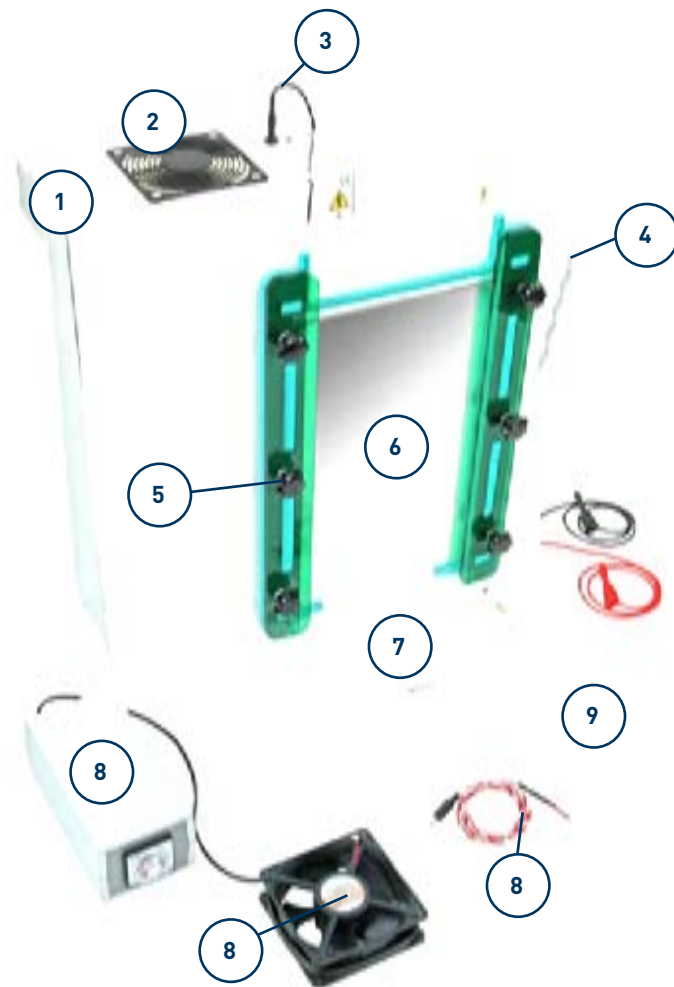


# The TVS1000 and TVS1400 Single-Plate Large Format Vertical Gel Electrophoresis Units

The Scie-Plas single-plate large format vertical gel electrophoresis units are ideal for high-resolution techniques, such as DNA sequencing, DNase and RNase footprinting, and heteroduplex and oligonucleotide analysis, which require longer separation distances. These units are available in two sizes: - 20 x 50 and 33 x 41 (W x H)

### BENEFITS INCLUDE

- 1. Safety lid** - although light weight and easily detachable, the lid cannot be removed during electrophoresis without breaking the electrical circuit
- 2. Ventilation grille** - aids heat dispersal during electrophoresis and can be replaced by the optional thermostatic fan kit (see FHS-KIT)
- 3. High voltage power cables** - oriented asymmetrically for correct polar orientation - with 2mm shrouded output connectors that are universally compatible with modern high voltage power supplies
- 4. Safety handles** - complimented by a new streamlined and light weight design - allow easy transportation around the lab
- 5. Spring-loaded plate clamps** - act in conjunction with counterbalanced silicone gaskets to maintain uniform gel thickness and even distribution of pressure across the 4mm thick float glass plates
- 6. Aluminium back plate** - serves as a heat sink to prevent sample distortion and 'smiling'
- 7. Lower buffer chamber** - clips directly onto the anode and can also be used to drain buffer from the upper chamber
- 8. Optional FHS-KIT** - an adjustable, thermostatically controlled fan kit powered independently to maintain gel temperature
- 9. Melinex combs and spacers** - 0.25 and 0.35mm thick - precision machined for maximum loading accuracy and optimum band resolution

