



Vertical Gel Electrophoresis

TV Range



The new TV series of vertical gel electrophoresis tanks

This all new range of tanks has been designed to fully meet the requirements of today's scientists, by combining superb resolution with ease of use.

Sharing a host of common features, the TV Series allows the researcher to switch from smaller to larger models without having to adapt gel casting, gel running or gel analysis techniques.

Designed by scientists for scientists, the new TV Series are instruments of choice for modern gel electrophoresis.

Design features

- Robust acrylic construction.
- Safety lids with integral power leads.
- Shrouded power connectors.
- Long life 99.99% pure replaceable platinum electrodes.
- Gold plated terminals with stainless steel washers to resist corrosion.



Common features of the TV series:

- **Counterbalanced gaskets in gel running modules.**
Ultra soft seals ensure that an even parallel pressure is applied to the gel plate, thereby eliminating breakage, bowing or lane distortion when running. This ensures consistently higher resolution separations.
- **Bonded spacers.**
Included as standard with all systems (except TV100(K), TVS 1000 & 1400) to ease set up prior to gel casting. The standard thickness is 1mm with 0.75, 1.5 and 2mm also available – See page 7.
- **Asymmetric electrode offset.**
This prevents accidental polarity reversal ensuring no possibility of sample loss into the buffer.

Model Range		W x H
TV50	Single plate mini gel	10 x 10 cm
TV100	Dual plate mini gel	10 x 10 cm
TV200	Dual plate mini wide gel	20 x 10 cm
TV300	Single plate maxi gel	20.5 x 20 cm
TV400	Dual plate maxi gel	20.5 x 20 cm
TVS1000	Single plate size	20 x 50 cm
TVS1400	Single plate size	33 x 41 cm



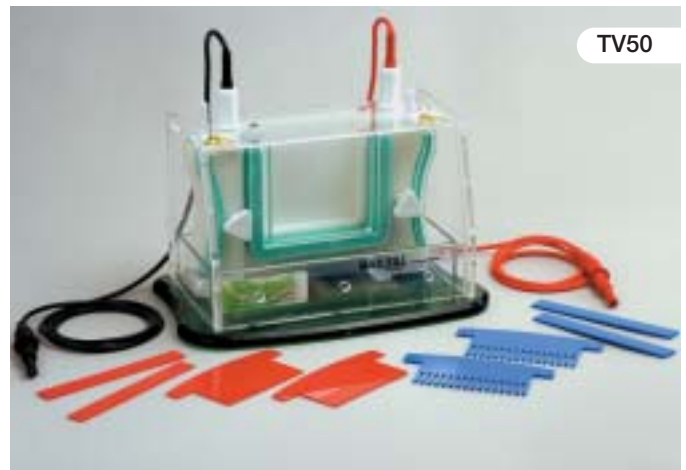
All units are fully CE compliant

TV50 and TV300 single plate systems

Come complete with tank with integral gel running module, two plain glass plates with 1mm thick bonded spacers, two notched glass plates and one 12 well, 1mm thick comb for TV50, 24 well for TV300.

TV50 & 300 Features

- **Single plate.**
Designed for routine, low throughput analysis.
- **Rapid set up times.**
The gel loading system allows for faster set up times.
- **Separate low volume buffer reservoirs.**
Buffer reservoirs are low volume for economical gel running.
- **Ventilation holes.**
Reduce condensation occurring inside the tank.
Located so that no external contact can be made with the electrical components whilst the tank is running.



Recommended **PowerPACK**: Consort E844



Recommended **PowerPACK**: Consort E861



Compatible gel pouring / casting systems are available.

