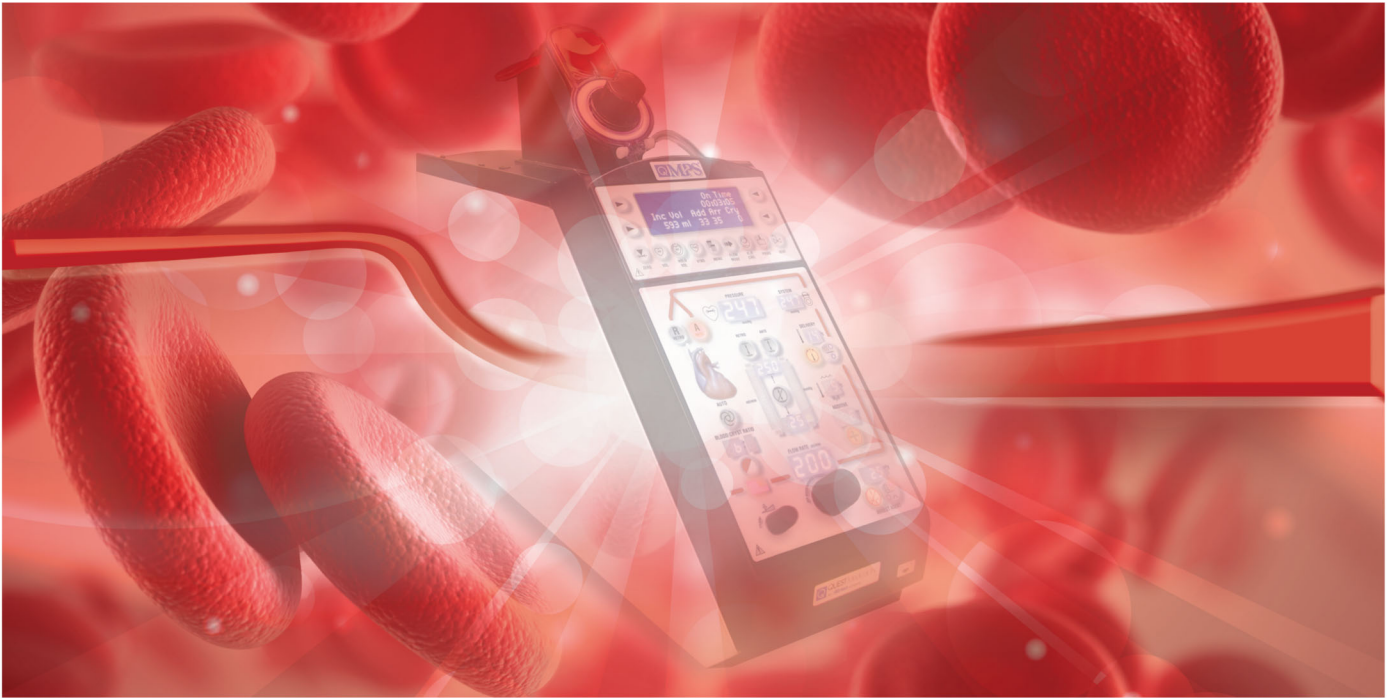


 **MPS[®] 2**
Myocardial Protection System



MICROPLEGIA » The Quest Strategy for an All Blood Initiative

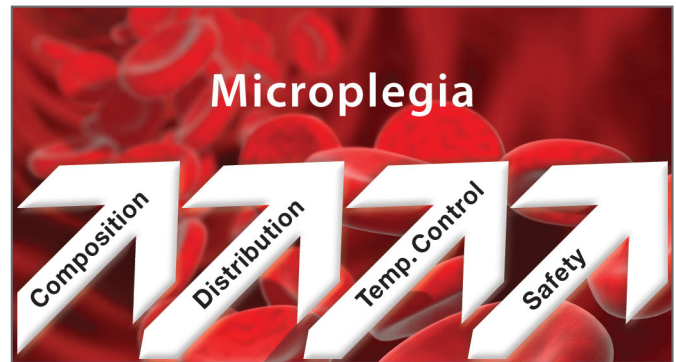
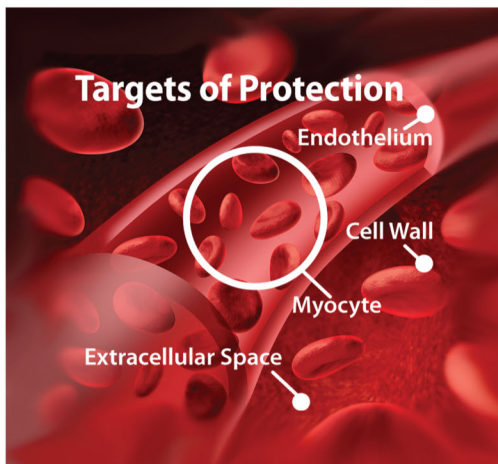
Quest Microplegia is Pure Simplicity and Supports Blood Conservation

