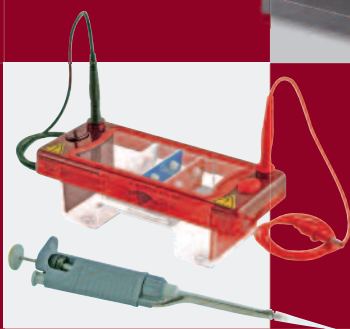
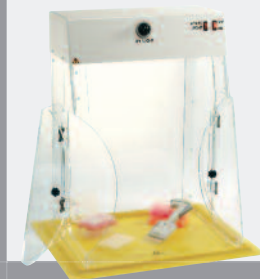
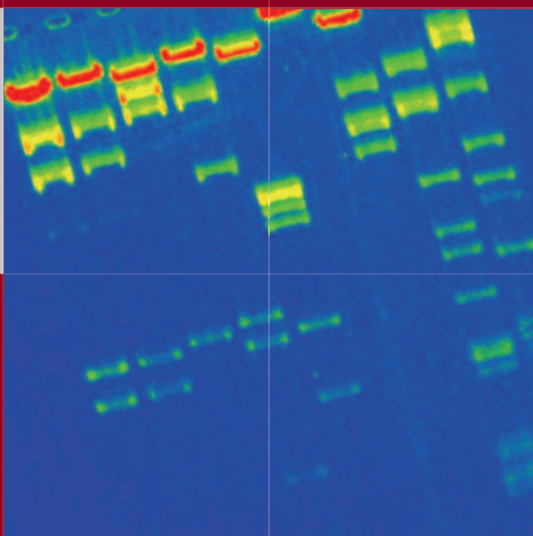
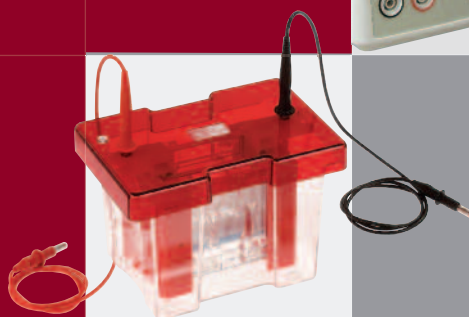


electrophoresis



life science



- HORIZONTAL GEL SYSTEMS
- VERTICAL PAGE GEL SYSTEMS
- 2-D ELECTROPHORESIS SYSTEMS
- BLOTTING OPTIONS
- POWER SUPPLIES
- GEL VISUALISATION & DOCUMENTATION

www.biocomDIRECT.com

multiSUB

SETTING A NEW STANDARD
IN HORIZONTAL ELECTROPHORESIS

INJECTION MOULDED CONSTRUCTION - durable, leak-proof environment for complete safety and long life

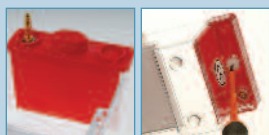
CASSETTE TYPE ELECTRODES - inexpensive, easy to replace. Made of 99.99% corrosion resistant, pure platinum

ELECTRICAL SAFETY - lid can be located in one way only. On removal, power is disconnected from buffer chamber

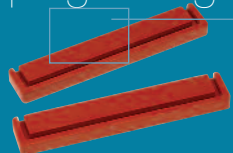
MULTIPLE GEL TRAYS - eliminate the need for additional gel tanks

UNIQUE GEL COOLING SYSTEM

EASY CLICK LID REMOVAL



"plug and go" gel casting



Casting dams allow gels to be rapidly cast externally while the multiSUB™ unit is in use for gel running



These comb/guides combine the convenience of a regular comb with an appropriate guide (same teeth number and width) for loading samples, simply flip over.

combi-comb/loading guides

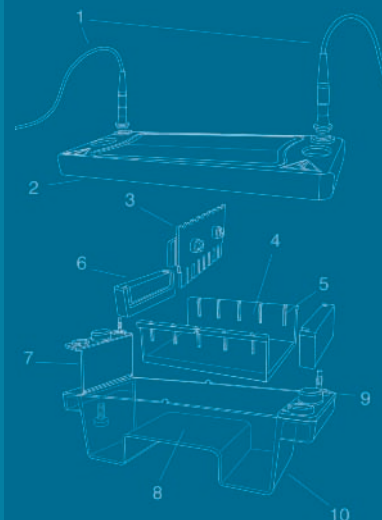


unique gel cooling system



Removable gel table allows a CoolPack to sit in buffer above the gel, to provide enhanced gel resolution and faster run time

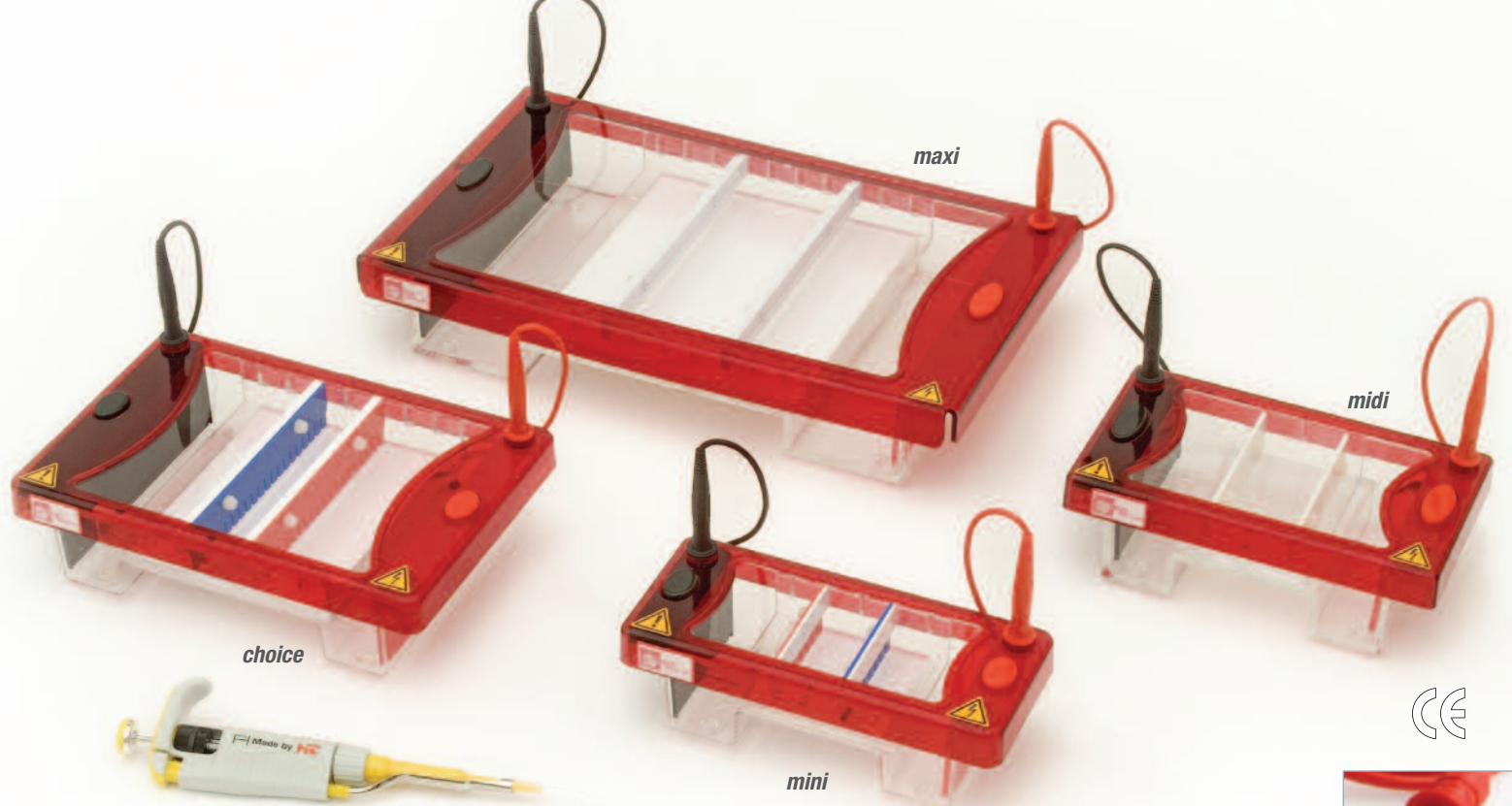
Components of multiSUB gel chambers



- 1 Power Cables
- 2 Safety Lid & Viewing Pane
- 3 Height-adjustable comb
- 4 UV transparent gel tray
- 5 Comb slots
- 6 'Plug-and-Go' casting dams
- 7 Colour-coded electrodes with power plug connectors
- 8 Gel Platform
- 9 Safety lid thumb locators
- 10 Moulded tank



All units are CE marked and are in conformity with the relevant CE Safety Directives:
73/23/EEC: LOW VOLTAGE DIRECTIVE: IEC 61010-1:2001, EN 61010-1:2001;
89/336/EEC EMC DIRECTIVE: EN55011 Emissions, EN50082-1 Immunity.



Corrosion resistant,
99.99% pure platinum
electrodes and gold
plated terminals - easily
replaced, ensuring
minimum repair times



Retractable
connectors
compatible with
most major
power supplies

The multiSUB series of Horizontal Gel Units offers the most versatile solution for DNA and RNA agarose gel electrophoresis currently available. All five units offer an unsurpassed combination of economy of gel and buffer volume, with gel size and sample number versatility. Gel size and sample number requirements can be exactly matched in each unit, with the option of additional gel tray sizes. This eliminates the need for multiple gel tanks for changes in gel size or application.

All units feature removable UV transparent trays. For optimum value and versatility, systems are available with one, two or three tray options (dependent on model). Easy to use, leak proof 'plug and go' gel casting dams are included as standard to allow gels to be rapidly cast whilst the multiSUB unit is in use for gel running. With no indentations or casting gate grooves in the tray to interfere with sample progression, traditional tape casting can be used, should this be preferred.

Although lid connectors are compatible with most major power supplies, adapters are available to provide complete compatibility.

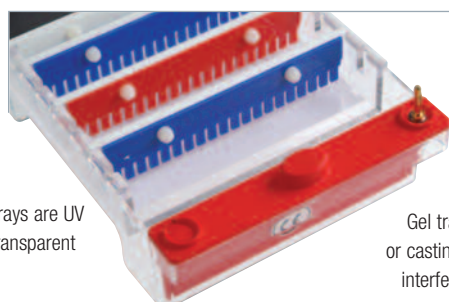


combs

- five thicknesses, colour coded
 - purple:** 0.5mm for ultra resolved bands
 - black:** 0.75mm for ultra resolved bands
 - white:** 1mm supplied as standard
 - red:** 1.5mm for maximising sample volume
 - blue:** 2mm for maximising sample volume

- options for Sample Prep
- options for Multi-Channel Pipette Compatible

The number of samples can be maximised using high tooth number combs



Trays are UV
transparent

White PVC platform
cover and red loading
guides can be
optionally applied to
enhance well visibility

Gel trays are free of indentations
or casting gate channels which can
interfere with sample progression



UV transparent Gel Scoops,
available for each unit size, offer
a safe and easy way to transport
gels to a UV Transilluminator

SETTING A NEW STANDARD IN HORIZONTAL ELECTROPHORESIS

multisub

- AVAILABLE WITH 7 x 7cm, 7 x 10cm OR WITH BOTH GEL TRAYS
- ECONOMIC LOW GEL AND BUFFER VOLUMES
- SMALL LAB BENCH FOOTPRINT

Technical Specifications

GEL DIMENSIONS, (W x L)	7 x 7cm 7 x 10cm
UNIT DIMENSIONS	21 x 9 x 9cm (W x D x H)
MAX. SAMPLE CAPACITY	7 x 7cm TRAY – 32 SAMPLES 7 x 10cm TRAY – 64 SAMPLES
BUFFER VOLUME	225ML
COMBS AVAILABLE : No. OF SAMPLES THICKNESSES	1, 2, 4, 8MC, 8, 10, 12MC, 16 0.75, 1, 1.5, 2mm

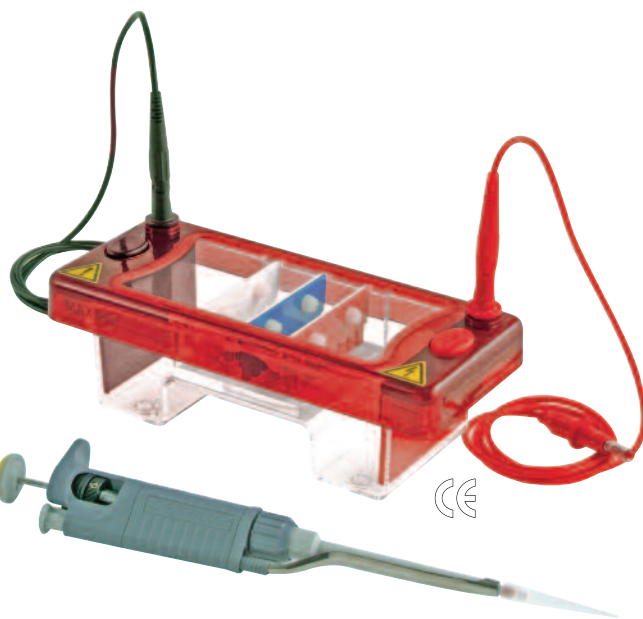
Typical Applications

Designed for quick checks of low to medium numbers of samples

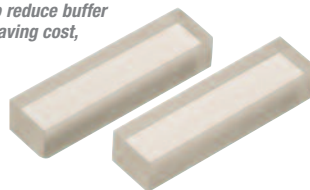
MINI

multiSUB Mini is designed for low to medium numbers of samples.

The small gel size maximises run economy but does not compromise versatility as two tray options are available – 7 x 7cm and 7 x 10cm, and combs ranging from preparative up to 16 samples. Simply by altering the gel tray or comb, this compact unit is capable of resolving up to 64 different samples, prepping 1ml of sample or separating sample bands over a distance of 9cm.



Buffer Saver Blocks physically reduce the volume of a gel chamber and so reduce buffer requirements, saving cost, see page 16



Flexicaster Mini/Midi allows casting of gel lengths up to 10cm



molecular grade agarose, see page 17



components of multiSUB Mini Duo

ORDERING INFORMATION

- BCMSMINI7** multiSUB Mini, 7 x 7cm UV Tray, 2 x 8 sample combs, loading guides and dams
- BCMSMINI10** multiSUB Mini, 7 x 10cm UV Tray, 2 x 8 sample combs, loading guides and dams
- BCMSMINIDUO** multiSUB Mini, 7 x 7cm & 7 x 10cm UV Tray, 2 x 8 sample combs, loading guides and dams

MS7-UV7	7 x 7cm UV Tray	MS7-LG	Adhesive Loading Guides	MSBRP	Buffer Recirculation Ports
MS7-UV10	7 x 10cm UV Tray	MS7-WP	Viewing Platform	MSMINIBSB	Buffer Saver Blocks, pk/2, saves 100ml of buffer
MS7-PE	Positive Electrode	MS7-UVS	7cm UV Gel Scoop	MS7-x -yLG	Combination Comb and Loading Guide
MS7-NE	Negative Electrode	MSMINICP	Cool-pack and Platform		x = comb well number, y = comb thickness
MS7-UVDAM	Casting Dams, pk/2	PP01	Single Channel Peristaltic Pump, 30-100rpm	MS7/10-FC	multiSUB Mini/Midi Flexi caster

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Black	MS7-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	152µl
	MS7-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	68µl
	MS7-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	36µl
	MS7-8MC-0.75	Comb 8 sample MC, 0.75mm thick	8µl
	MS7-8-0.75	Comb 8 sample, 0.75mm thick	19µl
	MS7-10-0.75	Comb 10 sample, 0.75mm thick	14µl
	MS7-12MC-0.75	Comb 12 sample MC, 0.75mm thick	10µl
	MS7-16-0.75	Comb 16 sample, 0.75mm thick	7µl
White	MS7-1-1	Comb Prep 1, Marker 1, 1mm thick	203µl
	MS7-2-1	Comb Prep 2, Marker 2, 1mm thick	90µl
	MS7-4-1	Comb Prep 4, Marker 2, 1mm thick	48µl
	MS7-8MC-1	Comb 8 sample MC, 1mm thick	11µl
	MS7-8-1	Comb 8 sample, 1mm thick	25µl
	MS7-10-1	Comb 10 sample, 1mm thick	18µl
	MS7-12MC-1	Comb 12 sample MC, 1mm thick	14µl
	MS7-16-1	Comb 16 sample, 1mm thick	10µl

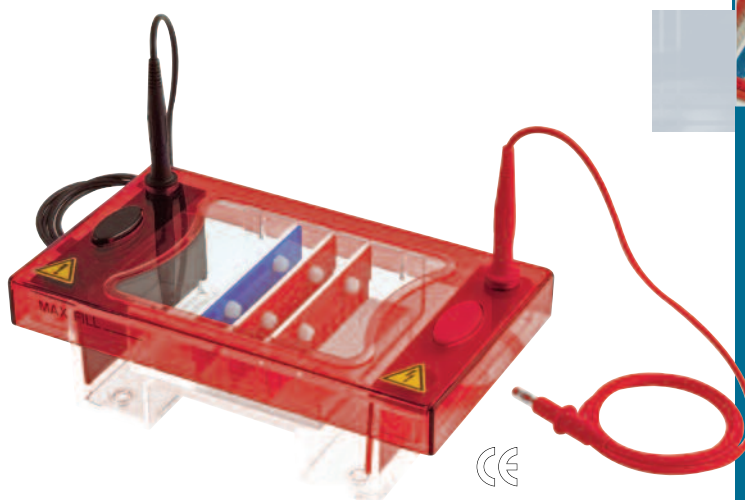
Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Red	MS7-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	304µl
	MS7-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	135µl
	MS7-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	72µl
	MS7-8MC-1.5	Comb 8 sample MC, 1.5mm thick	17µl
	MS7-8-1.5	Comb 8 sample, 1.5mm thick	37µl
	MS7-10-1.5	Comb 10 sample, 1.5mm thick	27µl
	MS7-12MC-1.5	Comb 12 sample MC, 1.5mm thick	20µl
Blue	MS7-16-1.5	Comb 16 sample, 1.5mm thick	15µl
	MS7-1-2	Comb Prep 1, Marker 1, 2mm thick	405µl
	MS7-2-2	Comb Prep 2, Marker 2, 2mm thick	180µl
	MS7-4-2	Comb Prep 4, Marker 2, 2mm thick	96µl
	MS7-8MC-2	Comb 8 sample MC, 2mm thick	23µl
	MS7-8-2	Comb 8 sample, 2mm thick	50µl
	MS7-10-2	Comb 10 sample, 2mm thick	36µl
Dark Blue	MS7-12MC-2	Comb 12 sample MC, 2mm thick	27µl
	MS7-16-2	Comb 16 sample, 2mm thick	20µl

MC = multichannel pipette compatible

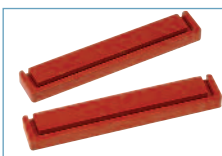
With gel tray options of 10 x 7cm and 10 x 10cm, multiSUB Midi has been designed for routine horizontal gel electrophoresis.

Extending only the width of this unit allows more samples to be resolved per gel than the multiSUB Mini without a significant increase in buffer or gel volumes.

A maximum of 100 samples per gel can be resolved making this unit ideal for those routinely checking medium numbers of samples over short to medium gel run lengths.



adhesive loading guides allow easy well identification and sample loading



casting dams allow gels to be rapidly cast externally while the multiSUB™ unit is in use for gel running



for Power Supplies and Product Selector see pages 40-41



combi-comb/guides offer the convenience of a regular comb with a loading guide (same teeth number and width), simply by flipping over

- AVAILABLE WITH 10 x 7cm, 10 x 10cm OR WITH BOTH GEL TRAYS
- RUN UP TO 100 SAMPLES
- LOW BUFFER VOLUMES
- IDEAL FOR RAPID ELECTROPHORESIS

Technical Specifications

GEL DIMENSIONS, (W x L)	10 x 7cm 10 x 10cm
UNIT DIMENSIONS	22 x 12.5 x 9cm (W x D x H)
MAX. SAMPLE CAPACITY	10 x 7cm TRAY – 50 SAMPLES 10 x 10cm TRAY – 100 SAMPLES
BUFFER VOLUME	300ML
COMBS AVAILABLE : No. OF SAMPLES	1, 2, 4, 8, 10MC, 12, 16, 20MC, 25
THICKNESSES	0.75, 1, 1.5, 2mm

Typical Applications

Ideal for quick checks of samples from PCR and cloning

ORDERING INFORMATION

BCMSMIDI7	multiSUB Midi, 10 x 7cm UV Tray, 2 x 16 sample combs, loading guides and dams
BCMSMIDI10	multiSUB Midi, 10 x 10cm UV Tray, 2 x 16 sample combs, loading guides and dams
BCMSMIDI10UO	multiSUB Midi, 10 x 7cm & 10 x 10cm UV Tray, 2 x 16 sample combs, loading guides and dams

MS10-UV7	10 x 7cm UV Tray	MS10-LG	Adhesive Loading Guides	PP01	Single Channel Peristaltic Pump, 30-100rpm
MS10-UV10	10 x 10cm UV Tray	MS10-WP	Viewing Platform	MSBRP	Buffer Recirculation Ports
MS10-PE	Positive Electrode	MS10-UVS	10cm UV Gel Scoop	MSMIDIBSB	Buffer Saver Blocks, pk/2, saves 100ml of buffer
MS10-NE	Negative Electrode	MS7/10-FC	multiSUB Mini/Midi Flexicaster	MS10-x -yLG	Combination Comb and Loading Guide
MS10-UV DAM	Casting Dams, pk/2	MSMIDICP	Cool-Pack and Platform		x = comb well number, y = comb thickness

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Black	MS10-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	270µl
	MS10-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	118µl
	MS10-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	57µl
	MS10-8-0.75	Comb 8 sample, 0.75mm thick	30µl
	MS10-10MC-0.75	Comb 10 sample MC, 0.75mm thick	20µl
	MS10-12-0.75	Comb 12 sample, 0.75mm thick	17µl
	MS10-16-0.75	Comb 16 sample, 0.75mm thick	12µl
	MS10-20MC-0.75	Comb 20 sample MC, 0.75mm thick	10µl
	MS10-25-0.75	Comb 25 sample, 0.75mm thick	7µl
White	MS10-1-1	Comb Prep 1, Marker 1, 1mm thick	360µl
	MS10-2-1	Comb Prep 2, Marker 2, 1mm thick	158µl
	MS10-4-1	Comb Prep 4, Marker 2, 1mm thick	77µl
	MS10-8-1	Comb 8 sample, 1mm thick	41µl
	MS10-10MC-1	Comb 10 sample MC, 1mm thick	27µl
	MS10-12-1	Comb 12 sample, 1mm thick	23µl
	MS10-16-1	Comb 16 sample, 1mm thick	16µl
	MS10-20MC-1	Comb 20 sample MC, 1mm thick	14µl
	MS10-25-1	Comb 25 sample, 1mm thick	10µl

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Red	MS10-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	540µl
	MS10-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	236µl
	MS10-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	115µl
	MS10-8-1.5	Comb 8 sample, 1.5mm thick	61µl
	MS10-10MC-1.5	Comb 10 sample MC, 1.5mm thick	41µl
	MS10-12-1.5	Comb 12 sample, 1.5mm thick	34µl
	MS10-16-1.5	Comb 16 sample, 1.5mm thick	24µl
	MS10-20MC-1.5	Comb 20 sample MC, 1.5mm thick	20µl
	MS10-25-1.5	Comb 25 sample, 1.5mm thick	15µl
Blue	MS10-1-2	Comb Prep 1, Marker 1, 2mm thick	720µl
	MS10-2-2	Comb Prep 2, Marker 2, 2mm thick	315µl
	MS10-4-2	Comb Prep 4, Marker 2, 2mm thick	153µl
	MS10-8-2	Comb 8 sample, 2mm thick	81µl
	MS10-10MC-2	Comb 10 sample, 2mm thick	54µl
	MS10-12-2	Comb 12 sample, 2mm thick	45µl
	MS10-16-2	Comb 16 sample, 2mm thick	32µl
	MS10-20MC-2	Comb 20 sample MC, 2mm thick	27µl
	MS10-25-2	Comb 25 sample, 2mm thick	20µl

MC = multichannel pipette compatible

high throughput

- DESIGNED FOR LOADING OF DNA SAMPLES FROM MULTI-WELL PLATES
- IDEAL FOR HIGH THROUGHPUT ELECTROPHORESIS
- AVERAGE RUN-TIME IS JUST 15 TO 30 MINUTES
- DIRECT MICROPLATE FORMAT FOR EASY LANE IDENTIFICATION
- MULTI-CHANNEL PIPETTE COMPATIBLE LANES

Technical Specifications

GEL DIMENSIONS, (W x L)	10 x 12cm
UNIT DIMENSIONS	22 x 12.5 x 9cm (W x D x H)
MAX. SAMPLE CAPACITY	96 SAMPLES PLUS 1 OR 2 MARKER LANES
BUFFER VOLUME	200ML WITH BUFFER SAVER BLOCKS
COMBS AVAILABLE	
NO. OF SAMPLES	8 + 1x MARKER, 8 + 2x MARKERS
THICKNESSES	1, 1.5mm

Technical Specifications

GEL DIMENSIONS, (W x L)	8 x 6cm, 8 x 12cm, 8 x 18cm
UNIT DIMENSIONS	35 x 11 x 16cm (W x D x H)
MAX. SAMPLE CAPACITY	PER 18CM TRAY WITH 1CM RUN LENGTH: 306 WITH 2CM RUN LENGTH: 144 WITH 3CM RUN LENGTH: 72
BUFFER VOLUME	200, 400, 600 OR 800ML (FOR 1, 2, 3 OR 4 GEL TRAYS RESP.)
COMBS AVAILABLE :	
NO. OF SAMPLES	1, 8, 12, 18 DuoCombs
THICKNESSES	1, 1.5mm

Typical Applications (both)

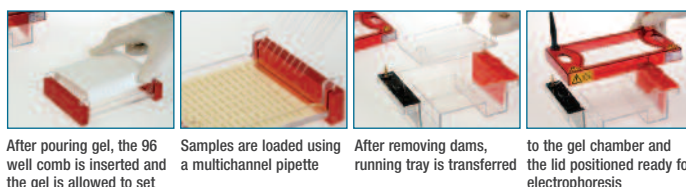
Ideal for rapid checking of large numbers of samples from PCR and cloning

MULTISUB MIDI 96

multiSUB Midi 96 Gel System is ideal for high throughput electrophoresis of PCR products or samples containing a small number of DNA bands.

The gel dimensions and comb format correspond to the standard microplate format, with additional lanes for markers. Two different types of comb are available: one which has 8 wells and one additional lane for DNA markers and one which has 8 wells and 2 additional lanes for markers. The offset layout of the wells allows a long run per well and improved separation.

multiSUB Midi 96 can accommodate samples from a 96 well plate - samples can be loaded directly using 8-channel pipettes. As with all multiSUB units, leak-proof casting is simplified using the supplied casting dams while their ultra-compact size minimises buffer usage and bench space requirements.



MULTISUB -4

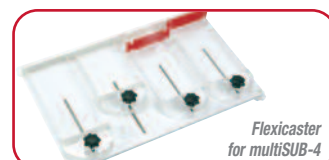


- RUN FOUR STACKED GELS IN ONE COMPACT UNIT
- CAPACITY FOR OVER 1200 SAMPLES !!
- UV TRANSPARENT GEL TRAYS IN 8x6, 8x12 AND 8x18CM FORMATS
- ACCOMMODATES MULTISUB-4 MINI, MIDI AND MAXI SIZE GELS

multiSUB-4 is a compact system capable of running over 1200 samples simultaneously by stacking up to 4 horizontal gels. This achieves high sample throughput while maintaining the advantages of a small and compact unit.

Multi-channel-compatible combs and gel plate configurations are compatible with microplates and thermal cycler blocks to ensure rapid loading of DNA minipreps and PCR products by 8-channel pipette

Two dual comb formats and three tray lengths are available. An optional Flexicaster, either supplied separately or as a package with the multiSUB-4, allows up to four 8x6, 8x12 and 8x18cm H-STACK4 gel trays to be cast simultaneously outside the tank.



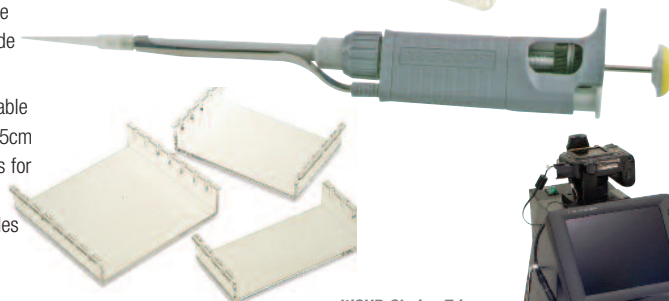
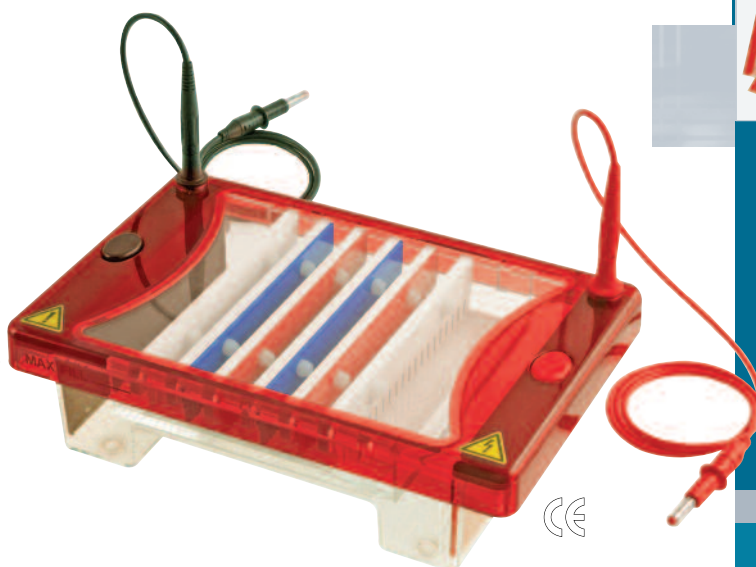
ORDERING INFORMATION

MSMIDI96	multiSUB Midi 96, UV tray, Comb block with 12 x 8 sample, 1mm thick combs, casting dams				
MS10-UV96	Multi Sub Midi, 96 Well Tray				
MSMIDI96-8-1	MSMIDI 96 Comb 8 sample MC, 1mm thick, 1 marker lane		MSMIDI96-8+2-1	MSMIDI 96 Comb 8 sample MC, 1mm thick, 2 marker lanes	
MSMIDI96-8-1.5	MSMIDI 96 Comb 8 sample MC, 1.5mm thick, 1 marker lane		MSMIDI96-8+2-1.5	MSMIDI 96 Comb 8 sample MC, 1.5mm thick 2 marker lanes	
BCMULTISUB4	multiSUB 4, multi-level Gel Chamber, includes 4x 12cm UV Trays, 8x 18/8 Sample 1.5mm Combs				
MSUB4UV6	6cm UV Tray, 8 x 6cm	MSUB4EXCASTER	Flexicaster for H-STACK4 (4 Trays)	MSUB4-12/1-1.5	12/1 Sample 1.5mm Combs
MSUB4UV12	12cm UV Tray, 8 x 12cm	MSUB4-12/1-1	12/1 Sample 1mm Combs	MSUB4-18/8-1.5	18/8 Sample 1.5mm Combs
MSUB4UV18	18cm UV Tray, 8 x 18cm	MSUB4-18/8-1	18/8 Sample 1mm Combs		

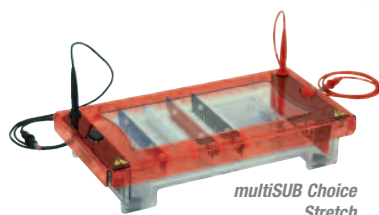
CHOICE

multiSUB Choice offers a wide degree of versatility. Three tray options are available - 15 x 7cm, 15 x 10cm and 15 x 15cm - allowing the choice of one, two or all three gel length options at the time of purchase. Further purchases of additional accessories are no longer required. Maximising comb and tray options allow up to 210 samples to be resolved per gel. The 15cm total run length allows restriction fragment or other close MW sample bands to be easily separated and identified. Speed loading is accomplished using 10, 14, 16, 18, 28 and 30 sample multi-channel pipette compatible combs. All models include loading guides and casting dams.

