Rat Heart Perfusion



n international pharmaceutical company present in 140 countries has integrated the Minipuls evolution in one of its cardiology laboratories where cardiovascular diseases are studied.

One of the main applications is performed on rat hearts by perfusion: a solution is perfused though the aorta to make the heart beat and clean the remaining blood. A second solution is then pumped to chelate the previous solution and stop the heart beat.

Finally an enzymatic solution, a collagenase (which digests cell junctions) is perfused. The heart reactions are then analyzed.

The Minipuls evolution brings these different solutions through a column to keep them at 37°C. The Minipuls evolution is used with silicone tubing at high speed to provide a flow rate with low pulsations to the heart. Then the enzyme solution is recycled with the Minipuls at maximum speed.

"It is very convenient to look at the parameters on the screen even if I am not in front of the pump, or if the pump cannot be facing me on the benchtop. It is also very nice to have the prime function starting or stopping the pump only by a touch on it."

Mrs T-P, Laboratory manager



Required Minipuls Evolution products	Reference
Minipuls evolution - speed control module MF4 pump head	F110701 F110706
Silicone tubing, 2.06mm internal diameter	F1825113

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