For the TV50 use TV100-SC2

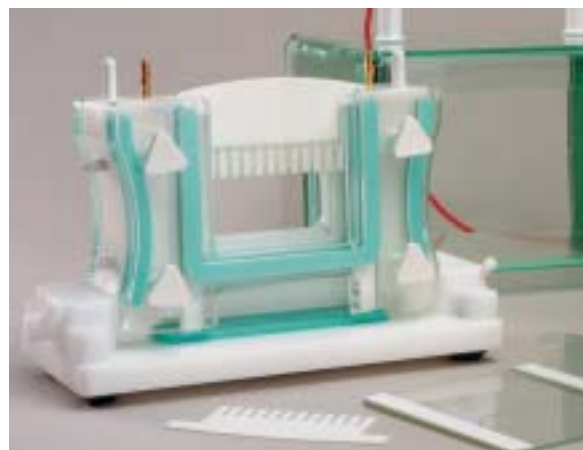
For the TV300 use TV400-SC2

Dual tank systems

Designed for the high throughput laboratory where exemplary gel quality and high-resolution separations are required. These units also offer improved set up times and ease of use with either hand cast or precast gels.

Common Features of the Dual Range:

- **Combined gel casting / running.**
The gel running module (GRM) is located on the casting base for gel pouring. Once the gels have set the module is transferred directly into the tank without any transfer of glass plates between casting and running modules.
- **Casting base.**
Utilises ultra soft silicone gaskets to ensure a leak proof seal.
- **Cooling.**
The gel running module ensures excellent cooling by allowing complete exposure of the gel to the buffer. The buffer tank allows the choice of buffer economy runs via partial filling of the tank. High resolution is obtained via complete filling and utilising the large buffer reserve.
- **Super cooling.**
This option provides an efficient cooling coil to enhance resolution ensuring ultra fine band separation and faster run times. Optimized for use with the SCIE-PLAS K-ELECTRO4 chiller.
- **Curved tanks.**
The ergonomic designs make the tanks easier to grip and transport, especially important when the tanks are full of buffer.
- **Raised tank base.**
Permits the new generation of thin magnetic stirrers to slide under the tank so that buffer mixing is easily achieved.



Options:

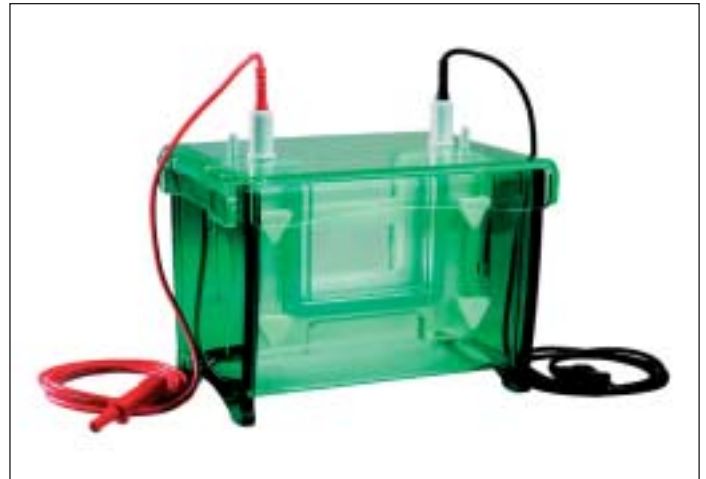
Model	Comprises
TV100	Tank, gel running module and dummy plate only - specifically for 8 x 10 and 10 x 10 cm precast gels.
TV200 / TV400	Tank, gel running module, 2 x plain glass plates with 1mm bonded spacers, 2 x notched glass plates, 2 x combs, 24 sample, 1mm thick, 1 x dummy plate.
-Y versions	TV100Y additionally includes 2 x plain glass plates with 1mm bonded spacers, 2 x notched glass plates, 2 x 1mm combs, 12 sample and Casting Base. TV200Y / TV400Y additionally includes Casting Base.
-K versions	Super cooled option via Cooling Coil.

TV100 – mini dual vertical system

The unit of choice for mini vertical gel electrophoresis with reduced set up times and ease of use without compromising resolution.

