

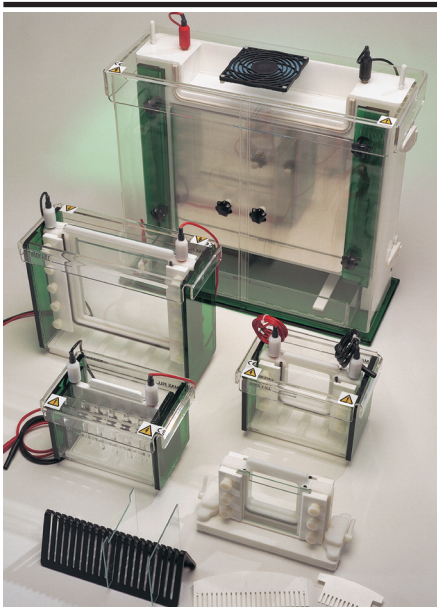
# Vertical Gel Units

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Scie-Plas Vertical Gel Electrophoresis units are manufactured to a high specification and designed to combine versatility with safety. The robust gel units are easy to use and are offered in five plate sizes: 105 x 100mm (W x H) mini gels, 205 x 100mm (W x H) wide mini gels, 205 x 200mm (W x L) standard gels plus 20 x 50cm and 33 x 41cm sequencing gels. The gel temperature is regulated either by passive, water cooling or use of the **K-ELECTRO4** Chiller, featured on page 32.

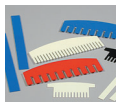
All gel units are supplied with float glass plates to ensure that gels are of uniform thickness, have even sample migration and minimum lane distortion. In the dual models, gels can be cast directly in the inner gel running module using an optional extra casting base. Gel casting units are also available for standard gel pouring. Most commercially available pre-cast gel cassettes fit into the units.

Accompanying the range are gel casting units which allow easy cassette assembly and tape free gel pouring, power supplies and a full range of combs and accessories.

All CDC models have an integrated gel casting system, utilising the gel running module and a casting base. Therefore, there is no need to remove the gels from the caster prior to electrophoresis.

- Robust acrylic construction
- Gold plated terminals for corrosion resistance
- Integrated gel casting system available in the dual models
- Float glass plates ensure uniform gel thickness and straight sample migration
- Combs and Spacers Colour Coded according to their thickness
- Easy to use, multiple casting systems



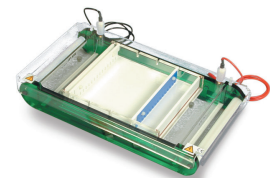
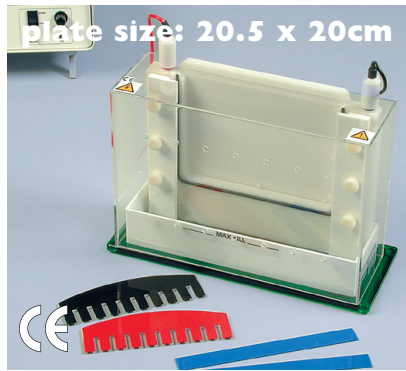
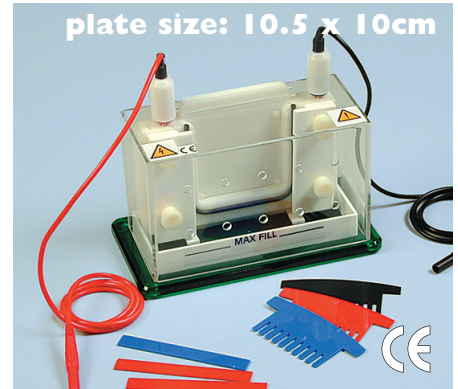
<p><b>COOLING</b></p> <p>Buffer temperature can be maintained by circulating water (chilled or from tap) through the base - CDC models only.</p>	<p><b>BUFFER SEALS</b></p> <p>Easily replaced - hollow black PTFE-coated neoprene forms positive, leak-free seal between plate and buffer chamber.</p>	<p><b>GEL CASTING MODULES</b></p> <p>Can increase gel throughput and reproducibility</p>	<p><b>SAFETY LID</b></p> <p>Power to the tank is isolated immediately lid is removed. Electrode configuration ensures that lid is located correctly.</p>	<p><b>POWER CONNECTION</b></p> <p>Recessed power connectors, integral with the safety lid. Power is disabled immediately lid is removed.</p>
<p><b>USER-FRIENDLY PLATE CLAMPING</b></p> <p>Three thumb screws allow easy plate assembly and ensure even pressure</p>	<p><b>ELECTRODES</b></p> <p>Of pure platinum and can be easily replaced.</p>	<p><b>UNIFORM GEL THICKNESS</b></p> <p>Float glass plates ensure uniform gel thickness and straight sample migration</p>	<p><b>COMBS</b></p> <p>An extensive range of colour coded combs and spacers are available.</p> 	<p><b>POWER LEADS</b></p> <p>All leads are double insulated and connectors have CE standard 4mm fixed shrouds to prevent finger contact. Adaptors are available for most popular power supplies.</p>

