microwell arrays
Hydrophilic treatment
Hydrophobic treatment
Assembly & Automation

Quick Facts

- 500+ clients in clinical diagnostics & life sciences
- 100+ successful commercialization projects
- 40,000 ft² ISO 7 cleanroom
- 3,000 ft² ISO 6 cleanroom
- ISO 9001 / ISO 13485 certificated
- FDA registered

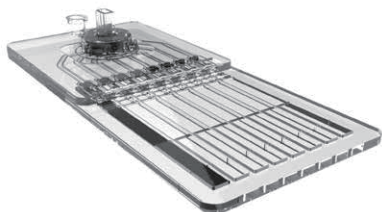
Portfolio Cases

Clinical Diagnostics

DNA extraction chip
DNA amplification chip (PCR / LAMP / dPCR)
CRISPR assay cartridge
PCR / LAMP / Digital PCR cartridges
Lateral-flow immunoassay cartridge
ELISA cartridge
Hematology analyzer cartridge
Clinical chemistry cartridge
Liquid biopsy cartridge

Life Sciences

Exosome/EV capture chips
EV enrichment/analysis chips
Tumor cell capture chip
Single-cell analysis chips
Single molecule arrays
Organoid and Organ-on-a-Chip
Human-on-Chip platforms
Flowcell and NGS cartridge
Drug screening chip
Lipid nanoparticle synthesis chip
Droplet generator & workflow modules
Drug delivery devices
Microneedles
Soft mist inhaler



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