Fabricated STRETCH units are available with optional 15 x 20cm and 15 x 25cm gel trays and four 28-sample combs for those wishing to perform higher resolution separation of more samples over a longer distance.



multiSUB Choice Trio includes all 3 tray sizes for optimum versatility and value



multiSUB Choice Stretch

low cost gel documentation system, see page 45

- THREE TRAY OPTIONS
- RUN UP TO 210 SAMPLES
- LOW BUFFER VOLUMES
- MULTICHANNEL PIPETTE COMPATIBLE COMBS FOR SPEED LOADING

Technical Specifications

GEL DIMENSIONS, (W x L)	15 x 7cm 15 x 10cm 15 x 15cm
UNIT DIMENSIONS (W x D x H)	26.5 x 17.5 x 9cm 26.5 x 41 x 9cm (STRETCH MODELS)
MAX. SAMPLE	15 x 7cm TRAY – 70 SAMPLES CAPACITY 15 x 10cm TRAY – 140 SAMPLES 15 x 15cm TRAY – 210 SAMPLES 15 x 20cm TRAY – 280 SAMPLES 15 x 25cm TRAY – 350 SAMPLES
BUFFER VOLUME	500ML; 1000ML (STRETCH)
COMBS AVAILABLE : No. OF SAMPLES	1, 2, 4, 10, 10MC, 12, 14MC, 16MC, 18MC, 20, 28MC, 30MC, 35
THICKNESSES	0.75, 1, 1.5, 2mm

Typical Applications

Ideal for restriction fragment analysis, sample prep or checking of high numbers of samples

ORDERING INFORMATION

BCMSCHOICE7 multiSUB Choice, 15 x 7cm UV Tray, 2 x 20 sample combs*

BCMSCHOICE10 multiSUB Choice, 15 x 10cm UV Tray, 2 x 20 sample combs*

BCMSCHOICE15 multiSUB Choice, 15 x 15cm UV Tray, 2 x 20 sample combs*



BCMSCHOICETR multiSUB Choice Trio, 15 x 7, 10 & 15cm UV Tray, 2 x 20 sample combs*

BCMSCHOICEST20 multiSUB Stretch20, 15 x 20cm UV Tray, 4 x 28 sample combs*

BCMSCHOICEST25 multiSUB Stretch25, 15 x 25cm UV Tray, 4 x 28 sample combs*

* all models include loading guides and casting dams

MS15-UV7	15 x 7cm UV Tray	MS15-NE	Negative Electrode	MSBRP	Buffer Recirculation Ports
MS15-UV10	15 x 10cm UV Tray	MS15-LG	Adhesive Loading Guides	MSCHOICEBSB	Buffer Saver Blocks pk/2, saves 190ml of buffer
MS15-UV15	15 x 15cm UV Tray	MS15-UVS	15cm UV Gel Scoop	MS15-x -yLG	Combination Comb and Loading Guide
MS15-UV DAM	Casting Dams, pk/2	MSCHOICECP	Cool-Pack and Platform		x = comb well number, y = comb thickness
MS15-PE	Positive Electrode	PP01	Single Channel Peristaltic Pump, 30-100rpm	MS15/20-FC	multiSUB Choice/Maxi Flexi caster

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
	MS15-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	371µl
	MS15-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	169µl
	MS15-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	91µl
	MS15-10-0.75	Comb 10 sample, 0.75mm thick	34µl
	MS15-12-0.75	Comb 12 sample, 0.75mm thick	30µl
	MS15-16MC-0.75	Comb 16 sample MC, 0.75mm thick (DuoComb - 17MC on reverse)	16µl
	MS15-20-0.75	Comb 20 sample, 0.75mm thick	7µl
	MS15-10MC-0.75	Comb 10 sample MC, 0.75mm thick	22µl
	MS15-14MC-0.75	Comb 14 sample MC, 0.75mm thick	22µl
	MS15-18MC-0.75	Comb 18 sample MC, 0.75mm thick (DuoComb - 17MC on reverse)	20µl
	MS15-28MC-0.75	Comb 28 sample MC, 0.75mm thick	8µl
	MS15-30MC-0.75	Comb 30 sample MC, 0.75mm thick	8µl
MS15-35-0.75	Comb 35 sample, 0.75mm thick	9µl	
	MS15-1-1	Comb Prep 1, Marker 1, 1mm thick	495µl
	MS15-2-1	Comb Prep 2, Marker 2, 1mm thick	225µl
	MS15-4-1	Comb Prep 4, Marker 2, 1mm thick	122µl
	MS15-10-1	Comb 10 sample, 1mm thick	45µl
	MS15-12-1	Comb 12 sample, 1mm thick	41µl
	MS15-16MC-1	Comb 16 sample, 1mm thick (DuoComb - 17MC on reverse)	21µl
	MS15-20-1	Comb 20 sample, 1mm thick	10µl
	MS15-10MC-1	Comb 10 sample MC, 1mm thick	29µl
	MS15-14MC-1	Comb 14 sample MC, 1mm thick	29µl
	MS15-18MC-1	Comb 18 sample MC, 1mm thick (DuoComb - 17MC on reverse)	27µl
	MS15-28MC-1	Comb 28 sample MC, 1mm thick	11µl
	MS15-30MC-1	Comb 30 sample MC, 1mm thick	11µl
	MS15-35-1	Comb 35 sample, 1mm thick	13µl

Colour	Code	Description	SAMPLE VOLUME FOR A 5MM THICK GEL
Red	MS15-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	743µl
	MS15-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	338µl
	MS15-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	182µl
	MS15-10-1.5	Comb 10 sample, 1.5mm thick	68µl
	MS15-12-1.5	Comb 12 sample, 1.5mm thick	61µl
	MS15-16MC-1.5	Comb 16 sample, 1.5mm thick (DuoComb - 17MC on reverse)	32µl
	MS15-20-1.5	Comb 20 sample, 1.5mm thick	15µl
	MS15-10MC-1.5	Comb 10 sample MC, 1.5mm thick	44µl
	MS15-14MC-1.5	Comb 14 sample MC, 1.5mm thick	44µl
	MS15-18MC-1.5	Comb 18 sample MC, 1.5mm thick (DuoComb - 17MC on reverse)	41µl
	MS15-28MC-1.5	Comb 28 sample MC, 1.5mm thick	17µl
	MS15-30MC-1.5	Comb 30 sample MC, 1.5mm thick	17µl
	MS15-35-1.5	Comb 35 sample, 1.5mm thick	19µl
Blue	MS15-1-2	Comb Prep 1, Marker 1, 2mm thick	990µl
	MS15-2-2	Comb Prep 2, Marker 2, 2mm thick	450µl
	MS15-4-2	Comb Prep 4, Marker 2, 2mm thick	243µl
	MS15-10-2	Comb 10 sample, 2mm thick	90µl
	MS15-12-2	Comb 12 sample, 2mm thick	81µl
	MS15-16MC-2	Comb 16 sample, 2mm thick (DuoComb - 17MC on reverse)	43µl
	MS15-20-2	Comb 20 sample, 2mm thick	20µl
	MS15-10MC-2	Comb 10 sample MC, 2mm thick	59µl
	MS15-14MC-2	Comb 14 sample MC, 2mm thick	59µl
	MS15-18MC-2	Comb 18 sample MC, 2mm thick (DuoComb - 17MC on reverse)	54µl
	MS15-28MC-2	Comb 28 sample MC, 2mm thick	23µl
	MS15-30MC-2	Comb 30 sample MC, 2mm thick	23µl
	MS15-35-2	Comb 35 sample, 2mm thick	25µl

MC = multichannel pipette compatible

multiSUB

- AVAILABLE WITH 20 x 25CM, 20 x 20CM OR 20 x 10CM GEL TRAYS
- RUN UP TO 550 SAMPLES
- LOW BUFFER VOLUMES
- IDEAL FOR EXTENDED SEPARATIONS

Technical Specifications

GEL DIMENSIONS, (W x L)	20 x 10cm 20 x 20cm 20 x 25cm
UNIT DIMENSIONS	39.5 x 23 x 9cm (W x D x H)
MAX. SAMPLE CAPACITY	20 x 10cm TRAY – 200 SAMPLES 20 x 20cm TRAY – 450 SAMPLES 20 x 25cm TRAY – 550 SAMPLES
BUFFER VOLUME	1200ML
COMBS AVAILABLE : No. OF SAMPLES	1, 2, 4, 10, 16, 20MC, 25, 30, 36, 40MC, 50
THICKNESSES	0.75, 1, 1.5, 2mm

Typical Applications

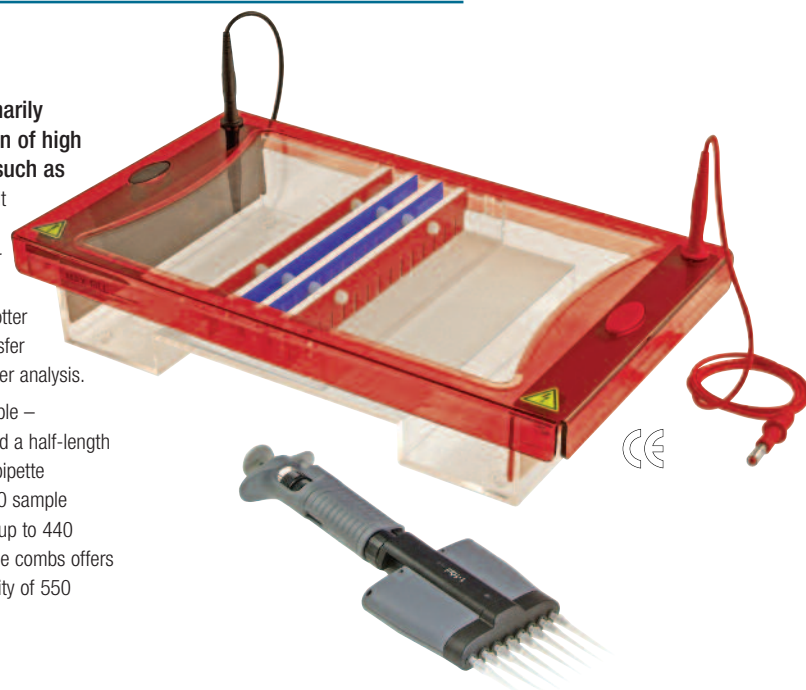
Primarily designed for separating high numbers of samples from PCR or cloning

MAXI

multiSUB Maxi is primarily designed for resolution of high numbers of samples such as from Cloning or PCR. It

also allows ultra high-resolution separations over extended runs. Tray sizes correspond to standard blotter sizes for easy sample transfer onto a membrane for further analysis.

Three tray sizes are available – 20 x 20cm, 20 x 25cm and a half-length 20 x 10cm. Multichannel pipette compatible combs up to 40 sample facilitate speed loading of up to 440 samples per gel. 50 sample combs offers a maximum sample capacity of 550 samples per gel.



Flexicaster Maxi allows casting of gel lengths up to 20cm, simply by locking the moveable dam. Adjustable feet and supplied bubble allow gels of uniform thickness to be poured



ORDERING INFORMATION

BCMSMAXI10 multiSUB Maxi, 20 x 10cm UV Tray, 2 x 20 sample combs*

BCMSMAXI25 multiSUB Maxi, 20 x 25cm UV Tray, 2 x 20 sample combs*

BCMSMAXI15 multiSUB Maxi, 20 x 15cm UV Tray, 2 x 20 sample combs*

BCMSMAXIDUO multiSUB Maxi, 20 x 10 & 20 x 20cm UV Tray, 2 x 20 sample combs*

BCMSMAXI20 multiSUB Maxi, 20 x 20cm UV Tray, 2 x 20 sample combs*

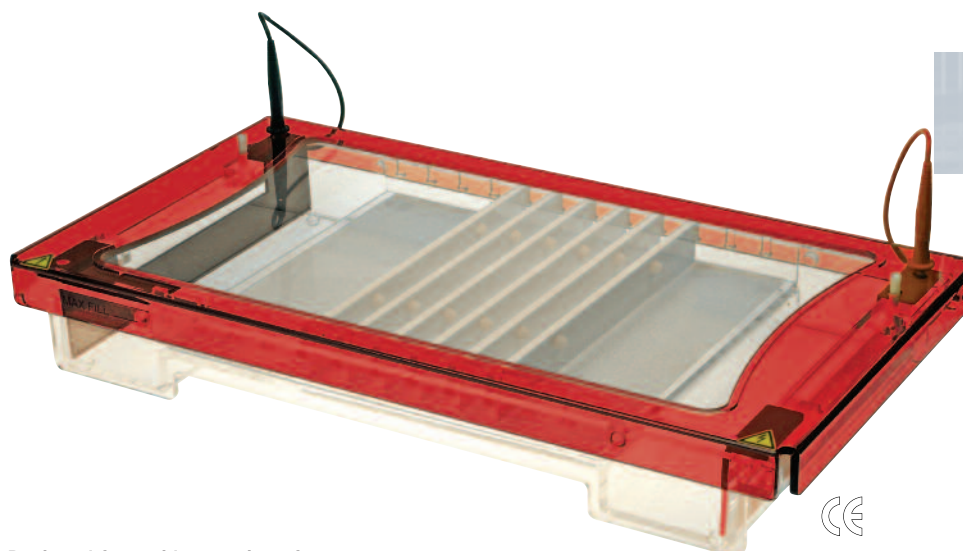
* all models include loading guides and casting dams

MS20-UV10	20 x 10cm UV Tray	MS20-LG	Adhesive Loading Guides	MSBRP	Buffer Recirculation Ports
MS20-UV15	20 x 15cm UV Tray	MS20-PE	Positive Electrode	MSMAXIBSB	Buffer Saver Blocks pk/2, saves 450ml of buffer
MS20-UV20	20 x 20cm UV Tray	MS20-NE	Negative Electrode	MS20-x -yLG	Combination Comb and Loading Guide
MS20-UV25	20 x 25cm UV Tray	MS20-UVS	20cm UV Gel Scoop		x = comb well number, y = comb thickness
MS20-UVDAM	Casting Dams, pk/2	MSMAXICP	Cool-Pack and Platform	MS15/20-FC	multiSUB Choice/Maxi Flexi caster

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Black	MS20-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	506µl
	MS20-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	236µl
	MS20-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	115µl
	MS20-10-0.75	Comb 10 sample, 0.75mm thick	54µl
	MS20-16-0.75	Comb 16 sample, 0.75mm thick	30µl
	MS20-20MC-0.75	Comb 20 sample MC, 0.75mm thick	20µl
	MS20-25-0.75	Comb 25 sample, 0.75mm thick	16µl
	MS20-30-0.75	Comb 30 sample, 0.75mm thick	13µl
	MS20-36-0.75	Comb 36 sample, 0.75mm thick	11µl
	MS20-40MC-0.75	Comb 40 sample MC, 0.75mm thick	8µl
MS20-50-0.75	Comb 50 sample, 0.75mm thick	8µl	
White	MS20-1-1	Comb Prep 1, Marker 1, 1mm thick	675µl
	MS20-2-1	Comb Prep 2, Marker 2, 1mm thick	315µl
	MS20-4-1	Comb Prep 4, Marker 2, 1mm thick	153µl
	MS20-10-1	Comb 10 sample, 1mm thick	72µl
	MS20-16-1	Comb 16 sample, 1mm thick	41µl
	MS20-20MC-1	Comb 20 sample MC, 1mm thick	27µl
	MS20-25-1	Comb 25 sample, 1mm thick	21µl
	MS20-30-1	Comb 30 sample, 1mm thick	17µl
	MS20-36-1	Comb 36 sample, 1mm thick	14µl
	MS20-40MC-1	Comb 40 sample MC, 1mm thick	11µl
MS20-50-1	Comb 50 sample, 1mm thick	10µl	

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Red	MS20-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	1013µl
	MS20-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	473µl
	MS20-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	230µl
	MS20-10-1.5	Comb 10 sample, 1.5mm thick	108µl
	MS20-16-1.5	Comb 16 sample, 1.5mm thick	61µl
	MS20-20MC-1.5	Comb 20 sample MC, 1.5mm thick	41µl
	MS20-25-1.5	Comb 25 sample, 1.5mm thick	32µl
	MS20-30-1.5	Comb 30 sample, 1.5mm thick	26µl
	MS20-36-1.5	Comb 36 sample, 1.5mm thick	22µl
	MS20-40MC-1.5	Comb 40 sample MC, 1.5mm thick	17µl
MS20-50-1.5	Comb 50 sample, 1.5mm thick	16µl	
Blue	MS20-1-2	Comb Prep 1, Marker 1, 2mm thick	1350µl
	MS20-2-2	Comb Prep 2, Marker 2, 2mm thick	630µl
	MS20-4-2	Comb Prep 4, Marker 2, 2mm thick	306µl
	MS20-10-2	Comb 10 sample, 2mm thick	144µl
	MS20-16-2	Comb 16 sample, 2mm thick	81µl
	MS20-20MC-2	Comb 20 sample MC, 2mm thick	54µl
	MS20-25-2	Comb 25 sample, 2mm thick	42µl
	MS20-30-2	Comb 30 sample, 2mm thick	34µl
	MS20-36-2	Comb 36 sample, 2mm thick	29µl
	MS20-40MC-2	Comb 40 sample MC, 2mm thick	23µl
MS20-50-2	Comb 50 sample, 2mm thick	21µl	

MC = multichannel pipette compatible



Designed for rapid screening of very large numbers of Clonal or PCR samples, multiSUB Screen horizontal gel unit has a 672 maximum sample capacity per gel.

This allows loading and analysis of exactly seven 96 well format micro titre plates.

The large gel run length of 32cm also allows resolution of samples over a long distance for separation of complex sample bands such as in restriction fragment analysis.

The unit is available with a full length tray or with other tray length options of 16 or 24cm so that the user's exact requirements can be matched. In addition to options for single length gel trays, multiSUB Screen is available with all three gel tray lengths to provide the maximum in flexibility, versatility and value.

All models of multiSUB Screen are now supplied with Flexicaster MS26-FC as standard. Buffer recirculation ports are also included as standard to allow enhanced resolution over extended runs while loading guides enhance well visibility for easy sample loading.

Flexicaster now included with all models of multiSUB Screen



all multiSUB Screen combs are multichannel pipette compatible

scoops for safe transfer of gels



for Power Supplies and Product Selector see pages 40-41



Peristaltic pump for buffer recirculation

- AVAILABLE WITH 26 x 16, 26 x 24 AND 26 x 32CM OR ALL THREE GEL TRAYS
- RUN UP TO 672 SAMPLES
- LOW BUFFER VOLUMES
- MULTICHANNEL PIPETTE COMPATIBLE COMBS FOR SPEED LOADING

Technical Specifications

GEL DIMENSIONS, (W x L)	26 x 32cm
	26 x 24cm
	26 x 16cm
UNIT DIMENSIONS	50 x 28 x 9cm (W x D x H)
MAX. SAMPLE CAPACITY	26 x 32cm TRAY – 672 SAMPLES
	26 x 24cm TRAY – 504 SAMPLES
	26 x 16cm TRAY – 336 SAMPLES
BUFFER VOLUME	1400ML
COMBS AVAILABLE : No. OF SAMPLES THICKNESSES	28MC, 56MC
	0.75, 1, 1.5, 2mm

Typical Applications

Ideal for checking very large numbers of samples or extended high resolution separations

ORDERING INFORMATION

BCMSSCRN32	multiSUB Screen, 26 x 32cm UV Tray, 6 x 28 sample combs, loading guides and Flexicaster
BCMSSCRN24	multiSUB Screen, 26 x 24cm UV Tray, 6 x 28 sample combs, loading guides and Flexicaster
BCMSSCRN16	multiSUB Screen, 26 x 16cm UV Tray, 6 x 28 sample combs, loading guides and Flexicaster
BCMSSCRNTRIO	multiSUB Screen, 26 x 16cm, 26 x 24cm, 26 x 32cm UV Trays, 6 x 28 sample combs, loading guides and Flexicaster

MS26-UV32	26 x 32cm UV Tray	MS26-PE	Positive Electrode	PP01	Single Channel Peristaltic Pump, 30-100rpm
MS26-UV24	26 x 24cm UV Tray	MS26-NE	Negative Electrode	MSBRP	Buffer Recirculation Ports
MS26-UV16	26 x 16cm UV Tray	MS26-x -yLG	Combination Comb and Loading Guide	MSSCRNBSB	Buffer Saver Blocks, pk/2 saves 625ml of buffer
MS26-LG	Adhesive Loading Guides		x = comb well number, y = comb thickness	MS26-FC	Flexicaster for gels up to 32cm. Casts 7, 10, 15, 16, 20, 24 and 32cm long gels
MS26-UVS	26cm UV Gel Scoop	MSSCRNCP	Cool-Pack and Platform		

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Black	MS26-28MC-0.75	Comb 28 sample MC, 0.75mm thick	25µl
	MS26-56MC-0.75	Comb 56 sample MC, 0.75mm thick	10µl
White	MS26-28MC-1	Comb 28 sample MC, 1mm thick	34µl
	MS26-56MC-1	Comb 56 sample MC, 1mm thick	14µl

Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
Red	MS26-28MC-1.5	Comb 28 sample MC, 1.5mm thick	51µl
	MS26-56MC-1.5	Comb 56 sample MC, 1.5mm thick	20µl
Blue	MS26-28MC-2	Comb 28 sample MC, 2mm thick	68µl
	MS26-56MC-2	Comb 56 sample MC, 2mm thick	27µl

MC = multichannel pipette compatible

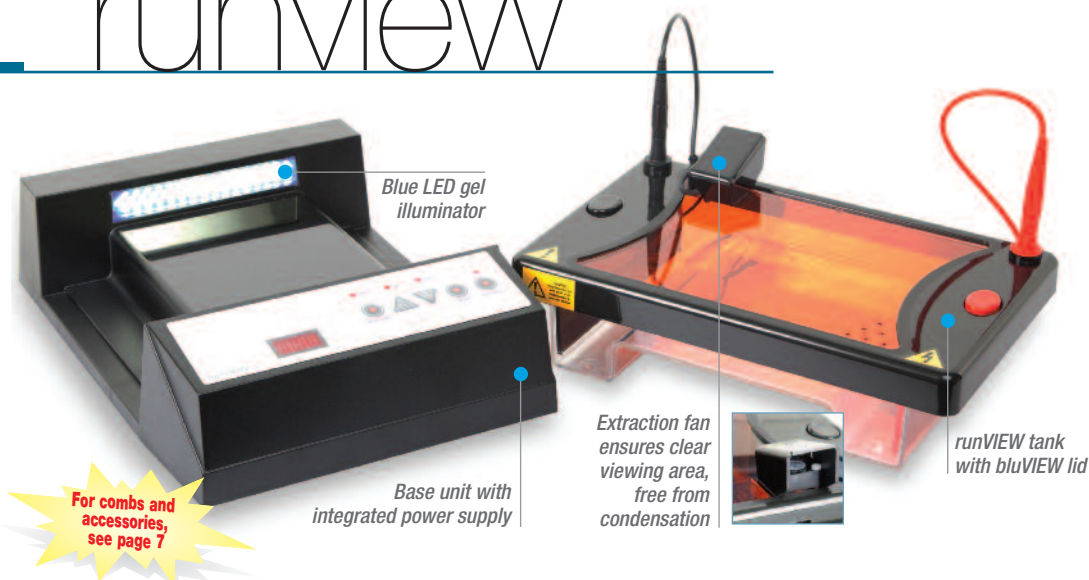
runview

- **VERSATILE** - POWER SUPPLY, LIGHT SOURCE AND GEL CHAMBER ALL IN ONE UNIT
- **CONVENIENCE** - SYSTEM INCLUDES EVERYTHING EXCEPT CHEMICALS AND REAGENTS TO RUN HORIZONTAL SYBR, EtBr AND RUNSAFE STAINED GELS IN REAL-TIME
- **OPTIONAL DARK ROOM** WITH 10 MEGA PIXEL DIGITAL CAMERA FITS DIRECTLY OVER THE BASE UNIT AND GEL TANK

Typical Applications

Real-time size fractionation and recovery of nucleic acids

- **Power supply integrated within the base unit** – adjustable in precise 1V or 1mA increments to a maximum 150V or 300mA constant voltage or current output; timer function to 999 minutes for extended runs.
- **Specialist combs for specialist applications** - double-sided 1mm preparatory combs (1- / 2-sample and 4- / 16-sample standard) included for nucleic acid recovery, plus four multichannel compatible 20- / 28-sample combs for rapid screening of nucleic acids from 96-well thermal cycler blocks and microtitre plates. Extra thick 3mm preparatory combs also included for enhanced DNA recovery.
- **Upgrade to real-time** - existing MSCHOICE users may customise their system by purchasing the base station and bluVIEW lid.



runVIEW is an innovative new system which can be used to maximise the efficiency of DNA recovery from runSAFE, EtBr and SYBR stained gels by minimising the number of steps involved in postelectrophoretic purification.

runVIEW consists of an omniPage multiSUB CHOICE gel chamber with special bluVIEW lid, containing an orange spectral emission filter within its viewing pane, plus a base unit with integrated power supply and blue LED gel illuminator.

Simple DNA recovery

Using runVIEW is simple: first, cast a gel featuring two rows of wells with one matching pair of the preparatory combs supplied, before transferring the blue-light transparent gel tray to the CHOICE tank located on the base unit. Add sufficient buffer just to cover the gel, and remove the combs to load the DNA samples into the upper row of wells ('Loading' tier). Replace the lid to connect the CHOICE tank to the integrated power supply before

applying the voltage and switching on the blue LED gel illuminator. Watch through the bluVIEW lid's viewing pane as the samples migrate in real-time to the second row of wells ('extraction' tier).

Once the DNA bands of interest enter the 'extraction' tier, simply stop the power supply, remove the lid and harvest the DNA by pipette.

Track DNA without harmful UV

Blue light is safe and has none of the detrimental effects of UV transillumination, including mutagenesis which can compromise cloning efficiency, while runVIEW's capacity to provide real-time visualisation of electrophoresis enables DNA to be tracked as it migrates through the gel. This allows the user to judge precisely when the band of interest is ready for extraction.

Save on time-consuming gel elution techniques

Running DNA into a well containing buffer effectively purifies the DNA of agarose,

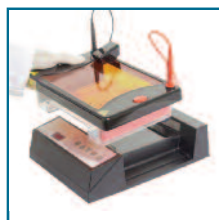
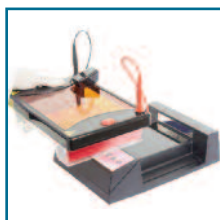
eliminating the need for time-consuming gel excision and purification techniques that also result in sample loss. Once harvested, the DNA needs only to be cleaned by a straightforward ethanol precipitation when it is ready for further digestion or ligation.

No expensive commercial gels

runVIEW works with standard EtBr, SYBR Green and SYBR Safe gels cast within the 15x7, 15x10 or 15x15cm CHOICE gel trays, and therefore does not require expensive precast gels and accessories.

A self-contained system

The base unit, which houses the in-built power supply and blue LED gel illuminator, is compact, dual-voltage and portable, and allows electrophoresis, gel visualisation and extraction to be performed at the bench, without the inconvenience of having to transport gels to a darkroom elsewhere within the laboratory.



After gel pouring and sample loading, simply lift and position the runVIEW tank with bluVIEW lid within the base unit

ORDERING INFORMATION

BCRVMSCHOICE7	runVIEW System complete with 15 x 7cm gel tray & 2x 1 sample, 2x 2 sample, 2x 4 sample, 4x 28MC sample 1mm combs; plus 2x 4- and 2x 6-sample 3mm preparatory		
BCRVMSCHOICE10	runVIEW System complete with 15 x 10cm gel tray & 2 x 1 sample, 2x 2 sample, 2x 4 sample, 4x 28MC sample 1mm combs; plus 2x 4- and 2x 6-sample 3mm preparatory		
BCRVMSCHOICE15	runVIEW System complete with 15 x 15cm gel tray & 2x 1 sample, 2x 2 sample, 2x 4 sample, 4x 28MC sample 1mm combs; plus 2x 4- and 2x 6-sample 3mm preparatory		
BCRVMSCHOICETRIO	runVIEW System complete with 15x7cm, 15x10 & 15x15 gel tray & 2x 1 sample, 2x 2 sample, 2x 4 sample, 4x 28MC sample 1mm combs; plus 2x 4- and 2x 6-sample 3mm preparatory		
BCRVSTATION	runSTATION complete with BCRVGELDOC and BCRVMSCHOICETRIO		
BCRVBSVLID	runVIEW Base Station & bluVIEW Lid	BCFILTERSLIDE	Replacement filter slide containing orange EtBR and amber SYBR filters
BCRVGELDOC	runVIEW Gel Documentation Hood with 10MP camera and filter slide	BCAMCHARGER	Optional mains charger cable for 10MP

gel documentation

runDOC is a portable, lightweight gel documentation system designed exclusively for use with runVIEW. runDOC comprises a darkroom hood and 10 megapixel digital camera to capture images of nucleic acid gels stained with EtBr, SYBR and runSAFE. The runDOC darkroom is placed directly over the RVMSCHOICE gel tank located on the runVIEW base unit, which includes an integrated power supply and blue LED gel illuminator. The blue LED

illuminator provides the excitation source for the DNA gel located within the tank, and following excitation the light emitted is then visualised using either one of the bluVIEW lid options (supplied with runVIEW and used with the RVMSCHOICE gel tank) or the runDOC filter slide. runDOC also benefits from a small footprint area, occupying minimal space within the laboratory.



Hood is positioned over the runVIEW tank and base unit to create a light-tight environment suitable for image capture

runSAFE

runSafe is a non-mutagenic fluorescent reagent that produces instant visualisation of DNA bands upon Blue Light or UV illumination of gels. Supplied in 6X DNA Loading Buffer, runSafe is used to prepare DNA markers and samples for loading on agarose or

polyacrylamide gels. runSafe is a highly sensitive stain available for detecting double-stranded DNA (dsDNA). It contains three tracking dyes (Bromophenol Blue, Xylene Cyanol FF, and Orange G) for visual tracking of DNA migration during electrophoresis.

For more information, see page 17.

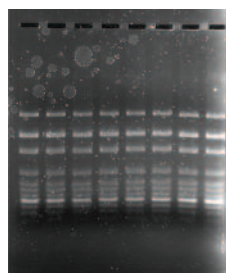


Image of MDNA-100bp stained with runSAFE (1 part runSAFE : 4 parts DNA). Viewed using runDOC at F-stop f/4, Exp. 8s, ISO80.

- **LIGHTWEIGHT DARKROOM HOOD FITS QUICKLY AND EASILY OVER GEL TANK AND BASE UNIT, ALLOWING GELS TO BE IMAGED EITHER AS BANDS MIGRATE IN REAL-TIME OR AT THE END OF THE ELECTROPHORESIS RUN**
- **THE GEL TANK OR UV TRAY MAY BE PLACED ON THE RUNVIEW VIEWING PLATFORM FOR IMMEDIATE OBSERVATION OF THE NUCLEIC ACID BANDS WITHIN THE GEL, USING RUNDOC**
- **HIGH RESOLUTION 10 MEGAPIXEL CAMERA WITH 4GB MEMORY CARD FOR STORAGE OF IMAGES IN RAW AND JPEG FORMATS**
- **INTERCHANGEABLE FILTER SLIDE AND BLUVIEW FILTER OPTIONS FOR FULL FLEXIBILITY**

Technical Specifications

CAMERA

RESOLUTION	10MP
IMAGE SIZE	3648x2736(4:3)
SENSITIVITY	1/1.7" TYPE HIGH SENSITIVITY CCD
FILE FORMAT	RAW, JPEG

LENS

FOCAL LENGTH	6.1-30.5 MM
MAXIMUM APERTURE	F/2.8(W)~F/4.5(T)

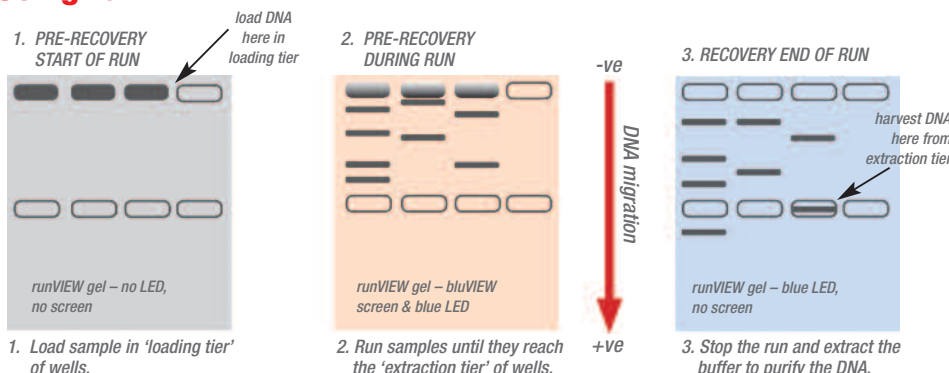
EMISSION FILTER OPTIONS

RUNDOC FILTER SLIDE	RED FILTER FOR EtBr; AMBER FILTER FOR SYBR AND RUNSAFE
BLUVIEW LID OPTIONS* (*ONLY WITH RUNVIEW)	BLUVIEW-RED FOR EtBr; BLUVIEW-AMBER FOR SYBR AND RUNSAFE

DARK ROOM

CAMERA HOLDER MATERIAL	POLYOXYMETHYLENE (POM)
DARKROOM MATERIAL	EBONY ACRYLIC
DIMENSIONS / WEIGHT	40x34x19.5cm (HxWxD) / 0.8kg

Using runVIEW



Technical Specifications

runVIEW Viewing Dock

Blue Light Wavelength	470nm	Timer	1-999 minutes with alarm
Voltage/ Resolution	25-150V / 1V	Safety Device	No load detection
Current/ Resolution	300mA / 1mA	Operating Temperature	Ambient to 40°C
Power	30W	Dimensions	293 x 220 x 80 mm
Operating Mode	Constant Voltage or Current	Rated Voltage	100-240V, 50/60Hz

runVIEW Gel System

Gel Dimensions (W x L)	15 x 7, 15 x 10 & 15 x 15cm	runVIEW Lid Design	Orange spectral emission filter with condensation-free viewing pane 2x 1-sample / 2-sample preparatory; Included Double-sided Combs, 2x 4-sample preparatory / 16-sample combs; 4x 20- / 28-sample multichannel compatible screening (1mm); plus 2x 4- and 2x 6-sample preparatory with loading guides (3mm)
Unit Dimensions (W x D x H)	6.5 x 17.5 x 9cm		
Buffer volume	500ml	Comb Thickness	1mm, 3mm

clinical

CELLULOSE ACETATE

- COMPACT HIGH RESOLUTION SYSTEMS FOR CLINICAL ELECTROPHORESIS
- CAN ACCOMMODATE CELLULOSE ACETATE STRIPS UP TO 24 x 20cm
- COMPLETE RANGE OF CELLULOSE ACETATE GELS AND KITS
- RANGE INCLUDES DENSITOMETER, SCANNER AND SOFTWARE

Technical Specifications

STRIP DIMENSIONS	24 x 20cm (W x L) MAX.
UNIT DIMENSIONS	30 x 30cm

Typical Applications

Clinical Electrophoresis Tests:- Haemoglobin, Serum Proteins for Monoclonal Gammopathies, Urine Proteins, Isoenzymes, Lipo and Glycoproteins and for Immunofixation

Cellulose acetate electrophoresis is an important technique in clinical diagnostics. This new range of cellulose acetate products offers a complete system solution for Research and Clinical Cellulose acetate electrophoresis procedures.

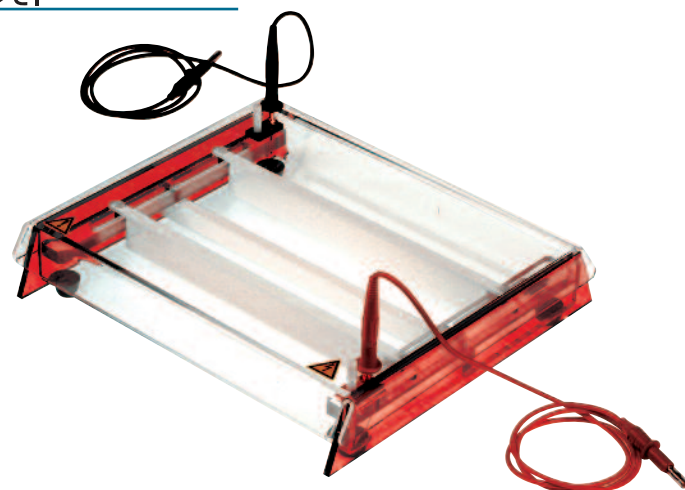
The Cellulose Acetate system is the ideal tank for both standard and wet cellulose acetate electrophoresis. This unit is designed for both routine and research requirements and is built to our high quality standard. The unit includes an adjustable support which enables easy and fast adjustment for different lengths of cellulose acetate strip.

To compliment this electrophoresis system, a range of cellulose acetate strips, kits and accessories is available.

Cellulose Acetate Gels - a new complete range of wet cellulose acetate gels is available. These have the advantage that they can be used for a wide variety of clinical electrophoresis applications including haemoglobin, serum proteins for monoclonal gammopathies, urine proteins, isoenzymes, lipo and glycoproteins.

