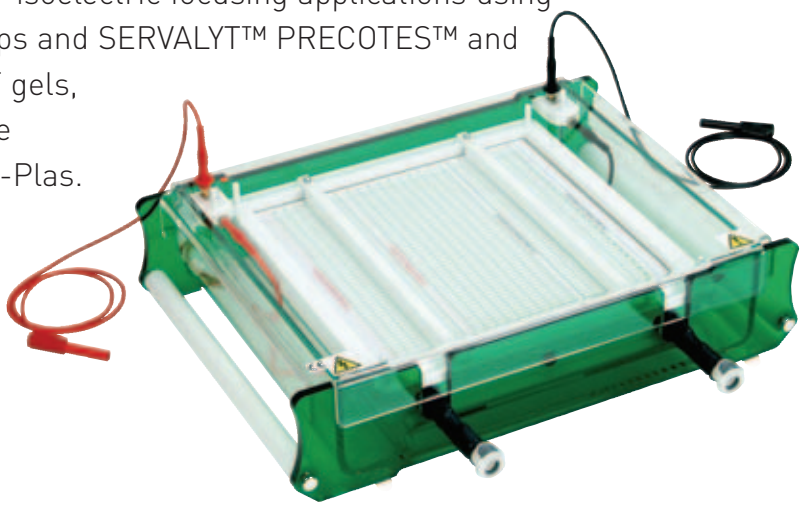
The IEF-SYS Dedicated Isoelectric Focusing Unit

The recently redesigned Scie-Plas IEF-SYS unit has been optimised for isoelectric focusing applications using IPG BlueStrips and SERVALYT™ PRECOTES™ and PreNet™ IEF gels, also available through Scie-Plas.

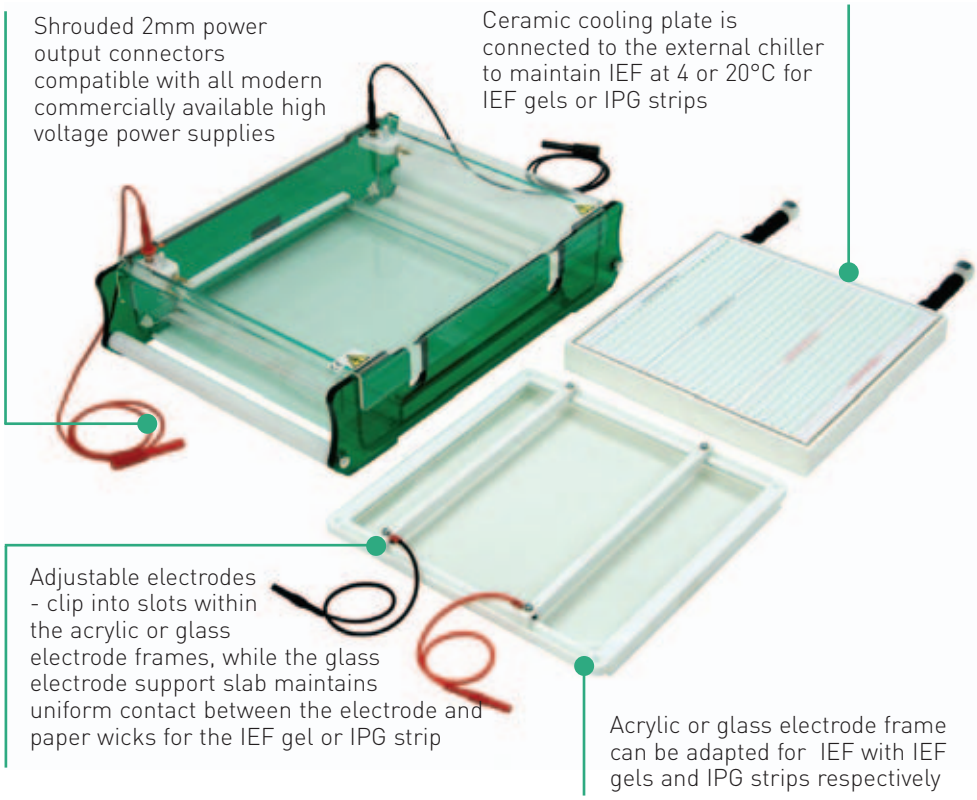


BENEFITS INCLUDE

- **Ceramic cooling plate -** 27 x 27cm (W x L) - can support either...
  - One 245 x 125mm or two 125 x 125mm SERVALYT™ PRECOTES™ IEF gels (see page 121);
  - Or up to a maximum of 30 IPG BlueStrips, each 3mm wide and up to 24cm in length (see page 122)
- Ceramic cooling plate can also be connected to an external chiller to maintain IEF at...
  - 4°C for SERVALYT™ PRECOTES™ and PreNet™ IEF gels
  - 20°C for IPG BlueStrips
- **Acrylic electrode frame -** sits directly on the ceramic cooling plate for IEF with SERVALYT™ PRECOTES™ and PreNet™ IEF gels
- **Glass electrode frame -** sits flush with the ceramic cooling plate for optimal cooling efficiency and minimises mess caused by oil application during IEF with IPG strips
- **Positive and negative electrodes -** made from clear acrylic clip neatly within the acrylic or glass electrode frame, allowing the voltage gradient to be fine-tuned along the entire length of each IPG strip
- **Glass electrode weight -** ensures that the electrodes remain in complete contact with the positive and negative ends of each IPG strip or IEF gel during IEF
- **2mm shrouded power output connectors -** compatible with high voltage power supplies
- **IEF tank or cooling plate -** can also be used for wick-based horizontal gel electrophoresis

