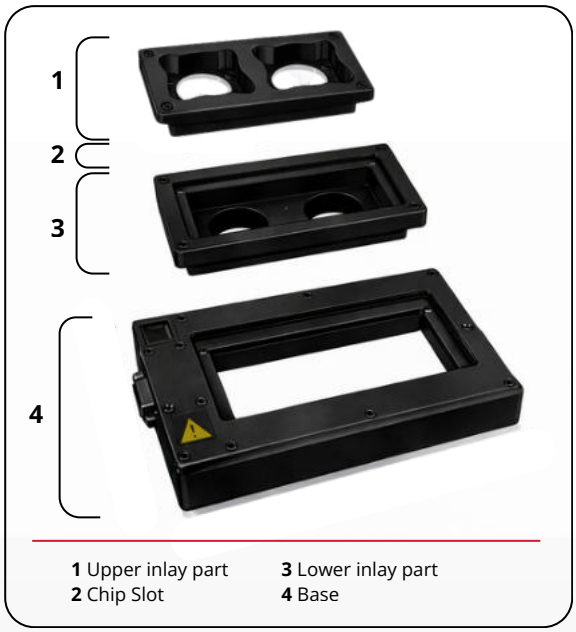
# Chip Compatibility Guide

## Overview of compatible chip formats and integration options for the **VitroFlow** platform.

### Chamber Overview

The chamber uses a modular **inlay system** to securely hold microfluidic chips of different geometries.




**1** Upper inlay part
**2** Chip Slot
**3** Lower inlay part
**4** Base

Each chip is fixed between two custom-designed inlays:

**Lower inlay**
Provides the primary chip support and alignment

**Upper inlay**
Presses the chip into position and ensures mechanical stability

*Together, the inlays hold the chip firmly in place when inserted into the chamber base.*

A key advantage of this design is its **flexibility**: The inlays can be freely designed and adapted to accommodate different chip geometries, channel layouts, or tubing connections.

### Chip Integration

If a chip type is not yet part of the existing library, it can be integrated into the system through a simple customization process.

**1 Dimension Check**

The chip dimensions are evaluated. Chips with standard microscope slide dimensions typically fit directly into the standard chamber base.

**2 Inlay Design**

Custom upper and lower inlays are designed to match the chip geometry and fluidic interfaces.

**3 Manufacturing**

The inlays are manufactured. Typical design-to-delivery time is approximately one month.

**4 Tubing Requirements**

Information about tubing diameter, connectors, and inlet/outlet positions is required to ensure proper integration.

# 1 Ibidi GmbH

| Product name | Article / Catalog No. |
|---|---|
| µ-Slide I Luer | 80176 |
| sticky-Slide I Luer | 80168 |
| µ-Slide I Luer 3D | 87176 |
| µ-Slide I | 80106 |
| µ-Slide VI 0.1 | 80666 |
| µ-Slide VI | 80606 |
| µ-Slide VI 0.4 Bioinert | 80600 |
| sticky-Slide VI 0.4 | 80608 |
| µ-Slide VI - Flat | 80626 |
| µ-Slide VI 0.4 µ-Pattern ibiTreat, cir500, pit1000, hex | 83613 |
| µ-Slide VI 0.4 µ-Pattern ibiTreat, sqr30, pit75, hex | 83611 |
| µ-Slide VI 0.4 µ-Pattern ibiTreat, cir200, pit600, hex | 83612 |
| µ-Slide VI 0.4 µ-Pattern ibiTreat, lin20, pit170 | 83614 |
| µ-Slide III 3D Perfusion | 80376 |
| µ-Slide Spheroid Perfusion | 80350 |
| sticky-Slide Tissue Engineering | 80238 |
| µ-Slide Tissue Engineering | 80236 |
| µ-Slide ibiPore SiN | 85226-S |
| µ-Slide Chemotaxis | 80326 |
| sticky-Slide Chemotaxis | 80328 |
| µ-Slide III 3in1 | 80316 |

| Product name | Article / Catalog No. |
|---|---|
| µ-Slide y-shaped | 80126 |
| Smart Slide | 80816 |
| Custom µ-Pattern ibiTreat | Varies by configuration |