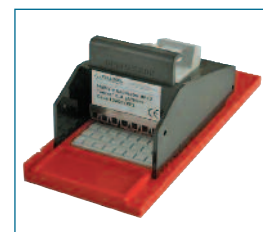
CellasGEL cellulose acetate gels are available in a variety of sizes and applications:- 2.5 x 14cm, 2.5 x 17cm, 5.7 x 14cm, 5.7 x 17cm, 5 x 24cm, 17 x 17cm, 6 x 7.6cm Helena, 5.7 x 10.2 arched.

Kits are available for multiple tests on serum proteins, haemoglobin, urine proteins and for immunofixation.



Applicators - variety of rapid sample applicators are available for a selection of applications:-

- Two specimen applicator for semi micro samples on strips 2.5cm wide.
- Four specimen applicator for semi micro samples on strips 5.7cm wide.
- Four specimen applicator for Haemoglobin samples on strips 5.7cm wide.
- Six specimen applicator for samples on strips 5.7cm wide.



Specimen applicator

Bridges are available in a variety of formats for cellulose acetate sheets of dimensions and for arched and horizontal Helena types of gels.

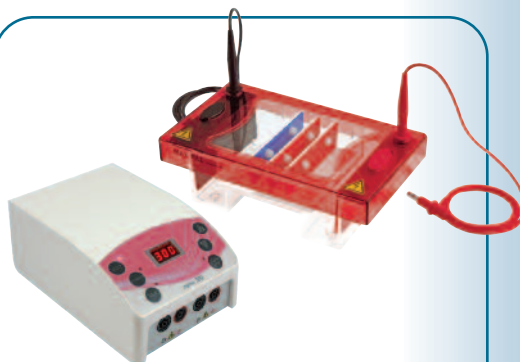
Densitometer - to complete the range, a universal densitometer scanner and software able to read 144 tests per minute is offered.

ORDERING INFORMATION

BCELLAS	Horizontal Unit for Cellulose Acetate Electrophoresis		
DENS	TurboScan Software Densitometer (computer and scanner not included)		
SCAN	Flatbed Scanner for TurboScan software.		
GEL2.514250	2.5x14 CellasGEL 250 micron 100/pack	KITI2432-ABM	Includes 1 x CSLKITI2432, 2 X CSLAPPM8 & 6 X CSLBDG8.5S
GEL2.514200	2.5x14 CellasGEL 200 micron 100/pack	KITSP-ABS	Includes 1 x CSLKITSP100200, 1 X CSLAPPS4 & 3 X CSLBDG8.5S
GEL2.514190	2.5x14 CellasGEL 190, high resolution, 100/pack	KITSP-ABM	Includes 1 x CSLKITSP100200, 1 X CSLAPPM8, 3 X CSLBDG8.5S
GEL5.714500	5.7x14 CellasGEL 500, high volume, 25/pack	KITSPHR-ABS	Includes 1 x CSLKITSP150200, 1 X CSLAPPS4, 3 X CSLBDG8.5S
GEL5.714250	5.7x14 CellasGEL 250 micron, 25/pack	KITSPHR-ABM	Includes 1 x CSLKITSP150200, 1 X CSLAPPM8, 3 X CSLBDG8.5S
GEL2.517200	2.5x17 CellasGEL 200 micron, 25/pack	KITHG100-ABS	Includes 1 x CSLKITHG100, 1 X CSLAPPS4, 3 X CSLBDG8.5S
GEL5.714190	5.7x14 CellasGEL 190, high resolution, 25/pack	KITLP100-ABS	Includes 1 x CSLKITLP100, 1 X CSLAPPS4, 3 X CSLBDG8.5S
KITCU	CellasKIT IFE Serum + Concentrated Urine (5+5 tests for 5 patients) on CellasGEL	APPS22	Applicator Semimicro 2+2 for CellasGEL 2.5x14 cm and Kit code CSLKITCU
KITI2432	CSLKITI2432 CellasKIT Immunofixation (24 semimicro or 32 micro tests) on CellasGEL	APPS4SP	Applicator Semimicro 1 X 4 specimen semi-micro applicator
KITSP100200	CellasKIT Serum Proteins (100 semimicro or 200 micro tests) on CellasGEL	APPS4	Applicator Semimicro 4 for 1.2 µl/9mm – First type
KITSP150200	CellasKIT HIGH RESOLUTION OF SERUM PROTEINS (150 semimicro or 200 micro tests) on CellasGEL	APPS6	Applicator Semimicro 1 X 6 specimen semi-micro applicator
KITHG100	CellasKIT HEMOGLOBINS (100 semimicro tests) on CellasGEL	APPM8	Applicator Micro 8 for CellasGEL
KITLP100	CellasKIT LIPOPROTEINS (100 semimicro tests) on CellasGEL	BDG8.5S	CSLBDG8.5S Bridge 8.5 cm (standard size for CellasGEL kits) for CellasGEL strips 5.7x14 or 2.5x14cm
KITCU-ABS	Includes 1 x CSLKITCU, 1 x CSLAPPS22 & 3 x CSLBDG8.5S	BCAB	Electrophoresis cable (Black & Red)
KITI2432-ABS	Includes 1 x CSLKITI2432, 2 X CSLAPPS6 & 6 X CSLBDG8.5S		



MINIPACK



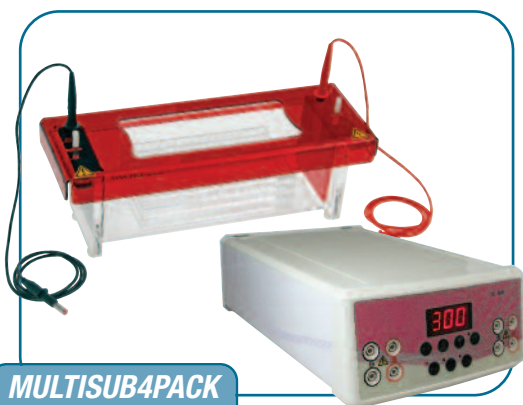
MIDIPACK



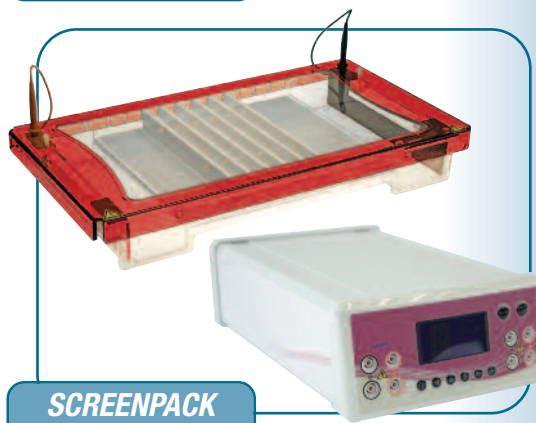
CHOICEPACK



MAXIPACK



MULTISUB4PACK



SCREENPACK

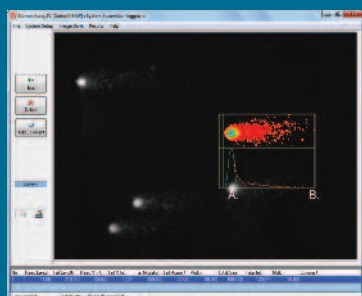
FOR THOSE PLANNING TO PURCHASE MULTIPLE ITEMS FOR SPECIFIC PROJECTS OR TECHNIQUES, **BIOCOM PACKAGES** OFFER EXCELLENT VALUE. CHECK OUT THE INDIVIDUAL PRICES AND SEE WHAT CAN BE SAVED WITH ONE OF THESE PACKAGES. IF YOU DON'T SEE ONE TO SUIT YOUR NEEDS, PLEASE CONTACT US, WE MAY BE ABLE TO CONSTRUCT ONE JUST FOR YOU.

ORDERING INFORMATION

MINIPACK	Mini Horizontal Electrophoresis Package , includes: - BCMSMINIDUO - horizontal unit with 7x7cm and 7x10cm gel trays and combs (Page 4) and NANO300 - 300V, 400mA, 60W mini power supply (Page 41)
MIDIPACK	Midi Horizontal Electrophoresis Package , includes: - BCMSMIDIDUO - horizontal unit with 10x7cm and 10x10cm gel trays and combs (Page 5) and MINI300VS - NANO300 - 300V, 400mA, 60W mini power supply (Page 41)
CHOICEPACK	Choice Horizontal Electrophoresis Package , includes: - BCMSCHOICETRIO - horizontal unit with 15x7cm, 15x10cm and 15x15cm gel trays and combs (Page 7) and MP-300 - 300V, 700mA, 150W midi power supply (Page 41)
MAXIPACK	Maxi Horizontal Electrophoresis Package with extra gel tray, includes: - BCMSEXIDUO - horizontal unit with 20x10cm and 20x20cm gel trays and combs (Page 8) and MP-300 - 300V, 700mA, 150W midi power supply (Page 41)
SCREENPACK	Screen Horizontal Electrophoresis Package , includes: - BCMSSCREENTRIO - horizontal unit with 26x16cm, 26x24cm and 26x32cm gel trays and combs (Page 9) and MP-500 - 500V, 800mA, 300W maxi power supply (Page 41)
MIDI96PACK	Midi96 Horizontal Electrophoresis Package , includes: - BCMSMIDI96 - horizontal unit with UV tray and 12x8-sample 1mm comb block (Page 6) and MP-300 - 300V, 700mA, 150W mini power supply (Page 41)
MULTISUB4PACK	MultiSUB-4 Horizontal Electrophoresis , includes: - BCMULTISUB-4 - horizontal unit with four 8x12cm gel trays and combs (Page 6) and MP-300 - 300V, 700mA, 150W midi power supply (Page 41)

comet assay

- FOR SINGLE CELL GEL ELECTROPHORESIS
- MINIMISE EXPOSURE TO LIGHT AND REDUCE BACKGROUND DNA DAMAGE
- HIGH EFFICIENCY COOLING FOR ENHANCED RESOLUTION



Full Screen Shot of a Comet Profile within the Comet Assay IV Software.

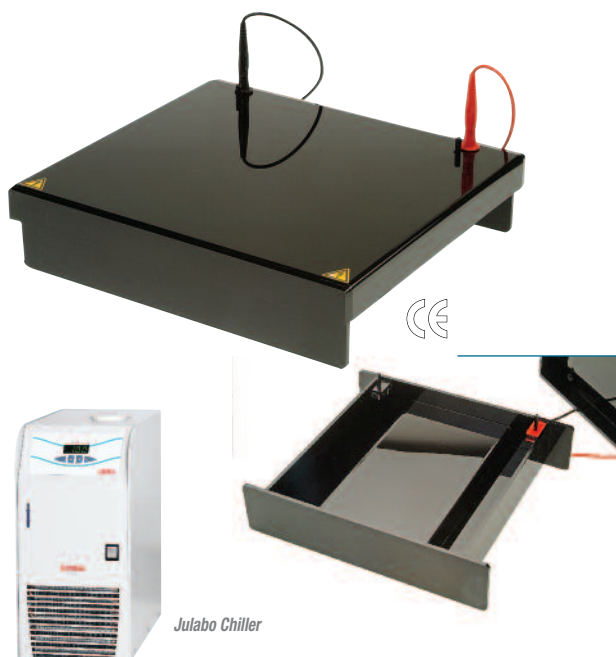
A. The Comet 'Head' comprising largely intact genomic DNA.
B. The Comet 'Tail' of mobile damaged or fragmented DNA.

Technical Specifications

GEL DIMENSIONS,	10 x 8cm (W x L)
UNIT DIMENSIONS	15 x 15 x 4cm (W x D x H)
MAX. SAMPLE CAPACITY	40 SAMPLES
BUFFER VOLUME	50ML
COMBS AVAILABLE :	
NO. OF SAMPLES	1, 4, 8, 12, 16, 20
THICKNESSES	1, 1.5mm

Typical Applications

For routine, rapid checking of samples



Julabo Chiller

The single cell gel electrophoresis assay (also known as the Comet assay) is a simple, rapid and sensitive technique for analysing and quantifying DNA damage in individual mammalian (and to some extent prokaryotic) cells.

COMET assay tanks are specifically designed to minimise exposure to light and reduce background DNA damage. Previously, units designed for standard electrophoresis have been used which with their clear construction have not offered an easy to use system.

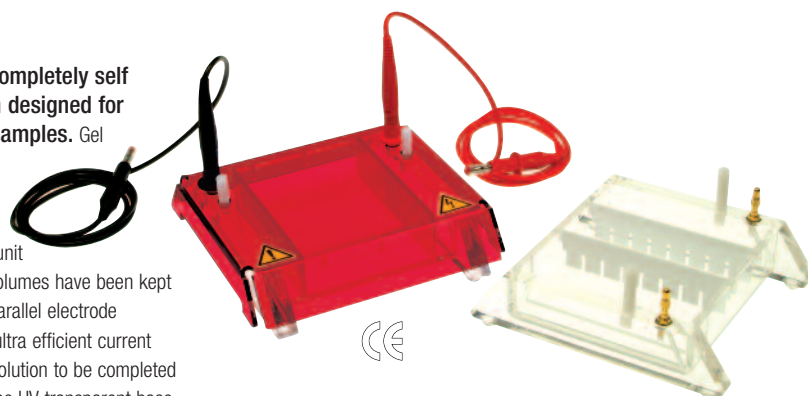
Constructed from Ebony acrylic to prevent UV degradation, the slides sit on a cooling platform which can be connected to a water supply or chiller for active temperature control and cooling.

For more information on COMET assay technique, visit <http://cometassay.com>

Julabo F250 Chiller, with PID control ensuring temperature stability within $\pm 0.5^{\circ}\text{C}$, the F250 is the perfect recirculating chiller for active slide temperature control. This chiller also benefits from a maximum flow rate of 15 litres per minute and 0.35 bar pressure, while a small footprint and frontal vents allow multiple units to be aligned side-by-side if required. A versatile working temperature range of $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ makes the chiller suitable for use in other applications such as flat-bed isoelectric focusing.

MINI RAPIDE

miniRapide is a completely self contained system designed for quick checks of samples. Gel casting, running and analysis are all performed in the same ultra compact unit with buffer and gel volumes have been kept to a minimum. The parallel electrode arrangement allows ultra efficient current transfer, enabling resolution to be completed within 30 minutes. The UV transparent base permits direct viewing on a UV Transilluminator with no need for time consuming transfer and potential gel damage. Dual comb slots allow the loading of up to 40 samples per gel while multichannel pipette compatible combs further enhance the speed and convenience.



- A CONVENIENT SELF CONTAINED SOLUTION FOR ROUTINE AGAROSE GEL ELECTROPHORESIS
- ULTRA COMPACT
- LOW BUFFER VOLUMES
- MULTICHANNEL PIPETTE COMPATIBLE

ORDERING INFORMATION

BCOM10	Comet Assay Tank for 10 Slides
BCOM20	Comet Assay Tank for 20 Slides
BCOM40	Comet Assay Tank for 40 Slides

BCOM80	Comet Assay Tank for 80 Slides
CHILLER	Chiller unit for active slide temperature control
F250	Julabo Chiller

ORDERING INFORMATION

BCFMMS10	miniRapide, 10 x 8cm, 2 x 8 sample combs 1.5mm and casting dams
FMMS-DAM	miniRapide Casting Dams, pk/2

RPW0.2	Replacement Platinum Wire 0.2mm – 50cm
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Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL	Colour	CODE	DESCRIPTION	SAMPLE VOLUME FOR A 5MM THICK GEL
	FMMS-1-1	Comb 1 sample, 1 dye, 1mm thick	330µl		FMMS-1-1.5	Comb 1 sample, 1 dye, 1.5mm thick	495µl
	FMMS-4-1	Comb 4 sample, 1mm thick	90µl		FMMS-4-1.5	Comb 4 sample, 1.5mm thick	135µl
	FMMS-8-1	Comb 8 sample, 1mm thick	40µl		FMMS-8-1.5	Comb 8 sample, 1.5mm thick	60µl
	FMMS-12-1	Comb 12 sample, 1mm thick	25µl		FMMS-12-1.5	Comb 12 sample, 1.5mm thick	38µl
	FMMS-16-1	Comb 16 sample, 1mm thick	15µl		FMMS-16-1.5	Comb 16 sample, 1.5mm thick	23µl
	FMMS-20MC-1	Comb 20 sample MC, 1mm thick	10µl		FMMS-20MC-1.5	Comb 20 sample MC, 1.5mm thick	15µl

cabinets

These UV Sterilisation Cabinets provide a convenient area for setting up PCR reactions in a nucleic acid free environment thus limiting PCR reaction contamination.

Acting effectively as a low cost alternative to a clean room, the powerful UV lights on each cabinet denatures nucleic acids in 5 to 30 minutes making them unsuitable for amplification. The cabinets incorporate safety features to prevent user-exposure to UV light.

The UV lights are timer controlled and there are safety switches on the cabinet doors which power off the UV lights when opened. The units' white light provide excellent visibility when working within the cabinet.

Constructed from 10mm acrylic, the cabinets also act as efficient shields from beta radioactive emissions and can therefore be safely used with isotopes such as ^{32}P .

Two models are available, Maxi as shown adjacent, and a new Mini Cabinet for limited budget and bench space.

Safety SpillTrays and Liners of size 68 x 54cm, provide convenient containment of spillage (not included with cabinet).

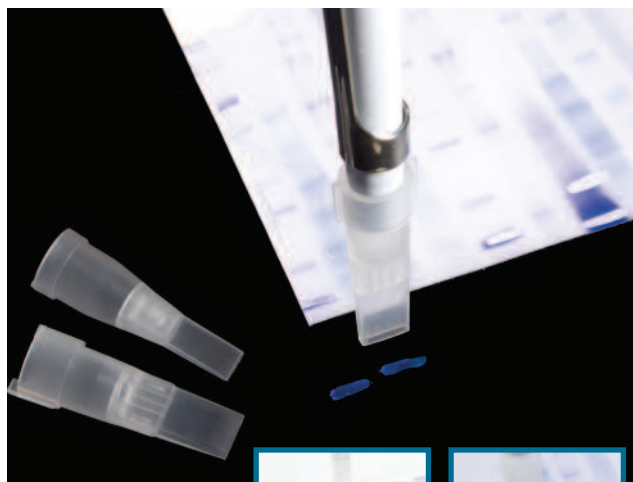


- INACTIVATES NUCLEIC ACIDS IN 5 TO 30 MINUTES
- DOORS FITTED WITH SAFETY SWITCHES
- COMPLETE WITH FOUR POWERFUL, TIMER CONTROLLED UV BULBS
- EFFICIENT DECONTAMINATION OF THE COMPLETE WORK SURFACE
- SUITABLE FOR WORK WITH ^{32}P

Technical Specifications

UV LIGHTS	MAXI MINI	FOUR x 15 WATT FOUR x 15 WATT
WHITE LIGHT	MAXI MINI	15 WATT 15 WATT
DIMENSIONS (HxWxD)	MAXI MINI	660 x 560 x 420MM 400 x 560 x 350MM
WEIGHT	MAXI MINI	19 KG 12 KG

gel excision tips



Gel-X Excision Tips offer a convenient and efficient one handed method of removing bands using a simple and rapid two-step process. The tips, in two sizes, 4.0 x 1mm and 6.5 x 1mm, cut directly into agarose or acrylamide gels, so eliminating cross contamination between samples. Alternative methods which require multiple steps including washing or rinsing are slow and tedious. Gel-X is a safe and efficient one handed operation, with a push button gel and tip release, providing researchers with uniform extractions. Tips fit standard 1000µl pipettors and are available in bags and racks.



- EASILY REMOVE BANDS FROM AGAROSE GELS
- TWO TIP SIZES
- ONE HANDED OPERATION
- REGULAR PIPETTING ACTION
- ELIMINATES CROSS CONTAMINATION
- FIT STANDARD 1000µL PIPETTES

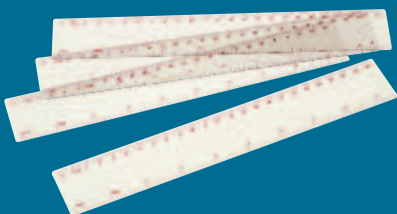
ORDERING INFORMATION

UVCAB	UV PCR Cabinet, Maxi (without Safety SpillTray)	BC1006	Safety SpillTray, White
UVCABMINI	UV PCR Cabinet, Mini (without Safety SpillTray)	BC1046	Safety SpillTray, Yellow
UVTUBE	Replacement UV Fluorescent Tube	BC1116	Safety Tray Liners, APET, pk/25
WHTUBE	Replacement White Fluorescent Tube		
GELX4	Rectangular Tips - 6.5mm x 1mm, bag/250	GELX6.5	Rectangular Tips - 4.0mm x 1mm, bag/250
GELX4 RACK	Rectangular Tips - 6.5mm x 1mm, 5x racks of 48	GELX6.5RACK	Rectangular Tips - 4.0mm x 1mm, 5x racks of 48

For 110 V AC, please add '-S' as a suffix to the appropriate product code

accessories

gel rulers



- SHARP, CLEAR, EASILY VISIBLE MARKINGS
- FOR USE WITH ETHIDIUM BROMIDE GELS
- IDEAL FOR GEL PRESENTATION

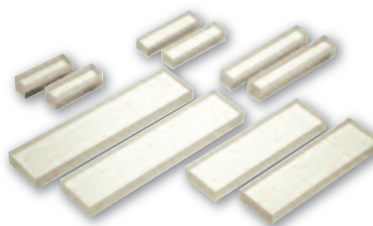
- COLOUR CODED FOR THICKNESS
- COMB AND GUIDE IN ONE PIECE FOR CONVENIENCE
- ADJUSTABLE HEIGHT

- EFFECTIVE COOLING
- COOLS WITHOUT EXTERNAL CHILLING SYSTEMS
- IMPROVES GEL RESOLUTION AND REDUCES RUN TIMES

HORIZONTAL GEL SYSTEM

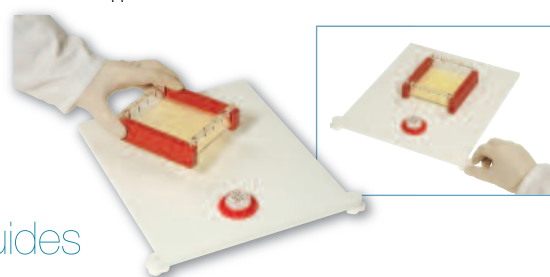
buffer saver blocks

Buffer saver blocks physically reduce the volume in positive and negative compartments of a gel chamber and so reduces buffer requirements, saving cost. Blocks are available for all multiSUB Horizontal Gel Units.

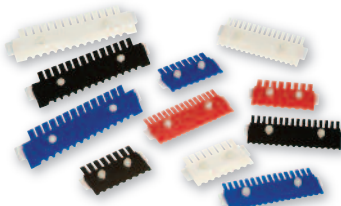


gel levelling table

This **Gel Levelling Table** provides a useful way of pouring gels of uniform thickness. The table features a large 32 x 26cm platform with large thumb-wheel levelling feet at each corner. A levelling bubble is supplied.



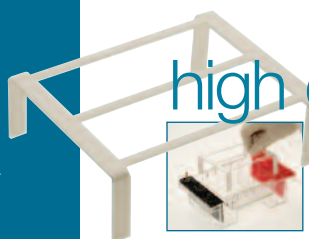
combi-comb/loading guides



These **guides** combine the convenience of a regular comb with the appropriate guide (same teeth number and width) for loading samples, simply flip over.



high efficiency horizontal gel cooling



Comprising a removable Gel Platform and CoolPack this unique system will cool the buffer chamber of multiSUB horizontal gel units without any external chilling. Simply place the platform over the running tray and place a pre-chilled CoolPack on top. This allows the CoolPack to sit in the buffer, above the gel directly, removing any heat generated.

ORDERING INFORMATION

High Efficiency Horizontal Gel Cooling Systems

MSMINICP	CoolPack and Platform for MSMINI
MSMIDICP	CoolPack and Platform for MSMIDI
MSCHOICECP	CoolPack and Platform for MSCHOICE
MSMAXICP	CoolPack and Platform for MSMAXI
MSSCREENCP	CoolPack and Platform for MSSCREEN

Horizontal Systems Combi Comb / Loading Guides

(x = comb well number, y = comb thickness)	
MS7-x -yLG	Combination Comb and Loading Guide for MSMINI
MS10-x -yLG	Combination Comb and Loading Guide for MSMIDI
MS15-x -yLG	Combination Comb and Loading Guide for MSCHOICE
MS20-x -yLG	Combination Comb and Loading Guide for MSMAXI
MS26-x -yLG	Combination Comb and Loading Guide for MSSCREEN

Horizontal Buffer Saver Blocks

MSMINIBSB	Buffer Saver Blocks for MSMINI, pk/2 saves 100ml of buffer
MSMIDIBSB	Buffer Saver Blocks for MSMIDI, pk/2 saves 100ml of buffer
MSCHOICEBSB	Buffer Saver Blocks for MSCHOICE pk/2 saves 190ml of buffer
MSMAXIBSB	Buffer Saver Blocks for MSMAXI pk/2 saves 450ml of buffer
MSSCREENBSB	Buffer Saver Blocks for MSSCREEN, pk/2 saves 625ml of buffer

Gel Levelling Table

GLT	Gel Levelling Table
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UV Fluorescent Ruler

RLR	UV Fluorescent Ruler
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agarose

- HIGH RESOLVING CAPACITY OVER A WIDE RANGE OF FRAGMENT SIZES
- HIGH GEL STRENGTH MEANS EASY HANDLING OF GELS AND COMPATIBILITY WITH BLOTTING TECHNIQUES
- GELS SHOW CLEAR AND SHARP BANDS, EVEN WITH SMALL FRAGMENTS, BECAUSE THE LOW EEO MINIMISES DIFFUSION



This new agarose is suitable for routine analysis of nucleic acids when using standard electrophoretic techniques. Strict controls ensure this agarose is DNase and RNase free.



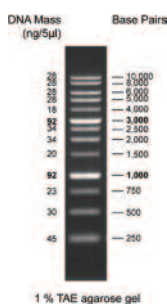
Technical Specifications

EEO (ELECTROENDOSMOSIS)	0.16
ASH	0.5%
SULPHATE	0.2%
WATER	10%
GEL STRENGTH	2000 g/cm ² (1.5% GEL)
GELLING POINT	36±2°C (1.5% GEL)
MELTING POINT	88±2°C (1.5% GEL)

DNA ladders



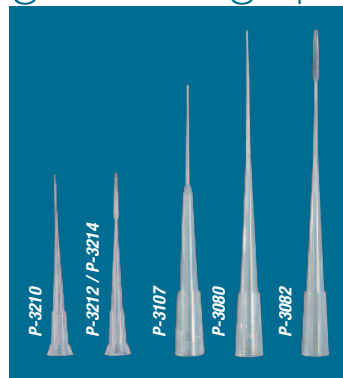
Pre-made and containing loading dye for immediate use, these ready-to-use (RTU) DNA markers are specially formulated to run accurately and produce sharp, well defined ladders. Available in six molecular weight ranges and composed of discrete marker fragments isolated from restriction-digested proprietary plasmids, each DNA marker will remain stable for up to 6 months at room temperature and 12 months if kept in the fridge at 4°C. All RTU markers contain high intensity reference bands and may be used to perform size comparisons with DNA molecules ranging from the smallest of PCR fragments to large, linearised cosmid vectors.



For more information, please request a datasheet

MICROCAPILLARY

gel loading tips



Developed to enhance accuracy in the critical 0 to 20µl range, the length and narrow profile of these gel loading tips provide easy access to small orifices. The round format models are ideal for SDS PAGE while the flat and ultra-flat, duck-billed versions are designed for sequencing gels.

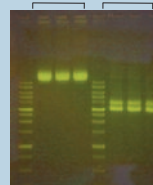
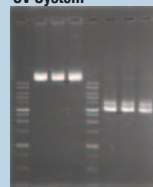
- TWO STYLES ROUND OR FLAT (DUCKBILL)
- 'UNIFIT' DESIGN PROVIDES TIGHT SEAL
- COMPLETE VISIBILITY OF SUB-MICROLITRE VOLUMES - 200µL MODELS (83mm) AT 5µL; 2µL/10µL MODELS AT 2µL
- FOR USE WITH 2, 10, 20, 100 AND 200µL PIPETTES
- METAL AND RNASE FREE

run safe

runSafe is a new ready to use, safe and sensitive alternative to ethidium bromide and other DNA stains. It is a non-mutagenic fluorescent reagent that produces instant visualisation of DNA bands upon Blue Light or UV illumination of gels. Supplied in 6X DNA Loading Buffer, runSafe is used to prepare DNA markers and samples for loading on agarose or polyacrylamide gels. runSafe is a highly sensitive stain available for detecting double-stranded DNA (dsDNA). It contains three tracking dyes (Bromophenol Blue, Xylene Cyanol FF, and Orange G) for visual tracking of DNA migration during electrophoresis. Simply mix, load and run – runSafe acts as both a loading dye and a DNA stain combined for added speed and convenience.

For more information, please request a datasheet

UV System



Blue LED System

- COMPATIBLE - WITH RUNVIEW REAL-TIME HORIZONTAL GEL SYSTEM
- SAFE - ULTRA LOW TOXICITY - (LC>5000MG/KG), NO EXPENSIVE WASTE MANAGEMENT REQUIRED
- CONVENIENT - READY TO USE IN THE SAME WAY AS A 6 X LOADING DYE
- FAST - NO DE-STAINING OF GELS IS REQUIRED
- SENSITIVE - VERY LOW BACKGROUND STAINING OF THE GEL
- IMPROVED CLONING EFFICIENCY - DOES NOT DAMAGE OR MUTATE DNA

ORDERING INFORMATION

Agarose*

AG100	Agarose, 100g	AG500	Agarose, 500g	AG2000	Agarose, 2000g
AG500	Agarose, 500g	AG1000	Agarose, 2x 500g	AG5000	Agarose, 5000g

Gel Loading Tips

		Packaging
P-3210	Round Orifice, 0.2-10µl, 0.5mm diam.,	Case = 4x rack/200
P-3212	Flat Orifice, 0.2-10µl, 0.33mm diam.,	Case = 4x rack/200
P-3214	UltraFlat Orifice, 0.2-10µl, 0.17mm diam.,	Case = 4x rack/200

DNA Ladders

MDNA-100BPH	100bp DNA ladder, 100-3000bp, 1x500µl vial
MDNA-100BP	100bp DNA ladder, 100-1500bp, 1x500µl vial
MDNA-1KB	1Kb DNA ladder, 250bp-10Kb, 1x500µl vial

runSafe

RNSFE	1000 Package: 1 ml/ vial, - Supplied in 6X Loading Buffer
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Gel Loading Tips

		Packaging
P-3107	Round Orifice, 20-200µl, 1.1mm diam.,	Case = 5x rack/200
P-3080	Round Orifice, 20-200µl, 0.5mm diam.,	Case = 4x rack/200
P-3082	Flat Orifice, 20-200µl, 0.33mm diam.,	Case = 4x rack/200

MDNA-50BP	50bp DNA ladder, 50-1500bp, 1x500µl vial
MDNA-BR	Broad Range DNA ladder, 100bp-10Kb, 1x 500µl vial
MDNA-HR	High Range DNA ladder, 250bp-25Kb, 1x500µl vial

omnipage

SETTING A NEW STANDARD

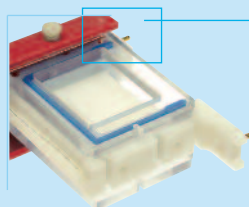
IN VERTICAL ELECTROPHORESIS

INJECTION MOULDED MINI UNIT - durable, leak-proof environment for complete safety and long life

COMPATIBLE with all major brands of precast gels

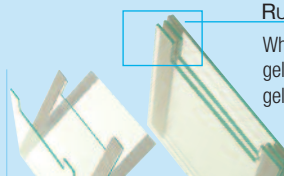
RAPID GEL CASTING AND LOADING ensures trouble free gel set-up

VERSATILE - interchangeable modules for PAGE and 2-D electrophoresis as well as electroblotting using a single universal buffer tank



PRESSURE CLAMPING FRAME

A unique single piece pressure frame offers the option of rapid single screw per side or new screw free set up. Even pressure and buffer contact across the plates results in even sample migration and efficient heat removal from the gel. Glass plates are 2mm thick to reduce breakage.



RUN UP TO 4 GELS AT A TIME

While most vertical gel units can run only one or two gels, omniPAGE Mini units can run one, two or up to four gels at any time using a triple glass plate sandwich.



EFFECTIVE BUFFER COOLING

A simple to use cooling pack system ensures enhanced resolution without costly and time consuming additional equipment. No chiller, tap or obstructing connecting leads are required. The cooling pack is simply pre-chilled in a freezer and placed in the gel tank. Additionally, the use of cooling packs reduces buffer volume.