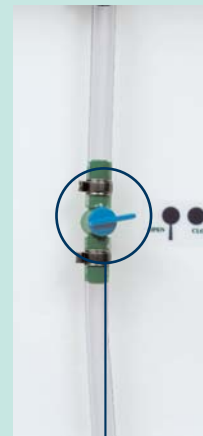




The **TVS1000** - long format for 20 x 50cm (W x H) plain and notched glass plates



The **TVS1400** - wide format for 33 x 41cm (W x H) plain and notched glass plates, providing increased sample capacity



**Drainage tap** - allows the upper buffer chamber to be emptied safely and easily

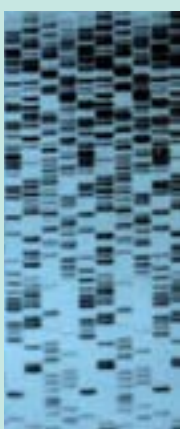
### TECHNICAL SPECIFICATION

	<b>TVS1000</b>	<b>TVS1400</b>
Unit Dimensions (W x D x H)	47 x 20.5 x 59cm	63 x 21.5 x 50cm
Plate Dimensions (W x H x T)	20 x 50 x 0.4cm	33 x 41 x 0.4cm
Standard Spacer Dimensions (W x H x T)	10 x 500 x 0.35mm	10 x 410 x 0.35mm
Active Gel Dimensions (W x H)	16 x 47.5cm	29 x 38.5cm
Maximum Sample Capacity	1 x 48	1 x 96
Recommended Buffer Volume	Upper Buffer Chamber 750ml Lower Buffer Chamber 750ml	Upper Buffer Chamber 1200ml Lower Buffer Chamber 1200ml
Recommended Running Conditions for 6% Denaturing PAGE Gel Using Passive Ventilation at 20°C Ambient Temperature	Power 45 - 55W Gel Temperature 50 - 60°C Time 2.5 - 3h	Power 45 - 55W Gel Temperature 50 - 60°C Time 2.5 - 3h
Recommended Running Conditions for 6% Denaturing PAGE Gel Using FHS-KIT at 20°C Ambient Temperature	Power 75W Gel Temperature 55°C Time 1.75h	Power 75W Gel Temperature 55°C Time 1.75h
Power Output Connectors (diameter)	Shrouded, 2mm	Shrouded, 2mm
Recommended Power Supplies	Consort EV232 & EV233	Consort EV232 & EV233

# Vertical Gel Units

## TECHNICAL SPECIFICATION

	FHS-KIT
Unit Dimensions (W x D x H)	9.6 x 14 x 8cm
Temperature Control Range	0 - 100°C
Temperature Control Accuracy	+/-2%
Fan Dimensions (W x D x H)	12 x 12 x 3.8cm
Fan Operating Speed	2700rpm
Flow Rate	>84CFM
Noise Rating	36 dBA



An autoradiograph of a 0.35mm 6% sequencing gel run in 1.75h on a TVS1400 single-plate vertical gel electrophoresis unit, at 75W constant power with the gel temperature maintained at 55°C using the FHS-KIT. Further details on operation of the TVS1000 and TVS1400 units can be found in our Technical Manual available from [sales@scie-plas.co.uk](mailto:sales@scie-plas.co.uk).

## Optional FHS-KIT

- Comprises a fan operated by a heat sensor temperature control unit
- Gel temperature is set by manual adjustment of the dial on the front panel of the control unit
- Fan is screwed onto the lid of the TVS1000 or TVS1400 in place of the ventilation grille
- Fan is activated within 4°C of the preset temperature
- Separations performed in less than 2 hours at 55°C at 75W constant power



## ORDERING INFORMATION

### Complete System

Single-plate vertical gel electrophoresis unit with integral GRM and aluminium back plate; upper and lower buffer chambers; lid, 2 x (20 x 50cm; W x H) plain glass plates, 2 x (20 x 50cm) notched glass plates, 2 x 0.35mm melinex spacers and 1 x 0.35mm thick 48-sample shark's tooth melinex comb