## 2 MicrofluidicChipShop

| Product name | Article / Catalog No. |
|---|---|
| Straight Channel Chip, H 150 µm, W 2500 µm channel Fluidic 268 | 10001849 |
| Straight channel chip, H 350 µm, W 2100 µm channel Fluidic 561 | 10000535 |
| Straight channel chip, H 700 µm, W 1250 µm channel Fluidic 558 | 10000541 |
| Straight channel chip, H 700 µm, W 2400 µm channel Fluidic 556 | 10000565 |
| Straight channel chip, H 350 µm, W 2775 µm channel Fluidic 560 | 10000571 |
| Straight Channel Chip, H 100 µm, W 100 µm channel Fluidic 157 | 10001810 |
| Straight Channel Chip, W 2910 µm, H 100 µm channel Fluidic 431 | 10001811 |
| Straight Channel Chip , H 20 µm, W 20 µm channel Fluidic 143 | 10001807 |
| Straight Channel Chip , H 100 µm, W 100 µm channel Fluidic 144 | 10001815 |
| Straight Channel Chip , H 50 µm, W 50 µm channel Fluidic 145 | 10001814 |
| Straight Channel Chip , H 200 µm, W 200 µm channel Fluidic 156 | 10001816 |
| Meander Chip, Fluidic 708 | 10001976 |
| Meander Chip, Fluidic 243 | 10000011 |
| Meander Chip, Fluidic 65 | 10000007 |
| Cross-Shaped Channel Chip, W 80 µm, H 80 µm channel, Fluidic 161 | 10001860 |

| Product name | Article / Catalog No. |
|---|---|
| Cross-Shaped Channel Chip, W 50 µm, H 50 µm channel, Fluidic 160 | 10001866 |
| H-Shaped Channel Chip, H 75 µm, W 75-300 µm co-flow, Fluidic 164 | 10001851 |
| Straight Channel Chip, H 20 µm, W 800 µm channel Fluidic 180 | 10001819 |
| Straight Channel Chip, H 200 µm, W 1000 µm channel Fluidic 138 | 10001818 |
| Straight Channel Chip, H 100 µm, W 200 µm channel Fluidic 142 | 10001812 |
| Straight Channel Chip, H 200 µm, W 1000 µm channel Fluidic 152 | 10001813 |
| Straight Channel, Fluidic 620 | 10001884 |
| Straight Channel, Fluidic 527 | 10000437 |
| Straight Channel Chip, Fluidic 625 | 10000767 |
| Sorting and Flow Focusing Chip, Fluidic 386 | 10001824 |
| Sorting and Flow Focusing Chip, Fluidic 283 | 10001822 |
| Sorting and Flow Focusing Chip, Fluidic 1102 | 10001913 |
| Sorting and Flow Focusing Chip, Fluidic 381 | 10001823 |
| Straight Channel Chip, H 100 µm, W 500 µm channel Fluidic 1412 | 10001920 |
| Cross-Shaped Channel Chip, W 50 µm, H 50 µm channel, Fluidic 160 | 10001866 |
| Channel array chip, Fluidic 1340 | 10002056 |
| Splitter Chip, Four to eight fractions, Fluidic 532 | 10001328 |
| Splitter Chip, Two to four fractions, Fluidic 1537 | 10001987 |
| Straight channel chip, H 200 µm, W 1500 µm channel, Fluidic 1023 | 10002046 |
| Sorting and Flow Focusing Chip, Fluidic 1557 | 10001997 |
| Adhesive Straight Channel Chip, H 200+140 µm, W 1000 µm channel, Fluidic 138 | 10000313 |
| Adhesive Straight Channel Chip, H 150+140 µm, W 2500 µm channel, Fluidic 268 | 10000376 |

