

LivaNova

Health innovation that matters

INSPIRE™

Inspired choice



Personalized perfusion
because no two of your patients are the same



Leveraging worldwide leadership

INSPIRE™

Our vision becomes reality

LivaNova is committed to providing solutions that advance patient outcomes and exceed our customers expectations. LivaNova INSPIRE is a completely new family of adult oxygenators designed from years of research and laboratory experience, input from clinical experts from around the world and the application of advanced manufacturing technologies that adhere to the highest quality standards.

Our vision when designing this new family of oxygenators was to raise performance expectations and ease of use, while providing clinicians with new options to improve outcomes in cardiopulmonary bypass.

Our vision is now a reality.

		RESERVOIR		
		Dual Chamber 	Single Chamber 	Single Chamber
				
OXY MODULES		INTEGRATED		
6 LPM w/o Filter 		INSPIRE™ 6 DUAL PH.I.S.I.O.	INSPIRE™ 6 PH.I.S.I.O.	INSPIRE™ 6 START P
				
6 LPM with Filter 		INSPIRE™ 6F DUAL PH.I.S.I.O.	INSPIRE™ 6F PH.I.S.I.O.	
				
8 LPM w/o Filter 		INSPIRE™ 8 DUAL PH.I.S.I.O.	INSPIRE™ 8 PH.I.S.I.O.	INSPIRE™ 8 START P
				
8 LPM with Filter 		INSPIRE™ 8F DUAL PH.I.S.I.O.	INSPIRE™ 8F PH.I.S.I.O.	
				

Inspired by... ...technology

INSPIRE™

A completely new family of adult oxygenators



THE MOST COMPLETE FAMILY OF ADULT OXYGENATORS

The INSPIRE family has been designed to be **fully modular, allowing clinicians an unprecedented choice**. The family features ten integrated oxygenator systems, created by combining three Hard-Shell Venous Reservoirs (HVR) and four oxygenator modules.

DESIGNED TO MEET ALL ADULT PATIENT NEEDS AND PERFUSION PRACTICES

To best fit the variety of perfusion practices and adult patient needs, the new family features:

- Full size adult 8 LPM and optimized size adult 6 LPM oxygenator modules, both with and without an integrated arterial filter.
- Single chamber Hard-Shell Venous Reservoirs (HVR) and unique DUAL chamber HVR reservoirs for advanced perfusion practices.

UTMOST PERFORMANCE

The new INSPIRE Family allows clinicians to **safely and comfortably run perfusion while guaranteeing powerful, consistent performance**. Its long path oxygenator membrane with remarkably efficient longitudinal flow design allows high gas exchange at all rated flows. Its polyurethane heat exchanger is capable of highly efficient heat transfer.

Inspired by...

INSPIRE™

...the voice of clinicians

Addressing the key challenges in adult perfusion

MINIMIZED IMPACT ON HEMODILUTION

Minimizing hemodilution contributes to decreased blood transfusions and improved clinical outcomes during and after cardiopulmonary bypass (CPB). By focusing on a new attribute, **the oxygenator system dynamic operating volume (DOV)**, the INSPIRE family **minimizes the overall impact on hemodilution**. INSPIRE devices are characterized by the **lowest minimum operating level in the reservoir (150 ml)**, **outstanding low venous filter dynamic hold-up volume** and **low prime oxygenator modules**.

EFFECTIVE GASEOUS MICRO EMBOLI CONTROL

Gaseous microemboli are commonly indicated as potential sources of neurological damage after CPB. Dedicated design solutions within the INSPIRE HVR and HVR DUAL and in the INSPIRE oxygenator modules ensure **effective gaseous microemboli (GME) control**. The integrated arterial filter design, thanks to its dedicated compartment, offers **superior GME handling compared to competitive designs, while ensuring minimized impact on hemodilution**.

SAFE, EASY AND FLEXIBLE

The INSPIRE family is flexible and versatile. **INSPIRE is the most vertically compact oxygenator system on the market today**. It allows optimal handling during the case and minimal storage on the shelf. A single, newly designed bracket fits the entire family for maximum convenience. Ergonomics, port orientation and system priming have been optimized to offer easy set-up and operational flexibility.

Inspired by...