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**Single Plate**

The **Mini 10 Single Plate** is designed to provide a safe and easy to operate system for the separation of proteins and nucleic acids. This mini unit provides a basic non-cooled single gel system which can be used with most commercially available pre-cast gels. A special silicone rubber gasket allows the casting of gels using 'non-eared' or short glass plates, and is available as an accessory. The system comes complete with 2 sets of float glass plates, spacers and a 12 sample comb. A wide range of alternative spacers and combs are also available.

The **Standard 20 Single Plate** unit is designed to provide a safe and easy to operate system for the separation of proteins and nucleic acids. The system provides a simple, non-cooled, single gel unit which comes complete with 2 sets of float glass plates, spacers and a 24 sample comb. A wide range of alternative spacers and combs are also available.



for Horizontal Gel Electrophoresis, see page 3



- Easy to use with pre-cast Gels
- Compatible format with Blotting Systems, shown on pages 28, 29 and 30
- Easy gel pouring with casting systems, shown on page 21
- Wide range of combs available

**Typical Applications**

Protein and nucleic acid separations, Mini SDS-PAGE, Preparative, Peptide and Gradient pore separations.

## Ordering Information

<b>Mini 10 Single Plate Vertical Gel Unit.</b>	V10-SET
Includes: 2 x 2mm Notched Glass Plates, 2 x 2mm Plain Glass Plates, 1 x Set of 1mm Spacers, 1 x Comb 1mm 12 Sample.	
Notched glass plates, 2mm, pk/2	V10-NG2
Plain glass plates, 2mm, pk/2	V10-PG2
0.75mm Spacer Set, 12 x 103mm (W x L)	V10-S0.75
1mm Spacer Set, 12 x 103mm (W x L)	V10-S1
1.5mm Spacer Set, 12 x 103mm (W x L)	V10-S1.5
2mm Spacer Set, 12 x 103mm (W x L)	V10-S2
Silicone Rubber Gasket	V10-SG
<b>Standard 20 Single Plate Vertical Gel Unit</b>	V20-SET
Includes: 2 x 4mm Notched Glass Plates, 2 x 4mm Plain Glass Plates, 1 x Set of 1mm Spacers, 1 x Comb 1mm 24 Sample.	
Notched glass plates, 4mm, pk/2	V20-NG4
Plain glass plates, 4mm, pk/2	V20-PG4
0.75mm Spacer Set, 20 x 200mm (W x L)	V20-S0.75
1mm Spacer Set, 20 x 200mm (W x L)	V20-S1
1.5mm Spacer Set, 20 x 200mm (W x L)	V20-S1.5
2mm Spacer Set, 20 x 200mm (W x L)	V20-S2
Silicone Rubber Gasket	V20-SG
Replacement 0.2mm Pt Wire, 50cm. for Mini 10 and Standard 20 Single Plate	PT-0.2

