

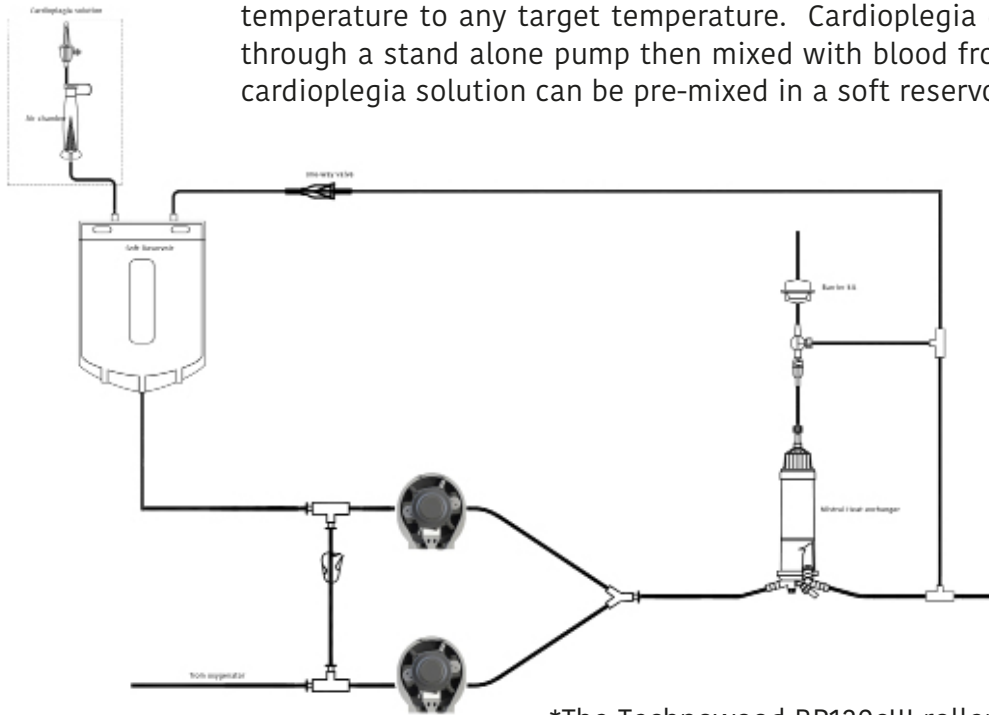
Technowood®
PTS NEO
CARDIOPLEGIA CIRCUIT



EUROSETS
MISTRAL
heat-exchanger

TEMPERATURE STABLE CARDIOPLEGIA

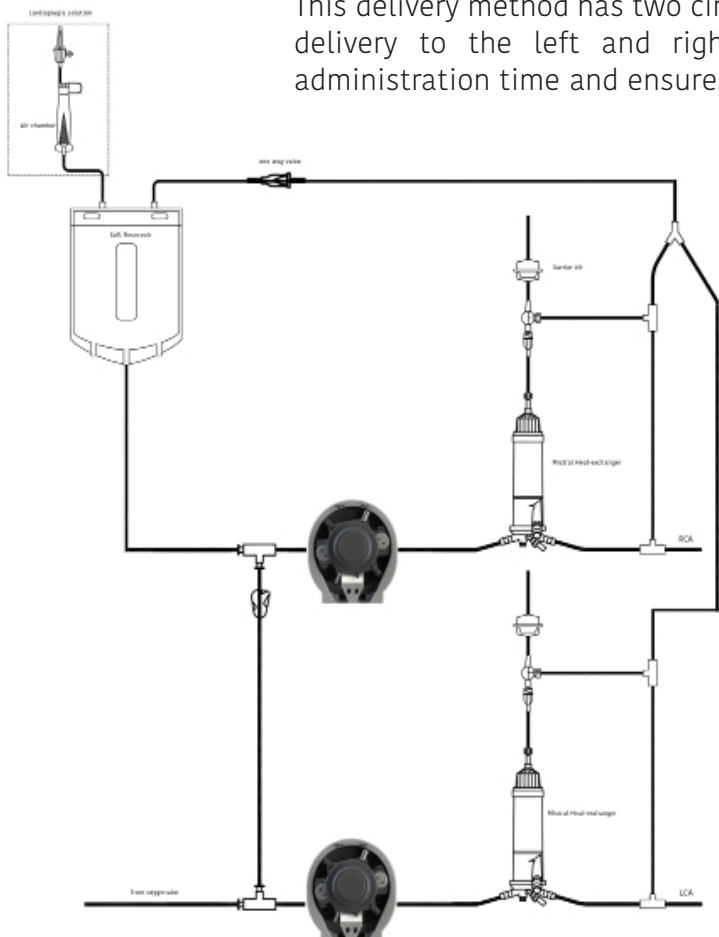
The temperature of the cardioplegia solution can be easily adjusted from room temperature to any target temperature. Cardioplegia delivery can be administered through a stand alone pump then mixed with blood from the oxygenator or a blood cardioplegia solution can be pre-mixed in a soft reservoir.