BUFFERS, REAGENTS AND CONSUMABLES

All Biocom precast gels, chemicals and reagents for electrophoresis and molecular biology techniques are manufactured to the highest standards. They are stringently tested to ensure they are completely free of impurities.



dedicated SYSTEMS...

mini AND maxi



Complete system for
PAGE, blotting and 2D
capillary

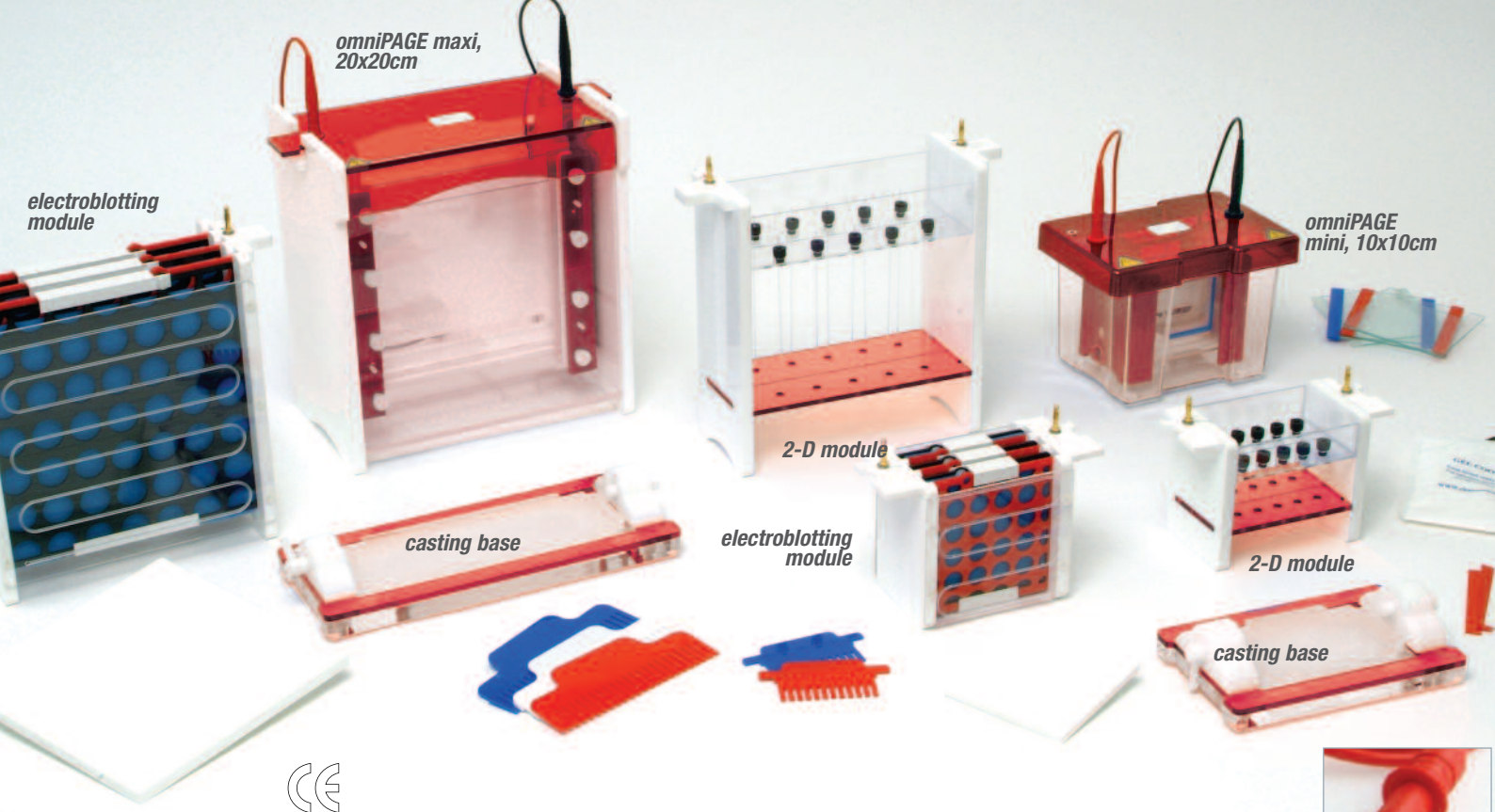


System for PAGE
and blotting



System for PAGE
and 2D capillary

All available in Mini, Mini Wide and Maxi WAVE formats



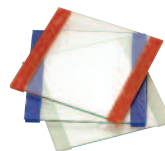
Corrosion resistant,
99.99% pure platinum
electrodes and gold
plated terminals - easily
replaced, ensuring
minimum repair times



Retractable connectors
compatible with most
major power supplies

OMNI - om-ni- all, everything

The omniPAGE range of Vertical Gel Units combines ease of use with high resolution separations. Three sizes, Mini 10 x 10cm, Mini Wide 20 x 10cm and WAVE Maxi 20 x 20cm, share a host of common features including a guaranteed leak proof seal required for trouble free, rapid and uncomplicated gel casting. Utilising a built in gel running module eliminates time consuming transfer of glass plates during casting, a process which can cause gel damage and misalignment. Glass plates with permanently bonded spacers guarantee perfect spacer alignment. The glass plate sandwich is simply inserted between pressure bars and sealed using an easy to use sliding gates system. This ensures fast set up times while even pressure bars and ultra soft seals guarantee leak proof casting. Once the gel has polymerised, the gel running module is simply inserted into the gel tank for electrophoresis.



combs & SPACERS

- five thicknesses, colour coded
 - purple:** 0.5mm for ultra resolved bands
 - black:** 0.75mm for ultra resolved bands
 - white:** 1mm supplied as standard
 - red:** 1.5mm for maximising sample volume
 - blue:** 2mm for maximising sample volume
- options for Sample Prep
- options for MULTI-CHANNEL PIPETTE COMPATIBLE

The number of samples can be maximised using high tooth number combs

INTERCHANGEABLE modules



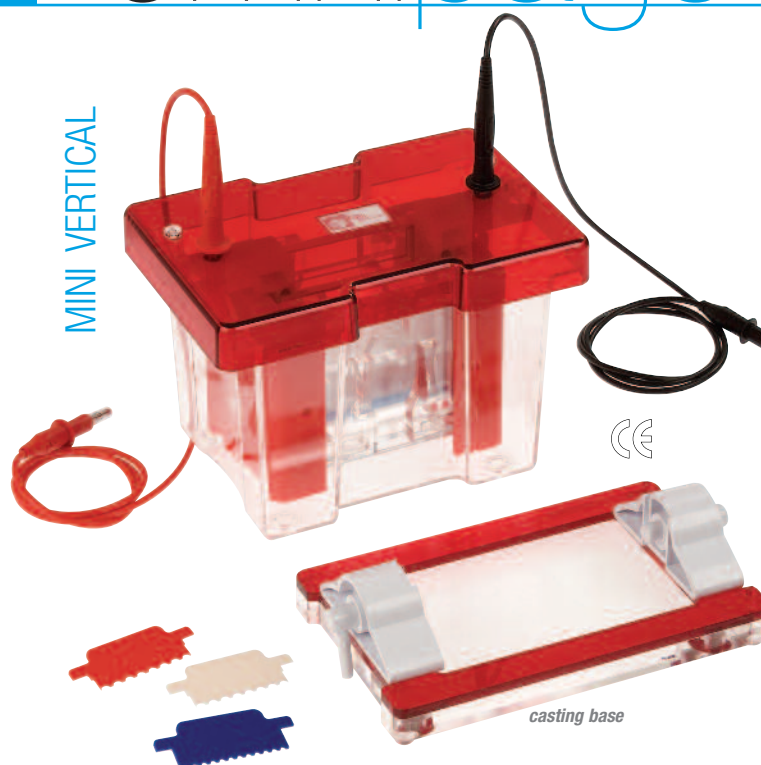
All units are CE marked and are in conformity with the relevant CE Safety Directives:
73/23/EEC: LOW VOLTAGE DIRECTIVE: IEC 61010-1:2001. EN 61010-1:2001;
89/336/EEC EMC DIRECTIVE: EN55011 Emissions, EN50082-1 Immunity.

SETTING A NEW STANDARD IN VERTICAL ELECTROPHORESIS

omnipage

- INJECTION MOULDED CONSTRUCTION
- COMPATIBLE WITH ALL 8 x 10 AND 10 x 10CM PRECAST GELS
- RAPID GEL CASTING AND LOADING
- LOW BUFFER VOLUMES
- RAPID SET UP COOLING
- RUN UP TO FOUR GELS

MINI VERTICAL



MINI TETRAD

A 4-gel Mini TETRAD system is created by simply introducing additional plates with spacers and appropriate combs. TETRAD is supplied with a casting base and external casting upstand to allow gels to be prepared in advance, ready for the next run.

For TETRAD systems, see page 34

Technical Specifications

PLATE DIMENSIONS,	10 x 10cm
GEL DIMENSIONS, (W x L)	7.5 x 8cm
UNIT DIMENSIONS	19 x 13 x 15cm (W x D x H)
MAX. SAMPLE CAPACITY	80 SAMPLES, 20 SAMPLES PER GEL
BUFFER VOLUME	Min 250ML; Max 1200ML
COMBS AVAILABLE :	
No. OF SAMPLES	1, 5, 8MC, 9, 10, 12, 16MC, 20
THICKNESSES	0.75, 1, 1.5, 2mm

Typical Applications

Mini SDS PAGE, Native PAGE, Gradient, Second dimension and Nucleic acid separations

The preferred unit for routine mini protein electrophoresis, **omniPAGE mini is constructed using the latest injection moulding manufacturing techniques.** This gives a high quality, low cost product with unsurpassed finish, durability and strength. The unit incorporates a sealing system which is compatible with all major types of 8 x 10cm and 10 x 10cm precast gel.

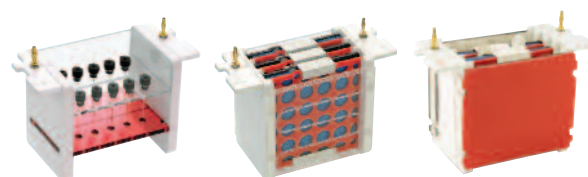
Gel casting and running utilise the same insert, no transfer of glass plates during gel casting is necessary. The insert contains the option of sliding clamps or just one screw per clamping bar side (both supplied), allowing very rapid set up of both hand cast and precast gels. Ultra soft silicone seals and pressure bars which surround the glass plates guarantee leak proof gel casting. 2mm thick glass plates minimise breakage and have bonded spacers for convenience.

Accessory electroblotting and tube gel modules are available which use the same outer tank and lid.

For extended cooling of the buffer chamber a factory fitted cooling coil option is available. This allows the connection to a recirculating chiller. If required, please add '-CC' to the appropriate product code.

interchangeable MODULES

omniPAGE Mini blotting and capillary tube gel inserts may be used with the same tank and lid to adapt an Mini Standard or Tetrad system for fast, high-quality electroblotting of mini gels and for reproducible 2-D electrophoresis, respectively. These units are available as standalone options or as part of fully integrated electrophoresis systems.



ORDERING INFORMATION

BCVS10D	omniPAGE Mini , 10 x 10cm includes Glass Plates with bonded 1mm thick spacers, 2x 12 sample combs, cooling pack, dummy plate
BCVS10DSYS	omniPAGE Mini , 10 x 10cm incl. Glass Plates with bonded 1mm thick spacers, 2x 12 sample combs, cooling pack, dummy plate and casting base
BCVS10DSYS-CU	omniPAGE Mini , 10 x 10cm incl. Glass Plates with bonded 1mm thick spacers, 2x 12 sample combs, cooling pack, dummy plate, casting base and casting upstand (see page 19)
BCVS10PRE	omniPAGE Mini , 10 x 10cm includes dummy plate, cooling pack
VS10DCAST	10 x 10cm Casting Base
VS10DCASTM	Replacement Silicone Mat for 10 x 10cm Casting Base
BCVS10DIRM1*	Inner Running Module, with Sliding Clamps or Screw Clamps
VS10ICB	Mini Cooling Pack
VS10-x -LG	Loading guides for omniPAGE mini combs, x = comb well number
VS10NG	10 x 10cm Notched Glass Plates 2mm thick (pk/2)
VS10PG	10 x 10cm Plain Glass Plates 2mm thick (pk/2)
VS10NGS0.75	10 x 10cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)
VS10PGS0.75	10 x 10cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)
VS10NGS1	10 x 10cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS10PGS1	10 x 10cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
VS10NGS1.5	10 x 10cm Notched Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS10PGS1.5	10 x 10cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS10NGS2	10 x 10cm Notched Glass Plates with 2mm Bonded Spacers (pk/2)
VS10PGS2	10 x 10cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS10DP	Dummy Plate, 10 x 10cm
VS10S0.75	10cm Spacers - 0.75mm (pk/2)
VS10S1	10cm Spacers - 1mm thick (pk/2)
VS10S1.5	10cm Spacers - 1.5mm thick (pk/2)
VS10S2	10cm Spacers - 2mm thick (pk/2)

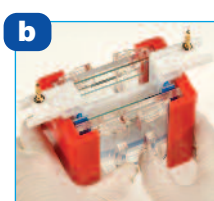
simple, rapid, leak-proof GEL CASTING....

- Dual purpose PAGE insert eliminates time-consuming transfer of glass plates between separate casting and running modules
- Ground glass plates with bonded injection moulded spacers consistent with comb thickness ensure 'clean' well formation, as well as the correct alignment for leak-free casting; also eliminate the need for easily mislaid and awkward to use spacer aligners
- Very forgiving, ultra-soft silicone mat within cam-caster compensates for glass plate misalignment to ensure leak-free casting

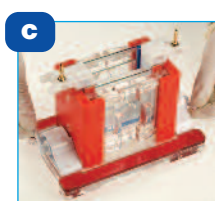
For PRECAST gels, see page 39



a Insert glass plates between pressure frame and gasket



b Slide gates to make efficient seal



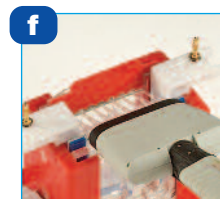
c Transfer to casting base and tighten cams



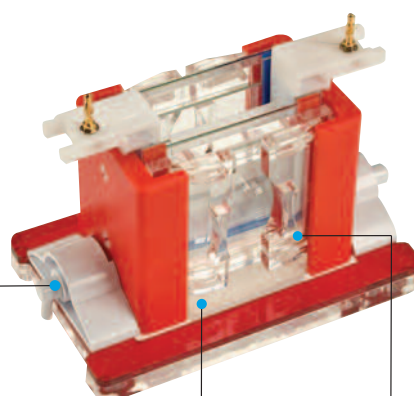
d Insert gel solution and comb and allow to polymerise



e Transfer to tank and fill with buffer



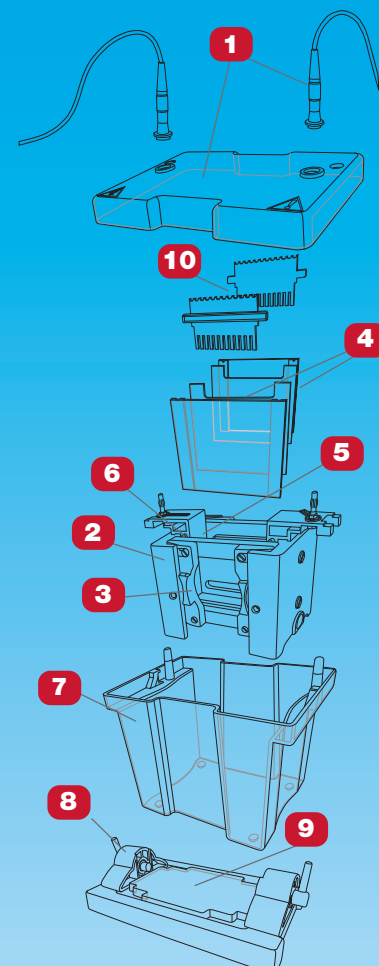
f Load samples using Loading Guides and run



Cam pins lock PAGE insert onto the ultra-soft silicone mat within the casting base to provide leak-free seal

Flat, level gasket prevents current leakage from inner buffer chamber

Sliding gates allow optimum pressure to be applied and so create leak-free seal



Mini component parts

- | | |
|-------------------------|---------------------------|
| 1. Lid and power cables | 6. Gasket |
| 2. PAGE insert | 7. Outer tank |
| 3. Sliding clamps | 8. Cam-pin caster |
| 4. Glass plates | 9. Ultra-soft casting mat |
| 5. Inner buffer chamber | 10. Combs |

Colour	CODE	DESCRIPTION	SAMPLE VOLUME PER WELL
Black	VS10-1-0.75	Comb 1 Prep, 1 Marker, 0.75mm thick	500µl
	VS10-5-0.75	Comb 5 sample, 0.75mm thick	70µl
	VS10-8MC-0.75	Comb 8 sample MC, 0.75mm thick	40µl
	VS10-9-0.75	Comb 9 sample, 0.75mm thick	35µl
	VS10-10-0.75	Comb 10 sample, 0.75mm thick	30µl
	VS10-12-0.75	Comb 12 sample, 0.75mm thick	25µl
	VS10-16MC-0.75	Comb 16 sample MC, 0.75mm thick	20µl
White	VS10-20-0.75	Comb 20 sample, 0.75mm thick	15µl
	VS10-1-1	Comb 1 Prep, 1 Marker, 1mm thick	650µl
	VS10-5-1	Comb 5 sample, 1mm thick	100µl
	VS10-8MC-1	Comb 8 sample MC, 1mm thick	60µl
	VS10-9-1	Comb 9 sample, 1mm thick	50µl
	VS10-10-1	Comb 10 sample, 1mm thick	40µl
	VS10-12-1	Comb 12 sample, 1mm thick	35µl
Grey	VS10-16MC-1	Comb 16 sample MC, 1mm thick	25µl
	VS10-20-1	Comb 20 sample, 1mm thick	20µl

Colour	CODE	DESCRIPTION	SAMPLE VOLUME PER WELL
Red	VS10-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	1000µl
	VS10-5-1.5	Comb 5 sample, 1.5mm thick	140µl
	VS10-8MC-1.5	Comb 8 sample MC, 1.5mm thick	80µl
	VS10-9-1.5	Comb 9 sample, 1.5mm thick	70µl
	VS10-10-1.5	Comb 10 sample, 1.5mm thick	30µl
	VS10-12-1.5	Comb 12 sample, 1.5mm thick	50µl
	VS10-16MC-1.5	Comb 16 sample MC, 1.5mm thick	40µl
Blue	VS10-20-1.5	Comb 20 sample, 1.5mm thick	30µl
	VS10-1-2	Comb 1 Prep, 1 Marker, 2mm thick	1300µl
Dark Blue	VS10-5-2	Comb 5 sample, 2mm thick	200µl
	VS10-8MC-2	Comb 8 sample MC, 2mm thick	120µl
Light Blue	VS10-9-2	Comb 9 sample, 2mm thick	100µl
	VS10-10-2	Comb 10 sample, 2mm thick	80µl
Dark Green	VS10-12-2	Comb 12 sample, 2mm thick	70µl
	VS10-16MC-2	Comb 16 sample MC, 2mm thick	50µl
Light Green	VS10-20-2	Comb 20 sample, 2mm thick	40µl

COMBS, SPACERS AND ACCESSORIES ALSO AVAILABLE IN 0.5MM

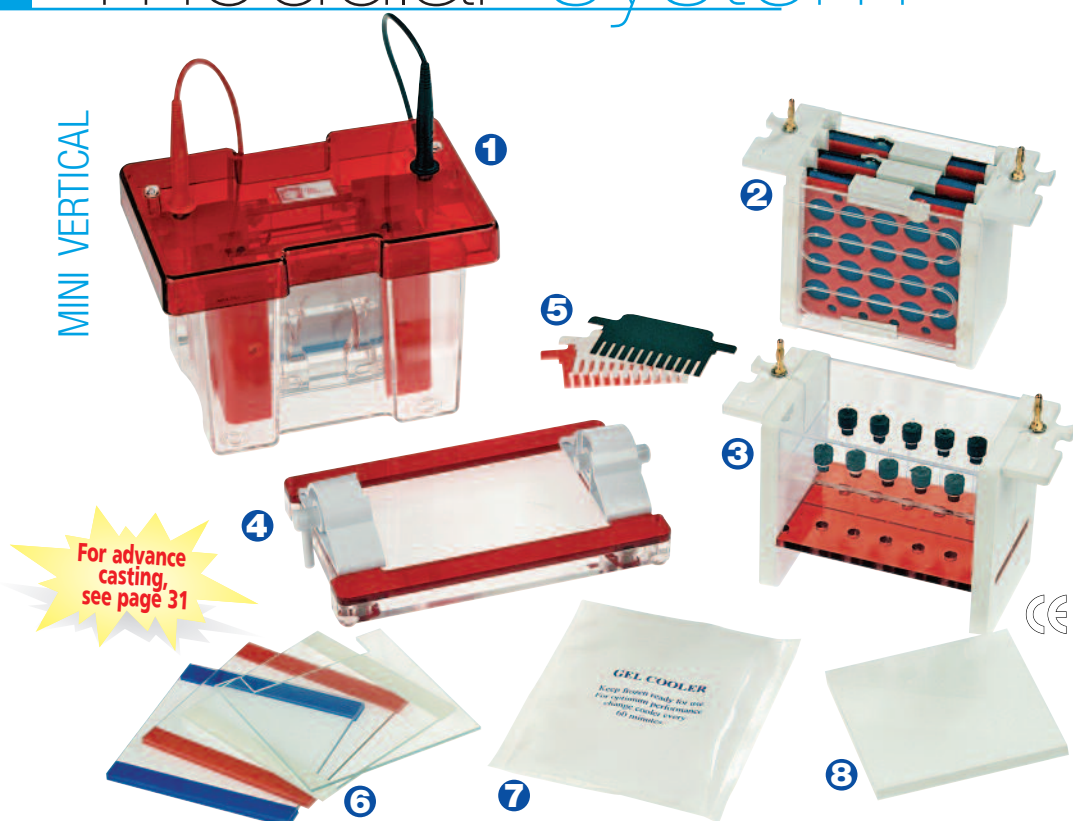
MC = multichannel pipette compatible

modular system

- ECONOMY OF BENCH SPACE AND COST
- ENHANCED REPRODUCIBILITY
- SIMPLE TO USE CASTING
- RAPID SET UP COOLING

The omniPAGE range of Modular Vertical Gel Systems allow multiple electrophoresis techniques to be performed in the same unit. Using the same main tank and lid, three different inserts are interchangeable for PAGE, tube gel and electroblotting techniques. These systems are available in three size options, MINI 10 x 10cm, MINI Wide 20 x 10cm and MAXI WAVE 20 x 20cm, as individual, combination or complete modular systems. Combination and modular systems offer maximum value and space and have the added benefit of increased consistency which results from using the same universal base and lid.

MINI VERTICAL



COMPONENTS OF OMNIPAGE MINI MODULAR SYSTEM

- 1 Tank, Lid and PAGE Module
- 2 Electroblotting Module
- 3 Capillary Electrophoresis Module
- 4 Casting Base
- 5 Combs
- 6 Glass Plates with bonded spacers
- 7 Cooling Pack
- 8 Blanking Plate

This system includes all modules and accessories required for Mini Slab Gel Electrophoresis, 2-D Electrophoresis and Electroblotting. The central component of these Systems is the omniPAGE Mini Vertical Unit. This includes a rapid and intuitive casting system, enhanced and easy to set up cooling system and increased gel capacity - each can run up to four gels per run. OmniPAGE Tube gel modules are capable of resolving up to 10 first dimension gels and the Electroblotting modules have a four blot capacity. This package includes all the necessary accessories for Slab Gel, First Dimension and Electroblotting. Each of these techniques benefits from rapid set up cooling packs which provide enhanced resolution even during high intensity 2-D electrophoresis and electroblotting.

Technical Specifications

PLATE DIMENSIONS,	10 x 10cm (W x L)
GEL DIMENSIONS,	7.5 x 8cm (W x L)
UNIT DIMENSIONS	19 x 13 x 15cm (W x D x H)
MAX. SAMPLE CAPACITY	PAGE - 80 SAMPLES, 20 SAMPLES /GEL BLot - 4 BLOTS 2D - 10 TUBES
BUFFER VOLUME	MIN 250ML; MAX 1200ML
COMBS AVAILABLE :	
No. OF SAMPLES	1, 5, 8MC, 9, 10, 12, 16MC, 20
THICKNESSES	0.75, 1, 1.5, 2MM

High Intensity Blotting MODULE

The Hi-Intensity Blot Module comprises Plate electrodes, just 2cm apart, to generate a powerful electric field. This provides transfer capability for up to two 10x10cm gels in as little as one hour.



ORDERING INFORMATION

BCVS10CES	Complete Mini (10x10cm) Vertical Electrophoresis Modular System , comprising: 1x omniPAGE Mini Vertical Unit which includes: 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 12 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers plus: 1x Electroblotting Module comprising: internal electroblotting module, 3x compression cassettes for gel sizes up to 10x10cm and 6x fibre pads.	
BCVS10C2DS	Complete omniPAGE Mini 2-D System , comprising: 1x omniPAGE Mini Vertical Unit which includes: 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 12 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers.	
BCVS10DC	omniPAGE Mini Tube Gel Unit, 10x10cm with tank and lid, glass capillary tubes, blanking ports and cooling pack	MCT10 Mini Capillary Tubes, 1.0mm, pk/10 MCT101.5 Mini Capillary Tubes, 1.5mm, pk/10
BCVS10DCI	omniPAGE Mini Tube Gel Insert - includes glass tubes and blanking ports	MCBP Mini Capillary Blanking ports

electroblotting

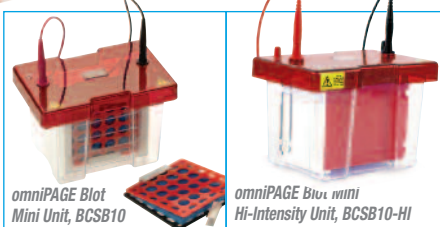
omniPAGE Electroblotting Systems include both modules required for Slab Gel Electrophoresis and Electroblotting and accessories, to provide a complete Mini Vertical gel casting, running and electroblotting system. The electroblotting

module includes three inter-locking cassettes and six fibre pads. A high intensity current is generated by coiled platinum electrodes. These in conjunction with the advanced cooling features allow rapid electroblotting in as little as one hour.

Complete stand-alone units BCSB10 for 10x10cm electroblotting formats, comprise omniPAGE tank and lid, electroblotting module, cassettes and fibre pads. Modules are interchangeable with omniPAGE slab and tube gel modules. Hinged rigid cassettes allow rapid set up and convenience and ensure even contact between the gel and membrane is maintained.



modules included in omniPAGE MINI Vertical Electrophoresis & Blotting System, BCVS10CBS or BCVS10CBS-HI



omniPAGE Blot Mini Unit, BCSB10

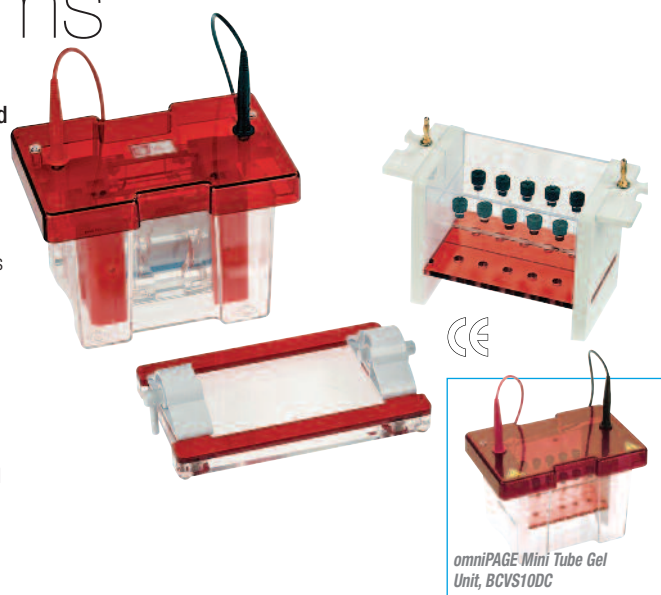
omniPAGE Blot Mini Hi-Intensity Unit, BCSB10-HI

2-D systems

The omniPAGE 2-D Systems include both modules required for Slab Gel and First Dimension Electrophoresis and accessories, to provide a complete MINI 2-D system. The Tube Gel Module

includes a rapid release gasket for easy tube extraction. Focusing can be accomplished in as little as three hours. Disposable capillary tubes are included in addition to 2-D combs and spacers which are colour coded according to thickness for easy identification.

A complete stand-alone unit, BCVS10DC, for first dimension capillary/tube gel electrophoresis, comprises omniPAGE tank and lid, tube gel module, tubes and blanking ports. Units are interchangeable with omniPAGE slab gel and electroblotting modules.



omniPAGE Mini Tube Gel Unit, BCVS10DC

- HINGED CASSETTES
- 4 BLOT CAPACITY
- STANDARD AND HIGH INTENSITY OPTIONS
- RAPID SET-UP COOLING



Technical Specifications

PLATE DIMENSIONS,	10 x 10cm (W x L)
GEL DIMENSIONS,	7.5 x 8cm (W x L)
MAX. SAMPLE CAPACITY	PAGE - 80 SAMPLES, 20 SAMPLES /GEL BLOT - 4 BLOTS
BUFFER VOLUME	Min 250mL; Max 1200mL

- RAPID SET-UP ELECTRO-FOCUSING
- 10 TUBE CAPACITY
- EXTENDED ACCESSORY RANGE
- ENHANCED COOLING FEATURES



Technical Specifications

PLATE DIMENSIONS,	10 x 10cm (W x L)
GEL DIMENSIONS,	7.5 x 8cm (W x L)
MAX. SAMPLE CAPACITY	PAGE - 80 SAMPLES, 20 SAMPLES /GEL 2D - 10 TUBES
BUFFER VOLUME	Min 250mL; Max 1200mL

ORDERING INFORMATION

BCVS10CBS	Complete omniPAGE Mini (10 x 10cm) Vertical Electrophoresis & Blotting System , comprising: 1x omniPAGE Mini Vertical Unit which includes: 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 12 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Electroblotting Module which includes: internal electroblotting module, 4x compression cassettes for gel sizes up to 10x10cm and 16x fibre pads.	
BCVS10CBS-HI	Complete omniPAGE Mini (10 x 10cm) Vertical Electrophoresis & High Intensity Blotting System , comprising: 1x omniPAGE Mini Vertical Unit which includes: 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 12 samples), 1x casting base, silicone mat, cooling pack. plus: 1x High Intensity Electroblotting Module which includes: internal electroblotting module, 2x compression cassettes for gel sizes up to 10x10cm and 8x fibre pads.	
BCSB10	omniPAGE Blot Mini Unit, 10 x 10cm System including tank and lid, 4 cassettes, 16 fibre pads, cooling pack	BCSB10-HI omniPAGE Blot Mini Unit, 10 x 10cm, High Intensity System including tank and lid, 2 cassettes, 8 fibre pad, cooling pack
VS10BI	omniPAGE Blot Mini Insert - includes 4 cassettes and 16 fibre pads	VS10BI-HI omniPAGE Blot Mini High Intensity Insert - includes 2 cassettes and 8 fibre pads
SB10C	omniPAGE Blot Mini Cassette	SB10F Fibre pads - pk/8

mini wide

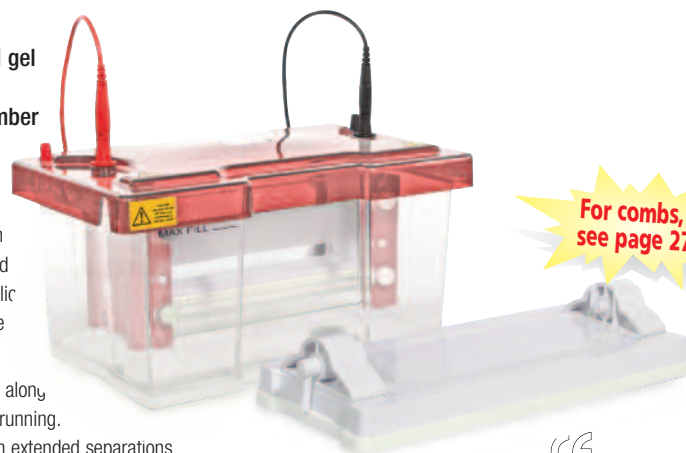
OMNIPAGE

The omniPAGE mini wide vertical gel unit, with a gel width of 20cm, effectively allows double the number of samples to be resolved as the omniPAGE mini unit.

This allows consistency of sample comparison on a single gel and is designed for those with greater than 20 samples to compare and resolve. Simple set up using ultra soft silic seals guarantees trouble free glass plate and gel casting.

Dual gaskets on the gel running module along plain glass plates ensure leak proof gel running. Rapid set up cooling retains resolution in extended separations and also saves on buffer volume without affecting run quality.

4mm thick glass plates reduce breakage and have bonded spacers for added convenience. A wide range of accessories is available allowing many techniques to be performed using the same unit. Prep combs can be used to maximise sample loading and recovery. Accessory electroblotting and tube gel modules are available which use the same outer tank and lid.



For combs, see page 27



uses same combs as WAVE MAXI systems

- OFFERS THE CAPACITY OF TWO MINI GELS ON A SINGLE GEL
- RAPID GEL CASTING AND LOADING
- OPTIONAL LOW OR HIGH BUFFER VOLUMES
- RAPID SET UP COOLING

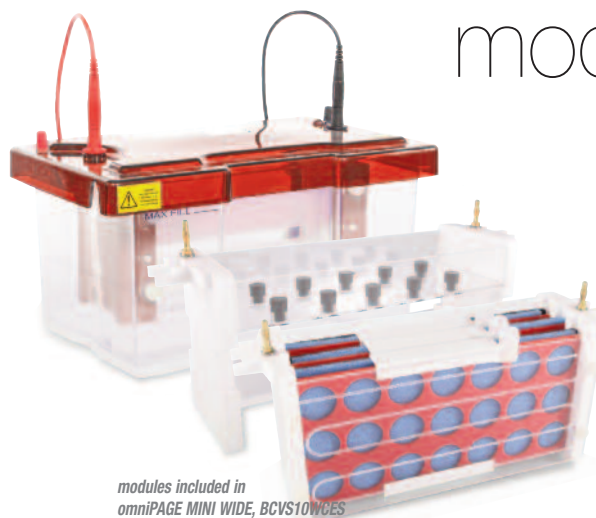
Technical Specifications

PLATE DIMENSIONS, GEL DIMENSIONS,	20 x 10cm (W x H) 18 x 8cm (W x H)
UNIT DIMENSIONS	26 x 16 x 16cm (W x D x H)
MAX. SAMPLE /GEL CAPACITY	PAGE - 192 SAMPLES, 48 SAMPLES BLOT - 3 BLOTS/GEL 2D - 10 TUBES
BUFFER VOLUME	Min 600ML; Max 2800ML
COMBS AVAILABLE : No. OF SAMPLES THICKNESSES	1, 5, 10, 18MC, 24, 30, 36MC, 48 0.75, 1, 1.5, 2mm

Typical Applications

Mini SDS PAGE, Native PAGE, Gradient, Second dimension and Nucleic acid separations

modular system



modules included in omniPAGE MINI WIDE, BCVS10WCES

This system includes all modules and accessories required for Mini Slab Gel Electrophoresis, 2-D Electrophoresis and Electroblotting. The central component of these Systems is the omniPAGE MINI WIDE Vertical Unit. This incorporates a rapid and intuitive casting system, enhanced and easy to set up cooling system and increased gel capacity - each can run up to four gels per run. omniPAGE Tube gel modules are capable of resolving up to 10 first dimension gels and the Electroblotting modules have four blot capacity. The package includes all the necessary accessories for Slab Gel, First Dimension and Electroblotting. Each of these techniques benefits from rapid set up cooling packs which provide enhanced resolution even during high intensity 2-D electrophoresis and electroblotting.

ORDERING INFORMATION

BCVS10WD	omniPAGE Mini Wide, 20 x 10cm Dual, 2 sets of Glass Plates with 1mm thick bonded Spacers, 2 x 24 sample, 1mm thick combs, cooling pack		
BCVS10WDSYS	omniPAGE Mini Wide, 20 x 10cm Dual, 2 sets of Glass Plates with 1mm thick bonded Spacers, 2 x 24 sample, 1mm thick combs, cooling pack including caster		
VS20CAST	20 x 10cm Casting Base	VS10WNGS1	20 x 10cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS20DCASTM	Replacement Silicone Mat for 20 x 10cm Casting Base	VS10WPGS1	20 x 10cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
BCVS10WDIRM	Inner Running Module	VS10WPGS1.5	20 x 10cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS20-x -LG	Loading guides for omniPAGE mini combs, x = comb well number	VS10WPGS2	20 x 10cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS10WNG	20 x 10cm Notched Glass Plates 4mm thick (pk/2)	VS10WDP	Dummy Plate, 20 x 10cm
VS10WPG	20 x 10cm Plain Glass Plates 4mm thick (pk/2)	RPW-0.2100	Replacement Platinum Wire - 0.2mm, 50cm
VS10WNGS0.75	20 x 10cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)	VS20ICB	Cooling Pack
VS10WPGS0.75	20 x 10cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)		

BCVS10WCES Complete Mini Wide (20x10cm) Vertical Electrophoresis Modular System, comprising:

1x omniPAGE Mini Wide Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 24 samples), 1x casting base, silicone mat, cooling pack.