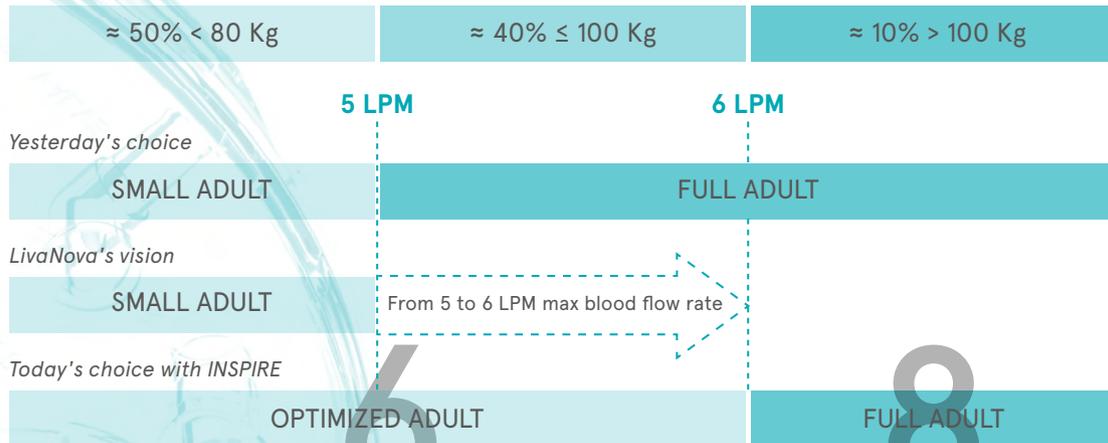
INSPIRE™

...Innovation

Leading perfusion innovation for more than 40 years

ADULT PATIENT POPULATION AND OXYGENATOR OF CHOICE

Patient Body Weight & Distribution per INSPIRE Market Assessment Study (MAS) database



OPTIMIZED PERFUSION FOR A WIDER PATIENT POPULATION

The goal of optimized perfusion is to minimize the impact of CPB on patient outcomes by reducing hemodilution and blood contact surface area, minimizing GME and improving biocompatibility, while providing high performance. Until INSPIRE, small adult devices have been considered the benchmark for optimized perfusion, but were limited in flow to 5 LPM. **The new INSPIRE 6 LPM optimized adult oxygenator systems extend the benefits of small adult devices to a wider patient population.**

ENHANCING SYSTEM BIOCOMPATIBILITY

Full biocompatibility includes reducing the multiple sources of cellular activation and inflammatory reaction. Coatings reduce platelet and white blood cell adhesion to the circuit. Suction blood contains activated cells and stimulates additional activation. Combined, sequestering suction blood and using coated circuits offers maximum biocompatible benefit. The INSPIRE DUAL Reservoir system provides clinicians new options for activated suction management.

The combination of the INSPIRE DUAL Reservoir system, PHISIO PC coating and LivaNova XTRA autotransfusion system, offers clinicians a comprehensive solution to enhanced biocompatibility.



Proven by clinical use

Outstanding feedback from clinicians

“ Overall an easy to set up system, with good heat exchanger performance, very good gas exchange performance. Easy to prime, great visibility of components. Lower prime volume, less hemodilution and potentially less blood product usage. Holder and brackets work very well. ”

EXTENSIVE MARKET ASSESSMENT STUDY

INSPIRE was extensively evaluated by conducting a global Market Assessment Study (MAS) before commercial launch. The study evaluated INSPIRE clinically on over 2000 patients at 80 centers in 24 countries. The MAS experience collected input from over 250 clinicians, resulting in a comprehensive database that provides an invaluable source of information for data analysis.

CONSISTENT FEEDBACK

Listening to clinician's feedback is a crucial part of our mission. **Reduction in priming volume, reservoir performance, gas exchange and heat exchange were consistently rated as the most compelling features of the INSPIRE devices.** Clinicians participating in the MAS were asked to suggest enhancements to make INSPIRE even better. Several of these were implemented to finalize the design before launch.

ADDITIONAL CLINICAL BENEFITS

In the MAS study, a vast majority of clinicians felt INSPIRE helped them provide additional clinical benefits to their patients. Overall, when compared to the oxygenator systems currently used, the INSPIRE devices were reported to provide **higher hematocrit during CPB, reduce priming volume and allow lower blood level in the reservoir.**



The first cardiopulmonary bypass system

From products to complete solutions

HEARTLINK™ SYSTEM

LivaNova's products for cardiopulmonary bypass have helped clinicians provide safe and effective perfusion for more than 40 years. Today, LivaNova has decided to move one step further by offering not only single products but a complete cardiopulmonary bypass system: LivaNova HeartLink™. Based on our world leading heart lung machine technology, LivaNova Heartlink™ is the first perfusion system to provide a unique link between perfusion data, patient parameters and product information to assist with Goal Directed Perfusion principles, because patient outcome and practice improvement is our common goal.