Features of the TV100 Series:

- **Precast gel option.**
The TV100 is compatible with both 8 x10 and 10 x10 cm precast gels.
- **Handcast option.**
A rapid gel casting system guarantees leak proof casting.
- **Additional horizontal clamping bar.**
Connects the two end clamps ensuring an even pressure onto either the precast gel or glass plates.
- **Glass plates.**
2mm thick to provide integral strength.



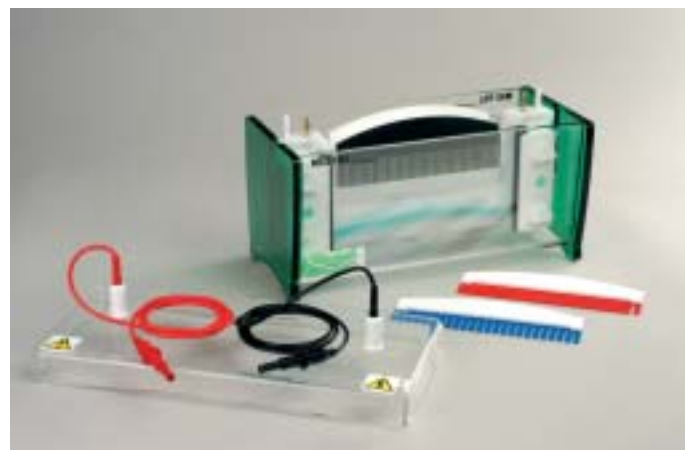
Recommended **PowerPACK**: Consort E844

TV200 – mini wide dual vertical system

Designed for high throughput laboratories where running samples directly on the same gel enhances consistency and simplifies high volume analysis and sample checking.

Features of the TV200 Series:

- **High throughput.**
Up to 48 samples per gel giving a 96 sample total run capacity.
- **Concave finger lugs on GRM.**
These facilitate easy insertion and removal from the tank, along with safe transportation of the GRM when loaded with glass plates.
- **Glass plates.**
4mm thick providing integral strength, removing the need for an additional horizontal clamping bar.
- **Easy gel handling.**
10cm plate height allows easy gel handling and shorter run times.



Recommended **PowerPACK**: Consort E844

TV400 – maxi dual vertical system

The unit of choice for maxi vertical gel electrophoresis. Glass plates are completely sealed against a soft silicone gasket ensuring no possibility of current leakage during extended runs.

Features of the TV400 Series:

- **Enhanced gaskets.**
These ensure high resolution separations and no run time lag due to current leakage.
- **Efficient cooling.**
Glass plates are completely immersed in buffer, which acts as an effective heat sink, homogenizing the gel temperature. The super cooled option further allows heat to be removed from the gel.
- **Gel running module.**
An extended version of the TV200GRM, which can be safely picked up and transported around the laboratory.
- **Hand grips on tank.**
Allow for easy transportation around the lab. The ergonomic non slip grip ensures safe carrying even when loaded with glass plates, gels and buffer.



Recommended **PowerPACK**: Consort E861

TVS 1000 & 1400 - large vertical and DNA sequencing units

Designed for either manual DNA sequencing or for large format vertical gel applications. At 20 x 50 cm (TVS1000) and 33 x 41 cm (TVS1400), these units are the largest systems in the TV range.

Features of the TVS 1000 & 1400:

- **Integral counterbalance seals.**
Ensure uniform gel thickness and sample migration.
- **Heat sink plate.**
The aluminium back plate ensures uniform heat dispersion across the gel.
- **Lightweight safety cover.**
Provides for easy removal and gel access.
- **Cooling kit.**
The optional cooling kit allows for faster run times and enhanced resolution.
- **Extended accessory range.**
Additional combs and spacers for large format vertical gel electrophoresis.
- **Carrying handles.**
For easy lab transportation.



Recommended **PowerPACK**: Consort E832

Combs and Spacers

See page 10 for ranges, specifications and ordering information.