| Product name | Article / Catalog No. |
|---|---|
| Adhesive Waste Chamber Chip, Double Channel Fluidic 272 | 10001870 |
| Self-Sealing Chip, Reversible sealing, Fluidic 745 | 10001054 |
| Volume Test Chip, With one channel, Fluidic 1474 | 10002059 |
| Straight Channel Chip, H 80 µm, W 2000 µm channel Fluidic 1666 | 10002146 |
| Volume Test Chip, with three channels, Fluidic 1475 | 10002060 |
| Metrics Golden Standard Chip, Fluidic 1575 | 10002162 |
| Cell trap chip II, Single cell monitoring, Fluidic 1022 | 10002075 |
| Assay Chip, Piercing elements at the interfaces, Fluidic 638 | 10001213 |
| Channel Interaction Chip, Cell-cell interaction and more, Fluidic 98 | 10001345 |
| Chamber Interaction Chip, Direct chamber interconnection, Fluidic 688 | 10001055 |
| Chamber Interaction Chip, Indirect chamber interconnection, Fluidic 737 | 10001059 |
| Crossflow membrane chip, Organ-on-Chip and more Fluidic 480 | 10000284 |
| Adhesive Cross-Flow Membrane Chip, Organ-on-Chip and more, Fluidic 653 | 10002210 |
| Cross-Flow Membrane Chip, Organ-on-Chip and more Fluidic 653 | 10001561 |
| Cross-Flow Membrane Chip, Multi-Organ-on-Chip Fluidic 747 | 10001018 |
| Cross-Flow Membrane Chip, 3D printing application Fluidic 1754 | 10002206 |
| Cross-Flow Membrane Chip, With Luer and Mini Luer interfaces, Fluidic 568 | 10001200 |
| Cross-Flow Membrane Chip, Gravitiy-driven flow option, Fluidic 694 | 10002043 |
| Cross-Flow Membrane Chip, Large membrane interaction area, Fluidic 846 | 10001122 |
| Reaction Chamber Chip, Various chamber volumes/depths, Fluidic 621 | 10001886 |

| Product name | Article / Catalog No. |
|---|---|
| Reaction Chamber Chip, Various chamber volumes/depths, Fluidic 622 | 10001888 |
| Reaction Chamber Chip, 20 µl chamber volume Fluidic 584 | 10001294 |
| Reaction Chamber Chip, 2.5 µl chamber volume Fluidic 843 | 10001264 |
| Reaction Chamber Chip, 5 µl chamber volume, Fluidic 750 | 10001037 |
| Reaction Chamber Chip, 10 µl chamber volume, Fluidic 585 | 10001268 |
| Reaction Chamber Chip, 50 µl chamber volume Fluidic 842 | 10001031 |
| Reaction Chamber Chip, 20 µl chamber volume Fluidic 559 | 10000560 |
| Reaction Chamber Chip, 50 µl chamber volume Fluidic 557 | 10000577 |
| Reaction Chamber Chip, 27 µl chamber volume Fluidic 1003 | 10001326 |
| Reaction Chamber Chip, 20 µl chamber volume Fluidic 478 | 10001882 |
| Reaction Chamber Chip, Various chamber volumes/depths, Fluidic 1100 | 10001505 |
| Reaction Chamber Chip, Various chamber volumes/depths, Fluidic 1101 | 10001507 |
| Rhombic Chamber Chip, 120 µl chamber volume Fluidic 172 | 10001820 |
| Rhombic Chamber Chip, 100 µl chamber volume Fluidic 221 | 10001808 |
| Rhombic Chamber Chip, 250 µl chamber volume Fluidic 194 | 10001809 |
| Rhombic Chamber Chip, 500 µl chamber volume Fluidic 844 | 10001907 |
| Rhombic Chamber Chip, 500 µl chamber volume Fluidic 845 | 10001909 |
| Rhombic Chamber Chip, 6 µl chamber volume Fluidic 132 | 10001821 |
| Rhombic Chamber Chip, 10 µl chamber volume Fluidic 439 | 10001880 |
| Rhombic Chamber Chip, 20 µl chamber volume Fluidic 131 | 10001876 |
| Rhombic Chamber Chip, 24 µl chamber volume Fluidic 133 | 10001874 |

