Isolated Organ & Tissue

Within 0.5°C of the desired temperature. The front panel of the water bath has a sensing bead. Once stabilized, this system maintains the water temperature for the perfusing fluids.

- The perfusing fluid reservoir serves as a Mariotte flask that maintains a constant perfusion pressure as the reservoir empties.
- The perfusing pressure can be varied easily and rapidly by varying the height of the reservoir above the perfused heart. The height of the reservoir can be varied through 62.5 cm (24 in).
- To rapidly change perfusing fluids a second reservoir (offered as an accessory) can be added to the second frame upright and a ‘Y’ connector can connect it to the glass warming coil.

The 1 liter reservoir supplies a constant head of perfusate. The perfusate flow rate is controlled by one of two methods. If the Reservoir cap is off, the flow rate is controlled directly by a pinch clamp on the outlet tubing. If the reservoir cap is tightly sealed, a Mariotte flask is created and the flow rate is set by the perfusion pressure. The height of the reservoir determines this pressure which in turn sets the rate of air allowed to enter the reservoir. As air enters, the perfusate flows out. This reservoir is placed in the three-prong, spring clip reservoir holder that has a 20 cm (8 in) long tube that slips on the top of a rod and locks in place by a knurled set screw. Using this set screw the height of the reservoir can be varied through 62.5 cm (24 in) above the top of the rod.

The glass thermometer is straight, 10 cm (4 in) long and is free to move up and down behind the tubing to facilitate zero adjustment. The glass thermometer is straight, 10 cm (4 in) long and is free to move up and down behind the tubing to facilitate zero adjustment.

The heart cannula has openings to accommodate both a manometer and thermometer. The manometer has a fixed clamp for mounting directly to a crossbar and is connected to the cannula by tubing. The scale reads 0 to 250 mmHg and is free to move up and down behind the tubing to facilitate zero adjustment. The glass thermometer is straight, 10 cm (4 in) long and is free to move up and down behind the tubing to facilitate zero adjustment.

The 'Langendorff' preparation offers extreme flexibility for handling the perfusing fluids:
- For the perfusion of the excised mammalian heart
- Large capacity warming bath with temperature controlled to 0.5°C
- Free-standing apparatus uses minimal bench space

The Student Isolated Heart Perfusion Apparatus uses minimal bench space and requires a minimal amount of bench space. The apparatus is designed to be easy to use and maintain.

Order # | Product
--- | ---
50-0496 | Constant Head 1 L Reservoir
50-0488 | Reservoir Holder
50-0587 | Aeration Reservoir
50-0595 | Aeration Stone with Tubing
50-0537 | Bath Assembly
50-2898 | Tubing 1 m (3-1/4 ft)
50-0554 | Warming Coil
50-2369 | Rubber Bung
50-2914 | Screwclips, 2
50-0562 | Red Rubber Bung
50-0563 | Cannula
50-6287 | Thermometer
50-0588 | Manometer
50-7624 | Plug
50-0596 | Tying Rod
53-2262 | Pulleys, qty. of 2
53-2512 | Rod, 190 mm (6 in)
50-0678 | Brodie Lever

Order # | Product
--- | ---
53-2522 | Rod, 250 mm (10 in)
53-2530 | Rod, 500 mm (20 in)
53-2550 | Rods, 750 mm (29 in), qty. of 3
53-2336 | Extra Weight Rectangular Laboratory Stand Base, qty. of 2
53-2102 | Small Clamp with Extension Stem
53-2012 | Closed Connectors, qty. of 5
53-2032 | “T” Connectors, qty. of 3
53-2062 | Large 360° Rotation Connector
53-2244 | Male-Female Hinged Adapter
50-0686 | Ink Pen with Lever
50-7681 | Replacement Ink Pen
50-0678 | Brodie Lever

Order # | Product
--- | ---
50-2864 | Student Isolated Heart Perfusion Apparatus, 115 VAC, 60 Hz
50-2872 | Student Isolated Heart Perfusion Apparatus, 230 VAC, 50 Hz
50-2880 | Second Reservoir Set Includes Reservoir Holder, 1 L Reservoir, glass Aeration Reservoir and Aeration Stone. Set comes complete with tubing and connectors for mounting on second rod of Perfusion Apparatus