



14 DAYS ECMO MODULES AND TAILORED TUBING SET

ECMO Extra Corporeal Membrane Oxygenation is an extracorporeal technique providing both cardiac and respiratory oxygen support. This technique has proved to be effective in reducing mortality of Patients suffering from potentially reversible heart failure and/or severe acute respiratory failure unresponsive to mechanical ventilation with maximal medical and pharmacological treatment⁶.

Eurosets provides Physicians with the complete solution for ECMO Patients including:

- Both PC (PHOSPHORYLCHOLINE) coated oxygenator module, and tailored tubing set, validated for 14 days use in ADULT Patients;
- PC (PHOSPHORYLCHOLINE) coated oxygenator modules, validated for 14 days, and tailored tubing sets for PEDIATRIC and NEWBORN Patients.

The A.L.ONE ECMO oxygenator family is clinically proven to be an **efficient solution for prolonged cardiorespiratory support**^{1,2,6} and is characterized by an **excellent profile in terms of biocompatibility**³ since PC coating has been shown to **remarkably reduce platelet consumption**⁴.

Moreover, being **heparin free**, the A.L.ONE ECMO oxygenator is **suitable for patients with acute HIT** (Heparin-Induced Thrombocytopenia)⁵, as in the case of heparin-induced thrombocytopenia, removal of all sources of heparin is challenging³.

TAILORED ECMO
TUBING SET
WITH 14 DAYS
VALIDATION



PHOSPHORYLCHOLINE COATING

Phosphorylcoline or PC is the predominant lipid headgroup found within the outer layer of cell membranes. PC has a natural affinity for water and binds water tightly around itself.

As a result, the outer layer of the cell membrane does not promote clot formation (thrombosis).

ALKALINE CHAINS SPREAD
ACROSS THE SURFACE YELDING
A STABLE COATING THROUGH
HYDROPHOBIC INTERACTIONS

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ADULT OXYGENATOR MODULE

TECHNICAL CHARACTERISTICS

PMP fibres

Priming volume: 225 ml Contact surface area: 1,81 m²

Blood flow rate: 0,4 - 7,0 l/min

Heat Exchanger surface area: 0.08 m^2

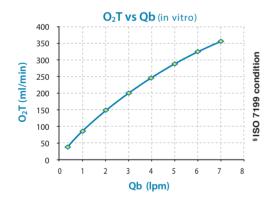
H.E. Performance Factor: $\eta = 0.64$ (at 4 l/min)

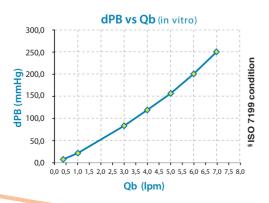
Stainless steel Material:

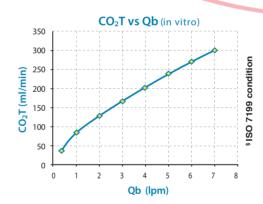
Coating: PC phosphorylcholine

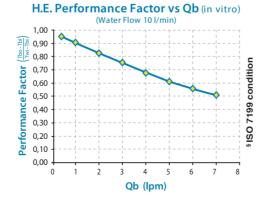
Venous Inlet: 3/8" (9.53 mm)

3/8" (9.53 mm) Arterial outlet:









PEDIATRIC OXYGENATOR MODULE

TECHNICAL CHARACTERISTICS

PMP fibres

Priming volume: 190 ml Contact surface area: 1,35 m²

Blood flow rate: 0,3 - 4.0 l/min

Heat Exchanger surface area: 0.08 m²

H.E. Performance Factor: $\eta = 0.64$ (at 4 l/min)