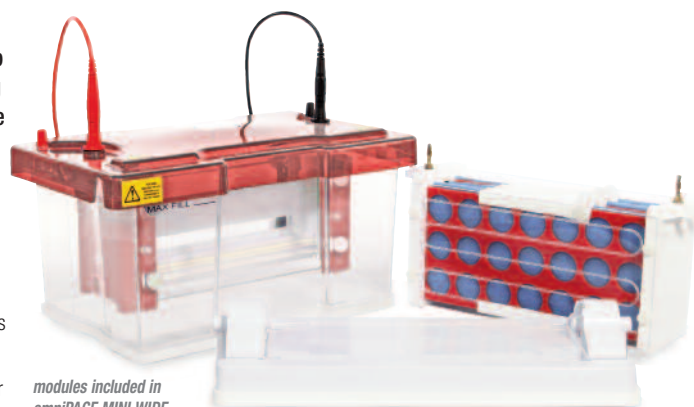
plus: 1x Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers

plus: 1x Electroblotting Module comprising: internal electroblotting module, 3x compression cassettes for gel sizes up to 20x10cm and 6x fibre pads.

electroblotting

omniPAGE Electroblotting Systems include both modules required for Slab Gel Electrophoresis and Electroblotting and accessories, to provide a complete Mini Vertical gel casting, running and electroblotting system. The electroblotting module includes three inter-locking cassettes and six fibre pads. A high intensity current is generated by coiled platinum electrodes. These in conjunction with the advanced cooling features allow rapid electroblotting in as little as one hour.

Complete stand-alone units BCSB10 for 10x10cm electroblotting formats, comprise omniPAGE tank and lid, electroblotting module, cassettes and fibre pads. Modules are interchangeable with omniPAGE slab and tube gel modules. Hinged rigid cassettes allow rapid set up and convenience and ensure even contact between the gel and membrane is maintained.



modules included in omniPAGE MINI WIDE Blot System, BCSV10WCBS

For combs, see page 27

- HINGED CASSETTES
- 4 BLOT CAPACITY
- STANDARD AND HIGH INTENSITY OPTIONS
- RAPID SET-UP COOLING

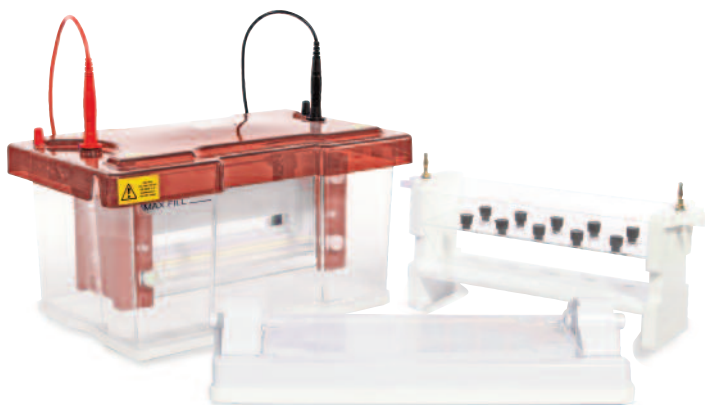
Technical Specifications

PLATE DIMENSIONS,	20 x 10cm (W x L)
GEL DIMENSIONS,	18 x 8cm (W x L)
MAX. SAMPLE CAPACITY	PAGE - 192 SAMPLES, 48 SAMPLES /GEL BLOT - 3 BLOTS/GEL
BUFFER VOLUME	Min 600ML; Max 2800ML

2-D systems

The omniPAGE 2-D Systems include both modules required for Slab Gel and First Dimension Electrophoresis and accessories, to provide a complete MINI WIDE 2-D system. The Tube Gel Module includes a rapid release gasket for easy tube extraction. Focusing can be accomplished in as little as three hours. Disposable capillary tubes are included in addition to 2-D combs and spacers which are colour coded according to thickness for easy identification.

A complete stand-alone unit, BCSV10WDC, for first dimension capillary/tube gel electrophoresis, comprises omniPAGE tank and lid, tube gel module, tubes and blanking ports. Units are interchangeable with omniPAGE slab gel and electroblotting modules.



modules included in omniPAGE MINI WIDE 2-D System, BCSV10WC2DS

- RAPID SET-UP ELECTROFOCUSING
- 10 TUBE CAPACITY
- EXTENDED ACCESSORY RANGE
- ENHANCED COOLING FEATURES

Technical Specifications

PLATE DIMENSIONS,	20 x 10cm (W x L)
GEL DIMENSIONS,	18 x 8cm (W x L)
MAX. SAMPLE CAPACITY	PAGE - 192 SAMPLES, 48 SAMPLES /GEL 2D - 10 TUBES
BUFFER VOLUME	Min 250ML; Max 1200ML

ORDERING INFORMATION

BCVS10WCBS	Complete omniPAGE Mini Wide (20 x 10cm) Vertical Electrophoresis & Blotting System , comprising: 1x omniPAGE Mini Wide Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 24 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Wide Electroblotting Module which includes: internal electroblotting module, 3x compression cassettes for gel sizes up to 20x10cm and 12x fibre pads.		
BCSB10W	omniPAGE Blot Mini Wide Unit, 20 x 10cm System including tank and lid,	SB10WC	omniPAGE Blot Mini Wide Cassette
VS10WBI	3 cassettes, 12 fibre pads, cooling pack	SB10WF	Fibre pads - pk/6
	omniPAGE Blot Mini Wide Insert - includes 3 cassettes and 12 fibre pads.		
BCVS10WC2DS	Complete omniPAGE Mini Wide 2-D System , comprising: 1x omniPAGE Mini Wide Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 24 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Wide Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers.		
BCVS10WDC	omniPAGE Mini Wide Tube Gel Unit, 20x10cm with tank and lid,	MCT10	Mini Capillary Tubes, 1.0mm, pk/10
	glass capillary tubes, blanking ports and cooling pack	MCT101.5	Mini Capillary Tubes, 1.5mm, pk/10
BCVS10WDCI	omniPAGE Mini Wide Tube Gel Insert - includes glass tubes and blanking ports	MCBP	Mini Capillary Blanking ports

omnipage wave

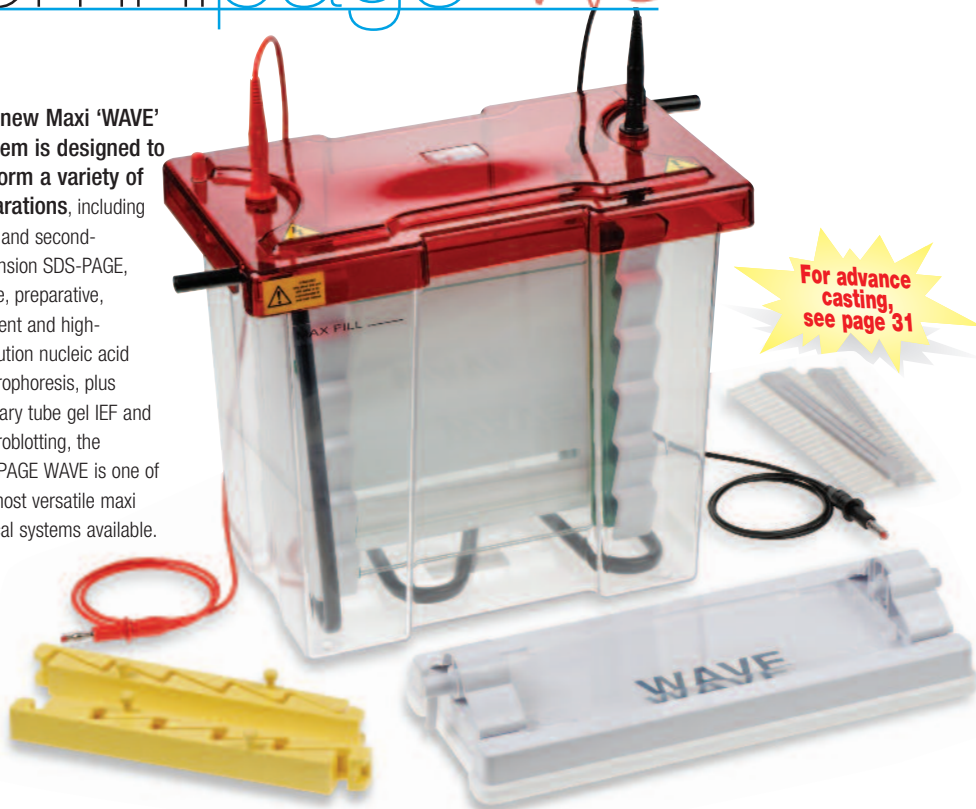
MAXI VERTICAL

- RUN UP TO FOUR GELS SIMULTANEOUSLY [TETRAD SYSTEMS]
- ONLY FOUR SCREWS REQUIRED TO SECURE GLASS PLATES - REDUCES SET UP TIME SIGNIFICANTLY
- VERTICAL SCREW-CLAMPS DISTRIBUTE PRESSURE EVENLY ALONG THE HEIGHT OF THE GEL TO PREVENT PLATE BOWING AND GEL COMPRESSION
- DETACHABLE INNER COOLING COIL FACILITATES RAPID AND UNIFORM, SMILE-FREE ELECTROPHORESIS, EVEN AT HIGHER VOLTAGES
- INJECTION MOULDED CONSTRUCTION GUARANTEES LONG LIFE WITH RELIABLE AND CONSISTENT PERFORMANCE

Technical Specifications

NUMBER OF GELS	1 - 4
PLATE DIMENSIONS (W x H x T)	20 x 20 x 0.4cm
STANDARD SPACER DIMENSIONS (W x H)	2 x 20cm
IPG SPACER DIMENSIONS (W x H)	0.6 x 20cm
TOTAL VOLUME INNER BUFFER CHAMBER	640ML
TOTAL BUFFER VOLUME FOR 2 GELS	5.3L
TOTAL BUFFER VOLUME FOR 4 GELS	4.8L
STANDARD RUN TIME FOR SDS-PAGE	
WITHOUT COOLING	4 - 5 HOURS
WITH COOLING	3 - 4 HOURS
MAX. SAMPLE CAPACITY	192 SAMPLES, 48/GEL
COMBS AVAILABLE :	
NO. OF SAMPLES	1, 5, 10, 18MC, 24, 30, 36MC, 48
THICKNESSES	0.75, 1, 1.5, 2mm
UNIT DIMENSIONS (W x D x H)	30 x 18 x 27cm
WEIGHT	2.5kg

The new Maxi 'WAVE' System is designed to perform a variety of separations, including first- and second-dimension SDS-PAGE, native, preparative, gradient and high-resolution nucleic acid electrophoresis, plus capillary tube gel IEF and electroblotting, the omniPAGE WAVE is one of the most versatile maxi vertical systems available.



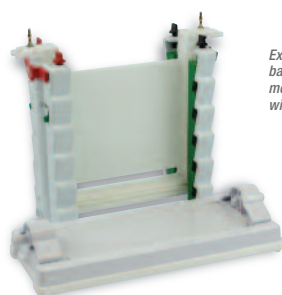
The new, innovative, vertical screw-clamp system within the PAGE insert requires only four screws to secure up to four 20x20cm gels. This gives the omniPAGE WAVE the selective advantage of a much faster set up time compared to products whose traditional clamping configurations require as many as 24 screws to secure just two glass plates. In addition, the WAVE's innovative vertical screw-clamp configuration distributes pressure evenly along the height of the gel rather than in the centre to eliminate plate bowing and gel

compression. This still maintains a leak-proof seal during casting; while the ergonomic wave-like design of the PAGE insert aids both handling and set up.

A detachable inner cooling coil connects to the laboratory water supply or a recirculating chiller to provide uniform, smile-free electrophoresis, while allowing runs to be performed at higher voltage. Whether it be running 2 or 4 gels, electroblotting, and IEF using capillary tube gels or IPG strips, all of these techniques may be performed using the same multi-purpose unit. And of course, this is in addition to retaining the benefits of large format electrophoresis, such as extended separation distances, greater sample throughput and superior resolution.

MAXI WAVE TETRAD

A 4-gel omniPAGE WAVE TETRAD system is created simply by introducing additional plates with spacers and appropriate combs. TETRAD is supplied with a casting base and external casting upstand to allow gels to be prepared in advance, ready for the next run.



External Casting Upstand is basically a standard internal module but without Platinum wire

ORDERING INFORMATION

BCVS20WAVESYS omniPAGE WAVE Maxi, 20 x 20cm Dual with Glass Plates with bonded 1mm thick spacers, 2x 24 sample combs, cooling pack, dummy plate and casting base

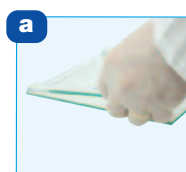
BCVS20WAVESYS-CU omniPAGE WAVE Maxi, 20 x 20cm Dual with Glass Plates with bonded 1mm thick spacers, 2x 24 sample combs, cooling pack, dummy plate, casting base and external casting upstand

BCVS20WAVETETRAD1 omniPAGE WAVE Maxi, 20 x 20cm Dual with Glass Plates with bonded 1mm thick spacers, 2x 24 sample combs, cooling pack, dummy plate, casting base and external casting upstand, PLUS 2x pks/2 notched glass plates with 1mm bonded spacers and 2x 1mm 24-sample combs

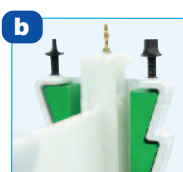
VS20WAVE-EC	VS20 WAVE External Casting Stand - No Casting Base	VS20NGS1	20 x 20cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS20WAVECAST	VS20 WAVE Casting Base	VS20PGS1	20 x 20cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
VS20WAVEDIRM	VS20 WAVE PAGE insert	VS20PGS1.5	20 x 20cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS20WAVE-CC	Detachable Cooling Coil	VS20PGS2	20 x 20cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS20DCAST	omniPAGE Maxi, 20 x 20cm Dual Caster	VS20DP	Dummy Plate, 20 x 20cm
VS20DCASTM	Replacement Rubber mats for 20 x 20cm caster	VS20S0.75	20cm Spacers - 0.75mm (pk/2)
VS20DIRM	omniPAGE Maxi - Inner Running Module	VS20S1	20cm Spacers - 1mm thick (pk/2)
VS20ICB	Maxi Cooling Pack	VS20S1.5	20cm Spacers - 1.5mm thick (pk/2)
VS20-x-LG	Loading guides for omniPAGE maxi combs, x = comb well number	VS20S2	20cm Spacers - 2mm thick (pk/2)
VS20NG	20 x 20cm Notched Glass Plates 4mm thick (pk/2)	RPW-0.2100	Replacement Platinum Wire - 0.2mm, 100cm
VS20PG	20 x 20cm Plain Glass Plates 4mm thick (pk/2)	VS20WAVE-IEFKIT	IEF Conversion for 18cm IPG strips and tube gels, includes: 1 set of plain glass plates with bonded spacers, 0.6x20cm (WxH); and 2x 2-D combs with one 3.5mm marker lane and one 18cm preparatory well
VS20NGS0.75	20 x 20cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)		
VS20PGS0.75	20 x 20cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)		

simple, rapid, leak-proof GEL CASTING....

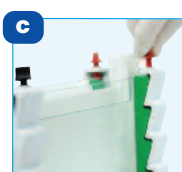
- Dual purpose PAGE insert eliminates time-consuming transfer of glass plates between separate casting and running modules
- Ground glass plates with bonded injection moulded spacers consistent with comb thickness ensure 'clean' well formation, as well as the correct alignment for leak-free casting; also eliminate the need for easily mislaid and awkward to use spacer aligners
- Very forgiving, ultra-soft silicone mat within cam-caster compensates for glass plate misalignment to ensure leak-free casting



Assemble each gel cassette on a flat level surface, by placing the plain glass plate down with the spacers facing upwards followed by the notched glass plate.



Loosen the vertical screw pins in the PAGE insert to release the locking mechanism, allowing the gel clamps to sit in the resting slots.



Insert a gel cassette into each side of the inner buffer chamber in the PAGE insert, and begin tightening the vertical screw-pins.



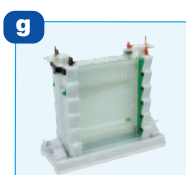
Continue to tighten the screw-pins until the gel clamps glide out of the resting slots and fix firmly against the glass plates pushing them upright.



Check the bottom of the glass plates to ensure that they are flush together, and place the PAGE insert on the casting base; make sure that the cams are facing downwards.



Insert cams and turn until tight, drawing the PAGE insert onto the casting to form a leak-proof seal.



Pour in the gel solution, insert the combs and allow the wells to polymerise.



Transfer the PAGE insert to gel the tank. Fill the inner and outer buffer chambers before loading samples.



Replace the lid, connect to the power supply and run.

Vertical screw-pins, colour coded to prevent polarity reversal, push the gel clamps out of the resting slots to secure glass plates firmly within the PAGE insert

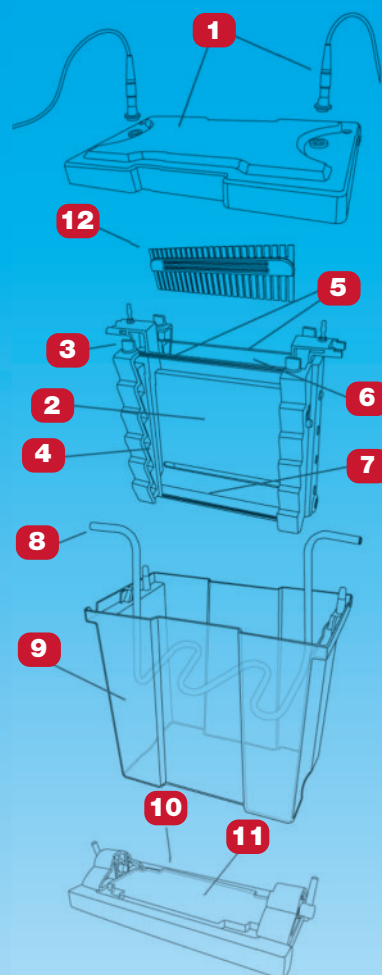
Resting slots allow the gel clamps to sit conveniently out of the way, to aid hindrance-free loading of the cassettes into the PAGE insert

Ergonomic 'wave' design of PAGE insert provides convenient finger grips for easy handling

Cam pins lock PAGE insert onto the ultra-soft silicone mat within the casting base to provide leak-free seal

Flat, level gasket prevents current leakage from inner buffer chamber

Sliding gel clamps available in two thicknesses to accommodate single- and double-gel cassettes



WAVE Maxi component parts

- | | |
|-------------------------|----------------------------|
| 1. Lid and power cables | 7. Gasket |
| 2. PAGE insert | 8. Detachable cooling coil |
| 3. Vertical screw-pin | 9. Outer tank |
| 4. Clamping bars | 10. Cam-pin caster |
| 5. Glass plates | 11. Ultra-soft casting mat |
| 6. Inner buffer chamber | 12. Combs |

Colour	Code	Description	Sample Volume per well
Black	VS20-1-0.75	Comb 1 Prep, 1 Marker, 0.75mm thick	1100µl
	VS20-5-0.75	Comb 5 sample, 0.75mm thick	160µl
	VS20-10-0.75	Comb 10 sample, 0.75mm thick	80µl
	VS20-18MC-0.75	Comb 18 sample MC, 0.75mm thick	40µl
	VS20-24-0.75	Comb 24 sample, 0.75mm thick	30µl
	VS20-30-0.75	Comb 30 sample, 0.75mm thick	25µl
	VS20-36MC-0.75	Comb 36 sample MC, 0.75mm thick	20µl
White	VS20-48-0.75	Comb 48 sample, 0.75mm thick	15µl
	VS20-1-1	Comb 1 Prep, 1 Marker, 1mm thick	1500µl
	VS20-5-1	Comb 5 sample, 1mm thick	200µl
	VS20-10-1	Comb 10 sample, 1mm thick	100µl
	VS20-18MC-1	Comb 18 sample MC, 1mm thick	50µl
	VS20-24-1	Comb 24 sample, 1mm thick	40µl
	VS20-30-1	Comb 30 sample, 1mm thick	35µl
Grey	VS20-36MC-1	Comb 36 sample MC, 1mm thick	25µl
	VS20-48-1	Comb 48 sample, 1mm thick	20µl

Colour	Code	Description	Sample Volume per well
Red	VS20-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	2200µl
	VS20-5-1.5	Comb 5 sample, 1.5mm thick	320µl
	VS20-10-1.5	Comb 10 sample, 1.5mm thick	160µl
	VS20-18MC-1.5	Comb 18 sample MC, 1.5mm thick	80µl
	VS20-24-1.5	Comb 24 sample, 1.5mm thick	60µl
	VS20-30-1.5	Comb 30 sample, 1.5mm thick	50µl
	VS20-36MC-1.5	Comb 36 sample MC, 1.5mm thick	40µl
Blue	VS20-48-1.5	Comb 48 sample, 1.5mm thick	30µl
	VS20-1-2	Comb 1 Prep, 1 Marker, 2mm thick	3000µl
	VS20-5-2	Comb 5 sample, 2mm thick	400µl
	VS20-10-2	Comb 10 sample, 2mm thick	200µl
	VS20-18MC-2	Comb 18 sample MC, 2mm thick	100µl
	VS20-24-2	Comb 24 sample, 2mm thick	80µl
	VS20-30-2	Comb 30 sample, 2mm thick	70µl
Dark Blue	VS20-36MC-2	Comb 36 sample MC, 2mm thick	50µl
	VS20-48-2	Comb 48 sample, 2mm thick	40µl

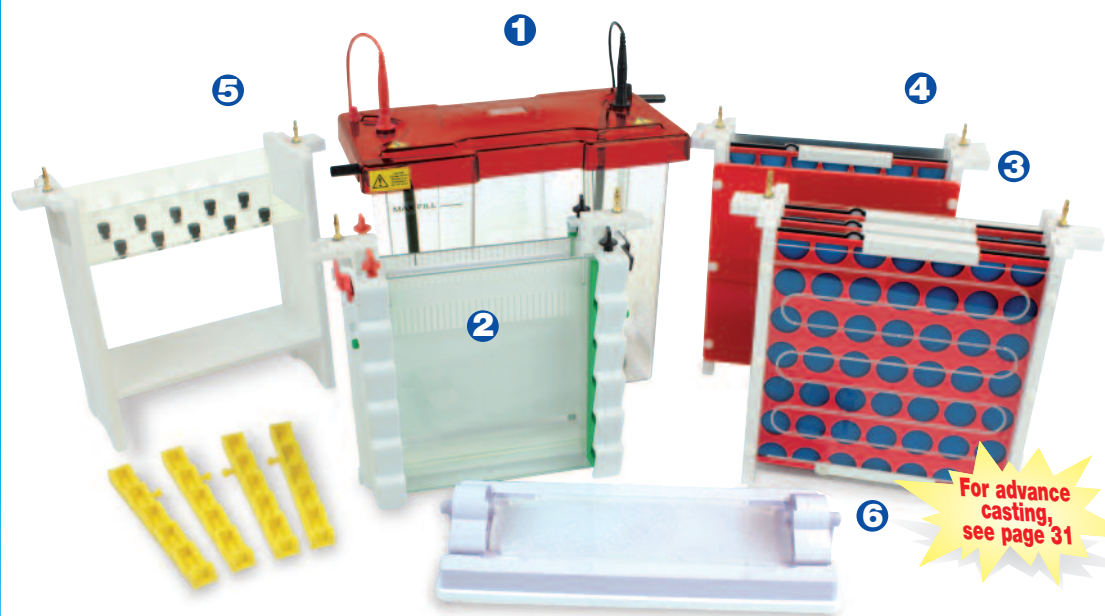
modular wave

- ECONOMY OF BENCH SPACE AND COST
- ENHANCED REPRODUCIBILITY
- SIMPLE TO USE CASTING
- SCALE-UP DISCOVERY PROJECTS USING A LARGE FORMAT, HIGH-RESOLUTION SYSTEM

The omniPAGE range of Modular Vertical Gel Systems allow multiple electrophoresis techniques to be performed in the same unit. Using the same main tank and lid, three different inserts are interchangeable for PAGE, tube gel and electroblotting techniques. These systems are available in three size options, MINI 10 x 10cm, MINI Wide 20 x 10cm and MAXI WAVE 20 x 20cm, as individual, combination or complete modular systems. Combination and modular systems offer maximum value and space and have the added benefit of increased consistency which results from using the same universal base and lid.

Technical Specifications

UNIT DIMENSIONS,	19 x 13 x 15cm (W x D x H)
MAX. SAMPLE CAPACITY	PAGE - 80 SAMPLES, 20 SAMPLES / GEL BLOT - 4 BLOTS 2D - 10 TUBES
BUFFER VOLUME	MIN 250ML; MAX 1200ML



MAXI VERTICAL

The omniPAGE WAVE complete electrophoresis system provides a fully integrated solution using one universal gel tank and lid for vertical PAGE, tube gel IEF and electroblotting.

This concept of interchangeable inserts allows users to combine vertical PAGE with capillary gel IEF to perform 2-D electrophoresis, followed by western transfer for enhanced sensitivity. The supplied detachable internal Cooling Coil allows connection to either the laboratory water supply or a recirculating chiller, and so makes the systems ideal for:

- temperature-sensitive separations and samples and/or
- application of high voltages to achieve precise, high-resolution focusing for pl determination

Blotting

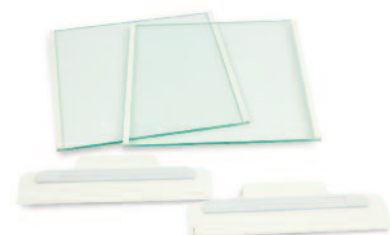
The Standard Platinum Wire module can accommodate up to four 20x20cm, eight 20x10cm or sixteen 10x10cm gels while the optional High-Intensity Plate module facilitates rapid 2-gel transfers.

2D Capillary Electrophoresis

Focus up to 10 first-dimension IEF tube gels within a single run using the dedicated 2-D insert, or use the included blanking ports to run fewer gels if preferred.

COMPONENTS OF WAVE MAXI MODULAR SYSTEM

- 1 Tank and Lid
- 2 PAGE Module
- 3 Electroblotting Module
- 4 Hi-Intensity Electroblotting Module
- 5 Capillary Electrophoresis Module
- 6 Casting Base



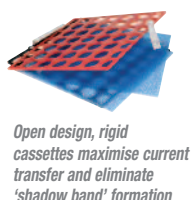
IEF Conversion for 18cm IPG strips and tube gels, includes: 1 set of plain glass plates with bonded spacers, 0.6x20cm (WxH); and 2x 2-D combs with one 3.5mm marker lane and one 18cm preparatory well

ORDERING INFORMATION

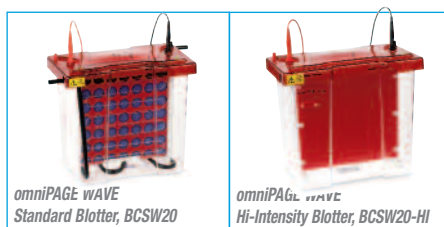
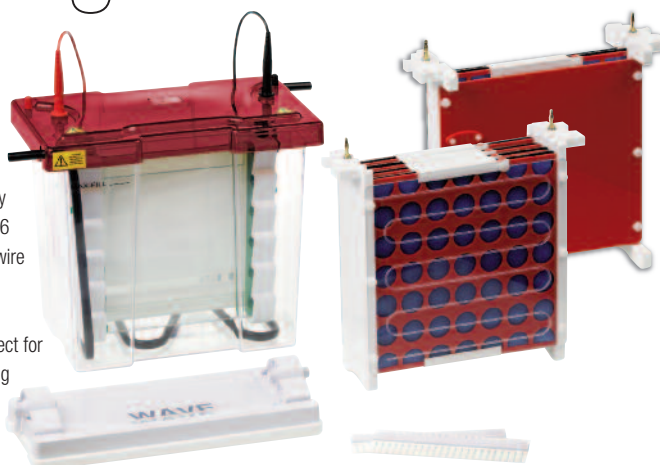
BCWAVECES	Complete WAVE Maxi System for PAGE, 2-D electrophoresis and blotting , comprising: 1x WAVE Maxi Vertical Unit which includes: PAGE insert, 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 24 samples), 1x casting base, silicone mat, cooling coil; plus: 1x WAVE Standard Electroblotting Module which includes: WAVE Maxi Platinum Wire Blotting Insert, 4x compression cassettes and 16x fibre pads; and: 1x WAVEDCI Capillary Electrophoresis Module which includes: WAVE Maxi Tube Gel Insert, 100x capillary tubes, 10x blanking ports; and 1x WAVE IEF-KIT: 1 set of plain glass plates with bonded spacers, 0.6x20cm (WxH); and 2x 2-D combs with one 3.5mm marker lane and one 18cm preparatory well.		
BCWAVEC2DS	Complete omniPAGE WAVE Maxi 2-D System comprising: 1x WAVE Maxi Vertical Unit which includes: PAGE insert, 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 24 samples), 1x casting base, silicone mat, cooling pack; plus: 1x WAVEDCI Capillary Electrophoresis Module which includes: WAVE Maxi Tube Gel Insert, 100x capillary tubes, 10x blanking ports; and 1x WAVE IEF-KIT: 1 set of plain glass plates with bonded spacers, 0.6x20cm (WxH); and 2x 2-D combs with one 3.5mm marker lane and one 18cm preparatory well		
BCVS20DC	omniPAGE Maxi Tube Gel Unit, 20x20cm with tank and lid, glass capillary tubes, blanking ports and cooling pack	MCT20	Maxi Capillary Tubes, 1.0mm, pk/10
		MCT201.5	Maxi Capillary Tubes, 1.5mm, pk/10
BCVS20DCI	omniPAGE Maxi Tube Gel Insert - includes glass tubes and blanking ports	MCBP	Maxi Capillary Blanking ports

electroblotting

The **omniPAGE WAVE Blotting Systems** include all necessary components for blotting of vertical slab gels. Interchangeable modular inserts combine vertical PAGE with electro-transfer using the same universal tank and lid. The electroblotting module includes four inter-locking cassettes and eight fibre pads, with capacity for up to 4 WAVE Maxi gels, 8 omniPAGE Mini Wide or 16 omniPAGE Mini gels. The Standard insert with platinum wire electrodes 8cm apart is ideal for optimum capacity - at voltages as low as 35V, while the Hi-Intensity insert with coiled platinum plate electrodes, just 4cm apart are perfect for rapid transfers - 1-2 hours, at 200V. A detachable cooling coil, which connects to the laboratory water supply or a recirculating chiller, prevents buffer depletion and so allows overnight transfers while also maintaining the low temperatures important for protein stability during native transfers and also for fast high-intensity blots.



Complete stand-alone units for electroblotting, BCSW20 comprise omniPAGE tank and lid, electroblotting module, cassettes and fibre pads. Modules are interchangeable with omniPAGE slab and tube gel modules. Hinged rigid cassettes allow rapid set up and convenience and ensure even contact between the gel and membrane is maintained.



For combs,
see page 27

- VERTICAL PAGE AND BLOTING USING A UNIVERSAL TANK AND LID
- OPEN DESIGN, RIGID CASSETTES MAXIMISE CURRENT TRANSFER AND ELIMINATE 'SHADOW BAND' FORMATION
- COLOUR-CODED CASSETTES PREVENT POLARITY REVERSAL
- COOLING COIL INCLUDED TO MAINTAIN LOW RUNNING TEMPERATURES

Technical Specifications

PLATE DIMENSIONS,	20 x 20 x 0.4cm (W x L x D)
GEL DIMENSIONS,	16 x 17.5cm (W x L)
MAX. SAMPLE CAPACITY	PAGE - 192 SAMPLES, 48 SAMPLES /GEL Blot - 4x WAVE GELS 1x HI-INTENSITY WAVE GEL
BUFFER VOLUME	Min 1200mL; Max 5300mL

2-D systems

The **omniPAGE WAVE 2-D Systems** include all necessary components for 2-D electrophoresis using capillary ampholyte tube gels. Interchangeable modular inserts run capillary tube gels for first-dimension IEF and vertical slab gels for second-dimension with SDS-PAGE using the same universal tank and lid. It is possible to focus up to 10 first-dimension IEF tube gels within a single run using the dedicated 2-D insert, or use included blanking ports to run fewer gels if preferred. The system may also be used for 18cm IPG strips resolved in the first-dimension on the omniPAGE flat-bed IEF system.

Complete stand-alone units for first dimension capillary/tube gel electrophoresis are available and comprise omniPAGE WAVE Maxi tank and lid, tube gel module, tubes and blanking ports. Units are interchangeable with omniPAGE WAVE slab gel and electroblotting modules.