*The Technowood BP120cIII roller pump can be equipped with a double-tube holder eliminating the need for 2 roller pumps.

DOUBLE HEAT EXCHANGER CARDIOPLEGIA

This delivery method has two circuits as shown in the left figure, to allow cardioplegia delivery to the left and right coronary arteries simultaneously. This shortens administration time and ensures myocardial protection especially during AVR cases.



| HE inflow temp | HE water inlet temp | HE outflow temp | Infusion volume |
|----------------|---------------------|-----------------|-----------------|
| 14°C or below | 1~2°C | 4~6°C | 300ml/min |
| 15-20°C | 1~2°C | ~ 9°C | 300ml/min |
| 20-25°C | 1~2°C | ~ 11°C | 300ml/min |

Water flow test using the CP4000NEO. At an average of 7.7L / min for each heat exchanger (HE), the average water outflow rate is 4.0L/min.

mistral

CARDIOPLEGIA HEAT EXCHANGER

With its patented geometry, the Mistral cardioplegia heat exchanger has the highest efficiency compared to the competition.

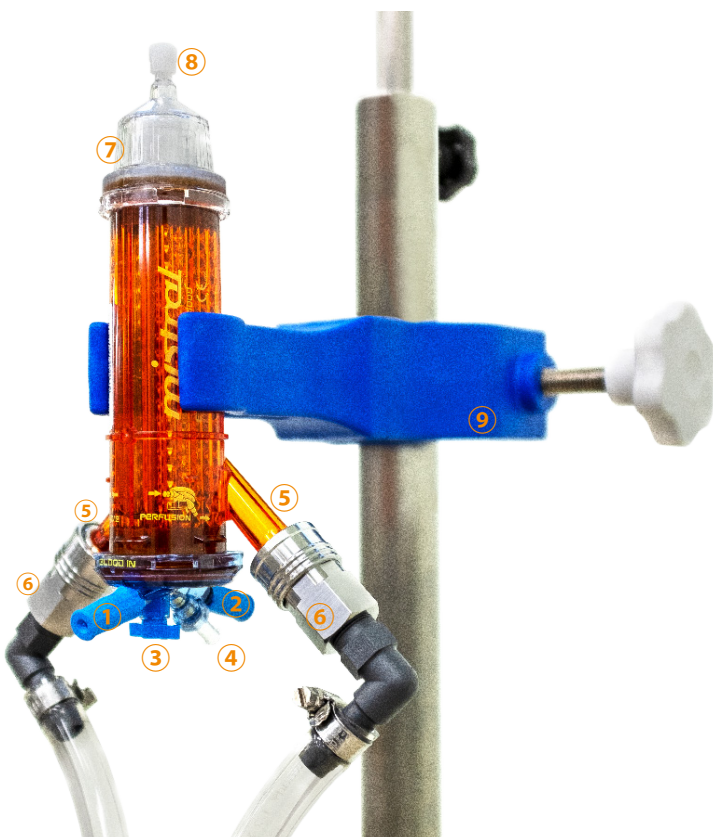
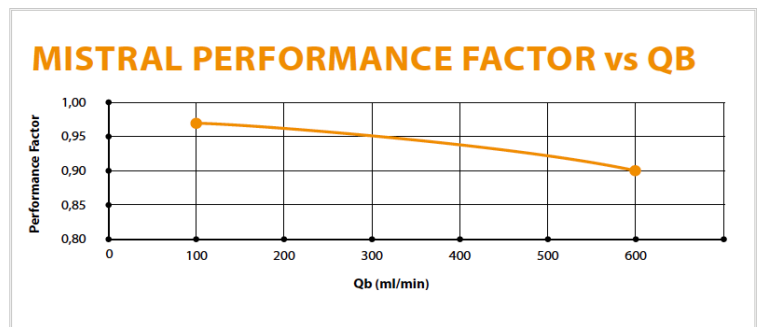
Stainless steel has a higher heat exchange coefficient compared to plastic materials (i.e. polyurethane) - this means that for having a fixed efficiency, a smaller heat exchange area is needed with stainless steel than polyurethane.



Blood flows inside the pipes. The pipes inner diameter and the number of pipes has been chosen for reducing the blood side pressure drop and optimizing the heat exchange area.

Mistral is extremely easy to de-bubble. The patented internal geometry with a special stopcock allows the priming solution to push the air toward the bubble trap (stopcock in priming position) and allows the perfusion (stopcock in perfusion position).

| | |
|----------------------------|--------------------|
| Priming | 35ml |
| Filter size | 105 μ m |
| Heat exchange surface area | 230cm ² |
| Max blood flow rate | 600ml/min |



| | |
|---|--------------------|
| 1 | Blood Inlet 1/4 |
| 2 | Blood Outlet 1/4 |
| 3 | Priming stopcock |
| 4 | Temperature probe |
| 5 | Water in/out |
| 6 | Coupler |
| 7 | Debubbling chamber |
| 8 | Purge line |
| 9 | Holder |

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