Combs:

- **Two widths.**
10 cm for TV50 & 100.
20 cm for TV200, 300 & 400.
- **Colour coded to assist matching.**
Black 0.75 mm thick.
White 1.00 mm thick.
Red 1.50 mm thick.
Blue 2.00 mm thick.
- **Custom combs.**
Available on request.
- **Rigid construction.**
Ensure durability, precise well formation and sample migration.
- **Multichannel pipette compatible.**
The postfix MC denotes multi channel pipette compatibility.



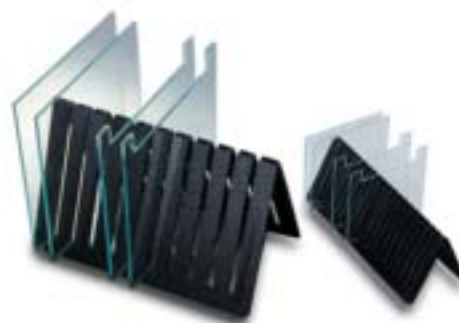
Spacers:

- **Bonded as standard.**
Eliminates the need for manual alignment prior to gel preparation.
- **Two heights.**
10 cm for TV50, 100 & 200.
20 cm for TV300 & 400.
- **Colour coded.**
These utilise the same colour coding as the combs to ease comb compatibility - see above.
- **Available separately.**
Separate spacers are available for use with plain glass plates.



Glass Plate Racks:

- **Discrete glass plate storage.**
The racks provide vertical storage for multiple glass plates to prevent accidental breakage.
- **Two sizes.**
One for 10 x 10 cm plates and the other for 20 x 20 cm or 20 x 10 cm plates.



ELECTRO BLOTTING MODULES:- TV100-EBGRM, TV200-EBGRM, TV400-EBGRM

These can be inserted into the TV tank to provide equivalent size blotting of proteins onto a membrane.

Features of the Blotting modules:

- **Minimal electrode separation.**
Ensures direct current transmission through the blot sandwich.
- **Coiled electrode array.**
Provides an intense current and a highly efficient parallel electric field.
- **Colour coded, easy lock cassettes.**
Allows easy orientation and gel loading for rapid, error free set-up.



DUAL BLOTTING SYSTEMS – TV100K-EB, TV200K-EB and TV400K-EB

Complete systems for blotting including cooled TV tank, lid and blotting module with cassettes and foam pads.

Features of the TV100K-EB:

- **Compact blotting system.**
Available for TV100, 200 and 400 gel tank systems.
- **Cooling coil.**
Enhances blotting speed and improves resolution.
- **Comprises.**
The TV Series-K version tank along with Electro Blotting module (TVx00-EBGRM) and accessories.



Recommended **PowerPACK**: Consort E802

1-D MODULES TV100-CAPGRM, TV400-CAPGRM

Utilise the TV series tanks for the 1st dimension phase of 2-D electrophoresis.

Features of the 1-D Modules:

- **Tube gels.**
Allow for sample separation by charge via a pH gradient prior to size determination phase.
- **Ultra soft gasket.**
Ensures complete sealing and ease of tube insertion and extraction.
- **Gel extraction platform available.**
This accessory allows individual tube gels to be easily extracted prior to the 2nd stage.

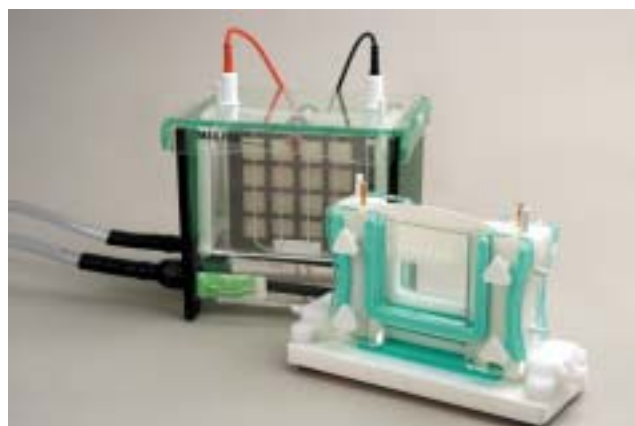


Modular Blotting Systems - TV100YK-EBSYS, TV200YK-EBSYS and TV400YK-EBSYS

A convenient and space saving solution for slab gel electrophoresis and electro blotting.

