BioCath – for your temporary vascular access

MaxFlo and MaxFlo Slim Highflow Catheter
Dual Lumen Catheter
Single Lumen Catheter
BioCath MaxFlo and MaxFlo Slim

- **MaxFlo Slim Catheter 13 F**
  - Smooth soft-tip
  - Thermosensitive Polyurethane
  - Safe fixation
  - Safety tube clamps

- **MaxFlo Catheter 14,5 F**
  - Maximum blood flow
  - Safe fixation
  - Safety tube clamps

> maximum blood treatment efficiency with maximum blood flow rates
> minimized re-circulation due to intelligently located ports
> biocompatible material
> without side holes to minimize thrombus formation
The BioCath MaxFlo and MaxFlo Slim Catheter consist of two separate circular lumens for the arterial and venous blood flow. There is a smooth soft-tip which facilitates the venous blood return. The arterial port is located 2 cm behind the catheter tip. This position prevents mixing of the venous and arterial blood flows even at high flow rates.

The MaxFlo Dual Lumen Catheter with its outer diameter of 14.5 F allows blood flow rates of more than 450 ml/min. The MaxFlo Slim with an outer diameter of 13 F also allows a blood flow up to 400 ml/min.

### Accessories/Spare parts

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV-EXT2</td>
<td>Extension lines for dual lumen catheters</td>
</tr>
<tr>
<td>DKS12</td>
<td>Dilator, 2-stage, from 10 to 12 F, 200 mm</td>
</tr>
<tr>
<td>DKS14</td>
<td>Dilator, 1-stage, 14 F, 200 mm</td>
</tr>
<tr>
<td>G700</td>
<td>Guide wire with straight tip, 700 mm, with straightener</td>
</tr>
<tr>
<td>G700J</td>
<td>Guide wire with J-tip, 700 mm, with straightener</td>
</tr>
<tr>
<td>IKLL-ISO</td>
<td>Injection cap</td>
</tr>
<tr>
<td>SN57</td>
<td>Seldinger puncture needle, 1.5 mm x 70 mm</td>
</tr>
<tr>
<td>KPA06004-1</td>
<td>Connection and disconnection set for dual lumen catheter</td>
</tr>
</tbody>
</table>

### Order code

<table>
<thead>
<tr>
<th>Order code catheter set</th>
<th>Ø in French/mm x mm</th>
<th>Shaft length in mm</th>
<th>Arterial priming volume in ml</th>
<th>Venous priming volume in ml</th>
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</tr>
</thead>
<tbody>
<tr>
<td>BCMFS150SET</td>
<td>13/5.0 x 2.9</td>
<td>150</td>
<td>1.3</td>
<td>1.4</td>
<td>V. Jugularis r., V. Subclavia r.</td>
</tr>
<tr>
<td>BCMFS175SET</td>
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<td>175</td>
<td>1.4</td>
<td>1.5</td>
<td>V. Jugularis r., V. Subclavia r.</td>
</tr>
<tr>
<td>BCMFS200SET</td>
<td>13/5.0 x 2.9</td>
<td>200</td>
<td>1.5</td>
<td>1.6</td>
<td>V. Jugularis l., V. Subclavia l.</td>
</tr>
<tr>
<td>BCMFS240SET</td>
<td>13/5.0 x 2.9</td>
<td>240</td>
<td>1.6</td>
<td>1.7</td>
<td>V. Femoralis, V. Subclavia l.</td>
</tr>
<tr>
<td>BCMF150SET</td>
<td>14.5/5.8 x 3.6</td>
<td>150</td>
<td>1.4</td>
<td>1.5</td>
<td>V. Jugularis r., V. Subclavia r.</td>
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<td>V. Femoralis, V. Subclavia l.</td>
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</table>

The catheter set contains besides the catheter with venous stylet a Seldinger puncture needle, a guide wire with J-tip, a dilator and two injection caps.