- ALL NECESSARY COMPONENTS FOR 2-D ELECTROPHORESIS USING CAPILLARY AMPHOLYTE TUBE GEL
- INTERCHANGEABLE INSERTS RUN CAPILLARY TUBE GELS FOR FIRST-DIMENSION IEF AND VERTICAL SLAB GELS FOR SECOND-DIMENSION SDS-PAGE USING THE SAME UNIVERSAL TANK AND LID

Technical Specifications

PLATE DIMENSIONS,	20 x 20 x 0.4cm (W x L x D)
GEL DIMENSIONS,	16 x 17.5cm (W x L)
MAX. SAMPLE CAPACITY	PAGE - 192 SAMPLES, 48 SAMPLES /GEL 2D - 10 TUBES
BUFFER VOLUME	Min 1200mL; Max 5300mL

ORDERING INFORMATION

BCWAVECBS	Complete WAVE Maxi System for electrophoresis and blotting , comprising: 1x WAVE Maxi Vertical Unit which includes: PAGE insert, 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 24 samples), 1x casting base, silicone mat, cooling pack; plus: 1x WAVE Standard Electroblotting Module which includes: WAVE Maxi Platinum Wire Blotting Insert, 4x compression cassettes and 16x fibre pads		
BCWAVECBS-HI	Complete WAVE Maxi System for electrophoresis and High Intensity blotting , comprising: 1x WAVE Maxi Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x blanking plate, 2x combs (1mm thick, 24 samples), 1x casting base, silicone mat, cooling pack; plus: 1x High Intensity Electroblotting Module which includes: internal electroblotting module, 2x compression cassettes for gel sizes up to 20x20cm and 8x fibre pads		
BCSW20	WAVE Maxi Blot Platinum Wire Unit, 20 x 20cm System including tank and lid, 4 cassettes, 18 fibre pads, cooling pack	SW20BI-HI	WAVE Maxi Hi-Intensity Blot Module - 1x cassette and 6 fibre pads
VS20BI	WAVE Maxi Platinum Wire Blot Module - 4 cassettes and 16 fibre pads	SW20C	WAVE Maxi Blot Cassette
		SW20F	Fibre pads - pk/6

isoelectric focusing

- FOR IPG STRIPS AND IEF GELS
- LARGE COOLING PLATFORM AREA
- 'PICK-AND-PLACE' ADJUSTABLE ELECTRODES
- FOCUSING TRAY FOR A MAXIMUM TWELVE IPG STRIPS
- REHYDRATION TRAY ALSO INCLUDED

Typical Running Conditions

7cm IPG STRIP

IEF STEP	1	2	3	4	5	6
VOLTAGE (V)	150	300	600	1500	3000	300
TIME (h)	0.5	0.5	0.5	0.5	2.5	<20
VOLT-HOURS	75	150	300	750	7500	-

18cm IPG STRIP

IEF STEP	1	2	3	4	5
VOLTAGE (V)	300	600	1500	3000	300
TIME (h)	0.5	1	1	12	<20
VOLT-HOURS	150	600	1500	36000	-

IPG Strip Length Tray Specifications

	7cm	11cm*	18cm	24cm
FOCUSING TRAY				
ELECTRODE DISTANCE	6.5cm	10.2cm	17.1cm	22.7cm
MAXIMUM STRIP LENGTH ACCOMMODATED	25.3cm	25.3cm	25.3cm	25.3cm
IPG 7cm STRIP LENGTH	N/A*	18cm	24cm	
REHYDRATION TRAY				
MAXIMUM STRIP LENGTH ACCOMMODATED	24cm	24cm	24cm	24cm
RECOMMENDED VOLUME FOR STRIP REHYDRATION	3.5mL	6mL	8.0mL	12.0mL

Typical Applications

MAX. COMMERCIAL STRIP LENGTH ACCOMMODATED	24cm
MAX. GEL DIMENSIONS ON COOLING PLATE	26 x 26cm
UNIT DIMENSIONS (WxDxH)	55 x 35 x 10cm
FOCUSING TRAY STRIP CAPACITY	12x 18 AND 24cm STRIPS; 24x 7 AND 11cm STRIPS
OPERATING TEMPERATURE	4 - 25°C
REGULATORY CERTIFICATION	CE, EN61010

ORDERING INFORMATION

BCIEF	Flatbed IEF system for IPG strips and gels, with focusing and rehydration trays		
BCCHILL	Chiller system, -20 to 100°C, including insulated tubing & clips	IEFPLT	Replacement Glass platform
F250	Julabo Chiller	IEFFRME	Replacement electrode frame
IEF-KIT	1-D Combination Package, includes CSL-IEF, CSL-CHILLER and EV232	RHYDTRY	Rehydration Tray
IEFPOS	Replacement positive electrode	FOCUSTRAY	Focusing tray with adjustable electrodes
IEFNEG	Replacement negative electrode	EV232	Consort 3000V, 150mA, 150W power supply

Now equipped with rehydration and focusing trays, the redesigned Biocom IEF has been optimised to perform first-dimension isoelectric focusing (IEF) with IPG (immobilised pH gradient) strips quickly, easily and reproducibly.

An ideal entry-level system for both inexperienced and occasional IEF users, the unit is also versatile enough to meet the needs of laboratories with increased throughput requirements.

Its high-capacity focusing tray accommodates up to twelve IPG strips. An Adjustable 'pick-and-place' electrodes clip conveniently anywhere within the focusing tray to resolve IPG strips 7-24cm in length; colour-coded to prevent polarity reversal. The Electrode frame clips directly on to the cooling plate and includes adjustable electrodes to run horizontal precast IEF and PAGE gels.

A cooling plate, manufactured from a special grade ceramic in a large 26x26cm surface area, facilitates effective heat dissipation and homogenous thermal control, particularly during

high voltage IEF techniques. An optional, but recommended, recirculating chiller connects quickly and easily to the cooling plate via snap-lock connectors to

High specification Chiller for use with flatbed IEF unit.



IEF COMPONENTS

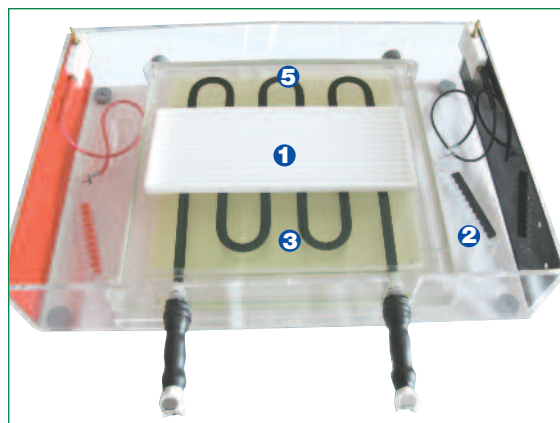
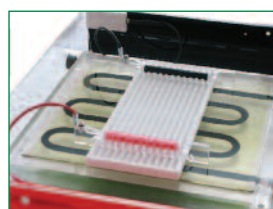
1. Focusing Tray
2. Adjustable 'pick-and-place' electrodes
3. Ceramic cooling plate with snap-lock connectors
4. Rehydration tray (not shown)
5. Electrode frame for horizontal precast gels
6. Shrouded 2mm high voltage cables (not shown)



maintain optimal operating temperatures for IPG strips (20°C) and precast gels (4°C).

The Rehydration tray allows convenient transfer of IPG strips to the focusing tray without time-consuming removal of residual rehydration buffer; also enables focusing tray to remain permanently in use for IEF to maximise throughput, and provides useful storage at -20°C for focused strips before second-dimension runs.

For those requiring a power supply, the Consort EV232, 3000V, 150mA, 150W enables desired Volt-hours for focusing to be attained faster at maximum voltage. Its nine different program settings with nine different parameters and voltage ramping make the EV232 ideal for multi-step IEF techniques. Data-logging capacity for up to 3600 output values, while run data may be collected via RS232 connection and free downloadable data acquisition software.



2-D electrophoresis

The **omniPAGE Maxi Plus** unit provides a convenient solution for the second stage of 2-D electrophoresis. The 26cm active gel width provides a large gel area to resolve large IEF strips. In combination with the IEF system above, this offers a complete package for 2-D electrophoresis. The unit utilises the omniPAGE advanced design features to provide convenient ease of use with high resolution separations.

Rapid set up cooling retains resolution in extended separations and also saves on buffer volume without affecting run quality. Four gels can be resolved per run. A wide range of accessories is available to allow easy transition between 2-D and standard vertical electrophoresis techniques. In particular different types of 2-D comb allow a wide degree of versatility in sample selection and gel set-up.



- IDEAL FOR SECOND DIMENSION ELECTROPHORESIS
- ACCEPTS STRIPS UP TO 26CM IN LENGTH
- RAPID SET UP COOLPACKS FOR ENHANCED RESOLUTION

Technical Specifications

UNIT DIMENSIONS	36 x 33 x 18cm (L x W x D)
PLATE DIMENSIONS	30 x 22cm (W x L)
GEL DIMENSIONS	28 x 20cm (W x L)
MAX SAMPLE CAPACITY	300 SAMPLES PER RUN; 75 SAMPLES PER GEL
BUFFER VOLUME	MIN 1800ML, MAX 8400ML
COMBS AVAILABLE NO. OF TEETH THICKNESSES	1, 2, 4, 28MC, 56MC, 75 0.25, 0.35, 0.5, 1, 1.5, 2.0MM

ORDERING INFORMATION

BCVS30D omniPAGE Maxi Plus, 30 x 22cm Dual with Glass Plates with bonded 1.5mm spacers, 2 x 28 sample combs, 2 x 2-D combs, cooling pack, dummy plate

BCVS30DSYS omniPAGE Maxi Plus, as above with Casting Base

VS30BI	omniPAGE Blot Maxi Plus Insert - includes 3 cassettes and 6 fibre pads	VS30NGS1	30 x 22cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS30DCAST	30 x 22cm Dual Casting Base	VS30PGS1	30 x 22cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
VS30DCASTM	Replacement Silicone Mat for 30 x 22cm Casting Base	VS30PGS1.5	30 x 22cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
BCVS30DIRM	Inner Running Module	VS30PGS2	30 x 22cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS30ICB	Maxi Cooling Pack	VS30DP	Dummy Plate, 20 x 20cm
VS30-x -LG	Loading guides for omniPAGE maxi combs, x = comb well number	VS30S0.75	22cm Spacers - 0.75mm (pk/2)
VS30NG	30 x 22cm Notched Glass Plates 4mm thick (pk/2)	VS30S1	22cm Spacers - 1mm thick (pk/2)
VS30PG	30 x 22cm Plain Glass Plates 4mm thick (pk/2)	VS30S1.5	22cm Spacers - 1.5mm thick (pk/2)
VS30NGS0.75	30 x 22cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)	VS30S2	22cm Spacers - 2mm thick (pk/2)
VS30PGS0.75	30 x 22cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)	RPW-0.2100	Replacement Platinum Wire - 0.2mm, 100cm

Colour	Code	DESCRIPTION	SAMPLE VOLUME PER WELL
	VS30-1-1	Comb 1 Prep, 1 Marker, 1mm thick	2250µl
	VS30-2-1	Comb 2 sample, 1mm thick	1125µl
	VS30-4-1	Comb 4 sample, 1mm thick	550µl
	VS30-28-1MC	Comb 28 sample, 1mm thick MC compatible	80µl
	VS30-56-1MC	Comb 56 sample, 1mm thick MC compatible	40µl
	VS30-75-1MC	Comb 75 sample, 1mm thick MC compatible	25µl

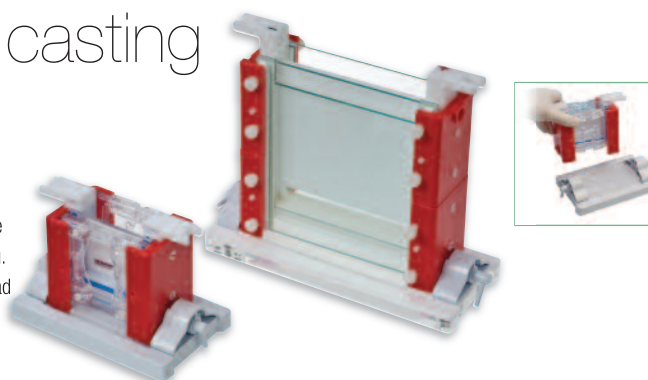
COMBS ALSO AVAILABLE IN OTHER THICKNESSES AND SAMPLE NUMBER, PLEASE INQUIRE

Colour	Code	DESCRIPTION	SAMPLE VOLUME PER WELL
	VS30-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	3375µl
	VS30-2-1.5	Comb 2 sample, 1.5mm thick	1680µl
	VS30-4-1.5	Comb 4 sample, 1.5mm thick	825µl
	VS30-28-1.5MC	Comb 28 sample, 1.5mm thick MC compatible	120µl
	VS30-56-1.5MC	Comb 56 sample, 1.5mm thick MC compatible	60µl
	VS30-75-1.5MC	Comb 75 sample, 1.5mm thick MC compatible	37µl

MC = multichannel pipette compatible

advance gel casting

An additional External Casting Stand, available with or without base, offers a cost-effective method of advance gel casting. Based on the Inner Running Modules of omniPAGE MINI, MINI WIDE and WAVE MAXI, the unit is identical to the standard module but without the platinum wiring. Simply cast your gels as normal, allow to set, load samples and then transfer to the appropriate Biocom Running Module.



- LEAK PROOF SEALS
- EASY TO USE
- COMPATIBLE WITH OMNIPAGE GEL CHAMBERS

ORDERING INFORMATION

VS10EXCASTER	External Casting Stand - Upstand only	VS20EXCSTR	External Casting Stand - Upstand only
VS10EXCASTERSYS	External Casting System - Upstand + Casting Base	VS20EXCSTRSYS	External Casting System - Upstand + Casting Base

denaturing gradient

- **MAXIMUM 96-SAMPLE THROUGHPUT COMPATIBLE WITH MICROPLATES AND THERMAL CYCLER BLOCKS**
- **FOUR-SCREW VERTICAL CLAMPING TECHNOLOGY ACCELERATES SET UP**
- **LARGE FORMAT - 20x20CM GLASS PLATES FOR IMPROVED RESOLUTION**
- **100ML GRADIENT MIXER, WITH VALVE-CONTROLLED 50ML RESERVOIR AND MIXING CHAMBERS, MAKES TWO 1MM PARALLEL DENATURING GRADIENT GELS**
- **MICROPROCESSOR-CONTROLLED TEMPERATURE CONTROL UNIT ACCURATE TO $\pm 0.02^{\circ}\text{C}$**

The newly designed WAVE-DGGE is a complete system for DNA mutation analysis. Using the innovative vertical screw-clamp technology of the new VS20-WAVE system, the WAVE-DGGE is fully equipped – with temperature control unit, stirrer, gradient mixer and casting accessories – to perform specific mutation analysis applications. The powerful microprocessor-controlled PID temperature control unit enables various mutation detection techniques to be undertaken between ambient temperature and 70°C , while the simple four-screw design of the WAVE insert accelerates set up of denaturing PAGE gels. Accordingly, the new WAVE-DGGE can be used to screen single-base pair changes in the following applications:

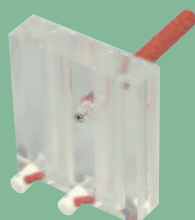
- **Heteroduplex analysis (HA)**
- **Parallel Denaturing Gradient Gel Electrophoresis (DGGE)**
- **Constant Denaturing Gradient Gel Electrophoresis (CDGE)**



For combs, see page 27



GM100 gradient mixer



The flexibility provided by the modular design of the WAVE-DGGE and its wide range of accessories enables laboratories to switch quickly and easily between different mutation detection techniques, thereby maximising throughput and screening efficiency. A maximum 96-sample throughput allows detection of as many mutations within a couple hours, alleviating many of the bottlenecks associated with screening for DNA mutations.

The GM100 gradient mixer is supplied as standard to ensure efficient gradient formation by mixing and delivering high- and

low-density denaturant solutions. A flat-base design and support handle allows the GM100 to be secured to a retort stand, enabling it to be easily mounted on a magnetic stirring plate, while the mixing chamber can accommodate a magnetic stirrer to form a linear gradient. The MU-D01 peristaltic pump is also recommended for delivery of linear and reproducible gradient gels.

VS20WAVE-DGGE - Applications

Description	DGGE	CGGE	HA
	<ul style="list-style-type: none"> i. Determines the denaturing conditions required to identify unknown mutations ii. Works on the principle that increasing denaturant concentrations melt DNA in a domain-specific manner, and the mutation or polymorphism of interest is in the DNA domain with the lowest T_m iii. Requires parallel DGGE – a technique where DNA samples are resolved at uniform temperature in gels containing a formamide and urea denaturant gradient parallel to the direction of electrophoresis iv. Results in partial melting of DNA to produce a branched molecule identified by its reduced mobility within the gel. 	<ul style="list-style-type: none"> i. Rapid screening method for multiple samples containing an identified mutation ii. Requires DGGE beforehand to establish optimal denaturing conditions to identify a specific mutation iii. No denaturant gradient required as multiple samples are screened on a constant denaturant gel iv. Increases throughput and alleviates bottlenecks 	<ul style="list-style-type: none"> i. Used when it is difficult to detect a homoduplex mutation by DGGE ii. Requires denaturation and re-annealing of wild type and mutant DNA mixed together, usually within a PCR reaction iii. Resultant heteroduplexes are less stable and melt at a lower denaturant concentration than wild-type and mutant homoduplex molecules, allowing them to be identified by reduced mobility within the gel iv. Requires parallel DGGE, or may be performed overnight in a TBE gel made from special high resolution acrylamide
VS20WAVE DGGE Application Benefits	<ul style="list-style-type: none"> i. GM100 gradient mixer and optional MU-D01 peristaltic pump simplify casting of denaturing gradient gels ii. New VS20WAVE electrophoresis insert and cam caster for leak free casting iii. Temperature control unit provides consistent run temperatures between $45-70^{\circ}\text{C}$ iv. High resolution 20x20cm format 	<ul style="list-style-type: none"> i. Uses constant denaturant gels cast with new VS20WAVE electrophoresis insert and cam caster for leak free casting ii. Temperature control unit provides constant run temperature during electrophoresis iii. Maximum 96-sample throughput (48 samples per gel) 	<ul style="list-style-type: none"> i. New VS20WAVE electrophoresis insert and cam caster for leak free casting ii. Gradient mixer simplifies DGGE option iii. Optional temperature control for reproducibility iv. High resolution 20x20cm format

WAVE-DGGE

Innovative Casting and Set-up Mechanism

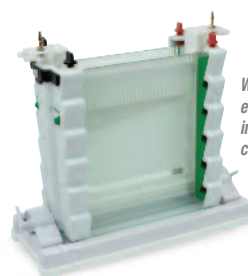
The WAVE-DGGE utilises novel vertical screw clamp technology to assemble two vertical gels. This reduces the number of screws required for set up making casting assembly faster, while a built-in inner buffer chamber within the PAGE insert allows set-up to be completed without the inclusion of heavy top tanks or buffer chambers. A dual purpose PAGE insert eliminates the need for plate transfer, and is used with a cam casting base to guarantee efficient leak free casting.

Precise thermal control

The redesigned WAVEDGGE-TC temperature control unit combines buffer recirculation with a heat sensor and 1.4kW heating element to facilitate precise temperature control to within $\pm 0.02^\circ\text{C}$, allowing the gel temperature to be set to the melting temperature (T_m) of the amplified DNA polymorphism or mutation of interest. Other benefits include: a conspicuous 4-digit 16mm LED panel to aid set-up; precise tuning to within 0.1°C resolution; an operating set point, plus three adjustable pre-set temperature values; and stirred buffer circulation for temperature stability and uniformity.

Programmable power supply option

At 500V, 800mA and 300W outputs, the optional RR-500V power supply provides full flexibility for different mutation detection techniques.



WAVE
electrophoresis
insert and cam
casting base



Temperature
control unit



MP-500V
power supply



STIR
Magnetic
Stirrer



PP01 Peristaltic Pump

Software options: 3 packages

Pre-electrophoresis: mutations are best detected when the single-base pair mutation itself is located within lowest melting domain of the DNA of interest, and the molecule does not denature entirely. GC-clamping at one end of the DNA molecule ensures that the region to be screened is in the lower melting temperature domain while the DNA molecule remains partly double-stranded. Recommended free **POLAND analysis** software (G Steger, University of Dusseldorf) predicts the melting behaviour of the DNA fragment of interest and resulting primer placement and GC clamp positioning.

Post electrophoresis: **Phoretix 1D** is available for band pattern matching following parallel DGGE in a single gel; **Phoretix 1D Pro** allows comparison between multiple gels and different experiments.

Technical Specifications

WAVE electrophoresis insert and tank

Max. Number of Gels	2 per run
Plate Dimensions (W x H)	20x20cm
Active Gel Dimensions (W x H)	16 x 17.5cm
Spacer Thicknesses Buffer	0.75, 1, 1.5 and 2mm
Max. Sample Capacity	96 samples; 48 per gel
Standard Combs	2x 1mm 24-sample
Available Combs	1, 5, 10, 18MC, 24, 36MC, 48; as per VS20WAVE
Max. Buffer Volume	8.5L
Unit Dimensions (W x D x H)	40.5 x 17 x 44cm
Weight	8kg

Recommended Power Supply

Voltage	500V Total
Current	800mA
Power	300W

Temperature Control Unit

Temperature Control	PID
Operating Temperature Range	Ambient to 100°C
Working Temperature Range (DGGE)	$45-70^\circ\text{C}$
Buffer Recirculation Mechanism	Stirring
Temperature Uniformity/Stability at 37°C	$\pm 0.05/0.02^\circ\text{C}$
Setting/Display Resolution	0.1°C
Safety	Fluid-level float switch; isolated; IEC 1010 / CE4
Stored Temperature Values	1.4/1.3kW
Heater Power at 230V/110VAC	1.5/1.4kW
Electrical Power at 230V/100VAC	

Gradient Mixer

Total Volume	100ml
Volume of Reservoir & Mixing Chambers	50ml
Internal Diameter of Outlet Port	2mm

ORDERING INFORMATION

WAVE-DGGE	Complete Denaturing Gradient Gel Electrophoresis System , 20x20cm; includes: temperature control unit, cam casting base, glass plates with 1mm bonded spacers, 2x 24-sample combs and gradient mixer – 240 VAC version
WAVE-DGGETC	Temperature Control Unit
GM100	Gradient Mixer, 100ml
WAVE-DGGEKIT	VS20-WAVE Package; includes VS20-DGGE, STIR, PP01, MU-S16, MP-500

STIR	Magnetic Stirrer, 19 x 19cm
PP01	Single Peristaltic Pump
MU-S16	Silicon tube I.D. 1/8", 25 ft (for peristaltic pump)
MP-500V	PowerPoint Power Supply, 500V, 800mA, 300W

Phoretix 1D	1D image analysis with band pattern matching
Phoretix 1D Pro	1D image analysis with band pattern matching between different gels

4-gel tetrad systems

VERTICAL PACKAGES

FOR THOSE PLANNING TO PURCHASE MULTIPLE ITEMS FOR SPECIFIC PROJECTS OR TECHNIQUES, **BIOCOM PACKAGES** OFFER EXCELLENT VALUE. CHECK OUT THE INDIVIDUAL PRICES AND SEE WHAT CAN BE SAVED WITH ONE OF THESE PACKAGES. IF YOU DON'T SEE ONE TO SUIT YOUR NEEDS, PLEASE CONTACT US, WE MAY BE ABLE TO CONSTRUCT ONE JUST FOR YOU.



TETRAD1



TETRAD-CBS



TETRAD-PS

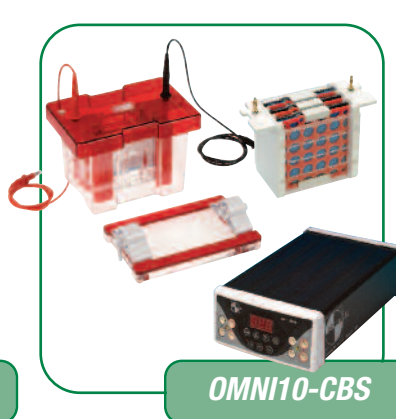


TETRAD-CBS-PS

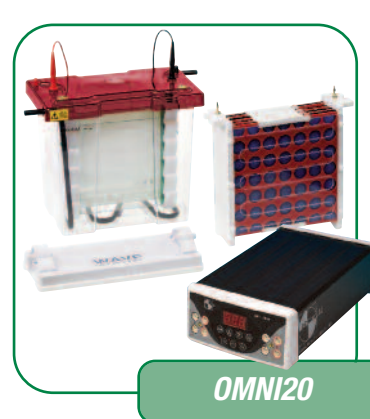
standard vertical electrophoresis



OMNI10



OMNI10-CBS



OMNI20

ORDERING INFORMATION

TETRAD1	OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels. Includes: - BCVS10DSYS-CU – 10x10cm mini-vertical unit with casting base and external casting stand, plus 2x 1mm 12-sample combs, 2x plain glass plates with 1mm spacer and 2x notched plates (Page 20), VS10-12-1 – 2x additional 1mm 12-sample combs, VS10PGS1 – 1 pack of 2x plain glass plates with 1mm spacer, VS10NG – 1 pack of 2x notched glass plates with 1mm spacer, VS10NGS1 – 2 packs of 2x notched glass plates with 1mm spacer
TETRAD-CBS	OmniPAGE TETRAD Mini-Protein Electrophoresis and Blotting Package for 1mm self-cast gels and interchangeable 4-blot module, Includes: - TETRAD and VS10BI – 4-blot insert with 4 blotting cassettes and 8 fibre pads (Page 23)
TETRAD-PS	OmniPAGE TETRAD with standard Midi power supply option*. Includes: - TETRAD - OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels and MP-300V - 300V, 700mA, 150W midi power supply (Page 41)
TETRAD-CBS-PS	OmniPAGE TETRAD-CBS with standard Midi power supply*. Includes: - TETRAD-CBS - OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels with blotting module and MP-300V - 300V, 700mA, 150W midi power supply (Page 41)
OMNI10-PS	OmniPAGE Mini Vertical with standard Midi power supply option*. Includes: - BCVS10DSYS - OmniPAGE Mini Vertical with casting base and MP-300V - 300V, 700mA, 150W midi power supply (Page 41)
OMNI10-CBS-PS	OmniPAGE Mini Vertical with interchangeable 4-blot module and standard Midi power supply option*. Includes: - OMNI10-PS - OmniPAGE Mini Vertical with casting base, VS10BI – 4-blot insert with 4 blotting cassettes and 8 fibre pads (Page 23) and MP-300V - 300V, 700mA, 150W midi power supply (Page 41)
OMNI20-CBS-PS	OmniPAGE Maxi Vertical with interchangeable 3-blot module and standard Midi power supply option*. Includes: - BCV20WAVEDYS OmniPAGE WAVE Maxi Vertical with casting base, VS20BI – 3-blot insert with 3 blotting cassettes and 6 fibre pads (Page 29) and MP-300V - 300V, 700mA, 150W midi power supply (Page 41)

* all packages available with High Voltage MP-500V Power Supply, Please contact for pricing

blotters

semi-dry

These Semi Dry Blotters offer rapid transfer times for DNA, RNA and protein blotting - typically 15 to 30 minutes. All units can be used for all types of blotting: western, southern and northern via uncomplicated buffer and set up procedures and are compatible with gel thicknesses from 0.25 up to 10mm without the need for additional equipment. Each unit is compatible with their respective omniPAGE vertical gel system.

Semi Dry Blotting has the added benefit of economic transfers due to very low buffer volumes – typically only a few millilitres of buffer are required per transfer. These Semi-Dry Blotters utilise a screw down lid, which secures the blot sandwich and allows complete control of pressure ensuring even transfer. The

electrodes, comprising platinum coated anode and stainless steel cathode, will exhibit practically no corrosion and so provide many years of trouble free use.

Uniform heat dispersion across the blot sandwich ensures stable transfer times and no heat induced sample loss or transfer distortions. Being translucent, it allows viewing of the blot sandwich to ensure correct positioning and transfer is occurring correctly. Electrode plates are fully separated to prevent arching or damage.



Note: New injection moulded BCSD20 style shown; other models are of different construction



- RAPID TRANSFER TIMES
- WESTERN, SOUTHERN AND NORTHERN BLOTS
- ECONOMIC TRANSFERS DUE TO VERY LOW BUFFER VOLUMES
- SCREW DOWN LID - ACCOMMODATES GELS FROM 0.25 UP TO 10MM
- UNIFORM HEAT DISPERSION

Technical Specifications

UNIT DIMENSIONS (W x L x H)	MINI	16 x 16 x 7cm
	MAXI	26 x 26 x 7cm
	MAXI PLUS	39 x 51 x 7cm
	MAXI LONG	26 x 56 x 7cm
MAX. SAMPLE, CAPACITY	MINI	1 BLOT, 10 x 10cm
	MAXI	1 BLOT, 16 x 17.5cm
		2 BLOTS, 16 x 8.5cm
		4 BLOTS, 8 x 8.5cm
	MAXI PLUS	1 BLOT, 35 x 45cm
	MAXI LONG	1 BLOT, 20 x 50cm
BUFFER VOLUME	MINI	5ML
	MAXI	20ML
	MAXI PLUS	75ML
	MAXI LONG	50ML

gradient mixers



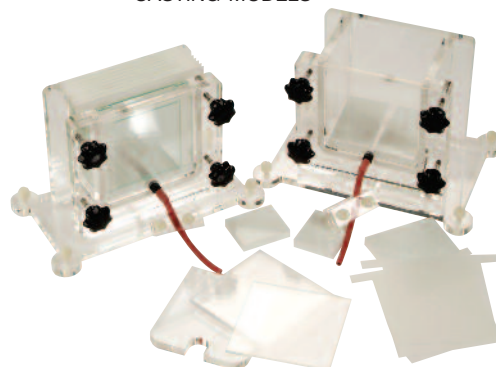
- FOR PREPARATION OF CENTRIFUGATION GRADIENTS
- FIVE SIZES

Ideal for Caesium, Sucrose and Gel gradients the **Gradient Mixer** series comprises two chambers - a reservoir and a mixing chamber with an interconnecting valve. A second valve regulates the output flow from the mixing chamber. All mixers have a flat base which allows them to be placed on a magnetic stirrer. A magnetic stirring bar can be placed directly in the mixing chamber to ensure a constant gradient. The support rod allows the mixer to be fixed to a retort stand for extra stability.

gel casting

MULTIPLE

- INTEGRAL LEVELLING FEET AND LEVEL BUBBLE
- STANDARD AND GRADIENT GELS CAN BE POURED
- CHOICE OF 6, 12 OR 24 GEL CASTING MODELS



Advance casting of multiple mini and maxi gels can help to achieve consistent results between runs. These **multiple gel casting systems** are tailored for use with omniPAGE mini and omniPAGE maxi vertical electrophoresis units; with three models of 6, 12 and 24 gel capacities. Fewer gels can be poured if required using the acrylic saver blocks supplied with each system.

The fixed hinged clamps allows the gel sandwich to be adjusted to the correct pressure irrespective of the number or the thickness of gels being poured. Separation sheets allow the easy separation of the glass plates after pouring.

ORDERING INFORMATION

Semi Dry Blotters

BCSD10	Semi Dry Mini, 10 x 10cm System	BCSD33	Semi Dry Maxi Plus, 33 x 45cm System
BCSD20	Semi Dry Midi, 20 x 20cm System, shown above	BCSD50	Semi Dry Maxi Long, 20 x 50cm System

Gradient Mixers

BCGM15	15ml Gradient Mixer	BCGM100	100ml Gradient Mixer
BCGM25	25ml Gradient Mixer	BCGM500	500ml Gradient Mixer
BCGM50	50ml Gradient Mixer		

Multi Vertical Gel Casters

BC6CAST	6 gel caster for 8 x 10cm or 10 x 10cm mini gels	BC24CAST	24 gel caster for 8 x 10cm or 10 x 10cm mini gels
BC12CAST	12 gel caster for 8 x 10cm or 10 x 10cm mini gels	BC206CAST	6 gel caster for 20 x 20cm gels maxi gels

blotting

- IDEAL FOR WET ELECTROBLOTTING OF PROTEINS - WESTERN BLOTTING
- UP TO FIVE GEL BLOT CASSETTES UTILISED AT ANY ONE TIME
- HINGED CASSETTES FOR ADDED CONVENIENCE
- ACCOMMODATES GEL THICKNESSES FROM 0.25 UP TO 3MM

Technical Specifications

UNIT DIMENSIONS (W x D x H)	MINI	19 x 13 x 19CM
	MAXI	24 x 16 x 26CM
MAX. SAMPLE, CAPACITY	MINI	5 BLOTS, 10 x 10CM
	MAXI	5 BLOTS, 20 x 20CM
		20 BLOTS, 10 x 10CM
BUFFER VOLUME	MINI	MIN 1000ML; MAX 1500ML
	MAXI	MIN 4300ML; MAX 6000ML

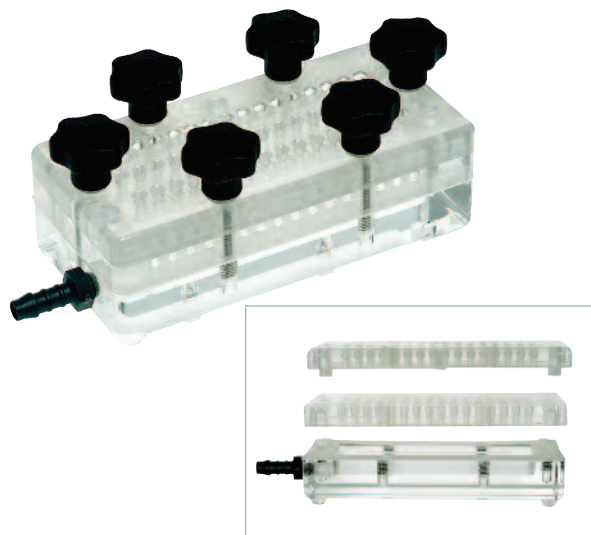
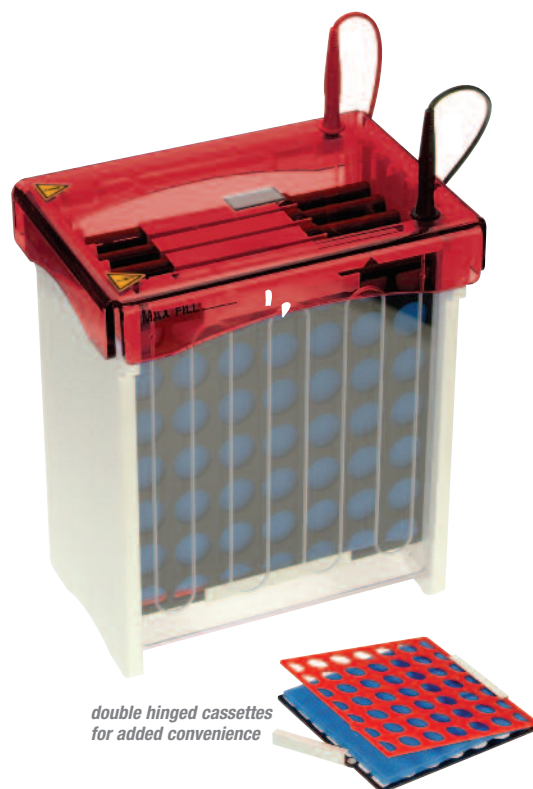
- LOW COST
- EASY ASSEMBLY
- SIMPLE CONSTRUCTION
- FOUR SAMPLE CONFIGURATIONS
- ALPHA-NUMERIC SAMPLE IDENTIFICATION



E-BLOT ELECTROBLOTTERS

Designed primarily for wet electroblotting of proteins, EBLot Electroblotters offer a combination of increased capacity with economy saving features. Both units, Mini 10 x 10cm and Maxi 20 x 20cm, have increased capacity over standard systems with up to five gel blot cassettes utilised at any one time. This is especially useful in high throughput laboratories.

A uniform electric field is provided by a high intensity coiled electrode and ensures uniform transfer across the blot surface. The cassette's open architecture ensures the maximum blot area allows direct transfer of current. Its rigid construction ensures contact between the gel and membrane is retained throughout the blot and an even pressure is maintained. These units are compatible with magnetic stirrers to aid heat dispersal and prevent pH drifts in the buffer due to incomplete buffer mixing. Each system includes a cooling pack to further enhance transfer efficiency by removing excess heat. This also saves on buffer for added economy.