TECHNICAL SPECIFICATION

	IEF-SYS Unit					
Maximum Sample Capacity	30 x IPG strips (dimensions ranging from 70 x 3 x 1mm to 240 x 3 x 1mm [L x W x T])					
	1 x 245 x 125mm or 2 x 125 x 125mm (W x L) SERVALYT™ PRECOTES™ IEF gels					
Unit dimensions (W x D x H) inc. cooling coil	46 x 41 x 11.5cm					
Inner Tank Dimensions (W x D x H)	37 x 31 x 8.5cm					
Glass plate active dimensions (W x L x D)	27 x 27 x 0.5cm					
Electrode frame active dimensions (W x L x H)	27 x 27 x 1cm					
Cooling plate dimensions (W x L x D)	27 x 27 x 3cm					
Glass electrode weight active dimensions (W x L x H)	20 x 26.5 x 1cm					
Adjustable electrodes active dimensions (W x L x H)	10 x 265 x 13mm					
Recommended temperature for cooling plate during IEF with IPG strips	20°C					
Recommended temperature for cooling plate during IEF with IEF gels	4°C					
Power Output Connectors (diameter)	Shrouded, 2mm					
Recommended Running Conditions for IEF with 125mm long SERVALYT™ PRECOTES™ IEF gels	Voltage Step	1	2	3	4	5 6 end of run
	Voltage (V)	300	600	1000	1200	1500 2000
	Time (min)	20	20	30	30	30 60
	Volt-hours	100	200	500	600	750 2000
Recommended Running Conditions for IEF of 7cm IPG strips	Voltage Step	1	2	3	4	5 6 end of run
	Voltage (V)	150	300	600	1500	3000 330
	Time (h)	0.5	0.5	0.5	0.5	2.5 <20
	Volt-hours	75	150	300	750	7500 -
Recommended Running Conditions for IEF of 18cm IPG strips	Voltage Step	1	2	3	4	5 end of run
	Voltage (V)	300	600	1500	3000	330
	Time (h)	1	1	1	12.5	<20
	Volt-hours	300	600	1500	37500	-
Snap-lock Connectors for Cooling Coil	Inner Diameter	10mm	Outer Diameter	12mm		
Quick-fit Tubing	Inner Diameter	10mm	Outer Diameter	12mm		



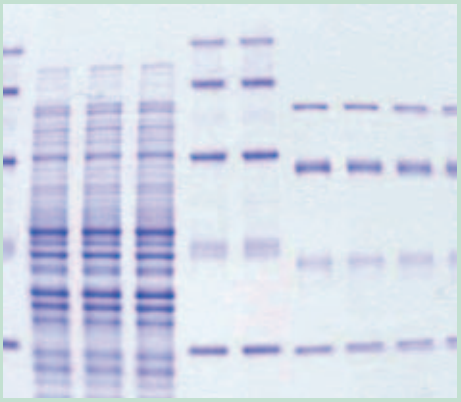
ORDERING INFORMATION

Complete System	Part No.
Flat-bed isoelectric focusing unit includes running tank, lid, 1 x ceramic cooling plate, 1 x glass electrode frame, 1 x electrode frame, 1 x anode electrode, 1 x cathode electrode, 1 x glass electrode weight, 2 x quick-fit tubes and 2 x 2mm power cables	IEF-SYS

Replacement Parts & Accessories	
1 x ceramic cooling plate for IEF-SYS	IEF-CP
1 x glass electrode frame for IEF-SYS	IEF-GF
1 x electrode frame for IEF-SYS	IEF-EF
1 x cathode electrode for IEF-SYS	IEF-CE
1 x anode electrode for IEF-SYS	IEF-AE
1 x glass electrode weight for IEF-SYS	IEF-GS
2 x quick-fit tubes for cooling plate for IEF-SYS	TCS-CC
2 x 1 metre power leads with shrouded 2mm power output connectors	CABLE-2
Platinum Wire	PT-0.2100CM

SERVALYT™ PRECOTES™: OUTLINE PROTOCOL

1. Set the cooling temperature of the external chiller, connected to the cooling plate by quick-fit tubing, to 4°C at least 10 minutes before using the unit.
2. Place the gel directly on top of the area covered by Bayol F or kerosene and, by using a pipette or electrophoresis roller (42991.01), gently disperse any bubbles underneath the gel.
3. Immerse each electrode wick (42988.01) in its respective electrode solution (Scie-Plas recommends 100µl of electrode solution per cm of wick), depending on whether it is the anode (42984.03) or the cathode (42986.03). The length of the electrode wicks should correspond to the width of the precast gel.
4. Position the electrode wicks at either end of the IEF gel, at least 5mm inside each edge, so that they are aligned parallel with the red and black strips at either end of the gel. The distance between each electrode should be 10cm for SERVALYT™ PRECOTES™ IEF gels.
5. Place a clean, washed applicator strip (42915.01) in the middle of the gel.
6. Load 10µl of protein sample into each well with a pipette, reserving at least one well for a 10µl-aliquot of SERVA Liquid Mix IEF Markers 3-10 (39212.01).
7. After loading the gel, carefully lower the glass electrode weight over the anode and cathode electrodes, so that they remain in contact with the electrode wicks and gel during the application.
8. Perform IEF according to the recommended running conditions in Technical Specification. Once IEF is complete, the SERVALYT™ PRECOTES™ IEF gel is ready for staining.



Protein samples in a SERVALYT™ PRECOTES™ Wide Range pH 3-10 IEF gel following IEF with the IEF-SYS unit and fixation and staining with SERVA Violet 17.

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