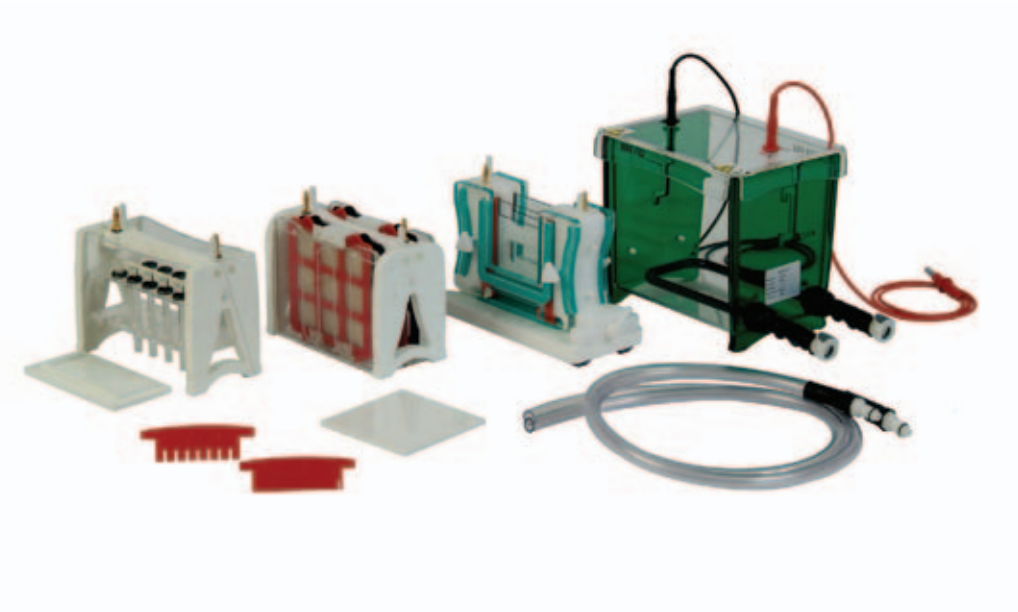
**BENEFITS INCLUDE**

- **Comprises** - one standard GRM, one CAPGRM and one EBGRM, which are interchangeable within the same gel tank, allowing the user to perform PAGE, IEF and electroblotting either independently or as part of a fully integrated system
- **CAPGRM** (capillary gel running module) - for first dimension electrophoresis of up to 10 ampholyte capillary gels, a maximum 8 or 17cm in length and 1 or 4mm in internal diameter
- **Twin-plate standard GRM** - designed specifically for SDS-PAGE techniques requiring self-cast gels, although commercially available 10 x 10cm precast gels may be used in the TV100-GRM
- **Twin-cassette EBGRM** (Electroblotting Gel Running Module) - allows simultaneous transfer of 2 polyacrylamide gels in colour-coded electroblotting cassettes, while plate-electrodes only 6cm apart maximise the intensity of the electric field
- **Casting base and cooling** - included as standard - act in tandem with glass plate stops within the GRM to lock the plates firmly in position on the casting base, whereas snap-lock connectors allow the cooling coil within the tank to be connected to an external chiller unit for high voltage/current separations
- **Colour-coded combs and spacers** - available in 1 and 1.5mm thicknesses
- **Nitrocellulose and PVDF membranes available plus 10 x 10cm precast gels, ampholytes, 2-D and PAGE chemicals** - see page 118-124 for further details



# TV Complete Modular Systems

The TV complete modular systems provide a fully integrated solution within one gel tank for both two-dimensional (2-D) electrophoresis and electroblotting. These systems are available in existing TV100 and TV400 formats and comprise individual gel-running modules designed specifically for denaturing or native PAGE (GRM), capillary gel isoelectric focusing (CAPGRM) and electroblotting (EBGRM). Following 2-D electrophoresis, the EBGRM can be used to transfer second dimension SDS-PAGE gels for further analysis by western blotting, providing enhanced sensitivity.