Microplegia is rapidly becoming the standard of care by optimizing the aerobic environment for the myocardium through an increase in oxygen supply, buffering, and the ability to adjust potassium, magnesium, and other additives to meet the specific needs of the patient. The detrimental consequences of unnecessary hemodilution, volume overload, and potential blood transfusions are avoided with Microplegia.¹

Transform the way you protect the heart with the Quest MPS®2 Myocardial Protection System.

The ideal cardioplegia system is not limited by roller pump technology. The MPS 2 provides independent control of multiple drug concentrations, maximizes distribution through the heart, automatically regulates temperature, and does not require a large volume of water to achieve proper potassium concentration.

Microplegia provides superior myocardial protection as compared with crystalloid cardioplegia^{2,3,4} and is known to reduce transient cardiac edema, low cardiac output syndrome, ventilation, LOS, and inotrope use.⁵



Key Elements of Microplegia

Composition

Pure blood with specific drugs designed to arrest, protect, and optimally maintain the tissue throughout the procedure.

Distribution

With the unique capability of pressure controlled flow-modulated delivery, the MPS2 System automatically adjusts for changes in vascular resistance to optimize distribution.

Temperature Control

The MPS2 provides an accurate temperature control feature that allows an adjustable range from responsive cold, warm, or tepid at your command.

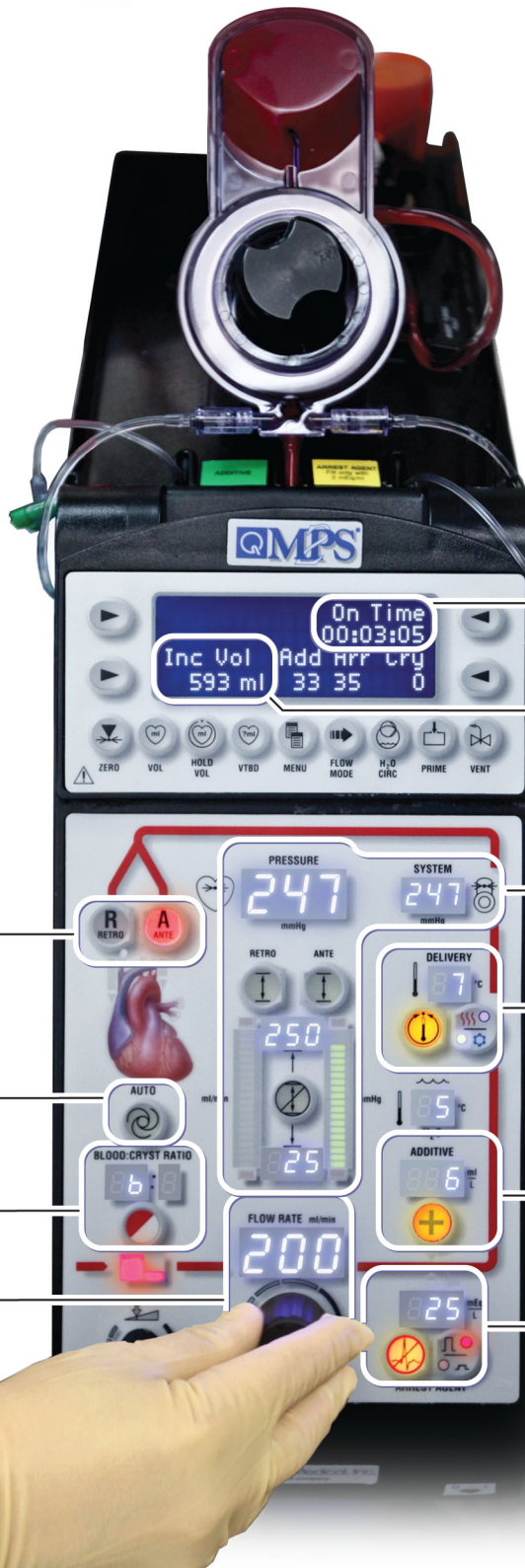
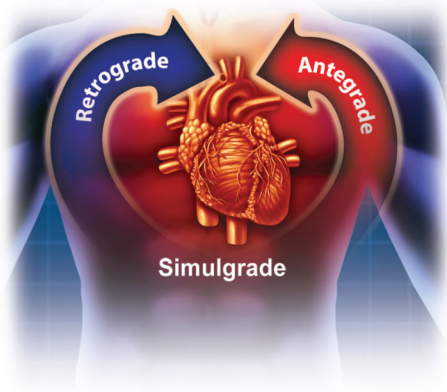
Safety