| Product name | Article / Catalog No. |
|---|---|
| Reaction Chamber Chip, 50 µl chamber volume Fluidic 1066 | 10001485 |
| Shallow Chamber Chip, 44 µl chamber volume Fluidic 1273 | 10001682 |
| Reaction Chamber Chip, Various chamber volumes Fluidic 134 | 10001853 |
| Reaction Chamber Chip, 20 µl chamber volume Fluidic 1068 | 10002076 |
| Reaction Chamber Chip with pre-heating Channel 30 µl chamber volume, Fluidic 992 | 10001339 |
| Barrier Chamber Chip, 7 µm barrier height Fluidic 1329 | 10002089 |
| Chamber Chip with Pipetting Interface, Various chamber depths, Fluidic 1495 | 10002063 |
| Split chamber chip, Ten fractions Fluidic 516 | 10001445 |
| Split Chamber Chip, Three fractions Fluidic 1060 | 10002047 |
| PCR Chamber Chip, Splitter Unit, With dead-end air reservoirs, Fluidic 675 | 10000783 |
| PCR Chamber Chip, Splitter Unit, With dead-end air reservoirs, Fluidic 683 | 10000786 |
| Reaction Chamber Chip, Interconnected chambers Fluidic 753 | 10001266 |
| Multi-Directional Chamber Chip, 200 µm to 1000 µm chamber height, Fluidic 1805 | 10002263 |
| Herringbone Mixer, Mixing and NP production Fluidic 187 | 10000019 |
| 3D Serpentine Mixer, Effective mixing of up to 3 fluids Fluidic 1079 | 10001477 |
| Pearl-Chain Mixer, Passive mixing on chip Fluidic 658 | 10001532 |
| Stir bar mixer, Active micromixing Fluidic 286 | 10001803 |
| Snowman Mixer, Dilute preloaded 5 µl sample Fluidic 1108 | 10001502 |
| Finger Pump Mixer, Enhanced pearl-chain mixer Fluidic 999 | 10001330 |
| Herringbone mixer, Mixing and NP production Fluidic 1460 | 10001931 |
| Baffle Mixer, Mixing and NP production Fluidic 1676 | 10002153 |

| Product name | Article / Catalog No. |
|---|---|
| Tesla Mixer, Channel variation<br>Fluidic 1677 | 10002165 |
| Phaseguide mixer, Passive mixing on chip<br>Fluidic 533 | 10000553 |
| Micro Vortex Mixer, Mixing of 2 fluids<br>Fluidic 640 | 10001899 |
| Micro Vortex Mixer, Mixing of 2 fluids<br>Fluidic 641 | 10001901 |
| Micro Vortex Mixer, Mixing of 2 fluids<br>Fluidic 642 | 10001911 |
| Herringbone Multiplex Mixer, Mixing and NP production, Fluidic 1826 | 10002278 |
| Droplet Generator with Single Cross, 10 µm to 30 µm nozzles, Fluidic 947 | 10001972 |
| Droplet Generator with Single Cross, 50 µm to 80 µm nozzles, Fluidic 440 | 10000040 |
| Droplet Generator with Single Cross, 80 µm nozzles<br>Fluidic 912 | 10001985 |
| Droplet Generator with Single Cross, 38 µm nozzles<br>Fluidic 537 | 10000466 |
| Droplet Generator with Double Cross, 38 µm nozzles<br>Fluidic 536 | 10000433 |
| Droplet Generator with Double Cross, 100 µm nozzles<br>Fluidic 1032 | 10001334 |
| Droplet Generator with Double Cross, 70 µm nozzle<br>Fluidic 162 | 10000005 |
| Droplet Generator with Double Cross, 140 µm nozzle<br>Fluidic 163 | 10000006 |
| Droplet Generator with Storage Units, 74 µm nozzle<br>Fluidic 488 | 10000510 |
| Droplet Generator with Storage Units, 82 µm nozzle<br>Fluidic 719 | 10000751 |
| Droplet Generator, Various designs on one chip<br>Fluidic 285 | 10000175 |
| Droplet Generator with Monitoring Chamber, 50 µm and 60 µm nozzles, Fluidic 1114 | 10001753 |
| Droplet Generator with Monitoring Chamber<br>70 µm and 80 µm nozzles, Fluidic 1147 | 10001754 |
| Droplet Generator with Double Cross<br>60 to 80 µm nozzles, Fluidic 1480 | 10002061 |