### Thermal properties

**Thermosensitive Polyurethane**

Shaft, bifurcation and connection tubes are made of thermosensitive Polyurethane which provides the necessary stability during insertion. It becomes soft and flexible at body temperature so that the catheter conforms optimally to the shape of the blood vessel. Polyurethane contains no softening additives, is inert, biocompatible, and resistant to a wide range of commonly used disinfectants.

**Smooth soft-tip**

The soft and flexible catheter tip and the rounded bevelling reduce the risk of vessel injuries.

**Safe fixation**

The rotating wing allows easy suture fixation and facilitates position corrections for better blood flow even during treatment.

**Safety tube clamps**

The colour coded tube clamps prevent the lateral slipping of the tubing and guarantee fast clamping. The priming volume is indicated on both clamps for additional safety.

**Maximum blood flow**

The MaxFlo and MaxFlo Slim have two circular lumens separated by a stable and thin catheter wall. The blood flows constantly without any significant flow loss through the connection tube.

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BioCath Dual Lumen Catheter

- Smooth soft-tip
- Safety tube clamps
- Thermosensitive Polyurethane
- Safe fixation

BioCath Dual Lumen Catheter

- high blood flows with optimal outer diameter
- easy catheter insertion
- also available with curved extension lines
The BioCath Dual Lumen Catheter has a C-shaped arterial lumen and a circular venous lumen. The specially rounded profile of the arterial lumen lowers the flow resistance and allows flow rates of up to 300 ml/min with an outer diameter of only 11 F. The venous return ports are situated in the distal section and the arterial ports further back from the tip. This position as well as the size of the ports prevent mixing of arterial and venous blood and therefore ensure high efficiency. Due to the smooth outer catheter surface, the BioCath Dual Lumen Catheter can be inserted easily and with minimum irritation of the blood vessel.

**Thermosensitive Polyurethane**
Shaft, bifurcation and connection tubes are made of thermosensitive Polyurethane which becomes soft and flexible at body temperature. Therefore the catheter adapts optimally to the shape of the blood vessel. Polyurethane contains no softening additives, is inert, biocompatible, and resistant to a wide range of commonly used disinfectants.

**Safe fixation**
The catheter is fixed by the rotating suture wing which allows a position correction to improve the blood flow also during treatment.

**Safety tube clamps**
To guarantee a safe and fast clamping there are colour coded clamps which also prevent the tube from slipping laterally. For additional safety the priming volume is indicated on the arterial and venous clamp.

**Smooth soft-tip**
Because of the smooth and flexible catheter tip as well as the rounded side holes the risk of vessel injuries is reduced.

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<tbody>
<tr>
<td>BCDL150</td>
<td>BCDL150SET</td>
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<td>1.4</td>
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</tr>
<tr>
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<td>BCDL175SET</td>
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<td>1.4</td>
<td>1.5</td>
<td>V. Jugularis r., V. Subclavia r.</td>
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<tr>
<td>BCDL175-C</td>
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<td>BCDL200SET</td>
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<tr>
<td>BCDL240</td>
<td>BCDL240SET</td>
<td>11 / 3.8</td>
<td>240</td>
<td>1.5</td>
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<td>V. Femoralis, V. Subclavia l.</td>
</tr>
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-C: Catheter with curved extension tubes. The catheter set contains besides the catheter a Seldinger puncture needle, a guide wire with J-tip, a dilator and two injection caps.

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**Accessories/Spare parts**

- AV-EXT2: Extension lines for dual lumen catheters
- DKS12: Dilator, 2-stage, from 10 to 12 F, 200 mm
- G700: Guide wire with straight tip, 700 mm, with straightener
- G700J: Guide wire with J-tip, 700 mm, with straightener
- IKLL-ISO: Injection cap
- SN57: Seldinger puncture needle, 1.5 mm x 70 mm
- KPA06004-1: Connection and disconnection set for dual lumen catheter
BioCath Single Lumen Catheter

- easy and safe vascular access
- minimal priming volume due to a small remaining volume
The BioCath Single Lumen Catheter offers besides the main port at the catheter tip six additional ports which are located spirally in the distal section of the catheter shaft. This ensures blood flow rates of up to 300 ml/min.

