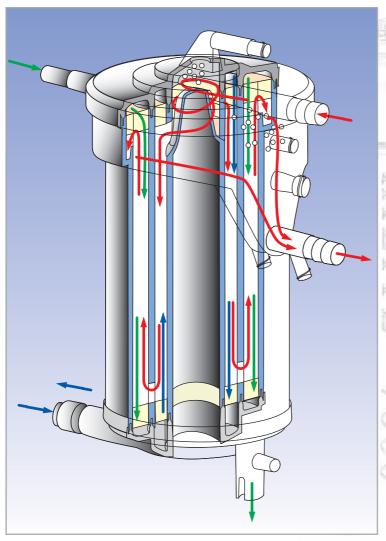


Oxygenation Systems for Adults, Paediatrics and Infants



Oxygenation Systems for Adults





The HILITE® 7000 Hollow Fibre Oxygenator is a high performance device, designed for a safe and reliable gas transfer with high heat exchange performance for a flow range up to 7 l/min. High margin of transfer performance, consistent transfer rates as well as maximum safety were central to the design and production related development process.

The high functional safety of the HILITE® 7000 Hollow Fibre Oxygenator is achieved by the vertical blood, water and gas flow directions. Due to this configuration and the transparency of the housing, the observation of air and the deaering-procedure are extremely simple and safe.

Other properties of the HILITE® 7000 Hollow Fibre Oxygenator such as the type and arrangement of various ports, special features in flow dynamics and the low priming volume led to the development of this oxygenator with leading edge safety and performance features.

















Venous Hardshell and Cardiotomy Reservoirs for Adults







MC 4040 Cardiotomy Reservoir for Adults

Operating volume 300 ml - 4000 ml

Blood flow rate 4 l/min

Cardiotomy filtration 40 μ m screen filter, MC 4040

Port configurations

Filtered and defoamed ports

6 x 1/4" - 3/8" Sucker 1 x 1/4", 1 x 3/8" Quick prime Luer lock 4 x female Recirculation 1 x 1/4", 1 x DUNI

Non filtered and non defoamed ports

1 x 1/4" Vent Luer lock 2 x female **Venous outlet** 3/8" Vacuum relief valve -100 mmHg

MS Venous Softbag Reservoir for Adults

Maximum volume 800 ml **Recommended flow rate** 1-7 I/min

Bubble trap

Material Polyester screen Filtration 185 μm

Ports depending on reservoir type

MVC 4030 Venous Hardshell Reservoir for Adults

Operating volume 300 ml - 4000 ml

Blood flow rate

Venous section up to 7 I/min Cardiotomy section up to 4 I/min Maximum total flow up to 7 l/min

Cardiotomy filtration 30 μ m screen filter, MVC 4030

Port configurations

Venous section defoamed ports

1/2", 360° rotable Venous inlet Luer lock 2 x female

Cardiotomy section, filtered and defoamed ports

Sucker

6 x 1/4" - 3/8" Quick primes 1 x 1/4", 1 x 3/8" Luer lock 4 x female Recirculation 1 x 1/4", 1 x DUNI

Non filtered and non defoamed ports

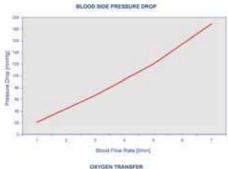
1 x 1/4" Vent Luer lock 2 x female Venous outlet

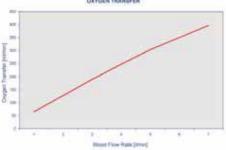
Temperature port at the venous inlet port

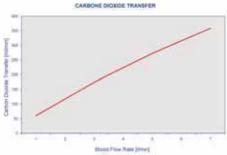
Vacuum relief valve -100 mmHg

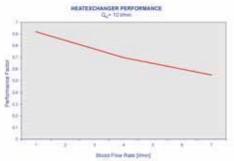
Performance Data HILITE® 7000 Hollow Fibre Oxygenator for Adults

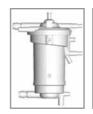






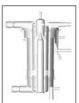












Blood flow rate 1-7 I/min

Static priming volume 275 ml

Gas exchanger

Material: Polypropylene

Type: Microporous hollow fibre

ID/CD: $280/380 \, \mu \text{m}$ Surface: $1.9 \, \text{m}^2$

Heat exchanger

Material: Polyester
Type: Hollow fibre
Surface: 0.45 m²

Port configurations

Blood inlet/outlet: 3/8",3/8" Gas inlet/outlet: 1/4",3/8"

Water inlet/outlet: 3/8" Hansen type coupling
Recirculation, arterial: Quick connection DIN EN 1283

Luer lock female

Cardioplegia: Quick connection DIN EN 1283

Blood sample, arterial: Luer lock female
Temperature, arterial: Luer lock female
Vent, venous: Luer lock female







Test conditions in accordance to the AAMI standard by usage of bovine blood









MEDOS HILITE® 2800 and 1000

Hollow Fibre Oxygenator for Paediatrics and Infants



Based on the established technology of the HILITE® 7000 Oxygenator, two smaller versions have been development for the special requirements of Paediatrics and Infants. The outstanding technology ensures safe and reliable functionality and efficiency.