Features of the Modular Blotting Systems:

- **Combined electrophoresis and blotting.**
A one-tank solution for consistency of slab gel electrophoresis and electro blotting.
- **Comprises.**
The -YK version (cooled, complete with casting base and accessories), the Electro Blotting module (TVx00-EBGRM) and accessories.



Recommended **PowerPACK**: Consort E802

2-D SYSTEMS - TV100YK-2DSYS and TV400YK-2DSYS

These provide the added benefit of utilising the super cooled tank option for enhanced reproducibility and resolution.

Features of the 2-D Systems:

- **Complete 2-D analysis.**
A one-tank solution for 2-D electrophoresis using tube gels for the 1st dimension.
- **Comprises.**
The -YK version (cooled, complete with casting base and accessories), the 1-D module (TVx00-CAPGRM) and accessories.



Recommended **PowerPACK**: Consort E815

Complete Modular Systems - TV100YK-MODSYS and TV400YK-MODSYS

Complete systems that offer the maximum in space saving and economy.

Features of the Complete Modular Systems:

- **2-D analysis with blotting.**
Allows complete 2-D analysis and blotting.
- **Comprises.**
The -YK version (cooled, complete with casting base and accessories), the 1-D module (TVx00-CAPGRM), the Electro Blotting module (TVx00-EBGRM) and accessories.



Recommended **PowerPACK**: Consort E815

Combs

Model	Thickness (mm)	No. of Samples
TV50 &TV100(YK)		
V10-C0.75-1D	0.75	1
V10-C0.75-10	0.75	10
V10-C0.75-12	0.75	12
V10-C0.75-16MC	0.75	16
V10-C0.75-20	0.75	20
V10-C1-1D	1	1
V10-C1-10	1	10
V10-C1-12	1	12
V10-C1-16MC	1	16
V10-C1-20	1	20
V10-C1.5-1D	1.5	1
V10-C1.5-10	1.5	10
V10-C1.5-12	1.5	12
V10-C1.5-16MC	1.5	16
V10-C1.5-20	1.5	20
V10-C2-1D	2	1
V10-C2-10	2	10
V10-C2-12	2	12
V10-C2-16MC	2	16
V10-C2-20	2	20
TV200(YK), TV300(TK), TV400(YK) AND TVS1000		
V20-C0.25-24	0.25	24
V20-C0.25-36MC	0.25	36
V20-C0.35-24	0.35	24
V20-C0.35-36MC	0.35	36
V20-C0.75-1D	0.75	1
V20-C0.75-10	0.75	10
V20-C0.75-18MC	0.75	18
V20-C0.75-24	0.75	24
V20-C0.75-36MC	0.75	36
V20-C0.75-48	0.75	48
V20-C1-1D	1	1
V20-C1-10	1	10
V20-C1-18MC	1	18
V20-C1-24	1	24
V20-C1-36MC	1	36
V20-C1-48	1	48
V20-C1.5-1D	1.5	1
V20-C1.5-10	1.5	10
V20-C1.5-18MC	1.5	18
V20-C1.5-24	1.5	24
V20-C1.5-36MC	1.5	36
V20-C1.5-48	1.5	48
V20-C2-1D	2	1
V20-C2-10	2	10
V20-C2-18MC	2	18
V20-C2-24	2	24
V20-C2-36MC	2	36
V20-C2-48	2	48