## Technical Specifications

Gel dimensions, (W x H)	V10-SET	8 x 8.5cm
	V20-SET	16.5 x 17.5cm
Unit dimensions, (W x L x H)	V10-SET	11 x 20.5 x 12cm
	V20-SET	12.5 x 32 x 23cm
Max. sample capacity	V10-SET	20
	V20-SET	48
Buffer volume	V10-SET	Upper, 60ml Lower, 65ml
	V20-SET	Upper, 325ml Lower, 225ml
Combs available :		
No. of samples	V10-SET	1, 8, 10, 16, 20
Thicknesses	V10-SET	0.75, 1, 1.5, 2mm
No. of samples	V20-SET	1, 10, 18, 24, 36, 48
Thicknesses	V20-SET	0.25, 0.35, 0.75, 1, 1.5, 2mm

# Vertical Gel Units

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## Compact, Dual Plate, Cooled

- Run two gels simultaneously
- Cooling to prevent distortion and 'smiling' gels
- User-friendly, plate clamping system
- Recessed power connectors integral with the safety lid
- Gel casting system for rapid set up
- Compatible format with the V10-EB10/V20-EB20, EB10/EB20 and V10-SDB/V20-SDB Blotting Units, shown on pages 28 and 30
- Heated model for the detection of single base changes and polymorphisms in genomic cloned and amplified DNA fragments

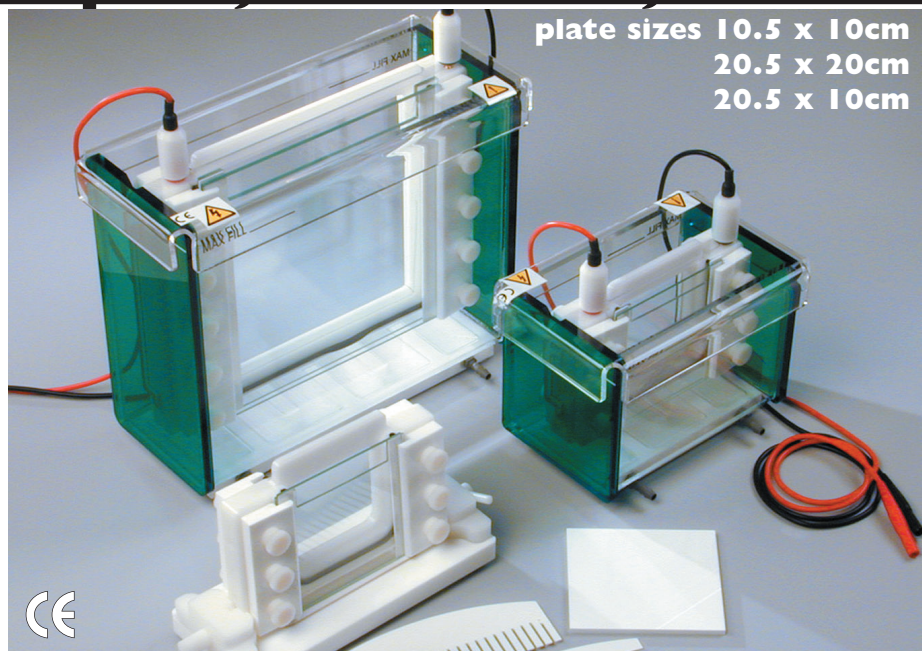
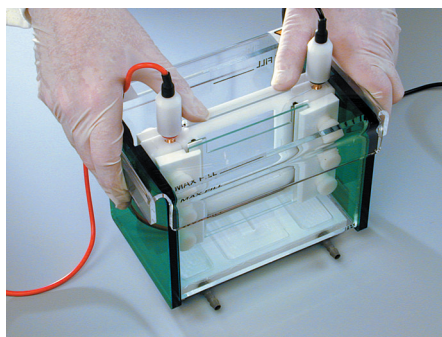


plate sizes 10.5 x 10cm  
 20.5 x 20cm  
 20.5 x 10cm



To open, lift lid while pressing down on the Central Gel Running Module

- Gels cast directly in Central Running Module - no removal of plates necessary
- Simple assembly
- User replaceable silicone seals
- Solid acrylic construction

The CDC series of vertical units can run two gels or commercially available cassettes, for the separation of proteins and nucleic acids. All CDC models have been designed to provide excellent gel cooling features. Cooled gels can be run faster with the same resolution than non-cooled gels because cooling minimises heat-induced lane distortions. The CDC units utilise the large buffer volume in the bottom tank, the buffer can be pre-chilled, to act as a coolant. Additional cooling can be achieved by connecting a bottom cooling block to a circulating water bath or tap which effectively removes heat.