LINKING THE PERFUSION SYSTEM TOGETHER

Cardiopulmonary bypass generates a large amount of data, which must be considered during the case and recorded as part of the patient record. LivaNova Connect™ can offer an innovative link that assists with managing information from multiple sources. By integrating INSPIRE perfusion circuit information with the LivaNova S5/C5 Heart Lung machines, LivaNova XTRA Autotransfusion system and other devices, clinicians can now have **improved traceability accuracy and automatic case data logging**. **This system will allow clinicians to focus on critical patient care activities, rather than recording data.**

A NEW PARADIGM: GOAL-DIRECTED PERFUSION

The collected information from LivaNova Connect™ can also be displayed in real time to support perfusionists. **The new GDP Monitor™**, available only as part of LivaNova Connect™, can assist clinicians in their effort to monitor and continuously improve the quality of perfusion. LivaNova GDP Monitor™ is the new feature inside LivaNova Connect™ that allows the implementation and monitoring of Goal Directed Perfusion principles in the operating room to **quantify the adequacy of perfusion for each patient, which may contribute to shortening ICU & hospital length of stay.**

INSPIRE™



CONNECT™



S5™



XTRA®



ITEM #	DEVICE	DESCRIPTION	UNITS PER CASE
INTEGRATED			
050713	INSPIRE 6	INSPIRE 6 LPM PHISIO OXY MODULE WITH INTEGRATED PHISIO HARD SHELL VENOUS RESERVOIR	2
050715	INSPIRE 6F	INSPIRE 6 LPM PHISIO OXY MODULE WITH INTEGRATED ARTERIAL FILTER AND PHISIO HARD SHELL VENOUS RESERVOIR	2
050717	INSPIRE 6 DUAL	INSPIRE 6 LPM PHISIO OXY MODULE WITH INTEGRATED PHISIO DUAL CHAMBER HARD SHELL VENOUS RESERVOIR	2
050719	INSPIRE 6F DUAL	INSPIRE 6 LPM PHISIO OXY MODULE WITH INTEGRATED ARTERIAL FILTER AND PHISIO DUAL CHAMBER HARD SHELL VENOUS RESERVOIR	2
050714	INSPIRE 8	INSPIRE 8 LPM PHISIO OXY MODULE WITH INTEGRATED PHISIO HARD SHELL VENOUS RESERVOIR	2
050716	INSPIRE 8F	INSPIRE 8 LPM PHISIO OXY MODULE WITH INTEGRATED ARTERIAL FILTER AND PHISIO HARD SHELL VENOUS RESERVOIR	2
050718	INSPIRE 8 DUAL	INSPIRE 8 LPM PHISIO OXY MODULE WITH INTEGRATED PHISIO DUAL CHAMBER HARD SHELL VENOUS RESERVOIR	2
050720	INSPIRE 8F DUAL	INSPIRE 8 LPM PHISIO OXY MODULE WITH INTEGRATED ARTERIAL FILTER AND PHISIO DUAL CHAMBER HARD SHELL VENOUS RESERVOIR	2
050711	INSPIRE 6 START P	INSPIRE 6 LPM PHISIO OXY MODULE WITH INTEGRATED HARD SHELL VENOUS RESERVOIR	2
050712	INSPIRE 8 START P	INSPIRE 8 LPM PHISIO OXY MODULE WITH INTEGRATED HARD SHELL VENOUS RESERVOIR	2



ITEM #	DEVICE	DESCRIPTION	UNITS PER CASE
OXY MODULES			
050700	INSPIRE 6 M	INSPIRE 6 LPM PHISIO OXY MODULE	2
050702	INSPIRE 6F M	INSPIRE 6 LPM PHISIO OXY MODULE WITH INTEGRATED ARTERIAL FILTER	2
050701	INSPIRE 8 M	INSPIRE 8 LPM PHISIO OXY MODULE	2
050703	INSPIRE 8F M	INSPIRE 8 LPM PHISIO OXY MODULE WITH INTEGRATED ARTERIAL FILTER	2



ITEM #	DEVICE	DESCRIPTION	UNITS PER CASE
HVR			
050704	INSPIRE HVR	INSPIRE PHISIO HARD SHELL VENOUS RESERVOIR	2
050705	INSPIRE HVR DUAL	INSPIRE PHISIO DUAL HARD SHELL VENOUS RESERVOIR	2



ITEM #	DEVICE	DESCRIPTION	UNITS PER CASE
ACCESSORIES			
050640	INSPIRE BKT	BRACKET FOR INSPIRE OXY MODULES AND INTEGRATED OXYGENATOR SYSTEMS	1
48-42-10	INSPIRE BKT FAST*	BRACKET FOR INSPIRE OXY MODULES AND INTEGRATED OXYGENATOR SYSTEMS WITH FAST CLAMP	1
050641	INSPIRE BKTH	BRACKET FOR INSPIRE HVR AND DUAL HVR RESERVOIRS	1
042229000	TEMPERATURE PROBES	TEMPERATURE PROBES	2



* To be ordered as an accessory of Sorin S5 and C5 HLMs



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www.livanova.com



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