- Low priming volume
- Excellent blood and air handling
- Integrated heat exchanger

In addition to these features we have implemented innovative state of the art technologies.

The user can choose between a microporous and a closed fibre for the extended use.

Furthermore, an increased flow range offers a higher level of flexibility and safety for a wider range of applications.

Finally, all versions can be treated with RHEOPARIN®, the MEDOS Heparin Coating.















MEDOS HILITE® 2800 and 1000

Hollow Fibre Oxygenator for Paediatrics and Infants







- 1. Blood inlet
- 2. Recirculation
- 3. Blood outlet
- 4. Blood sample, arterial
- 5. Gas outlet
- 6. Water inlet
- 7. Water outlet
- 8. Gas inlet
- 9. Vent port, venous
- 10. Temperature, arterial
- 11. Port to remove remaining blood

















MEDOS HILITE® 2800 and 1000
Venous Hardshell and Cardiotomy Reservoirs for Paediatrics and Infants









Venous Hardshell Reservoir for Paediatrics and Infants

	Paediatric	Infant
Operating volume	50 ml - 1600 ml	50 ml - 700 ml
Blood flow rate		
Venous section	3 I/min	1.2 l/min
Cardiotomy section	2 l/min	0.9 l/min
Cardiotomy filtration	30 μm MVC 1630	$30\mu\mathrm{m}$ MVC 0730
Port configurations		
Venous section defoamed ports		
Venous inlet	3/8"	1/4"
Luer lock	2 x female	2 x female
Cardiotomy section, filtered		
and defoamed ports		
Sucker	4 x 3/16" - 1/4", 2x 1/4"	4 x 3/16" - 1/4", 2x 1/4"
Quick prime	1 x 1/4"	1 x 1/4"
Luer lock	4 x female	4 x female
Non filtered and		
non defoamed ports		
Vent	1 x 1/4"	1 x 1/4"
Luer lock	2 x female	2 x female
Venous outlet	1/4"	3/16" - 1/4"
Temperature port	at the venous inlet port	at the venous inlet port
Vacuum relief valve	-100 mmHg	-100 mmHg

Venous Softbag Reservoir for Paediatrics and Infants

Maximum volume	350 ml
Minimum volume	40 ml
Recommended flow rate	1-3 l/min
Bubble trap	
Material	Polyester screen
Filtration	185 μm

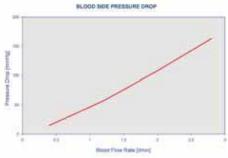
Ports depending on reservoir type

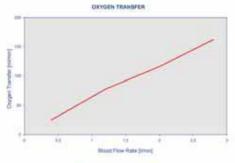
Cardiotomy Reservoir for Paediatrics and Infants

	Paediatric	Infant
Operating volume	50 ml - 1600 ml	50 ml - 700 ml
Blood flow rate	2 l/min	0.9 l/min
Cardiotomy filtration	40 μm MC 1640	40 μm MC 0740
Port configurations		
Filtered and defoamed ports		
Sucker	4 x 3/16" - 1/4", 2 x 1/4"	4 x 3/16" - 1/4", 2 x 1/4"
Quick prime	1 x 1/4"	1 x 1/4"
Luer lock	4 x female	4 x female
Non filtered and non defoamed ports		
Vent	1 x 1/4"	1 x 1/4"
Luer lock	2 x female	2 x female
Venous outlet	1/4"	3/16" - 1/4"
Vacuum relief valve	-100 mmHg	-100 mmHg

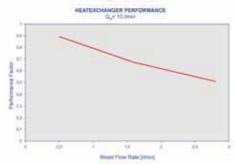
Performance Data HILITE® 2800 Hollow Fibre Oxygenator for Paediatrics

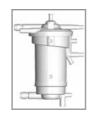






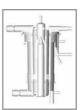












Blood flow rate 2.8 l/min

Static priming volume 98 ml

Gas exchanger

Material: Polypropylene

Type: Microporous hollow fibre

ID/CD: $200/300 \, \mu \text{m}$ Surface: $0.8 \, \text{m}^2$

Heat exchanger

Heat exchanger performance:

Port configuration

Blood inlet/outlet: 1/4", 1/4" Gas inlet/outlet: 1/4", 3/8"

Water inlet/outlet: 1/4" Hansen type coupling

63%

Recirculation, arterial:

Blood sample, arterial:

Luer lock female

Port to remove

remaining blood: Luer lock female







Test conditions in accordance to the AAMI standard by usage of bovine blood



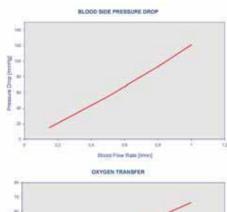


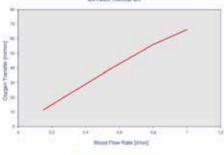




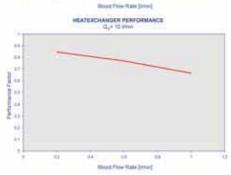
Performance Data HILITE® 1000 Hollow Fibre Oxygenator for Infants

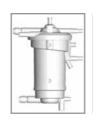






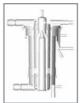












Blood flow rate 1.0 l/min

Static priming volume 57 ml

Gas exchanger

Material: Polypropylene

Type: Microporous hollow fibre

ID/CD: $200/300 \, \mu m$ Surface: $0.39 \, m^2$

Heat exchanger

Material: Polyester
Type: Hollow fibre
Surface: 0.074 m²

Heat exchanger performance: 63%

Port configurations

Blood inlet/outlet: 1/4" - 3/16", 1/4" - 3/16"

Gas inlet/outlet: 1/4", 1/4"

Water inlet/outlet: 1/4" Hansen type coupling

Recirculation, arterial: Luer lock female
Blood sample, arterial: Luer lock female
Temperature, arterial: Luer lock female
Vent, venous: Luer lock female

Port to remove

remaining blood: Luer lock female













Test conditions in accordance to the AAMI standard by usage of bovine blood

MEDOS HILITE® 7000 Oxygenation Systems for Adults



PRODUCT	CODE
OXYGENATORS FOR ADULTS	
HILITE® 7000 Hollow Fibre Oxygenator blood inlet/outlet opposite	ME 6202 0001
HILITE® 7000 Hollow Fibre Oxygenator blood inlet/outlet same side	ME 6202 0061
HILITE® 7000 System including HILITE® 7000 Hollow Fibre Oxygenator ME 6202 0001 with adapted HILITE® MVC 4030 Venous Hardshell Reservoir	ME 6202 0002
HILITE® 7000 System including HILITE® 7000 Hollow Fibre Oxygenator ME 6202 0061 with adapted HILITE® MVC 4030 Venous Hardshell Reservoir	ME 6202 0062
HOLDER	
Holder for HILITE® 7000 Hollow Fibre Oxygenator	ME ZH 0000
Holder for HILITE® 7000 Hollow Fibre Oxygenator with adapted HILITE® MVC 4030 Venous Hardshell Reservoir	ME ZH 0018
FITTINGS	
Stop arm middle piece, h 30 mm for greater flexibility, length to 60 mm	ME ZHMT 0030
Stop arm middle piece, h 40 mm for greater flexibility, length to 150 mm	ME ZHMT 0040
Holder for stopcock manifold	ME ZHHB 0080
Water coupling for Hollow Fibre Oxygenator with tubing connector, straight	ME ZW02 0005
Water coupling for Hollow Fibre Oxygenator with tubing connector, 90° bend	ME ZW02 0006
Temperature Probe	ME 4700

C€ 0481















MEDOS HILITE® 2800 and 1000

Hollow Fibre Oxygenator for Paediatrics and Infants



PRODUCT	CODE			
OXYGENATORS FOR PAEDIATRICS AND INFANTS				
HILITE® 2800 Paediatric Hollow Fibre Oxygenator with microporous fibre	ME 6205 0001			
HILITE® 1000 Infant Hollow Fibre Oxygenator with microporous fibre	ME 6208 0001			
HILITE® 2800 System for Paediatrics including HILITE® 2800 Hollow Fibre Oxygenator ME 6205 0001 with adapted HILITE® MVC 1630 Venous Hardshell Reservoir	ME 6205 0002			
HILITE® 1000 System for Infants including HILITE® 1000 Hollow Fibre Oxygenator ME 6208 0001 with adapted HILITE® MVC 0730 Venous Hardshell Reservoir	ME 6208 0002			
HOLDER				
Holder for HILITE® Paediatric and Infant Oxygenators	ME ZH 0502			
Holder for HILITE® Paediatric and Infant Oxygenation Systems	ME ZH0R 5002			
FITTINGS				
Water coupling for HILITE® Paediatric and Infant Oxygenators, tubing connector, straight	ME ZW05 0005			
Water coupling for HILITE® Paediatric and Infant Oxygenators, tubing connector, 90° bend	ME ZW05 0006			
Water coupling for HILITE® Paediatric and Infant Oxygenators, 3/8" Hansen connector, straight	ME ZW05 0007			
Water coupling for HILITE® Paediatric- and Infant Oxygenators, 3/8" Hansen-connector, 90° bend	ME ZW05 0008			
Temperature Probe	ME 4700			

All MEDOS Oxygenators of the HILITE® product family can be processed with Heparin coating RHEOPARIN® $\zeta \in 0.123$

















Oxygenation Systems for Adults, Paediatrics and Infants





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