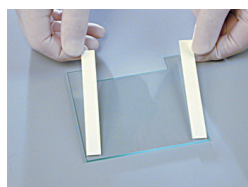
Another advanced design feature is the CDC casting system which allows gels to be cast quickly, easily and reliably in the minimum number of steps. Gels can be cast directly in the inner gel running module using a casting base which is included with the V10-CDCY, V10-WCDCY and V20-CDCY systems. The casting system contains a guaranteed leak proof seal which is accomplished by utilising a Cam Pin system which pulls the glass plates down tightly onto silicone rubber mats, sealing the bottom edge.

Once the gels have polymerised, the complete gel assembly is simply removed from the casting base and placed in the running tank for electrophoresis.

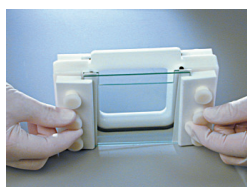
### Gel Casting

Advance casting of gels not only increases gel throughput but improves reproducibility. The Scie-Plas casting system allows two gels to be cast at a time directly in the Central Gel Running Module (either 10 x 10cm, 20 x 10cm or 20 x 20cm). This eliminates the need to disassemble the cast gels prior to placing into a typical vertical gel tank.

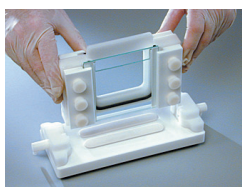
Additional Central Modules allow fresh gels to be cast whilst two gels are running in the CDC tank. When the run is complete, simply lift out the Central Module with finished gels and replace it with the Central Module with newly cast gels.



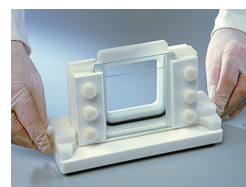
Assemble glass plates in the order: notched plate, spacer set, plain plate



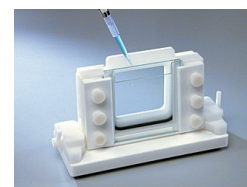
Fit into module on a flat surface and tighten middle screw first, then top, then bottom



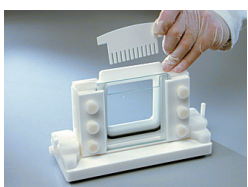
With plates in position, place Central Running Module in Casting Base



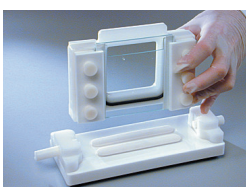
Turn both cams to pull Module down onto silicone sealing mats



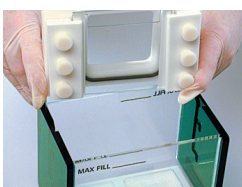
Pour gel between plates



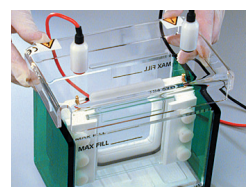
Place appropriate comb between plates and allow gels to set



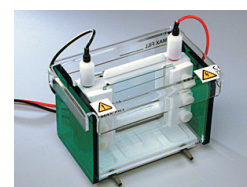
After carefully removing combs, release Module from Casting Base



Place the Module in the Outer Buffer tank and fill the two buffer chambers



Load samples and replace lid



CDC unit is now ready for electrophoresis run

# Vertical Gel Units

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## Compact Mini and Maxi CDC

