MEDOS VAD SYSTEM

Ventricular Assist Device
for infants, children and adults

MEDOS
Medizintechnik AG
The MEDOS VAD ventricle is the result of the unique combination of computer-aided design, flow-simulations and extensive in vitro / in vivo tests:

- Transparency of the whole pump
- Excellent wash out
- Fluidodynamically optimized 3-leaflet Polyurethane valves
- Biocompatible surfaces
- Pump sizing concept
  - Ensures the applicability for individual patient requirements
  - Volume reduction of 10% for the RVAD-Ventricle to avoid a volume displacement into the pulmonary circuit

<table>
<thead>
<tr>
<th>Stroke Volume (ml)</th>
<th>Cardiac Output at 100 BPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVAD (80)</td>
<td>8,0</td>
</tr>
<tr>
<td>RVAD (72)</td>
<td>7,2</td>
</tr>
<tr>
<td>LVAD (60)</td>
<td>6,0</td>
</tr>
<tr>
<td>RVAD (54)</td>
<td>5,4</td>
</tr>
<tr>
<td>LVAD (25)</td>
<td>2,5</td>
</tr>
<tr>
<td>RVAD (22,5)</td>
<td>2,25</td>
</tr>
<tr>
<td>LVAD (10)</td>
<td>1,0</td>
</tr>
<tr>
<td>RVAD (9)</td>
<td>0,9</td>
</tr>
</tbody>
</table>
The MEDOS Driving System, which was specially developed for the MEDOS Ventriole, is exemplary for functionality and userfriendliness.

Functionality

- A mobile driver for all ventricle sizes from 9 cc to 80 cc
- Designed for left-, right and biventricular operation
- Operation by main - and wall supply or internal compressor and battery
- A comprehensive safety and alarm system protects the user against malfunction and faults

Userfriendliness

- Simple user guidance by touch screen monitor
- Multilingual dialogue system
- Simplified operation by self explaining monitor screens
- A rapid setting in period, therefore optimal usage of all system possibilities
- Optional ECG-Triggering with different modi: 1:1, 1:2 and 1:3
**MEDOS VAD CANNULAE**

- All venous cannulae have a malleable distal section which allows an optimal adaption to the anatomical circumstances.

<table>
<thead>
<tr>
<th>Connection</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>14 Fr./18 Fr./24 Fr.</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>24 Fr./32 Fr./36 Fr.</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>36 Fr./40 Fr./50 Fr.</td>
</tr>
</tbody>
</table>

- The distal part of the arterial cannulae consists of a flexible graft, which length can be shortened individually. The graft coating minimizes puncture channel bleeding.

<table>
<thead>
<tr>
<th>Connection</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>4 mm / 6 mm</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>6 mm / 8 mm</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>10 mm / 13 mm</td>
</tr>
</tbody>
</table>

- Additional cannulae types
  - Venous transmtral cannula, 50 Fr. with a 1/2" Connector
  - 15 mm Apex cannula with a preshaped distal part (135°)
  - Further cannulae - types available on individual request
MEDOS VAD-SYSTEM - the Leading System for Cardiac Assist

Used in 66 Centres

Due to the excellent results and the efficiency the MEDOS VAD shows an annually increasing application-rate of approx. 45%.

Indications

Bridge to transplant
Weaning off / Recovery

Patients range

Age: From 4 days to 76 years
Weight: From 3.1 kg to 135 kg

Distribution of the patient ages

The MEDOS VAD-System is a mechanical Heart Assist Device which can be equally used for newborn, children and adults.

The MEDOS VAD-System is designed for left-, right- and biventricular application.

The MEDOS VAD-System is a pneumatically driven system, applicable in a very userfriendly way by a touch screen monitor.
MEDOS Medizintechnik AG

Verticulart Assiit Device
	 Holders
	 Custom-Lining Packs

Perfusion Systems
	 Reservoirs and Filters
	 Cannulae
	 Instrument Sets
	 Blood Pressure Monitoring
	 Heart Valves

Product- and Performance Spectrum