## TECHNICAL SPECIFICATION

| | | TV100YK-MODSYS | | | TV400YK-MODSYS | | |
|---|---|---|---|---|---|---|---|
| Unit Dimensions (W x D x H) | | 28 x 15 x 18cm | | | 38 x 15 x 27.5cm | | |
| Inner Tank Dimensions (W x D x H) | | 16.5 x 11 x 15cm | | | 27 x 12.5 x 25cm | | |
| Plate Dimensions (W x H x T) | | 10 x 10 x 0.2cm | | | 20.5 x 20 x 0.4cm | | |
| Standard Spacer Dimensions (W x H x T) | | 1 x 10 x 0.1cm | | | 2 x 20 x 0.1cm | | |
| Active Gel Dimensions (W x H) | | 8 x 8.5cm | | | 16.5 x 17.5cm | | |
| Sample Capacity | | 2 x 1 / 2 x 12 | | | 2 x 1 / 2 x 24 | | |
| Recommended Buffer Volume (PAGE GRM) | Inner Buffer Chamber | 90ml | | | 700ml | | |
| | Gel Tank | 1600ml | | | 4200ml | | |
| Recommended Running Conditions for SDS-PAGE | Voltage | 100 - 150V (10 - 15V/cm) | | | 200 - 300V (10 - 15V/cm) | | |
| | Current | 10 - 15mA | | | 30 - 40mA | | |
| | Time | 1 - 1.75h | | | 2 - 2.5h | | |
| Capillary Dimensions | Inner Diameter | 1mm | | | 1mm | | |
| | Outer Diameter | 5mm | | | 5mm | | |
| | Length | 80mm | | | 170mm | | |
| Recommended Buffer Volume (CAPGRM) | Upper Buffer Chamber | 200ml | | | 300ml | | |
| | Gel Tank | 1600ml | | | 4200ml | | |
| Recommended Running Conditions for IEF of Capillary Gels | | Pre-run | Separation | End of Run | Pre-run | Separation | End of Run |
| | Voltage | 200V | 400V | 500V | 200V | 400V | 500V |
| | Time | 0.5h | 3h | 0.5h | 0.5h | 6h to 18h | 0.5h |
| | Volt-hours | 100Vh | 1200Vh | 250Vh | 100Vh | 2400 -7200Vh | 250Vh |
| Distance Between Plate Electrodes in EBGRM | | 6cm | | | 6cm | | |
| Electroblotting Cassette Dimensions (W x L) | | 11.5 x 10.5cm | | | 20.5 x 20cm | | |
| Active Transfer Area | | 71cm$^2$ | | | 289cm$^2$ | | |
| Recommended Running Conditions for Electroblotting | Voltage | 100V | | | 200V | | |
| | Current | 75mA (0.6-0.8mA/cm$^2$) | | | 150mA (0.8-1.0mA/cm$^2$) | | |
| | Time | 4 - 6h | | | 6h to overnight | | |
| Snap-lock Connectors for Cooling Coil | Inner Diameter | 10mm | | | 10mm | | |
| | Outer Diameter | 12mm | | | 12mm | | |
| Quick-fit Tubing | Inner Diameter | 10mm | | | 10mm | | |
| | Outer Diameter | 12mm | | | 12mm | | |
| Casting Base Silicone Seal Dimensions (W x L x H) | | 1.5 x 11 x 0.8cm | | | 1.7 x 22.5 x 0.8cm | | |
| Power Output Connectors (diameter) | | Shrouded, 4mm | | | Shrouded, 4mm | | |
| Recommended Power Supplies | | Consort EV215 or EV261 | | | Consort EV215 or EV261 | | |

## ORDERING INFORMATION

**Part No.**

**Complete System**

Twin-plate mini-gel unit with GRM and cooled gel tank, with built-in cooling coil and quick-fit tubing, lid, 2 x (10 x 10cm; W x H) plain glass plates, 2 x (10 x 10cm) notched glass plates, 1 x dummy plate, 4 x 1mm thick spacers, 2 x spacer aligners and 2 x 1mm thick 12-sample combs, casting base and 2 x silicone seals; CAPGRM, 10 x 1mm glass capillaries, 4 x 1.5mm thick spacers, 2 x 1.5mm thick 1-D preparatory combs, 10 x blanking ports and 1 x gel extraction platform; plus EBGRM, 2 x electroblotting cassettes and 4 x fibre pads

TV100YK-MODSYS

Twin-plate maxi-gel unit with GRM and cooled gel tank, with built-in cooling coil and quick-fit tubing, lid, 2 x (20.5 x 20cm; W x H) plain glass plates, 2 x (20.5 x 20cm) notched glass plates, 1 x dummy plate, 4 x 1mm thick spacers, 2 x spacer aligners and 2 x 1mm thick 24-sample combs, casting base and 2 x silicone seals; CAPGRM, 10 x 1mm glass capillaries, 4 x 1.5mm thick spacers, 2 x 1.5mm thick 1-D preparatory combs, 10 x blanking ports and 1 x gel extraction platform; plus EBGRM, 2 x electroblotting cassettes and 4 x fibre pads

TV400YK-MODSYS

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