### 10 x 10cm Mini

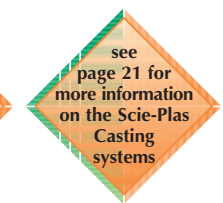
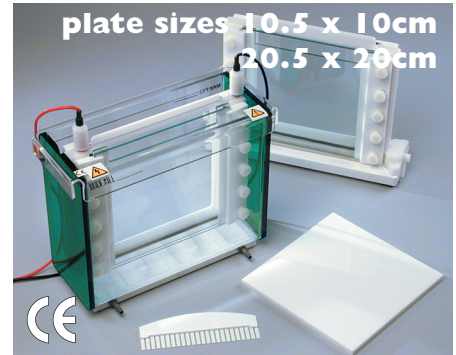
The Compact Mini CDC unit is the standard small format Scie-Plas Vertical Electrophoresis Unit. With an active gel dimension of 8 x 8.5cm, this is the unit of choice for running short to medium length protein separations. The excellent cooling features of this unit enable high resolution and speed to be combined to give a quick and efficient way to separate proteins. Glass plates with permanently bonded spacers in four thicknesses are now available for the 10 x 10cm Mini CDC unit. This feature makes the casting process simpler, ensuring correct alignment every time. These plates are available for the 10 x 10cm Mini CDC units as an optional extra.

### 20 x 20cm Maxi

The Maxi CDC unit is the standard large format Scie-Plas Vertical Electrophoresis Unit. The Maxi CDC is built along the same lines as the Mini CDC but, with an active gel dimension of 16.5 x 17.5cm, more samples can be run over a longer distance. High resolution is again retained by the excellent cooling features.

Both formats have a wide range of combs and spacers available and are fully compatible with Scie-Plas blotting and Capillary Gel Systems.

For details on the supercooled V10 and V20 versions specifically developed for use with the **K-ELECTRO4** chiller, please refer to page 32.

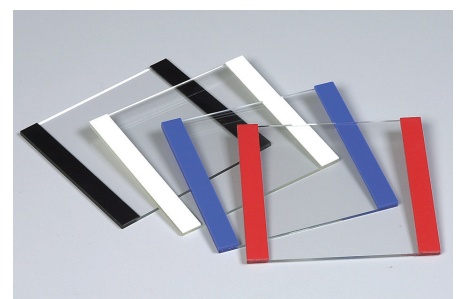


### Ordering Information

<b>10 x 10cm Compact Dual Mini Vertical Gel Unit</b>	V10-CDC
<b>Super Cooled V10-CDC</b>	V10-SCDC
<small>Includes: 2 x 2mm Notched Glass Plates, 2 x 2mm Plain Glass Plates, 1 x Dummy Plate, 2 x Sets of 1mm Spacers, 2 x Combs 1mm 12 Sample.</small>	
<b>V10-CDC with accessories and V10-CB Casting Base</b>	V10-CDCY
<b>Super Cooled V10-CDC with accessories and V10-CB Casting Base</b>	V10-SCDCY
Cooled Tank for V10-CDC	V10-CTANK
Notched glass plates, 2mm, pk/2	V10-NG2
Plain glass plates, 2mm, pk/2	V10-PG2
Dummy Plate	V10-DP
0.75mm Spacer Set, 12 x 103mm (W x L)	V10-S0.75
1mm Spacer Set, 12 x 103mm (W x L)	V10-S1
1.5mm Spacer Set, 12 x 103mm (W x L)	V10-S1.5
2mm Spacer Set, 12 x 103mm (W x L)	V10-S2
Plain glass plate with 0.75mm Bonded spacer set, pk/2	V10-S0.75PG2
Plain glass plate with 1mm Bonded spacer set, pk/2	V10-S1PG2
Plain glass plate with 1.5mm Bonded spacer set, pk/2	V10-S1.5PG2
Plain glass plate with 2mm Bonded spacer set, pk/2	V10-S2PG2
Silicone Rubber Gasket, pk/2	V10-SG
Gel Running Module	V10-GRM
Casting Base, with Seals and Cams	V10-CB
Casting Base, Silicone Seals, pk/2	CB10-SEAL
Casting Base, Cams, pk/2	CB-CAM
Replacement 0.2mm Pt Wire, 50cm	PT-0.2
<b>20 x 20cm Compact Dual Vertical Gel Unit</b>	V20-CDC
<b>Super Cooled V20-CDC</b>	V20-SCDC
<small>Includes: 2 x 4mm Notched Glass Plates, 2 x 4mm Plain Glass Plates, 1 x Dummy Plate, 2 x Sets of 1mm Spacers, 2 x Combs 1mm 24 Sample.</small>	
<b>V20-CDC with accessories plus V20-CB Casting Base</b>	V20-CDCY
<b>Super Cooled V20-CDC with accessories plus V20-CB Casting Base</b>	V20-SCDCY
Cooled Tank for V20-CDC	V20-CTANK
Notched glass plates, 4mm, pk/2	V20-NG4
Plain glass plates, 4mm, pk/2	V20-PG4
Dummy Plate	V20-DP
0.75mm Spacer Set, 20 x 200mm (W x L)	V20-S0.75
1mm Spacer Set, 20 x 200mm (W x L)	V20-S1
1.5mm Spacer Set, 20 x 200mm (W x L)	V20-S1.5
2mm Spacer Set, 20 x 200mm (W x L)	V20-S2
Silicone Rubber Gasket, pk/2	V20-SG
Gel Running Module	V20-GRM
Casting Base, with Seals and Cams	V20-CB
Casting Base, Seals, pk/2	CB20-SEAL
Casting Base, Cams, pk/2	CB-CAM
Replacement 0.2mm Pt Wire, 50cm	PT-0.2