| Product name | Article / Catalog No. |
|---|---|
| Droplet Generator with Double Cross, 50 µm nozzles Fluidic 1505 | 10002065 |
| Droplet Generator with Single Cross, 150 µm to 300 µm nozzles Fluidic 1720 | 10002173 |
| Multinozzle Droplet Generator, 26 parallel 20 µm nozzles, Fluidic 1582 | 10002137 |
| Droplet Generator with Double Cross, 20 µm and 40 µm nozzles, Fluidic 1755 | 10002214 |
| Simultaneous Droplet Generator, 20 µm to 50 µm nozzles, Fluidic 1751 | 10002220 |
| Slow Motion Droplet Generator, 11 µm to 44 µm nozzles, Fluidic 1750 | 10002218 |
| Droplet generator with monitoring chambers 20 µm to 50 µm nozzles, Fluidic 1749 | 10002203 |
| Droplet Generator with Monitoring Channel, 60 µm to 120 µm nozzles, Fluidic 1789 | 10002255 |
| Overflow Cell Culture Chip, For suspension cells/constructs, Fluidic 1600 | 10002156 |
| Scaffold/3D Culture Integration Chip, Open chip, incl. pressure sens. Tape, Fluidic 1380 | 10002235 |
| Chamber Interaction Chip, Triple co-culture option Fluidic 782 | 10002048 |
| C. elegans chip, Organism-on-a-Chip Fluidic 1417 | 10001859 |
| Zebrafish Chip, Organism-on-a-Chip Fluidic 1371 | 10001775 |
| Spheroid chip, Spheroid-on-Chip Fluidic 1407 | 10002013 |
| Diffusion Mixer, Mixing up to 4 fluids by diffusion Fluidic 186 | 10000075 |
| 2D Gradient Generator, Single outlet Fluidic 1166 | 10001572 |
| Weir-filter chip, 5 µm to 20 µm slits Fluidic 220 | 10000499 |
| Spiral Sorter Chip, Label-free cell and particle sorting Fluidic 382 | 10001825 |
| Pillar Chip, Particle sieving and more Fluidic 261 | 10001817 |
| Open Membrane Chip, Direct access to membrane areas, Fluidic 219 | 10001069 |
| Plasma Generation Chip, For on-chip analysis Fluidic 973 | 10001338 |

| Product name | Article / Catalog No. |
|---|---|
| Plasma Generation Chip, Round and rhombic footprint Fluidic 783 | 10000981 |
| Plasma Generation Chip, Two rhombic membranes Fluidic 1113 | 10001525 |
| Plasma Generation Chip, Four round membranes Fluidic 200 | 10000021 |
| Gradient Generator Chip, Multiple outlets Fluidic 1287 | 10001737 |
| Filtration and Separation Chip, 8 filtration chambers Fluidic 1332 | 10001837 |
| Filtration Chip, 4 filtration chambers Fluidic 398 | 10000022 |
| Field-flow fractionation chip, Fluidic 120 | 10000334 |
| Field-flow fractionation chip, Fluidic 159 | 10000296 |
| Gradient Generator Chip, Single outlet Fluidic 1744 | 10002197 |
| Assay Chip, For metering, mixing and detection Fluidic 429 | 10000373 |
| Assay chip, For magnetic bead-based assays Fluidic 490 | 10001981 |
| Trapping chamber chip, 40 µm barrier height Fluidic 1190 | 10001630 |
| Spiral sorter chip, Blood separation and particle sorting, Fluidic 1775 | 10002240 |
| Sensor Integration Mixer Chip, Flat sensor integration area, Fluidic 1762 | 10002236 |
| Sensor integration chip, Basic sensor platform Fluidic 864 | 10001351 |
| Sensor Integration Chip, Basic sensor platform II Fluidic 1005 | 10001353 |
| Sensor Integration Chip, Multifunctional sensor platform, Fluidic 862 | 10001355 |
| Sensor Integration Chip, Large sensor integration area Fluidic 1004 | 10001358 |
| Sensor Integration Chip, Large sensor integration area II, Fluidic 1012 | 10001359 |
| Sensor Integration Chip, Turning Valve Sensor Platform I, Fluidic 673 | 10000795 |