### Part No.

TVS1000

### Replacement Parts & Accessories

2 x (20 x 50cm) plain glass plates for TVS1000	TVS1000-PG
2 x (20 x 50cm) notched glass plates for TVS1000	TVS1000-NG
2 x 0.25mm thick spacers for TVS1000	TVS1000-S0.25
2 x 0.35mm thick spacers for TVS1000	TVS1000-S0.35
2 x 0.75mm thick spacers for TVS1000	TVS1000-S0.75
2 x 1mm thick spacers for TVS1000	TVS1000-S1
2 x 1.5mm thick spacers for TVS1000	TVS1000-S1.5
2 x 2mm thick spacers for TVS1000	TVS1000-S2

### Complete System

Single-plate vertical gel electrophoresis unit with integral GRM and aluminium back plate; upper and lower buffer chambers; lid, 2 x (33 x 41cm; W x H) plain glass plates, 2 x (33 x 41cm) notched glass plates, 2 x 0.35mm melinex spacers and 1 x 0.35mm thick 48-sample shark's tooth melinex comb

### Part No.

TVS1400

### Replacement Parts & Accessories

2 x (33 x 41cm) plain glass plates for TVS1400	TVS1400-PG
2 x (33 x 41cm) notched glass plates for TVS1400	TVS1400-NG
2 x 0.25mm thick spacers for TVS1400	TVS1400-S0.25
2 x 0.35mm thick spacers for TVS1400	TVS1400-S0.35
2 x 0.75mm thick spacers for TVS1400	TVS1400-S0.75
2 x 1mm thick spacers for TVS1400	TVS1400-S1
2 x 1.5mm thick spacers for TVS1400	TVS1400-S1.5
2 x 2mm thick spacers for TVS1400	TVS1400-S2

Fan sensor kit including heat sensor temperature control unit, fan and mains power lead for TVS1000 & TVS1400 (220-240Va.c.)	FHS-KIT
Fan sensor kit including heat sensor temperature control unit, fan and mains power lead for TVS1000 & TVS1400 (100-110Va.c.)	FHS-KIT-A
2 x 0.2mm thick, platinum electrode wire for TVS1000 & TVS1400	PT-0.2
2 x 1 metre power leads with shrouded 2mm power output connectors for TVS1000 & TVS1400	CABLE-2

## TVS1000 Combs

Part No.	Thickness (mm)	Sample Throughput	Tooth Width (mm)	Tooth Height (mm)	Max. Spacing (mm)	Sample Volume / Well (µl)
TV400-C0.25-24	0.25	24	4.75	5	2	6
*TV400-C0.25-36MC	0.25	36	2.5	5	2	3
TV400-C0.35-24	0.35	24	4.75	5	2	8
*TV400-C0.35-36MC	0.35	36	2.5	5	2	4
+TV400-C0.75-1D	0.75	1	152	20	n/a	2280
TV400-C0.75-10	0.75	10	11	20	5.5	165
*TV400-C0.75-18MC	0.75	18	6	20	3	90
TV400-C0.75-24	0.75	24	4.75	20	2	71
*TV400-C0.75-36MC	0.75	36	2.5	20	2	37
TV400-C0.75-48	0.75	48	2.35	20	1	35
+TV400-C1-1D	1	1	152	20	n/a	3040
TV400-C1-10	1	10	11	20	5.5	220
*TV400-C1-18MC	1	18	6	20	3	120
TV400-C1-24	1	24	4.75	20	2	95
*TV400-C1-36MC	1	36	2.5	20	2	50
TV400-C1-48	1	48	2.35	20	1	47
+TV400-C1.5-1D	1.5	1	152	20	n/a	4560
TV400-C1.5-10	1.5	10	11	20	5.5	330
*TV400-C1.5-18MC	1.5	18	6	20	3	180
TV400-C1.5-24	1.5	24	4.75	20	2	142
*TV400-C1.5-36MC	1.5	36	2.5	20	2	75
TV400-C1.5-48	1.5	48	2.35	20	1	70
+TV400-C2-1D	2	1	152	20	n/a	6080
TV400-C2-10	2	10	11	20	5.5	440
*TV400-C2-18MC	2	18	6	20	3	240
TV400-C2-24	2	24	4.75	20	2	190
*TV400-C2-36MC	2	36	2.5	20	2	100
TV400-C2-48	2	48	2.35	20	1	94