DOT & SLOT

Dot Blot and Slot Blot microfiltration manifolds are designed for DNA and RNA filter blot hybridisations and immunological (Ag/Ab) screening applications. Machined from high density acrylic, their precision lapped mating surfaces and leak proof gasket ensures uniform filter contact, so preventing lateral transfer of samples – smudging – by ensuring that a complete vacuum is formed. Assembly of the manifolds is simply by aligning the mating surfaces and tightening the stainless steel thumb screws. A permanent filter template is provided with each manifold to simplify the cutting of filters to the exact size. A vacuum of approximately 600mm Hg (0.8 Bar) is required during sample application.

Four configurations are available for 24 & 48 for slots and 48 & 96 wells for dots in the configuration of standard microplates. Each well is alpha-numerically grid referenced for easy identification.

<i>Model</i>	<i>D48</i>	<i>D96</i>	<i>S24</i>	<i>S48</i>
Configuration	3 x 16	8 x 12	2 x 12	3 x 16
Size of well	6mm diameter 12mm deep	6mm diameter 12mm deep	6 x 0.5mm 12mm deep	6 x 0.5mm 12mm deep
Vacuum required	---- 600mg Hg 0.8 BAR with cold trap ----			
Unit dimensions	60 x 95 x 100cm	60 x 105 x 140cm	60 x 74 x 83cm	60 x 95 x 100cm
Membranes size required	12.1 x 4.4cm	11 x 7.4cm	12.1 x 4.4cm	12.1 x 4.4cm

ORDERING INFORMATION

BCEBM10	EBLOT Mini ElectroBlotter, 10 x 10cm System for five cassettes, with tank and lid,	Dot & Slot Blotters			
	5x cassettes, 12x fibre pads and cooling pack	BCD48	48-well Dot Blot Manifold, 3 x 16 array		
BCEBM20	EBLOT Maxi ElectroBlotter, 20 x 20cm System for five cassettes, with tank and lid,	BCD96	96-well Dot Blot Manifold, 8 x 12 array		
	5x cassettes, 12x fibre pads and cooling pack	BCS24	24-well Slot Blot Manifold, 2 x 12 array		
SB10C	EBLOT Mini Cassette	SB20C	EBLOT Maxi Cassette	BCS48	48-well Slot Blot Manifold, 3 x 16 array
SB10F	Fibre pads - pk/6	SB20F	Fibre pads - pk/6		

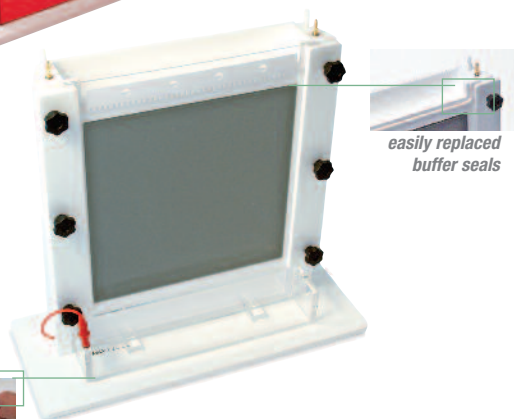
large format

Ideal for a variety of large format vertical gel applications, these units offer advanced features for enhancing gel resolution and ease of use, essential when handling gels of this size. Each unit contains ultra soft silicone seals for easy plate sealing and trouble free runs, even over extended run times.

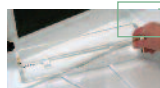
Resolution is enhanced by using an aluminium heat sink plate, essential for even sample migration. Added convenience is provided by a removable lower buffer tank and upper buffer drainage tap.

Special buffer chambers allow either low buffer volumes to be used for economy or high buffer volumes to be used for extended runs.

A wide range of interchangeable comb and spacer options allows a large number of techniques to be easily accomplished including; DNA Sequencing, 2-D analysis, Micro-satellite analysis, DNA fingerprinting, Gel shift assays, Single-Strand Conformation Polymorphism (SSCP), Heteroduplex and Oligonucleotide analysis.



easily replaced
buffer seals

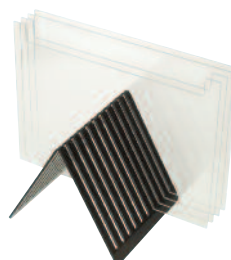


removable lower
buffer tray for
easy cleaning



fan heater sensor kit

PLATE RACKS



- RUN UP TO 96 SAMPLES
- ENHANCED GEL HEAT HOMOGENISATION
- VARIABLE LOW OR HIGH BUFFER VOLUMES
- 20 x 50CM OR 33 x 45CM FORMATS

Technical Specifications

PLATE DIMENSIONS (W x L)	CSQ20 20 x 50cm CSQ33 33 x 45cm
MAX SAMPLE CAPACITY	CSQ20 48 SAMPLES CSQ33 96 SAMPLES
BUFFER VOLUME	CSQ20 Min 500mL, Max 1000mL CSQ33 Min 800mL, Max 2000mL
COMBS AVAILABLE	
NO. OF TEETH	24, 48, 80, 96
THICKNESSES	0.25, 0.35, 1, 1.5mm

Typical Applications

DNA Sequencing, 2-D analysis, Micro-satellite analysis, DNA fingerprinting, Gel shift assays, Single-Strand Conformation Polymorphism (SSCP), Heteroduplex and Oligonucleotide analysis

These sturdy racks are designed for safe drying and storage of glass plates. The small rack can hold up to 20x 2mm thick plates while the larger rack can accommodate up to 10x 5mm thick glass plates.

ORDERING INFORMATION

BCSQ20	Large Format Vertical, 20cm wide, glass plates, 0.35mm spaces, 48 sample comb			
CSQ20-NG	Glass plates, pk/2 Notched	CSQ20-S0.35	Spacer set 0.35mm	
CSQ20-PG	Glass plates, pk/2	CSQ20-S1	Spacer set 1mm	
CSQ20-S0.25	Spacer set 0.25mm	CSQ20-S1.5	Spacer set 1.5mm	
BCSQ33	Large Format Vertical, 33cm wide, glass plates, 0.35mm spaces, 48 sample comb			
CSQ33-NG	Glass plates, pk/2 Notched	CSQ33-S1	Spacer set 1mm	
CSQ33-PG	Glass plates, pk/2	CSQ33-S1.5	Spacer set 1.5mm	
CSQ33-S0.25	Spacer set 0.25mm	FHS	Fan heater sensor kit for large format vertical units BCSQ20 and BCSQ33	
CSQ33-S0.35	Spacer set 0.35mm	For 110 V AC, please add '-\$' as a suffix to the above code		
MGPR	Mini Glass Plate Rack for 20x 2mm Plates	LGPR	Large Glass Plate Rack for 10x 5mm Plates	

CODE	DESCRIPTION	SAMPLE VOLUME PER WELL	CODE	DESCRIPTION	SAMPLE VOLUME PER WELL
CSQ20-0.25-24	Comb 24 sample, 0.25mm thick, Sharks tooth	7µl	CSQ20-1-24	Comb 24 sample, 1mm thick, Square tooth	40µl
CSQ20-0.25-48	Comb 48 sample, 0.25mm thick, Sharks tooth	3µl	CSQ20-1-48	Comb 48 sample, 1mm thick, Square tooth	20µl
CSQ33-0.25-48	Comb 48 sample, 0.25mm thick, Sharks tooth	7µl	CSQ33-1-48	Comb 48 sample, 1mm thick, Square tooth	35µl
CSQ33-0.25-96	Comb 96 sample, 0.25mm thick, Sharks tooth	3µl	CSQ33-1-80	Comb 80 sample, 1mm thick, Square tooth	20µl
CSQ20-0.35-24	Comb 24 sample, 0.35mm thick, Sharks tooth	9µl	CSQ20-1.5-24	Comb 24 sample, 1.5mm thick, Square tooth	60µl
CSQ20-0.35-48	Comb 48 sample, 0.35mm thick, Sharks tooth	5µl	CSQ20-1.5-48	Comb 48 sample, 1.5mm thick, Square tooth	30µl
CSQ33-0.35-48	Comb 48 sample, 0.35mm thick, Sharks tooth	9µl	CSQ33-1.5-48	Comb 48 sample, 1.5mm thick, Square tooth	50µl
CSQ33-0.35-96	Comb 96 sample, 0.35mm thick, Sharks tooth	5µl	CSQ33-1.5-80	Comb 80 sample, 1.5mm thick, Square tooth	30µl

membranes, buffers, stains



blotting membrane rolls

Two types of membrane rolls are available: nitrocellulose for most blotting applications and positively charged nylon for Southern, northern & dot and slot blots with non-radiolabelled or radiolabelled probes. They are supplied in 0.24x3m and 0.3x3m (w x l) sizes, allowing them to be cut to match specific gel formats, these membrane rolls are suitable for transfer of proteins and nucleic acids from polyacrylamide and agarose gels. Offered in 0.2 and 0.45µm pore sizes.

blot-absorbent filter paper

This filter paper is manufactured from cotton, which, unlike standard cellulose-based paper, absorbs buffer instantly without air bubbles that inhibit transfer. It is supplied in packs of 50 and in sizes of 10x10cm and 20x20cm. Its 1-mm-thick texture and high buffer retention properties, being able to absorb twice its own weight in buffer, allow it to exert the gel-membrane compression needed for efficient transfers. May also be used as electrode wicks in cellulose acetate applications.

PAGE buffers

Five buffers are available in powder sachets for a range of native and denaturing protein gel electrophoresis techniques. Each powder sachet, which is supplied as a 10-pack, may be reconstituted to make 1 litre of working solution. Running buffers are also available in 1 litre and 5 litre volumes as ready made 10x Tris-Glycine and 10x Tris-Glycine-SDS solutions.

electroblotting transfer buffers



Towbin Buffer Tris-Glycine base is available in powder sachets to make one litre of 1x working solution for wet and semi-dry transfer techniques. Simply mix 800ml of 1x working solution with 200ml of methanol for complete 1x Towbin buffer. Western Transfer Buffer is available as a 10x concentrate and may be mixed with 900ml of distilled water to make a 1x working solution.

semi-dry transfer buffers

Available as 1 litre ready-to-use solutions, these semi-dry blotting solutions facilitate efficient transfer of proteins to nitrocellulose and PVDF membranes.needed for efficient transfers.

protein markers

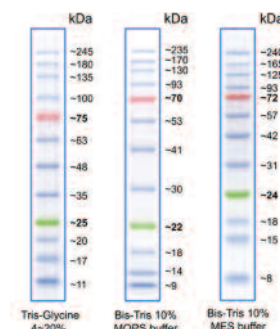


Stable for up to 2 years if stored at -20°C and supplied pre-stained in gel loading buffer for direct loading, PINK Plus and BLUE Wide Range recombinant protein markers are perfect for SDS-PAGE applications. Sizes range from 10-175kDa for PINK Plus and 10-245kDa for BLUE Wide Range, making both markers suitable for accurate molecular weight determination of most cellular proteins.

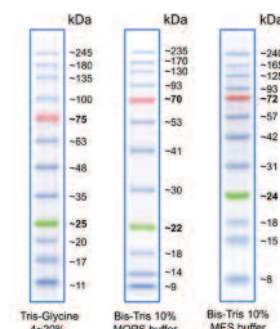
Each marker is covalently bound to a pink or blue colour chromophore to produce a ladder of evenly interspersed bands of uniform intensity. Coloured reference bands serve as visual indicators of electrophoresis run progression and the efficiency of western transfer onto membranes following SDS-PAGE. Both PINK Plus and BLUE Wide Range markers can be detected at volumes as low as 2.5µl per well.

Technical Specifications

Code	PPL	BBL
Size Range	10-175kDa	10-245kDa
Number of Bands	11	12
Reference Bands	10, 40 and 90kDa blue	25 & 75kDa; green & red
Contents	Max. 2.2mg total protein in 15% (v/v) glycerol, 2% SDS, 20mM Tris pH 7.5, 1mM 2-ME and 3.6M Urea	Max. 2.4mg total protein in 15% (v/v) glycerol, 2% SDS, 20mM Tris pH 7.5, 1mM 2-ME and 3.6M Urea
Volume Supplied	500µl	500µl
Storage	3 months at 4°C & 24 months at -20°C	
Loading Volume	2.5-5µl/well	
Number of Applications	100-200	
Source	Recombinant proteins, various sources	



PPL Pink Plus



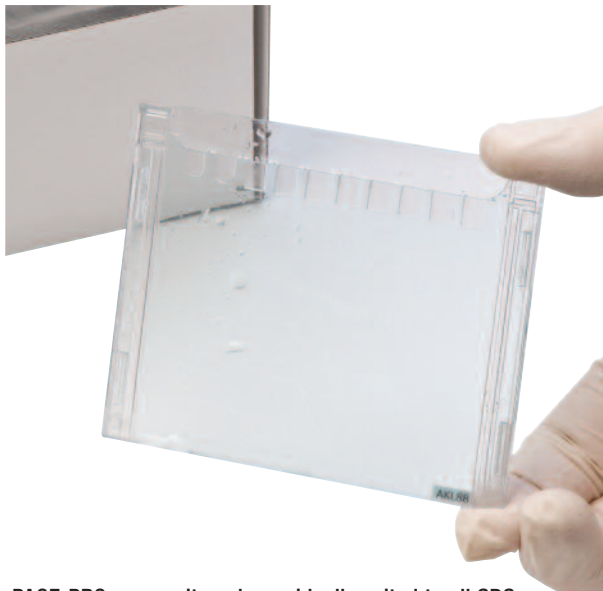
BBL Blue Wide Range

ORDERING INFORMATION

TTGP	Powdered Towbin Buffer, Tris-Glycine base - 10 pouches/pk (10 litres/pk)	WTB	Western 25x Transfer Buffer (50 ml)
SDWB	Semi-dry Western Blot buffer for nitrocellulose (1L)	SDWBPVDF	Semi-dry Western Blot buffer for PVDF (1L)
TGSDSP	Powdered Tris-Glycine-SDS Running buffer - 10 Pouches (10 litres/pk)	MSDSP	Powdered MOPS-SDS buffer Running buffer - 10 Pouches (10 litres/pk)
TGP	Powdered Tris-Glycine Running buffer - 10 Pouches (10 litres/pk)	MESDSP	Powdered MES-SDS buffer Running buffer - 10 Pouches (10 litres/pk)
TTSDSP	Powdered Tris-TRICINE-SDS Running buffer - 10 Pouches (10 litres/pk)		
PPL	Pink Plus Prestained Protein Ladder, 10-175kDa, with 10, 40 & 90kDa reference bands, 1x 500µl vial.	BBL	BLUE Wide Range Prestained Protein Ladder, 10-245kDa, with 25 & 75kDa reference bands, 1x 500µl vial.
RNC45	Nitrocellulose roll, 0.3x3m (w x l), Pore Size 0.45µm For most analytical blotting procedures, including protein, single-stranded DNA & RNA; compatible with colorimetric, radiolabelled, chemiluminescent and fluorescent detection and staining methods	RNC2	Nitrocellulose roll, 0.3x3m (w x l), Pore Size 0.2µm For small proteins <15kDa
BP1010	Blot-Absorbent Filter paper, 10x10cm, pack of 50	BP2020	Blot-Absorbent Filter paper, 20x20cm, pack of 50

precast gels

- **SHELF LIFE** - GUARANTEED MINIMUM 12 MONTH FROM DATE OF SUPPLY
- **FAST RUN TIMES** FROM 45 TO 75 MINUTES
- **UNIVERSALLY COMPATIBLE** WITH STANDARD TRIS-MOPS, TRIS-HEPES AND TRIS-TRICINE RUNNING BUFFERS; COMPATIBLE WITH TRIS-GLYCINE BLOTTING BUFFER
- **AVAILABLE IN 10-** (30µL PER WELL) **AND 15-WELL** (15µL PER WELL) FORMATS
- **USES LITHIUM DODECYL SULPHATE (LDS)** SAMPLE BUFFER FOR OPTIMAL SAMPLE DENATURATION AND REDUCTION

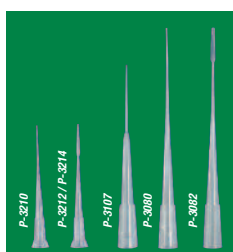


Perfect for use in omniPAGE Mini vertical (BCVS10 and TETRAD models) and electroblotting systems (BCVS10CBS and BCEBM10); also semi-dry blot compatible

PAGE-PRO composite gels are ideally suited to all SDS-PAGE applications. Of UK manufacture, each gel has a minimum 12 month shelf life that is guaranteed by a specially formulated, proprietary gel matrix composition. This composition also provides superior performance when compared to traditional Laemmli gels.

Available in single and gradient percentage acrylamide compositions, PAGE-PRO gels are manufactured by an automated filling technique which ensures total reproducibility between batches. PAGE-PRO gels may be used with standard Tris-MOPS, Tris-HEPES and Tris-Tricine buffers. Ideally suited for use with **Biocom omniPAGE** mini vertical electrophoresis and blotting (wet and semi-dry) systems, they are also compatible with all leading mini vertical systems including XCell SureLock™ precast gel systems.

An optional sample kit contains sample and running buffers and PAGE-PRO colorimetric stain that develops protein gels within 15 minutes!



Microcapillary Gel Loading Tips - see page 17

Technical Specifications

GEL DIMENSIONS (W x H x T)	8.5 x 7 x 0.1cm
CASSETTE DIMENSIONS (W x H x T)	10 x 10 x 0.5cm
GEL STORAGE CONDITIONS	STORE FLAT AT 2–8°C*; DO NOT FREEZE
SHELF LIFE AT RECOMMENDED TEMPERATURE*	MINIMUM 12 MONTHS
SAMPLE LOADING VOLUME	10-well: 30µL 15-well: 15µL
RECOMMENDED SAMPLE BUFFER	4x LDS
RECOMMENDED RUNNING BUFFER	10x TRIS-HEPES
GEL CHEMISTRY	COMPOSITE
GEL FORMAT	MINI

Compatibility Mini Vertical Brand*	Cassette size 10 x 10 cm
Amersham Biosciences, Mighty Small SE260	✓
Amersham Biosciences, Mighty Small SE280	✓
Amersham Biosciences, miniVE	✓
Atto, AE-6530MW vertical cell	✓
Biocom/CSL, VS10, omniPAGE Mini 10 x 10cm	✓
C.B.S. Scientific Company, MG-102/202 Mini-gel	✓
Daiichi 2 & 6 Gel System	✓
EC 120 mini vertical gel system	✓
Fisher EC 120-2	✓
FisherBiotech™, FB-VE10-1 Vertical Minigel	✓
FisherBiotech™, FB-VE121 Vertical Minigel Wedge	✓
Invitrogen, XCell II™ Mini-Cell	✓
Invitrogen, XCell SureLock™ Mini-Cell	✓
Owl Separation Systems, P82 Wolverine™	✓
Owl Separation Systems, P8DS Emperor Penguin™	✓
PAGEr Minigel Chamber	✓
Peqlab – Biotechnologie GmbH, PerfectBlue Twin S	✓
Scie-Plas Limited, V10-CDC Mini Vertical	✓
Sigma-Aldrich Mini Techware	✓
Thermo Electron Corporation, EC 120 Mini-Vertical	✓
Zaxis System 2000 X	✓

ORDERING INFORMATION

PPRO41210	PAGE-PRO Gradient 4-12% 10 Well, 10 Pack (10x10cm)
PPRO41215	PAGE-PRO Gradient 4-12% 15 Well, 10 Pack (10x10cm)
PPRO42010	PAGE-PRO Gradient 4-20% 10 Well, 10 Pack (10x10cm)
PPRO42015	PAGE-PRO Gradient 4-20% 15 Well, 10 Pack (10x10cm)
PPRO1010	PAGE-PRO 10% 10 Well, 10 Pack (10x10cm)

PPRORB500	20X PAGE-PRO Running Buffer, 500ml
PPROSB10	4X PAGE-PRO Sample Buffer, 10ml
PPROSTAIN1L	1L PAGE-PRO 15 Minute Colorimetric Stain

PPRO1015	PAGE-PRO 10% 15 Well, 10 Pack (10x10cm)
PPRO1210	PAGE-PRO 12% 10 Well, 10 Pack (10x10cm)
PPRO1215	PAGE-PRO 12% 15 Well, 10 Pack (10x10cm)
PPRO1610	PAGE-PRO 16% 10 Well, 10 Pack (10x10cm)
PPRO1615	PAGE-PRO 16% 15 Well, 10 Pack (10x10cm)

PPROSPLEKIT	PAGE-PRO Sample Kit: Contains Enough Colorimetric Stain, Sample And Running Buffer For 2 PAGE-PRO GELS
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* ALL BRAND NAMES ARE THE PROPERTY OF THE REGISTERED OWNER

powerpoint

- CONSTANT VOLTAGE, CURRENT OR POWER
- AUTOMATIC CROSSOVER
- OVERLOAD PROTECTION
- SHORT CIRCUIT PROTECTION

Technical Specifications

Maxi

TIMER	0 - 99.99 MINS
PROGRAMS	9 OF 9 SETS EACH
OUTPUTS	4 IN PARALLEL, 4MM SOCKETS
RESOLUTION	1V, 1mA, 1W
DIMENSIONS	31 x 26 x 15cm (W x L x H)
WEIGHT	10kg

Technical Specifications

Mini

TIMER	0 - 99.99 MINS
PROGRAMS	9 OF 9 SETS EACH
OUTPUTS	3 IN PARALLEL, 4MM SOCKETS
RESOLUTION	1V, 1mA, 1W
DIMENSIONS	14 x 20 x 13cm (W x L x H)
WEIGHT	3kg

ORDERING INFORMATION

EV231	Consort Power Supply	300 V	1000 mA	150 watts	EV232	Consort Power Supply	3000 V	150 mA	150 watts
EV202	Consort Power Supply	300 V	2000 mA	300 watts	EV233	Consort Power Supply	3000 V	300 mA	300 watts
EV265	Consort Power Supply	600 V	500 mA	150 watts	EV262	Consort Power Supply	6000 V	150 mA	300 watts
EV261	Consort Power Supply	600 V	1000 mA	300 watts	EV222	Consort Power Supply	200 V	200mA	20 watts
EV215	Consort Power Supply	1200 V	500 mA	300 watts	EV245	Consort Power Supply	400 V	500mA	50 watts

For 110 V AC, please add '-\$' as a suffix to the appropriate product code

CONSORT POWER SUPPLIES

All Consort Maxi Series (EV200) Power Supplies except the EV222 and EV245 have four output terminals to allow four simultaneous runs. Model EV222/EV245 Mini power supplies have smaller footprints and three output terminals. While the powerful microprocessor allows complex programming, the Manual mode permits the setting of voltage, current, power and time for a routine electrophoresis run. Parameters can be changed temporarily without interrupting the run.

Programming - up to 9 different programs, each with 9 steps, can be stored in the non-volatile memory for future recall.

Timer - can be set to automatically terminate the run and sound an alarm when the allocated time or volt hours has elapsed.

Automatic cross-over - each model has constant voltage, constant current and constant power capabilities with automatic cross-over while showing which parameter is kept constant.

Automatic recovery after mains failure - after restoration of power, the instrument will automatically continue the run for the remaining time.

Data Transfer - optional data acquisition/control software for PC is available to visualise and examine the stored run details, store and program the methods, add notes to the run, identify the unit, copy or delete programs in the unit's memory.

Safety precautions - the AC line is automatically disconnected from the high voltage transformer when a ground leakage path is detected protecting the user from potential shock. Other safety features include protection against any overload including accidental short circuit of the output and voltage increases smoothly.



Maxi series

Mini series

CONSORT MINI EV222/EV245

These **Consort Mini** power supplies cover the ideal voltage range generally used with small electrophoresis units. Small enough to occupy very little bench space, they are portable and have a variety of additional features:-

Manual Set-up - voltage, current and power settings can be adjusted during the run.

Voltage ramp - this allows a linear voltage gradient for any step to be programmed.

Automatic recovery after power failure.

Data-logging, Transfer and Remote control.

Storage of the run progression - stores the run progression details and allows analysis by transfer of data to a PC. The power supply can additionally be controlled by a PC.

PRODUCTS SELECTOR

	NANO300V	MP-300	EV222	EV243	EV231	EV265	MP-500P	MP-3AP	EV202	EV261	EV215	EV232	EV233	EV262
	300V 400mA 60W	300V 700mA 150W	200V 200mA 20W	400V 500mA 50W	300V 1000mA 150W	600V 500mA 150W	500V 400mA 200W	300V 3000mA 300W	300V 2000mA 300W	600V 1000mA 300W	1200V 500mA 300W	3000V 150mA 150W	3000V 300mA 300W	6000V 150mA 300W
multiSUB Horizontal, all models	✓	✓	✓	✓	•	•	•	•	•	•	•	•	•	•
COMET Assay		✓		✓	•	•	•	•	•	•	•	•	•	•
Cellulose Acetate System		✓		✓										
omniPAGE Mini, Mini Wide	✓	✓		✓	•	✓	✓	•	•	•	•	•	•	•
omniPAGE Maxi						•	•			✓	✓			
Tube Gel IEF, Mini, Mini Wide & Maxi									•	✓				
Flatbed IEF												✓	✓	✓
Second Stage 2-D												✓	✓	✓
Electroblotting, Mini, Mini Wide		✓			✓			✓	✓	✓				
Electroblotting, Maxi								✓	✓	•				
Semi-Dry Blotting, Mini		✓			•			✓	✓	✓				
Semi-Dry Blotting, Maxi								✓	✓	✓				
Large Format, 20 and 33 wide												✓	✓	

✓ Recommended

• Can be used but not ideally matched

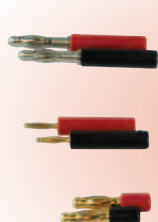
POWERPOINT MAXi Programmable Power Supplies are high performance, easy to operate instruments.

Offering both graphic and text displays, POWERPOINT MAXiS are completely programmable with self prompting menus and multiple operation modes.

Versatile: two models are available offering maximum output capability to 500V, 400mA to 3A and 300 watts. These units are suitable for running multiple SDS gels, blotting and large submarine gels.

Fully Programmable: system parameter entry is via the membrane keypad. They can be programmed to recall and run constant or multi-step electrophoresis in a variety of operational modes :

adapters



BC4-4 – extends the length of standard electrode cables to fit within the deeply recessed power outputs of IEC 1010-1 compliant power supplies

BC4-2 – allows systems to be run from high voltage power supplies with 2mm outputs

BC2-4 – connects standard cables supplied with the BC-IEF and large format CSQ verticals to low-to-medium voltage power supplies – e.g. MP-500V



MP-300



MIDI POWERPOINT

- PROGRAMME CONSTANT VOLTAGE AND CURRENT
- ALARM FOR END OF RUN
- CONSTANT VOLTAGE OR CURRENT

This inexpensive, compact POWERPOINT MIDI power supply is ideal for routine horizontal and mini vertical electrophoresis. Microprocessor control allows the unit to be set-up to run in constant voltage and constant current modes. Four gel chambers can be connected at any one time. A timer with alarm and pause functions can be set to end of run. Safety features include shrouded plugs and sockets, no load detection and ground leakage detection.



NANO300V



MINI POWERPOINT

- COMPACT
- SAFETY DESIGN : SHROUDED PLUG AND SOCKET; NO LOAD DETECTION
- CONSTANT VOLTAGE
- LOW COST AND ECONOMICAL

POWERPOINT MINI power supplies have been developed specifically for horizontal gel electrophoresis systems. These ultra compact power units with dual outlets, are recognised as being amongst the most compact and inexpensive power supplies currently available. They are designed and constructed to the most rigorous safety standards.



1. Constant operation with timer - program constant voltage, current or wattage with timer to eliminate the possibility of over running samples in gels.
2. Memory mode - Store 16 files to recall and re-run favourite multi step programmes

Display: POWERPOINT MAXi power supplies have large 2.6" LCD displays to show run/set parameters which will be shown continuously to allow comparison of set to actual run conditions. This can be viewed by touching 'select display' key.

Safety: POWERPOINT MAXi models meet all relevant safety standards to protect both the operator and the instrument. The alarm will sound in event of ground leakage, no load or overload.

- HIGH PERFORMANCE, EASY TO OPERATE
- LARGE LCD DISPLAY OF RUN PARAMETERS
- COMPLETELY PROGRAMMABLE
- CONSTANT VOLTAGE, CURRENT OR POWER
- MEMORY MODE - STORES 30 FILES TO RECALL AND RE-RUN
- COMPLIES WITH ALL RELEVANT SAFETY STANDARDS

Technical Specifications

Cat. No.	MP-500P	MP-3AP
MAX. VOLTAGE	500V	300V
MAX. CURRENT	400mA	3A
MAX. WATT	200W	300W
OUTPUT TYPE	CONSTANT VOLTAGES; CONSTANT CURRENT; OR CONSTANT WATT	
PROGRAM STORAGE	---- 30 PROGRAMMED FILES ----	
PROGRAM MULTI-STEP	---- UP TO 6 STEPS ----	
TIMER	---- 1-999 MINS ----	
DISPLAY	-- 2.6" LCD DISPLAY SCREEN --	
SAFETY	---- NO LOAD; LEAKAGE AND ---- OVERLOAD DETECTION	
DIMENSIONS	18 (W) x 28 (L) x 9.5 (H) CM	
OPERATION VOLTAGES	110 / 220V	

Technical Specifications

Cat. No.	MP-300
MAX. VOLTAGE	300V
MAX. CURRENT	700mA
MAX. WATT	150W
OUTPUT TYPE	CONSTANT VOLTAGE OR CURRENT
SAFETY	---- NO LOAD; LEAKAGE AND ---- OVERLOAD DETECTION
TIMER	---- 1-999 MINS ----
DIMENSION	19 (W) x 29 (L) x 9.5 (H) CM
OPERATION VOLTAGES	110 / 220V

Technical Specifications

Cat. No.	NANO300V
MAX. VOLTAGE	300V
MAX. CURRENT	400mA
MAX. WATT	60W
OUTPUT TYPE	CONSTANT VOLTAGE OR CURRENT
SAFETY	---- NO LOAD DETECTION ----
DIMENSION	14 (W) x 19 (L) x 8.4 (H) CM
OPERATION VOLTAGE	110 / 220V

ORDERING INFORMATION

NANO300V	PowerPoint, NANO300	300V	400mA	60W	BCAB	Replacement Cables, pk/2
MP-300	PowerPoint, MIDI 300	300V	700mA	150W	BCAB2	Replacement BCSQ unit cables, pk/2
MP-500P	PowerPoint, MAXi 500	500V	400mA	200W	PC4-4	Power supply adapters, 4mm to 4mm
MP-3AP	PowerPoint, MAXi 300	300V	3000mA	300W	BC4-2	Power supply adapters, 4mm to 2mm
					BC2-4	Power supply adapters, 2mm to 4mm

gel drying

Drivers

- DRY UP TO TWELVE 10 x 10CM GELS AT A TIME [MAXI]
- MICROPROCESSOR CONTROLS TEMPERATURE AND TIMER
- OPTIMAL TIGHT SEAL DURING THE DRYING PROCESS

Vacuum Pumps

- VACUUBRAND - OIL-FREE VACUUM DOWN TO ~ 9MBAR ULTIMATE VACUUM
- VACUUBRAND - OUTSTANDING CHEMICAL RESISTANCE AND SUPERIOR VAPOUR TOLERANCE

Technical Specifications

TEMPERATURE INCREMENT	0.1°C
TEMPERATURE CALIBRATION	YES
TEMP UNIFORMITY	± 0.2°C
TIMER	1-999 MINS
DRYING AREA	MIDI 21 x 31cm MAXI 35 x 45cm
OPERATING TEMP. RANGE	AMBIENT TO 90°C
DIMENSION WxLxH	MIDI 30 x 36 x 8cm MAXI 44 x 50 x 8cm
PUMP FLOW RATE	35L/MIN
PUMPING SPEED	1.9m³/h / 2.1 m³/h / 2CFM
ULTIMATE VACUUM (TOTAL)	9 MBAR // 6.8 TORR
DIMENSIONS WxLxH	24 x 35 x 33cm

- PROGRAMMABLE MICROPROCESSOR CONTROL
- AUTOMATIC MONITORING OF UV ENERGY
- CONSPICUOUS FRONT PANEL LED, WITH NON-UV TRANSMISSIBLE FRONT DOOR CONNECTED TO SAFETY INTERLOCK SWITCHES

Technical Specifications

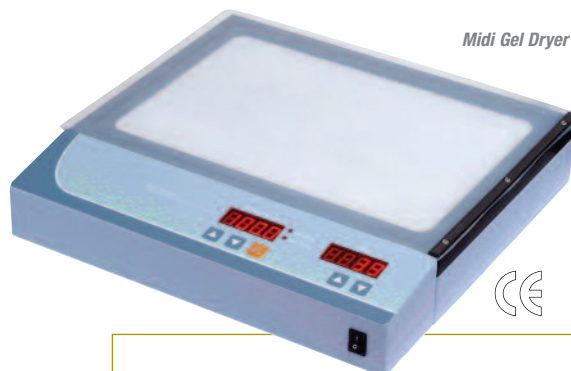
UV SOURCE	5 x 8W UV BULBS, 254, 302 OR 365NM
EXPOSURE TIME	0 - 999.9 MINUTES
ENERGY RANGES	0 - 99T.99 J OR 0 - 9.999 J
INTERNAL DIMENSIONS	26 x 33 x 14.5cm (WxDxH)
FOOTPRINT	35 x 36cm

ORDERING INFORMATION

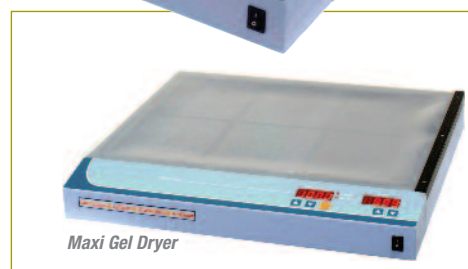
GDVH	Midi Gel Dryer, 21 x 31 cm
GDVH-35	Maxi Gel Dryer, 35 x 45 cm
MZ2C	Vacuubrand Vacuum Pump, MZ 2C + 2 AK

VACUUM & HEATED

With a drying area of 21 x 31 cm, the **Midi Gel Dryer** can dry six 10 x 10cm gels or a single larger gel. The **Maxi Gel Dryer** with a 35 x 45cm drying area can dry twelve 10 x 10cm mini gels simultaneously. Both unit's microprocessor controls temperature and time, each parameter being displayed on its own LED display. The gels are heated from the base plate while the vacuum removes the moisture from below to dry the gel homogeneously. These dryers feature optimal sealing using a silicone rubber cover and supporting mask. When applying the vacuum, a groove that frames the drying surface provides an optimal tight seal during the drying.