Advanced safety features include a gravity filled non-occlusive pump, drug delivery control and monitoring, and air emboli prevention.

Microplegia attenuates myocardial damage in unstable angina, reduces transfusion, improves postoperative systo-diastolic function, and shortens hospitalization.⁶

QMPS[®] 2 | Protecting Life With Science

Intuitive perfusion controls designed for flexible case management



Route
Antegrade, retrograde,
or simulgrade

Auto-Pressure
Automatically
adjusts flow to
maintain a constant
delivery pressure

Ratio
Enables a stepwise
transition to Microplegia

Flow
Precise, continuous or
cyclic delivery

Ischemic | Run Timer

Delivery Volume

Pressure
System | Delivery

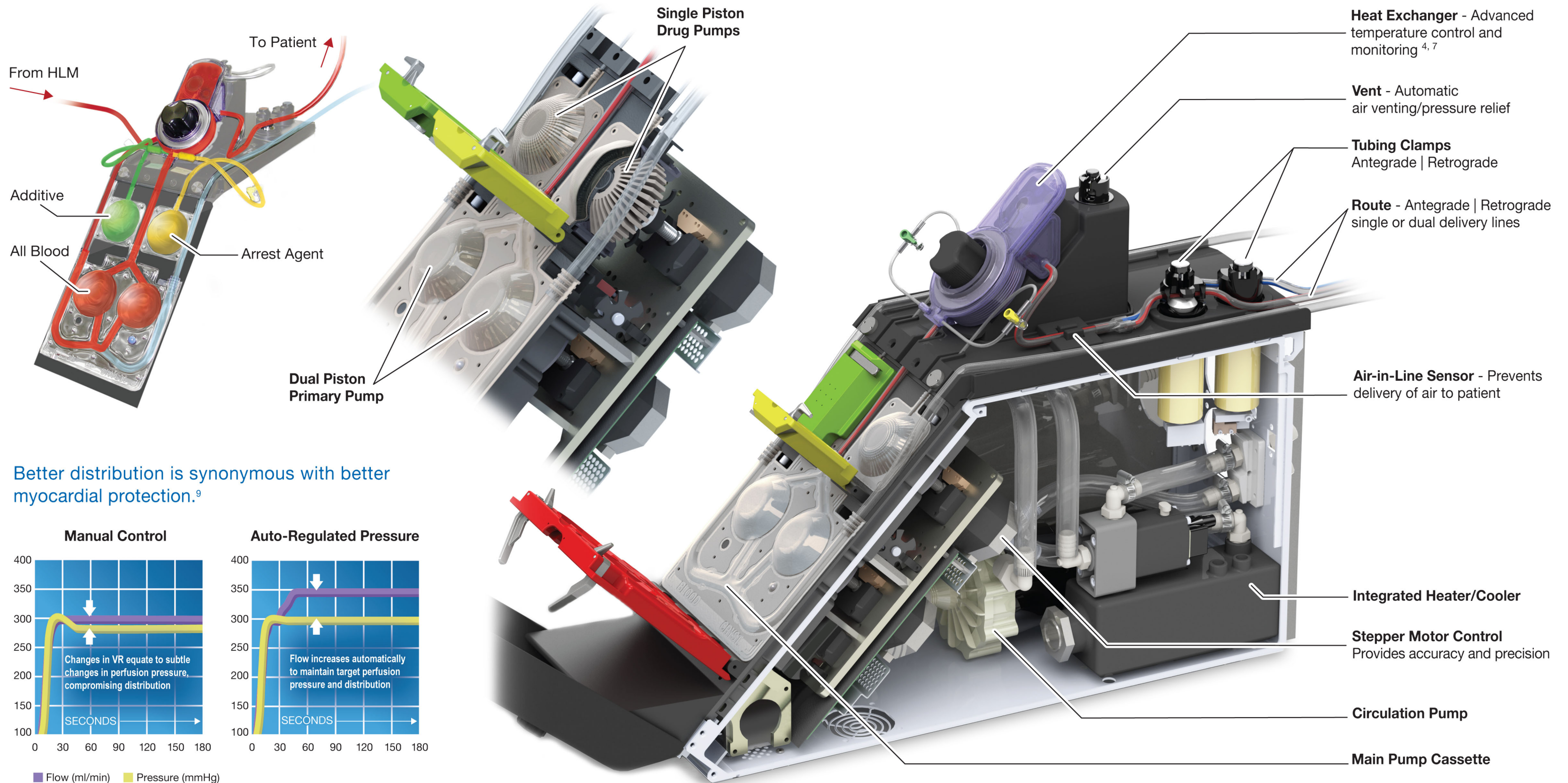
Temperature
Responsive cold,
warm, tepid