Because of the smooth catheter surface and the small 8 F diameter the BioCath Single Lumen Catheter can be inserted easily and with minimum irritation of the blood vessel.

**Thermosensitive Polyurethane**
Shaft, bifurcation and connection tubes are made of thermosensitive Polyurethane to achieve the necessary flexibility for insertion. At body temperature it becomes even more flexible and softer to guarantee optimal adaption to the shape of the blood vessel. Polyurethane contains no softening additives, is inert, biocompatible, and resistant to a wide range of commonly used disinfectants.

**Conical catheter tip**
The insertion of the BioCath Single Lumen Catheter is simplified by the small outer diameter of 8 F and the conical shape of the catheter tip.

**Safe fixation**
The rotating wing allows easy suture fixation and simple position correction for a better blood flow also during the application. Shaft length, diameter, priming volume, and depth of insertion are clearly and permanently marked on the catheter in order to guarantee correct identification and ease of use.

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<td>BCSL150</td>
<td>BCSL150SET</td>
<td>8 / 2.7</td>
<td>150</td>
<td>1.1</td>
<td>V. Jugularis r., V. Subclavia r.</td>
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<td>BCSL175</td>
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<td>8 / 2.7</td>
<td>175</td>
<td>1.1</td>
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<td>1.1</td>
<td>V. Jugularis l., V. Subclavia l.</td>
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<tr>
<td>BCSL240</td>
<td>BCSL240SET</td>
<td>8 / 2.7</td>
<td>240</td>
<td>1.2</td>
<td>V. Femoralis, V. Subclavia l.</td>
</tr>
</tbody>
</table>

The catheter comes with a Y adapter and two injection caps. The catheter set contains besides the catheter a Seldinger puncture needle, a guide wire with J-tip, a Y adapter and two injection caps.

**Accessories/Spare parts**

| G700 | Guide wire with straight tip, 700 mm, with straightener |
| G700J| Guide wire with J-tip, 700 mm, with straightener |
| IKLL-ISO | Injection cap |
| SNA3 | Single-Needle-Adapter with Twist-Lock-connector and clamp, 10 cm tube |
| SN57 | Seldinger puncture needle, 1.5 mm x 70 mm |
| YLL | Y adapter with LL, sterile, without cap |
| KPA06006-1 | Connection and disconnection set for single lumen catheter |

**Profile and flow chart**

- Seldinger puncture needle
- Y adapter
- Guide wire
The company

From the foundation of the company in 1978 Bionic Medizintechnik GmbH has been a specialised developer and manufacturer of products for vascular access mainly for dialysis. Our product range includes a large selection of fistula needles, catheters and accessories as well as therapy chairs. Bionic is market leader with its dialysis fistula needles in Europe and offers now over 80 different needle types.

Our clean room (class 100.000, ISO 8) in Friedrichsdorf, Germany which is certified for production of medical implants and is used for manufacture of our catheters sets. The clean room is also used for packaging the customized sets and development of new products.

Safety

Quality, service and security in the interest of the patients’ health are the key aims of cooperation with our customers. To guarantee this high standard we additionally do in-house tests of all incoming materials as well as the final products.

The quality system is ISO 13485 certified and audited annually by the TÜV Product Service. Because of our commitment to continuous improvement, we gladly accept suggestions from our customers.

Further, Bionic has taken part in the ecological program Ökoprofit in 2008 and has been successfully certified.

Your request - our service

Our customers requests are the basis for continuous improvements and the development of new products. Therefore we try to implement them as fast as possible. We are always open to your ideas and needs and are happy to integrate them early in our new developments.

Your individual customized sets for the catheter insertion as well as connection and disconnection to the extracorporeal system are also produced according your requirements.

Please find further information via www.vascular-access.com or contact us directly so we can find together a solution for your demands.