## Shark's Tooth Combs

TVS1000-SC-M0.25-24	0.25	24	2.5	9	5.6	2.5
*TVS1000-SC-M0.25-30MC	0.25	30	2.5	9	4.5	2.5
TVS1000-SC-M0.25-36	0.25	36	2.5	9	4	2.5
TVS1000-SC-M0.25-48	0.25	48	2.5	9	2.8	2.5
TVS1000-SC-M0.35-24	0.35	24	2.5	9	5.6	3.5
*TVS1000-SC-M0.35-30MC	0.35	30	2.5	9	4.5	3.5
TVS1000-SC-M0.35-36	0.35	36	2.5	9	4	3.5
TVS1000-SC-M0.35-48	0.35	48	2.5	9	2.8	3.5

\*Multi-channel compatible

+Suitable for 1-D preparatory or 2-D electrophoresis

## TVS1400 Combs

Part No.	Thickness (mm)	Sample Throughput	Tooth Width (mm)	Tooth Height (mm)	Max. Spacing (mm)	Sample Volume / Well (µl)
TVS1400-C0.25-40	0.25	40	4	5	3	5
*TVS1400-C0.25-60MC	0.25	60	2	5	2.5	2.5
TVS1400-C0.25-80	0.25	80	2.5	5	1	3
TVS1400-C0.35-40	0.35	40	4	5	3	7
*TVS1400-C0.35-60MC	0.35	60	2	5	2.5	3.5
TVS1400-C0.35-80	0.35	80	2.5	5	1	4
TVS1400-C0.75-40	0.75	40	4	20	3	60
*TVS1400-C0.75-60MC	0.75	60	2	20	2.5	30
TVS1400-C0.75-80	0.75	80	2.5	20	1	37.5
TVS1400-C1-40	1	40	4	20	3	80
*TVS1400-C1-60MC	1	60	2	20	2.5	40
TVS1400-C1-80	1	80	2.5	20	1	50
TVS1400-C1.5-40	1.5	40	4	20	3	120
*TVS1400-C1.5-60MC	1.5	60	2	20	2.5	60
TVS1400-C1.5-80	1.5	80	2.5	20	1	75
TVS1400-C2-40	2	40	4	20	3	160
*TVS1400-C2-60MC	2	60	2	20	2.5	80
TVS1400-C2-80	2	80	2.5	20	1	100

## Shark's Tooth Combs

TVS1400-SC-M0.25-48	0.25	24	3	10	5.6	3.5
*TVS1400-SC-M0.25-60MC	0.25	60	2.5	10	4.5	3
TVS1400-SC-M0.25-96	0.25	96	2.5	9	4	2.5
TVS1400-SC-M0.35-48	0.35	24	3	10	2.8	5
*TVS1400-SC-M0.35-60MC	0.35	60	2.5	10	5.6	4
TVS1400-SC-M0.35-96	0.35	96	2.5	9	4.5	3.5

\*Multi-channel compatible



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SEE PAGES 135-142

## DO YOU NEED...?

GEL DRYERS	SEE PAGE 84
VACUUM PUMP	SEE PAGE 85
A POWER SUPPLY	SEE PAGES 100-103
A FAN HEATER CONTROL KIT	SEE PAGE 82
ACRYLAMIDE	SEE PAGE 136