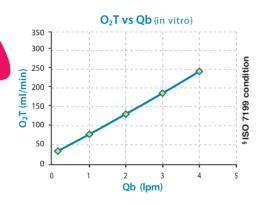
Material: Stainless steel

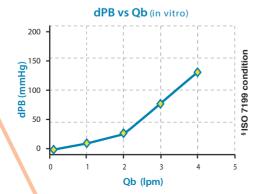
Coating: PC phosphorylcholine

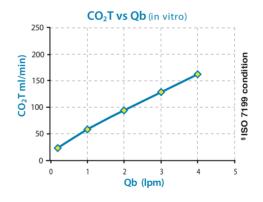
Venous Inlet: 3/8" (9.53 mm)
Arterial outlet: 3/8" (9.53 mm)

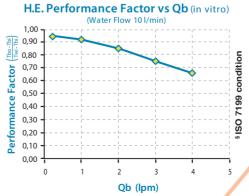


14 days









NEW BORN OXYGENATOR MODULE

TECHNICAL CHARACTERISTICS

PMP fibres

Priming volume: 90 ml Contact surface area: 0,69 m²

Blood flow rate: 0,2 - 1,5 l/min

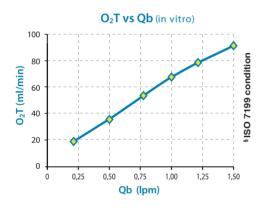
Heat Exchanger surface area: 0.04 m²

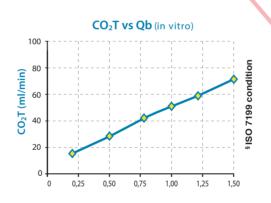
H.E. Performance Factor: $\eta = 0.77$ (at 1,5 l/min)

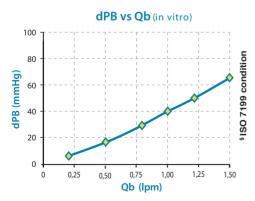
Material: Stainless steel

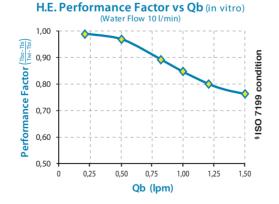
Coating: PC phosphorylcholine

Venous Inlet: 1/4" (6,35 mm) Arterial outlet: 1/4" (6,35 mm)











§ ISO 7199 condition Bovine blood Hb = 12 ± 1q/dL

 $SVO2 = 65 \pm 5\%$ $PVCO2 = 45 \pm 5 \text{ mmHg}$ $B.E. = 0 \pm 5 \text{ mEq/L}$ $Temp = 37 \pm 1^{\circ}\text{C}$

Qb/Qg = 1FiO2 = 100%



CODE	DESCRIPTION	N°/PACK
EU5019	ADULT A.L.ONE ECMO 14 days (Totally Coated)	2
EU5045	PEDIATRIC A.L.ONE ECMO 14 days (Totally Coated)	2
EU5056	NEW BORN A.L.ONE ECMO 14 days (Totally Coated)	2
EU2257	HOLDER FOR A.L.ONE ECMO	1

REFERENCES

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 Abstract presented at 14th FECECT congress, 2011.
- Nagi el Shouki, M.Stiller. Case report of 19 days extra corporeal life support with a new ECMO oxygenator. Abstract presented at 14th FECECT congress, 2011.
- 3. M.Pieri et al. A new phosphorylcholine-coated polymethylpentene oxygenator for extracorporeal membrane oxygenation: a preliminary experience. Perfusion 2012; Volume: 28 issue: 2, page(s): 132-137.
- 4. R. Lorusso et al. Effects of phosphorylcholine coating on extracorporeal circulation management and postoperative outcome: a double-blind randomized study. Interactive CardioVascular and Thoracic Surgery 8 (2009) 7–11.
- 5. F.Pappalardo et al. Bioline® heparin-coated ECMO with bivalirudin anticoagulation in a patient with acute heparin-induced thrombocytopenia: the immune reaction appeared to continue unabated. Perfusion 2009; 24: 135–137
- M.Belliato et al. A brief clinical case report of real-time monitoring of oxygenator performances and patient-machine interdependency during a prolonged VVECMO support. J Clin Monit Comput. 2017 Oct;31(5):1027-1033

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