### Technical Specifications

Gel dimensions, (W x H)	V10-CDC	8 x 8.5cm	
	V20-CDC	16.5 x 17.5cm	
Unit dimensions (W x L x H)	V10-CDC	14 x 20 x 14.5cm	
	V20-CDC	14 x 31 x 25cm	
Max. sample capacity	V10-CDC	20 x 2	
	V20-CDC	48 x 2	
Buffer volume	V10-CDC	min. 120ml	max. 120ml
		Outer 250ml	1,120ml
	V20-CDC	Inner 450ml	650ml
		Outer 500ml	3,500ml
Combs available :			
No. of samples	V10-CDC	1, 8, 10, 16, 20	
Thicknesses		0.75, 1, 1.5, 2mm	
No. of samples	V20-CDC	1, 10, 18, 24, 36, 48	
Thicknesses		0.25, 0.35, 0.75, 1, 1.5, 2mm	



Glass plates with permanently bonded spacers available as an option

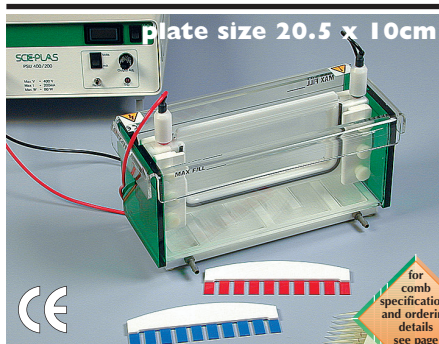
Typical Applications

**Protein and nucleic acid separations, Mini SDS-PAGE, Preparative, Peptide and Gradient pore separations.**

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## Wide Format Mini CDC



### Technical Specifications

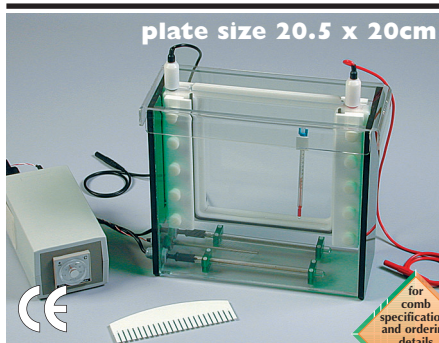
Gel dimensions (W x H)	18.5 x 8.5cm	
Unit dimensions (W x L x H)	14 x 31 x 14.5cm	
Max. sample capacity	48 x 2	
Buffer volume	Inner	min. 200ml max. 270ml
	Outer	450ml 2000ml
Combs available : No. of samples	1, 10, 18, 24, 36, 48	
Thicknesses	0.25, 0.35, 0.75, 1, 1.5, 2mm	

This 20 x 10cm (W x H) wide Mini gel is designed for laboratories with large numbers of samples to screen. Running samples on one 20cm wide gel eliminates the problems of comparing samples from two 10cm wide gels, and is also more convenient.