Model	Thickness (mm)	No. of Samples
TV1000, TV1400 (SC33 COMBS ARE FOR TV1400 ONLY)		
SHARKS TOOTH COMBS		
SC2-M0.25-24	0.25	24
SC2-M0.25-30MC	0.25	30
SC2-M0.25-36	0.25	36
SC2-M0.25-48	0.25	48
SC2-M0.35-24	0.35	24
SC2-M0.35-30MC	0.35	30
SC2-M0.35-36	0.35	36
SC2-M0.35-48	0.35	48
SC33-M0.25-48	0.25	48
SC33-M0.25-60MC	0.25	60
SC33-M0.25-96	0.25	96
SC33-M0.35-48	0.35	48
SC33-M0.35-60MC	0.35	60
SC33-M0.35-96	0.35	96
SQUARE TOOTH COMBS FOR TVS1400		
V33-C0.25-40	0.25	40
V33-C0.25-60MC	0.25	60
V33-C0.25-80	0.25	80
V33-C0.35-40	0.35	40
V33-C0.35-60MC	0.35	60
V33-C0.35-80	0.35	80
V33-C0.75-40	0.75	40
V33-C0.75-60MC	0.75	60
V33-C1-40	1	40
V33-C1-60MC	1	60
V33-C1.5-40	1.5	40
V33-C1.5-60MC	1.5	60
V33-C2-40	2	40
V33-C2-60MC	2	60

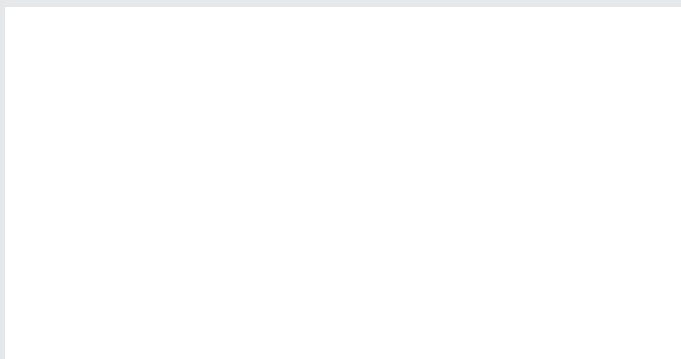
Model	Dimensions (mm, w x d x h)	Buffer Volume (ml)	
		Min	Max
TV50	215 x 125 x 135	125	200
TV100	200 x 150 x 140	400	1200
TV100K	240 x 150 x 140	800	2200
TV200	400 x 150 x 140	800	2400
TV200K	440 x 150 x 140	1600	4400
TV300	320 x 135 x 230	550	800
TV400 (K)	310 x 160 x 280	950	4600
TVS1000	470 x 205 x 590	1200	2400
TVS1400	620 x 205 x 500	1600	3200

CONSORT POWER PACKS			
Model	Voltage	Current mAmp	Watts
E802	300	2000	300
E815	1200	500	300
E832	3000	150	150
E844	400	400	80
E861	600	1000	300