| Product name | Article / Catalog No. |
|---|---|
| Basic Fiber Sensor Chip<br>Pre- and post-chamber sensor integration | 10001500 |
| Sensor Integration Chip<br>Turning valve sensor platform II | 10002080 |
| Fiber Sensor Integration Chips<br>Four in-line sensors | 10002024 |
| Fiber Sensor Integration Chip<br>Cell culture chambers | 10002074 |
| Sensor Integration Chip<br>Turning Valve Sensor Platform 2 | 10002223 |
| Turning valve test chip<br>Valving strategy evaluation | 10000183 |
| Membrane valve chip<br>Fluidic 1367 | 10002097 |
| Assay Chip<br>Fluidic path control | 10000374 |
| Turning Valve Distribution Chip<br>Two independent valve units | 10002182 |
| Blister Test Chip<br>50 µl and 100 µl blister volume | 10001305 |
| Blister Test Chip<br>250 µl blister volume | 10001307 |
| Blister Test Chip<br>500 µl blister volume | 10000979 |
| Plasma Generation Chip<br>Four round membranes | 10000242 |

## 3 Beonchip

| Product name | Article / Catalog No. |
|---|---|
| Be-Flow Standard | N/A |
| Be-Transflow Standard | N/A |
| Be-Doubleflow Standard | N/A |
| Be-Gradient Standard | N/A |

## 4 Dynamic42

| Product name | Article / Catalog No. |
|---|---|
| Biochip BC005 | BC005 |
| Biochip BC002 | BC002 |
| Biochip BC003 | BC003 |
| BC002 with O2-Sensors | N/A |
| BC002 with TEER Sensors | N/A |

## 5 Micronit

| Product name | Article / Catalog No. |
|---|---|
| Flow cell chip 1.5mm width (uncoated) | 11003164 |
| Flow cell chip 1.5mm width (coated) | 11006338 |
| Flow cell chip 0.5mm width (uncoated) | 11003196 |
| Flow cell chip 0.5mm width (coated) | 11006345 |
| Flow cell chip variable width 175um bottom (uncoated) | 11003133 |
| Flow cell chip variable width 175um bottom (coated) | 11006327 |
| Thin bottom flow cell, 75x25mm, 100 µm | 3536 |
| Thin bottom flow cell, 75x25mm, 50µm | 3545 |
| H-shaped flow channel, Channel Width 350µm | 11003577 |
| H-shaped flow channel, Channel Width 120µm | 11003578 |
| Serpentine 45x140µm, 350mm | 11003040 |
| Serpentine 140x250µm, 500mm | 11003033 |

| Product name | Article / Catalog No. |
|---|---|
| Serpentine 20x50µm, 342mm | R50.332.3 |
| Cross channel chip | X3550CH.3 |
| Enhanced Oil Recovery (EOR) chip – random network | 42005557 |
| Enhanced Oil Recovery (EOR) chip - Uniform network | 42005552 |
| Enhanced Oil Recovery (EOR) chip - Physical Rock network | 42005587 |

## 6 Materize

| Product name | Article / Catalog No. |
|---|---|
| Custom design chip | Varies by configuration |

## 7 AIM Biotech

| Product name | Article / Catalog No. |
|---|---|
| idenTx 3 Chip | DAX-1 |

## 8 Enplas

| Product name | Article / Catalog No. |
|---|---|
| Custom design chip | Varies by configuration |

## 9 Epigem

| Product name | Article / Catalog No. |
|---|---|
| Custom design chip | Varies by configuration |

## 10 Pythia Biotech

| Product name | Article / Catalog No. |
|---|---|
| Tumor Microenvironment (TME) Chip | N/A |

### Note

In addition to the standard chip formats listed here, further chip variants with different pin layouts as well as plate-based solutions can be implemented in our systems. The integration of such formats is typically carried out within the scope of a small development project.

If you are using chip or vessel formats that are not included in this list, please feel free to contact us - **we will be happy to evaluate the feasibility and support the implementation.**

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