Additive
Targeted protection

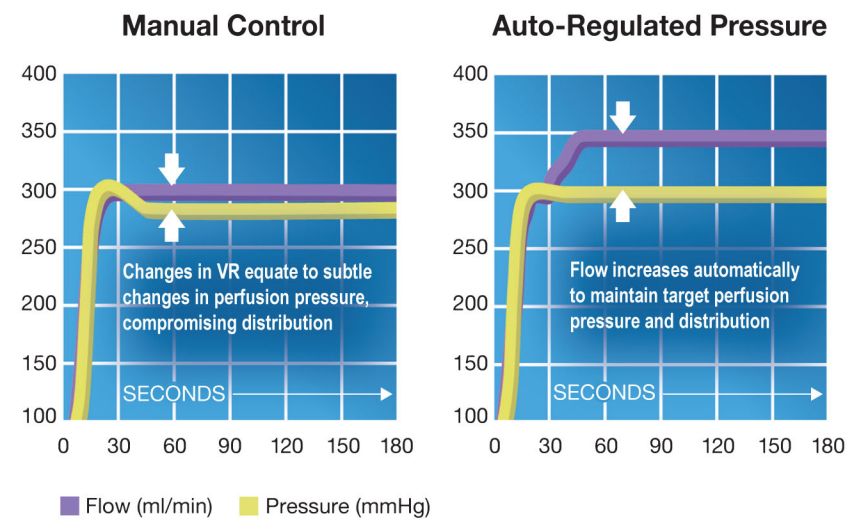
Arrest Agent
Adjustable and precise
delivery

At the heart of our technology is our spline piston pumps providing targeted blood and drug delivery to patients with unparalleled precision and accuracy.⁹

Optimal perfusion, early recovery of metabolism and function are best achieved with the MPS 2 Myocardial Protection System.^{1,7}



Better distribution is synonymous with better myocardial protection.⁹



Seamless integration | heart-lung machine | heater-cooler | data management

The Quest MPS[®]2 System's innovative technology integrates with the latest cardiac surgery equipment for an effective tool in achieving an all blood initiative.

Cost-effective solution

- Eliminates costly pharmacy solutions ^{1, 7}
- Reduces transfusion rates ^{1, 8}
- Reduces inotropes and blood products ^{7, 8}
- Significant reduction of hemodilution with whole blood as a delivery vehicle ^{7, 8}
- Reduces need for hemoconcentrator ⁸
- Eliminates current limitations of single or double bag (high and low K) cardioplegia system ^{1, 8}



“Our patients do very well using the Quest MPS2 Microplegia system. It has made a believer out of me.”

— Kent Jones, M.D. | Intermountain Healthcare Medical Center | Salt Lake City, UT

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For more information, contact:

 **QUEST** Medical, Inc.

One Allentown Parkway | Allen, Texas 75002-4211 USA
+1.972.390.9800 | Customer Service: 800 627-0226 | Fax: 972 390-7173
custserv@questmedical.com
www.questmedical.com

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EC REP

M. Devices Group
Marlborough House
Riding Street
Southport, PR8, 1EW, UK
+44 1704 544 944
Fax: +44 1704 544 050

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