### Ordering Information

<b>20cm Wide Dual Cooled Mini Vertical Gel Unit</b>	V10-WCDC
Includes: 2 x 4mm Notched Glass Plates, 2 x 4mm Plain Glass Plates, 1 x Dummy Plate, 2 x Sets of 1mm Spacers, 2 x Combs 1mm 24 Sample.	
<b>V10-WCDC with accessories and V20-CB Casting Base.</b>	V10-WCDCY
Notched Glass Plates, 4mm, pk/2	V10W-NG4
Plain Glass Plates, 4mm, pk/2	V10W-PG4
Dummy Plate	V10W-DP
0.75mm Spacer Set, 12 x 103mm (W x L)	V10-S0.75
1mm Spacer Set, 12 x 103mm (W x L)	V10-S1
1.5mm Spacer Set, 12 x 103mm (W x L)	V10-S1.5
2mm Spacer Set, 12 x 103mm (W x L)	V10-S2
Silicone Rubber Gasket, pk/2	V10W-SG
Gel Running Module	V10W-GRM
Casting Base, with Seals and Cams	V20-CB
Casting Base, Silicone Seals, pk/2	CB20-SEAL
Casting Base, Cams, pk/2	CB-CAM
Replacement 0.2mm Pt Wire, 50cm	PT-0.2

## Denaturing Gradient CDC

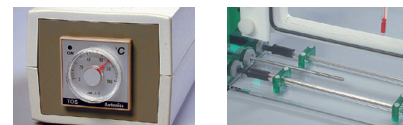


### Technical Specifications

Gel dimensions (W x H)	16.5 x 17.5cm	
Unit dimensions (W x L x H)	14 x 31 x 30cm	
Max. sample capacity	48 x 2	
Buffer volume	Inner (max)	650ml
	Outer (max)	3,500ml
Combs available : No. of samples	1, 10, 18, 24, 36, 48	
Thicknesses	0.25, 0.35, 0.75, 1, 1.5, 2mm	

These vertical units can run two 20 x 20cm polyacrylamide gels, for the detection of single base changes and polymorphisms in genomic cloned and amplified DNA fragments. These units utilise the large buffer volume in the outer tank to act as a heat reservoir. The buffer should be pre-heated prior to electrophoresis. The integral heating system, consisting of a single 400 Watt heater and an external temperature control unit, will then heat and maintain the temperature of the running buffer, during electrophoresis. The system will operate to a maximum temperature of 70°C, ±1°C. The gels are cast in the gel running module, using a gel casting base.

- Gel Dimensions: 20 x 20cm
- Single 400 Watt heater
- External Temperature Control Box
- Accurate Thermostat



### Ordering Information

<b>Denaturing Gradient Dual Vertical Gel Unit.</b>	V20-HCDC
Includes: 1 x 400 Watt Heater, 1 x Thermostat, 1 x Temperature Control Unit, 2 x 4mm Notched Glass Plates, 2 x 4mm Plain Glass Plates, 2 x Sets of 1mm Spacers, 2 x Combs 1mm 24 Sample.	
Notched glass plates, 4mm, pk/2	V20-NG4
Plain glass plates, 4mm, pk/2	V20-PG4
Dummy Plate	V20-DP
0.75mm Spacer Set, 20 x 200mm (W x L)	V20-S0.75
1mm Spacer Set, 20 x 200mm (W x L)	V20-S1
1.5mm Spacer Set, 20 x 200mm (W x L)	V20-S1.5
2mm Spacer Set, 20 x 200mm (W x L)	V20-S2
Silicone Rubber Gasket, pk/2	V20-SG
Gel Running Module	V20-GRM
Casting Base, with Seals and Cams	V20-CB
Casting Base, Seals, pk/2	CB20-SEAL
Casting Base, Cams, pk/2	CB-CAM
Replacement 0.2mm Pt Wire, 50cm	PT-0.2

Typical Applications

Detection of single base changes and polymorphisms in genomic cloned and amplified DNA fragments