SYSTEMS							
Standard Option	TV50	TV100	TV200	TV300	TV400	TVS1000	TVS1400
Cooled Option		TV100K	TV200K		TV400K	Add FHS-KIT	Add FHS-KIT
Casting Option	-	TV100Y	TV200Y	-	TV400Y	-	-
Cooled and Casting Option	-	TV100YK	TV200YK	-	TV400YK	-	-
Blotting Unit	-	TV00K-EB	TV200K-EB	-	TV400K-EB	-	-
Blotting System	-	TV100YK-EBSYS	TV200YK-EBSYS	-	TV400YK-EBSYS	-	-
Complete 2-D System	-	TV100YK-2DSYS	-	-	TV400YK-2DSYS	-	-
Complete Modular System	-	TV100YK-MODSYS	-	-	TV400YK-MODSYS	-	-
ACCESSORIES / SPARE PARTS							
Gel Running Module	-	TV100-GRM	TV200-GRM	-	TV400-GRM	-	-
Tank	-	TV100-TANK	TV200-TANK	-	TV400-TANK	-	-
Cooled Tank	-	TV100-KTANK	TV200-KTANK	-	TV400-KTANK	-	-
Lid	-	TV100-LID	TV200-LID	-	TV400-LID	-	-
Clamp	-	TV100-CLAMP	TV200-CLAMP	-	TV400-CLAMP	-	-
Screws	-	TV100-SCW	TV100-SCW-	-	TV400-SCW	-	-
Gasket	-	TV100-GS	TV200-GS	-	TV400-GS	TVS1000-SG	TVS1400-SG
Plain Glass Plate	TV100-PG	TV100-PG	TV200-PG	TV400-PG	TV400-PG	TVS1000-PG	TVS1400-PG
Plain Glass Plate with 0.75mm bonded spacers	TV100-PGS0.75	TV100-PGS0.75	TV200-PGS0.75	TV400-PGS0.75	TV400-PGS0.75	-	-
Plain Glass Plate with 1mm bonded spacers	TV100-PGS1	TV100-PGS1	TV200-PGS1	TV400-PGS1	TV400-PGS1	-	-
Plain Glass Plate with 1.5mm bonded spacers	TV100-PGS1.5	TV100-PGS1.5	TV200-PGS1.5	TV400-PGS1.5	TV400-PGS1.5	-	-
Plain Glass Plate with 2mm bonded spacers	TV100-PGS2	TV100-PGS2	TV200-PGS2	TV400-PGS2	TV400-PGS2	-	-
Notched Glass Plate	TV100-NG	TV100-NG	TV200-NG	TV400-NG	TV400-NG	TVS1000-NG	TVS1400-NG
Spacers 0.25mm	-	-	-	TV400-S0.25	TV400-S0.25	TVS1000-S0.25	TVS1400-S0.25
Spacers 0.35mm	-	-	-	TV400-S0.35	TV400-S0.35	TVS1000-S0.35	TVS1400-S0.35
Spacers 0.75mm	TV100-S0.75	TV100-S0.75	TV100-S0.75	TV400-S0.75	TV400-S0.75	TVS1000-S0.75	TVS1400-S0.75
Spacers 1mm	TV100-S1	TV100-S1	TV100-S1	TV400-S1	TV400-S1	TVS1000-S1	TVS1400-S1
Spacers 1.5mm	TV100-S1.5	TV100-S1.5	TV100-S1.5	TV400-S1.5	TV400-S1.5	TVS1000-S1.5	TVS1400-S1.5
Spacers 2mm	TV100-S2	TV100-S2	TV100-S2	TV400-S2	TV400-S2	TVS1000-S2	TVS1400-S2
Casting Base	-	TV100-CB	TV400-CB	-	TV400-CB	-	-
Cam Casting System	TV100-SC2	TV100-SC2	TV400-SC2	TV400-SC2	TV400-SC2	-	-
Blotting Module	-	TV100-EBGRM	TV200-EBGRM	-	TV400-EBGRM	-	-
Blotting Pads	-	TV100-FP	TV200-FP	-	TV400-FP	-	-
Blotting Cassettes	-	TV100-CC	TV200-CC	-	TV400-CC	-	-
1-D Module	-	TV100-CAPGRM	-	-	TV400-CAPGRM	-	-
Gasket	-	TV100-CAPGS	-	-	TV400-CAPGS	-	-
Capillary Tubes 1mm i.d.	-	V10-CAPROD	-	-	V20-CAPROD	-	-
Capillary Tubes 4mm i.d.	-	V10-CAPROD4	-	-	V20-CAPROD4	-	-
Blanking Ports	-	V10-CAPB	-	-	V10-CAPB	-	-
Gel extraction platform	-	TV100-GEP	-	-	TV400-GEP	-	-
GLE-MGR	Mini glass plate rack for 20, 2mm glass plates						
GLE-LGR	Maxi glass plate rack for 10, 5mm glass plates						
Chiller	K ELECTRO 4						



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