Midi Gel Dryer



Maxi Gel Dryer

vacuum pumps



The **Vacuubrand® MZ 2C + 2 AK** is a quiet, low maintenance oil free vacuum pump, which generates the lowest pressure measurable reproducibly at room temperature for almost 100% efficient solvent recovery. Two round bottomed flasks collect and condense noxious gases released during gel drying, whereas inlet and outlet separators act in tandem with the diaphragm pump to facilitate controlled collection of vapours without risk of condensate entering and contaminating the pump. The two stage pump also benefits from a compact design and construction from specially-selected chemically resistant materials, long-life easy-to-change diaphragms and valves, and gas ballast function.

uv crosslinker

The UVlink UV crosslinker is especially designed for binding nucleic acids to membranes. A membrane keypad facilitates manual or preset control of the desired UV dosage and exposure time, while a highly accurate microprocessor-controlled photo-feedback system maintains uniform output from each of the crosslinker's five 8-Watt UV bulbs. Other features comprise safety interlock switches to prevent accidental UV leakage during operation, a clearly visible LED, plus a large interior chamber and small footprint area. The crosslinker may be used in a variety of applications, such as colony or plaque lifts, UV sterilisation and gene mapping or DNA damage studies.

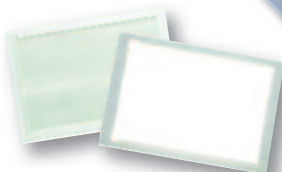


UV transilluminators

These UV Transilluminators are **multitasking workstations** offering an ultra-violet source for the analysis of fluorescently stained DNA, RNA, and Protein electrophoresis gels. These also offer space to place tube racks, cutting tools or waste agarose gel, ideal when there is a need to cut gel bands.

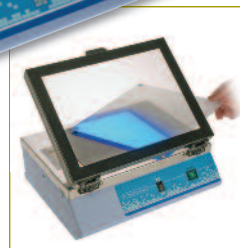
Each single wavelength model includes a High Low intensity switch. A new and high quality starter ensures that the UV tubes energise immediately and without flickering. This feature extends the life of the tubes. Two Dual wavelength models offer added flexibility and convenience.

The **white light box** allows imaging of non-fluorescent stained media, to allow a wider range of applications. Viewing Area: 210 x 297mm.



white light box

showing white light converter plate



- THREE WAVELENGTH OPTIONS: 254 / 312 / 365 nm
- TWO DUAL WAVELENGTH MODELS
- LONG LIFE FILTER
- TWO SIZE OPTIONS
- HIGH EFFICIENCY REFLECTOR
- HI / LO INTENSITY SWITCH
- FAST START UP

Technical Specifications

Small

FILTER SIZE:	21 x 21 cm
LIGHT SOURCE:	8W x 6 TUBES
UNIT DIMENSIONS (WxLxH):	34 x 29.5 x 10cm

Large

FILTER SIZE:	26 x 21 cm
LIGHT SOURCE:	8W x 8 TUBES
UNIT DIMENSIONS (WxLxH):	34 x 29.5 x 10cm

2-D AND 1-D A4 gel scanner

MICROSCAN



microSCAN is a low-cost documentation system for scanning colorimetric 1-D and 2-D gels, as well as blots and TLC plates. Its control software allows rapid generation of high quality images that may then be imported into recommended TotalLab Quant and Phoretix 1D software (page 44) for analysis. Users may choose between transmittance and reflectance modes in colour and greyscale, and can select their required resolution. microSCAN can generate high resolution images at 2400 dpi, while its variable colour scanning functionality is sensitive enough to detect the faintest protein spots in gels stained with Coomassie Blue, silver and other colorimetric stains. As a sealed unit with a maximum 20.9 x 28.5cm scanning area, microSCAN is also suitable for wet protein gels, particularly those run in the omniPAGE Mini and Midi, and WAVE Maxi vertical systems (page 20-29).

- FOR DETECTION OF COLORIMETRIC PROTEIN GELS, BLOTS AND TLC PLATES
- SEALED UNIT SUITABLE FOR WET GELS
- USER HAS FULL CONTROL OVER RESOLUTION, COMPRESSION AND SCAN SPEED
- TRANSMITTANCE AND REFLECTANCE MODES FOR DIFFERENT IMAGING APPLICATIONS
- IDEAL FOR POST-ELECTROPHORESIS SCANNING OF OMNI-PAGE MINI, MIDI AND WAVE MAXI GELS

Technical Specification

System	High Quality 1-D and 2-D A4 scanner with transmittance and reflectance modes	Spectral Range	430-745nm
Max. Gel Imaging Size	20.9 x 28.5cm (reflectance) 19.7 x 23.7cm (transmittance)	Interface	USB 2.0, Firewire
Optical Resolution	2400dpi	Dimensions (w x d x h)	30.8 x 53 x 15.3cm
Resolution	16-bit greyscale; 48-bit colour	Weight	6.6Kg
Scan Optical Density Range	3.8 OD	Power	110-240 VAC.

ORDERING INFORMATION

UV Transilluminators

UVTS254S	UV Transilluminator small, 21 x 21 cm, 254 nm	UVTS312 L	UV Transilluminator large, 26 x 21 cm, 312 nm
UVTS312	UV Transilluminator small, 21 x 21 cm, 312 nm	UVTS365 L	UV Transilluminator large, 26 x 21 cm, 365 nm
UVTS365	UV Transilluminator small, 21 x 21 cm, 365 nm	UVTLDUO	UV Transilluminator large, 26 x 21 cm, 254/365 nm
UVTSDUO	UV Transilluminator small, 21 x 21 cm, 254/365 nm	UVTLDUO312	UV Transilluminator large, 26 x 21 cm, 254/312 nm
UVTSDUO312	UV Transilluminator small, 21 x 21 cm, 254/312 nm	UVSCRN	UV to white light Transilluminator screen converter
UVTS254 L	UV Transilluminator large, 26 x 21 cm, 254 nm	MDOCWLB	White light box

MSCAN microSCAN complete documentation system for 1-D and 2-D colorimetric gels – 240VAC*

*Each system includes Epson scanner with transparency unit; power supply and USB cable; control software and greyscale wedge for system calibration

gel analysis software

TOTALLAB AND PHORETIX

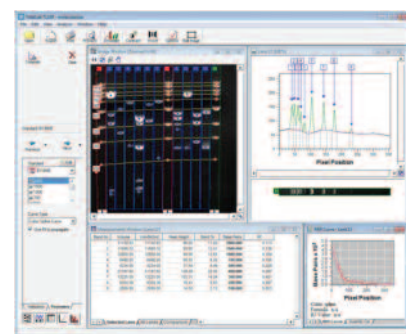
Technical Specification	TotalLab 1D	TotalLab Quant	Phoretix 1D	Phoretix 1D Pro
Compatible with 21CFR part 11 compliance module	✓	✓	✓	
Automatic detection of lanes and bands	✓	✓	✓	✓
Automatic background subtraction	✓	✓	✓	✓
Image manipulation tools	✓	✓	✓	✓
Lane templates	✓	✓	✓	✓
Analysis protocols for batch processing			✓	✓
Molecular weight calibration	✓	✓	✓	✓
Quantity calibration & normalisation	✓	✓	✓	✓
Profile deconvolution	✓	✓	✓	✓
Rf calibration			✓	✓
Band picking			✓	✓
Band pattern matching – single gel			✓	✓
Band pattern matching – lanes across multiple gels				✓
Band pattern queries				✓
Dendrogram – single gel			✓	✓
Dendrogram – lanes from multiple gels				✓
Data archive and search facility			✓	
Classification and identification tools			✓	
Reports	✓	✓	✓	✓
Array analysis module		✓	✓	✓
Colony counting module		✓	✓	✓

TotalLab and Phoretix gel analysis software options are available for quantitative gel analysis following gel documentation. Each software option offers the highest level of automation currently available and guides the user step by step through the analysis process. A user-friendly interface is split into four parts allowing the user to view within a single screen every aspect of gel quantitation, including the gel image, lane and band profiles, analysis data and the help menu.

TotalLab is used primarily for 1D gel quantitation and is suitable for all users regardless of their experience. More advanced Phoretix software, which also includes a free copy of TotalLab Quant, is recommended for researchers performing in-depth lane relationship studies. Details of each software option are as follows:

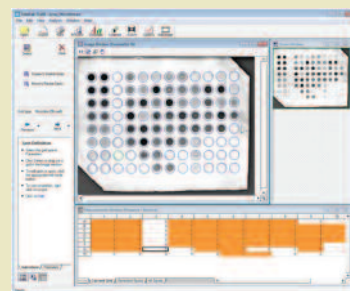
TotalLab 1D Module which is the 1D gel analysis module of TotalLab Quant (please see below), is the software supplied exclusively with all microDOC1D models (p. 65). TotalLab 1D features a user-friendly interface and help menu that provide a simple, guided workflow for fast and accurate quantitation and calibration of 1D gels and western blots. Main benefits include:

- The capacity to review each step within the automated workflow analysis, and manually intervene or edit if desired
- Highly developed algorithms which accurately detect lanes and bands even on distorted gel images
- A range of visualisation tools that facilitate further examination of lane and band data to verify results, including band calibration from Molecular Size standard lanes and accurate quantitation derived from known band volumes
- Full user control over the visualisation tools and the data displayed, allowing only the important data fields and images of choice to be selected for final output
- Multiplex analysis

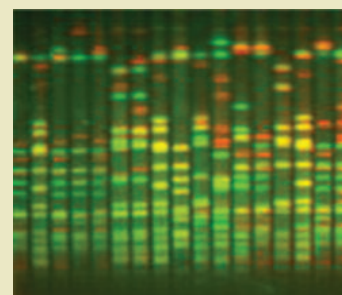


TotalLab 1D

TotalLab Quant includes TotalLab1D plus three modules for array analysis; colony counting and 2D spot measurement; and general feature-based image analysis. The array analysis module can automatically detect up to 1536 wells or arrays spots, and may also be used to quantify dot and slot blots. Array analysis and Toolbox modules also include multiplex analysis functionalities.



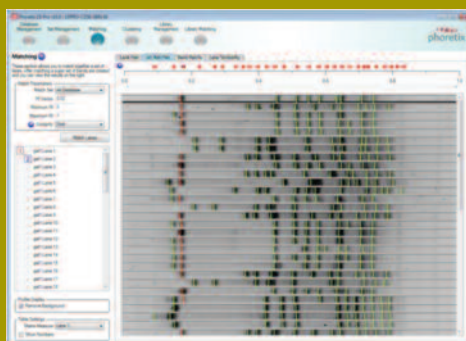
TotalLab Quant – Array Analysis



TotalLab 1D / Quant – Multiplex Analysis

Phoretix 1D Pro shares the same analysis features as Phoretix 1D, but with added database storage to provide the ideal solution for generating and manipulating large lane-comparison datasets from multiple gels. Benefits include:

- Long-term archiving and storage of data from multiple gels
- Comparison of each lane with any other lane within the database, with the results presented as dendrograms or tables that show all band and lane similarities, thereby enabling identification of lane relationships across many different experiments
- Classification and identification of unknown sample against a defined library of known references that can be easily shared between co-workers and labs making collaboration on large projects easier



Phoretix 1D is more advanced analysis software used primarily for band-pattern matching within individual DGGE, SSCP and RFLP gels that are important for cultivar experiments, evolutionary biology and population genetics. Phoretix 1D has a powerful band matching feature, which is flexible and easy to use, while visual tools show the results of matching and identify similarities within an individual gel, including lane clustering via dendrograms. A copy of TotalLab Quant is included with Phoretix 1D.

ORDERING INFORMATION

TotalLab 1D	TotalLab 1D analysis module for agarose and PAGE gels; available only with the purchase of MicroDOC1D models (p.65)
TotalLab Quant	TotalLab 1D analysis module plus array analysis, colony counting & toolbox modules
Phoretix 1D	Phoretix 1D software for gel quantitation, calibration and band pattern matching studies within a single gel
Phoretix 1D Pro	Phoretix 1D software for gel quantitation, calibration and band pattern matching studies between multiple gels

documentation

- 12.1 MEGA PIXEL DIGITAL CAMERA*
- IMAGE VISUALISED WITHIN A LARGE 8" TFT COLOUR MONITOR
- LIGHT WEIGHT COMPACT HOOD WITH EASY ACCESS DOOR AND BUILT-IN INNER LIGHTS
- INTEGRAL MICROSWITCH TURNS OFF UV TRANSILLUMINATOR AND TURNS ON INTERNAL LIGHT
- CAN BE USED WITHOUT A COMPUTER
- INCLUDES FLASH CARD, FLASH CARD READER AND ETHIDIUM BROMIDE FILTER

microDOC is a simple, inexpensive and ultra compact gel documentation system. It contains a digital camera with improved high-sensitivity CCD sensor and the latest image processor to guarantee superb resolution of 12.1 mega pixels*. For added convenience, limited space and budget requirements, microDOC can be used computer free. The image is viewed from a large 8" TFT colour liquid crystal display. A variety of images can be captured in colour, clearly and easily, from agarose and other fluorescent gels, colorimetric gels, auto radiography film and blotting membranes. The system is fitted with a 55mm ethidium bromide filter and has a safety switch to turn off the UV Transilluminator when the door is opened. This also activates internal light for convenient gel manipulation. Files can be saved in a variety of formats (RAW, TIFF-RGB and JPEG) for later transfer to computer systems for storage and analysis with the highly recommended TotalLab™ 1D software.

The Mitsubishi P93 is a high speed, high resolution thermal printer that is perfectly suited to printing images directly from the microDOC. Connected to the microDOC by a BNC cable, the Mitsubishi P93 prints 325dpi images, up to 133 x 99mm in size. Thermal printer paper is also available.

An optional memory card with Wi-Fi technology may be used within the microDOC camera to facilitate instantaneous wireless transfer of images to a designated computer or network drive with the software installed. Set-up requires a broadband internet connection and a DHCP-enabled wireless router. Minimum system requirements for software installation are Windows XP.



shown with UV Transilluminator

MICRODOC



easily lifted on and off transilluminator



high resolution 8Mb digital camera



separate power and light switches



internal illumination when door is open

microDOC BASIC

microDOC BASIC is a simple low-cost system comprising a lift-off dark room hood and 10.4 megapixel digital camera, through which the gel is viewed directly. This system can be supplied with optional TotalLab 1D Analysis Software and any one of the 21x21cm transilluminators

Technical Specifications

CAMERA:

EFFECTIVE PIXELS:	12.1 MILLION
CCD:	1/1.7-INCH TYPE CMOS SENSOR WITH DIGIC 5 PROCESSOR
ZOOM:	5 X ZOOM /4X DIGITAL
MAX. APERTURE:	F/1.8 (W) - F/2.8 (H)
SHUTTER SPEED:	15 - 1/4000s. (TOTAL RANGE)
FILE FORMATS:	RAW, TIFF-RGB, JPEG
STORAGE MEDIA:	4GB MEMORY CARD; OPTIONAL WI-FI MEMORY CARD
COMPUTER INTERFACE:	Hi-SPEED USB (MINI-B COMPATIBLE)
FILTER:	+3 CLOSE UP AND ETBR; OPTIONAL SYBR GREEN
VIDEO OUT:	NTSC/PAL

8.0" TFT LIQUID CRYSTAL SCREEN:

DISPLAY FORMAT:	800 X 600 PIXELS
LUMINANCE:	350 CD/MM ²
CONSTANT RATIO:	300 : 1
DISPLAY MODE:	NTSC/PAL/SECAM MODE SWITCHABLE VIDEO AND AUDIO SWITCHING

CHAMBER, MICRODOC:

HOOD DIMENSION:	290 x 220 x 320mm (WxDxH)
MULTI POWER SOURCE:	FOR CAMERA, INNER LIGHT LAMP, TFT SCREEN
INNER WHITE LAMP:	2 TUBES
SAFETY DOOR SWITCH:	SHUTS DOWN UV TRANSILLUMINATOR WHEN DOOR IS OPENED

UV TRANSILLUMINATOR, MULTIDOC:

WAVELENGTH:	254, 312 OR 365NM (SPECIFY)
FILTER SIZE:	21 x 21cm
LIGHT SOURCE:	6x 8W TUBES



microDOC BASIC

ORDERING INFORMATION

Gel Documentation Systems

Compact Gel documentation system	
microDOC System with UV Transilluminator (UVTS312)	
microDOC System with UV Transilluminator (UVTS254)	
microDOC System with UV Transilluminator (UVTS365)	
microDOC System with UV Transilluminator (UVTS254/312)	
microDOC System with UV Transilluminator (UVTS254/365)	
microDOC System with UV Transilluminator (UVTS312/365)	
microDOC Basic System with lift-off dark room hood and camera only	

System only

BCMDOC
BCMDOCUV312
BCMDOCUV254
BCMDOCUV365
BCMDOCUV254/312
BCMDOCUV254/365
BCMDOCUV312/365
BCMDOCBASIC

Including TotalLab 1D Analysis Software

BCMCRDOC1D
BCMDOCUV3121D
BCMDOCUV2541D
BCMDOCUV3651D
BCMDOCUV254/3121D
BCMDOCUV254/3651D
BCMDOCUV312/3651D
BCMDOCBASIC1D

Accessories

PRNT	Mitsubishi Thermal Printer for use with Microdoc - 110 - 240V
MDOCEB	Microdoc ethidium bromide filter
MDOCSBRG	Microdoc SYBR filter

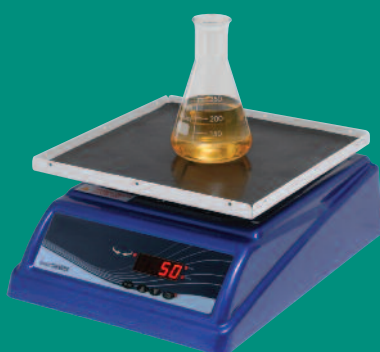
PRTAP	Replacement printer paper
MDOCWLB	White light box for Micro doc
MDOC-WIFI	Optional 4GB wireless memory card

For 110 V AC, please add '-\$' as a suffix to the appropriate product code

specification of camera is subject to change, usually by improvement

rockers and shakers

- OUTSTANDING UNIFORM MOTION
- LOW NOISE
- MICROPROCESSOR BASED KEYPADS WITH DIGITAL CONTROL AND DISPLAY
- HIGH QUALITY STAINLESS STEEL PLATFORMS



MS-NOR; MS-NRC; MS-NRK

- THE PERFECT SPEED AND TILT FOR BLOTTING AND GEL STAINING
- THREE-DIMENSIONAL MOTION
- DESIGNED FOR USE WITH BLOT BOXES

Technical Specifications

SPEED	18RPM (115V) / 20 RPM (230V)
MOTION	3-D, ROTATING
TILT ANGLE	5°
PLATFORM SIZE (WxD)	20x16.5cm
AMBIENT OPERATING RANGE	4-65°
DIMENSION (WxDxH)	20.3x17.8x10.5cm
WEIGHT	0.88kg
ELECTRICAL	115/230V 50/60Hz

Biocom rockers and shakers are available in four different models, each model offering benefits that include: outstanding uniform motion and low noise; microprocessor based keypads with digital control and display of preset time, continuous time, action scale and speed; and high quality stainless steel platforms with pop-on / pop-off installation holes to secure samples. All models are lightweight and portable for easy transportation from the bench to incubator and cold room alike, while additional platforms may be added for increased capacity.



CW-23

Technical Specifications

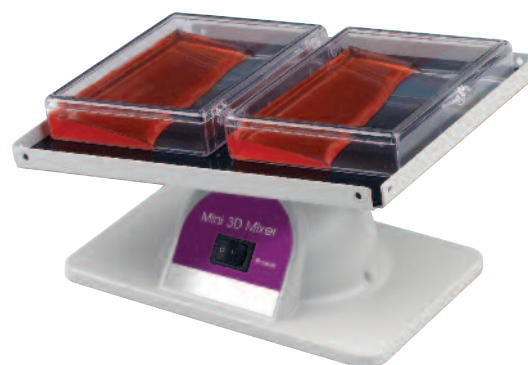
Cat. No.	MS-NOR	MS-NRC	MS-NRK	CW-23
Motion	Orbital	Reciprocal	Rocking	3-D Combi
Stroke Length/Tilt Angle	20mm	19mm	12°	8°
Operation Mode	Orbital: 0.1 ~ 10.0 circular; 0.1 circular increment	Reciprocal: 1 ~ 10 for 2.0 ~ 20 mm; 1 scale increment		Orbital and Rocking combined
Speed	0~200 rpm	0~200 rpm	5~100 rpm	5~100 rpm
Timer	0~9999 mins, 1 min increment	0~9999 mins, 1 min increment	0~9999 mins, 1 min increment	0~9999 mins, 1 min increment
Controller	Digital microprocessor controller	Digital microprocessor controller	Digital microprocessor controller	Digital microprocessor controller
Display	4 digital red LED	4 digital red LED	4 digital red LED	4 digital red LED
Operating Temperature	4~40°C	4~40°C	4~40°C	0~50°C
Carry Capacity	10 kg	15 kg	15 kg	15 kg
Optional Stacking Platform	Yes	Yes	Yes	Yes
Special Functions	2 way direction			Angle 0-25°
Platform Dimension	W26 x L26cm	W26 x L26cm	W26 x L26cm	W33 x L33cm
Operating Power	110 / 220V	110 / 220V	110 / 220V	110 / 220V
Weight 8 kg	8 kg	7 kg	8 kg	10 kg

MiniMix 3D SHAKER

MiniMix combines the motions of orbital shaking and rocking to produce a gentle, but thorough, 3-D action that is perfect for antibody incubation of western blots and staining gels.

The pitch and speed of MiniMix are optimised to generate a tilt angle that is large enough to ensure uniform distribution of solutions, yet small enough to prevent the centre of the blot from drying out. This has the added benefit of allowing users to work with minimal volumes, thus conserving valuable probes and antibodies.

A non-slip rubber mat keeps the boxes in place on the agitating platform, which, along with the housing, is very easy to clean and decontaminate after use. The MiniMix's compact and light weight design allows it to be moved around the lab where needed. It is also safe for use in an incubator or cold room for temperature controlled reactions.



Blot Boxes

These gel staining / blotting boxes are available in 4 sizes and are the ideal accessory for incubating blots or staining gels.

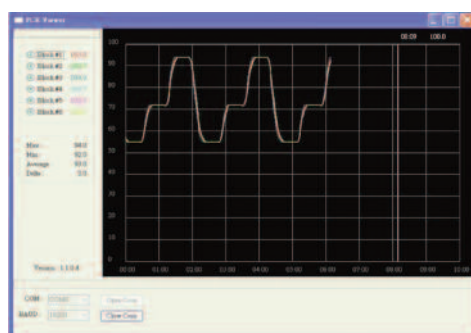
ORDERING INFORMATION

MS-NOR	Orbital shaker with 26 x 26cm platform and non slip rubber mat.		
MS-NRC	Reciprocal shaker with 26 x 26cm platform and flat non slip rubber mat.		
MS-NRK	Rocking Shaker with 26 x 26cm platform and flat non slip rubber mat.		
MW-23	Combination 3-D shaker with 3-D shaking and rocking for maximal fluid movement; includes 26 x 26cm platform and flat non slip rubber mat		
MW-WB	Hybridisation Water Bath (ambient to 95°C) for use with MW-23		
3DSHAKER	MiniMix 3D Shaker with 20x16.5cm tray and non-slip rubber mat		
BB9X6	Gel/Blot box, 9.1 x 6.6cm, 3-5ml capacity, 10/pack	BB12X12	Gel/Blot box, 12 x 12cm, 1/pack
BB11X8	Gel/Blot box, 11.7 x 8.9cm, 6-10ml capacity, 10/pack	BB20X16.5	Gel/Blot box, 20 x 16.5cm, 1/pack

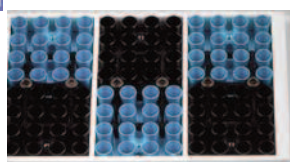
thermal cycler

The new MultiGene™ OptiMax brings new speed and advanced features, providing premium performance at an affordable price. OptiMax employs a new protocol optimisation process improving on older gradient features. The OptiMax utilises FlexTemp™ technology that effectively separates the 96 well plate into 6 – (4 x 4) temperature regions that allow you to pick the temperatures you want to test against. These regions are easily identified by the blue and black squares visible on the microplate platen. Instead of having the thermal cycler choose temperatures for you, you can choose any temperatures you want within a 24°C range.

MultiGene™ OptiMax has a heating rate of 5°C/sec and a cooling rate of 3.5°C/sec. We have minimised overshooting and undershooting so that your reactions only see the temperatures they are supposed to see. (See figure) This also leads to faster runs time.



FlexTemp technology provides a greater flexibility in laboratory workflow approach. With annealing temperatures being selected easily and because many primers work with common methods, 16 wells can be run at one temperature while 16 wells of another primer can be set at another temperature during the same run. MultiGene Optimax allows 6 different temperatures to be set, with a different temperature in each of the 4 x 4 blocks



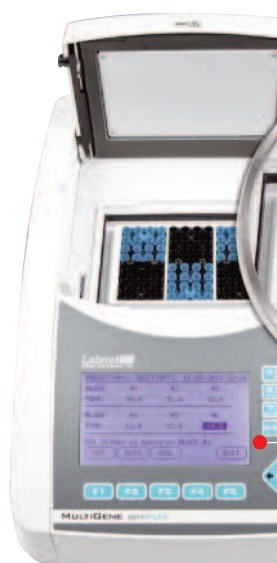
Intuitive User Interface

MultiGene™ OptiMax utilises an intuitive user interface. This user interface is friendly to the laboratory environment and consistent with what users of MultiGene™ enjoyed in earlier models. It can be used with lab gloves even if wet. The ramping speed and eliminated overshooting and undershooting which contributes to longer run times, have been improved.



Fully Adjustable Heated Lid

OptiMax's heated lid is fully adjustable to provide optimum pressure for use with a broad range of tubes and microplates. For optimum performance, the lid can also be programmed to hold different temperatures between 60° to 65°C and 100° to 115°C. The OptiMax lid prevents condensation and slides away and back from the user to provide full access to samples and reduce the risk of coming in contact with a hot surface.



- UNIQUE FLEXIBLE PROGRAMMING WITH FLEXTEMP™ TECHNOLOGY
- FAST RAMP RATES 5°C HEATING / 3.5°C COOLING
- SIMPLE USER INTERFACE
- NO CONDENSATION AFTER OVERNIGHT COOLING AT 4°C
- 3 YEAR WARRANTY

Technical Specifications

SAMPLE CAPACITY	1 x 96 WELL PLATE, 12x 8 x 0.2ML STRIP TUBES, 96 x 0.2ML TUBES
PROGRAMMABLE TEMPERATURE RANGE	4°C TO 99.9°C
TEMPERATURE CONTROL	CALCULATED OR BLOCK
TEMPERATURE ACCURACY/UNIFORMITY	±0.5°C/±0.5°C
HEATING/COOLING METHOD	PELTIER
GRADIENT TEMPERATURE RANGE	30°C TO 99°C. TEMPERATURE OF 6-SEGMENT BLOCKS CAN BE SET INDEPENDENTLY
MAXIMUM TEMPERATURE DIFFERENCE BETWEEN 6-SEGMENT TEMPERATURE BLOCKS	24°C
6-SEGMENT TEMPERATURE BLOCKS	6 TEMPERATURE BLOCKS IN 4 x 4 WELL FORMAT
PROGRAMMABLE LID TEMPERATURE	60° TO 65°C, 100° TO 115°C
PROGRAM MEMORY	200 COMPLETE PROGRAMS
TEMP. INCREMENTS/DECREMENTS	YES
TIME INCREMENTS/DECREMENTS	YES
USER PROGRAM FOLDERS	50 SETS
PASSWORD PROTECTED PROGRAMS	YES
COMMUNICATION	USB AND RS232 PORTS
DIMENSIONS (W x D x H), WEIGHT	24 x 42 x 25 CM, 9 KG
ELECTRICAL	240V OR 120V, 50/60 HZ

NEW PC Viewer Option

By downloading our software and attaching a USB cable to a Windows PC, the real time temperature profiles can be viewed as they are occurring, to allow monitoring of your system.

ORDERING INFORMATION

BCMGO MultiGene Optimax Thermal Cycler with 96 well block, 230V, for 96 x 0.2ml tubes or 1 x 96 well plate (Other block formats available)

shaking incubators

HYBRIDISATION

- DIGITAL MICROPROCESSOR CONTROL
- TOUCH SCREEN & GRAPHICAL INTERFACE
- CHAMBER TEMPERATURE: AMBIENT TO 85°C
- TEMPERATURE RESOLUTION $\pm 0.1^\circ\text{C}$
- CHAMBER TEMPERATURE ACCURACY AT $37^\circ\text{C} \pm 0.2^\circ\text{C}$
- **BASIC INCUBATOR MODEL** WITH TWO STAINLESS STEEL MESH-SHELVES
- 3-LINE COLOUR TOUCHSCREEN CONTROL
- TYPICAL APPLICATIONS:
 - DRYING AGAR PLATES
 - MICROBIAL PLATING TECHNIQUES

- **VORTEX INCUBATOR MODEL** WITH VIBRATING PLATFORM FOR 4X MICROPLATES
- THREE ROTISSERIE OPTIONS FOR HYBRIDISATION
- TYPICAL APPLICATIONS:
 - ENZYME ASSAYS
 - NUCLEIC ACID HYBRIDISATION

- THREE MODELS AVAILABLE IN **ORBITAL, RECIPROCAL & ROCKING SHAKING-PLATFORM** FORMATS
- SHAKING-PLATFORMS IN ORBITAL & RECIPROCAL MODELS MAY BE MODIFIED TO ACCEPT 5x250ML & 4x500ML FLASKS
- ADDITIONAL PLATFORM AVAILABLE TO DOUBLE CAPACITY IN ORBITAL & RECIPROCAL MODELS
- EACH MODEL CUSTOMISABLE FOR HYBRIDISATION APPLICATIONS WITH THREE ROTISSERIE OPTIONS
- TYPICAL APPLICATIONS:
 - OVERNIGHT CULTURES
 - STAINING, BLOCKING AND ANTIBODY INCUBATIONS
 - NUCLEIC ACID HYBRIDISATION

With a compact, space-saving stackable design and temperature uniformity to within $\pm 0.2^\circ\text{C}$, this new hybridPRO hybridisation shaking incubators can be used for numerous temperature-dependent laboratory applications. In addition to the standard entry level model, the hybridPRO range includes four incubator models, each supplied in one of four shaking-platform formats – vortex, orbital, reciprocal or rocking – and customisable for nucleic acid hybridisation techniques with three rotisserie options. A large 3.6" colour-touchscreen control panel simplifies manipulation of speed, temperature and time within an easy to programme 3-line display, while a 32-bit microprocessor provides the temperature uniformity and stability necessary to support the most temperature-sensitive applications. A modern design, stylish front door panel closes upon the stain-resistant interior of a robust metal chassis designed to withstand the stresses of frequent daily usage.



NHYBRIDBASIC - Standard

NHYBRIDBASIC is a cost-effective system for homogeneous temperature control during routine incubations. Advanced ventilation design technology controlled by a digital microprocessor maintains temperature uniformity and stability to within $\pm 0.2^\circ\text{C}$. A stain-resistant interior protects against spillages, while removable stainless steel mesh-shelves ensure that airflow remains unrestricted. Incubations may be set in precise 0.1°C increments under a continuous or programmable timer function.

NHYBRIDVX - Vortex

NHYBRIDVX has the same features as the NHYBRIDBASIC, but also includes a vortex platform for four microplates. The vortex platform is 20x30cm in size, and microprocessor-controlled to vibrate at speeds ranging from 50-1500 rpm. Three optional rotisseries may be purchased separately to allow the NHYBRIDVX to be adapted for hybridisation techniques performed in 40mm, 15ml and 50ml tubes.

NHYBRIDORB - Orbital

NHYBRIDORB includes as standard a bi-directional 27x20cm orbital shaking platform that exhibits both clockwise and anticlockwise motion. Optional flask holders may be fitted to the orbital shaking platform to accommodate up to five 250ml or four 500ml flat-bottomed flasks, making the NHYBRIDORB a suitable bench top shaker for growing overnight cultures of bacteria, yeast and insect cells. The shaking-platform may be replaced by one of three hybridisation rotisseries, which are purchased separately.

NHYBRIDREC - Reciprocal

NHYBRIDREC is a 27x20cm reciprocal shaking-platform incubator that may be adapted to accommodate 250ml and 500ml flat-bottomed flasks. The shaking-platform has a reciprocal motion that is perfect for incubation of western blots and microbial cultures, and may be replaced by one of three optional hybridisation rotisseries. An optional platform with four 10cm pillars mounts comfortably on the shaking platform to double capacity if required.

NHYBRIDROC - Rocking

NHYBRIDROC includes a 27x20cm rocking platform to provide the perfect motion and tilt angle to prevent gels and membranes from drying out during staining, blocking and antibody incubations. Interchangeable hybridisation rotisseries may be exchanged for the rocking platform to allow the NHYBRIDROC to be customised for the full range of nucleic acid hybridisation applications, including northern and Southern blotting techniques.

heaters and stirrers



These hotplates, stirrers and hotplate-stirrers feature an exceptionally durable, chemically resistant, white ceramic work surface. Their space-efficient design (20 x 23 cm footprint), makes them ideal for use on crowded bench tops and inside cabinets.

Advanced microprocessor controls with convenient turn knobs allow quick, precise adjustment and maintenance of speed and temperature. A safety indicator LED on each front panel indicates when the heating and stirring functions have been activated. With a square 19 x 19 cm work surface, all three models are compatible with a wide variety of popular sizes of borosilicate glass beakers, flasks, bottles and other vessels.

The hotplate/magnetic stirrer model is supplied complete with a support rod for mounting thermometers and temperature probes.

- LARGE WORK SURFACE, 19x19CM
- SPACE SAVING DESIGN, 20x23CM FOOTPRINT
- CHEMICAL RESISTANT WHITE CERAMIC TOP PLATE
- SAFETY LEDs INDICATE WHEN HEATING OR STIRRING
- QUICK AND EASY ADJUSTMENT OF HEATING/MIXING

Technical Specifications

SPEED RANGE:	60-1500 RPM (STIRRING UNITS ONLY)
TEMP. RANGE:	AMBIENT +5° TO 380°C (HEATING UNITS ONLY)
PLATFORM:	19 x 19CM
CONTROL:	QUICK ADJUSTMENT KNOBS
DIMENSIONS:	20(W) x 23(D) x 11.5(H) CM
ELECTRICAL DATA:	120V, 60 HZ / 230V, 50/60 HZ

Technical Specifications

DISPLAY	3.5" 64K COLOUR-TFT DISPLAY
CONTROLLER	32-BIT MICROPROCESSOR-CONTROL
CONTROL INTERFACE	TOUCH SCREEN & GRAPHICAL INTERFACE
TIMER / RESOLUTION	CONTINUOUS; PROGRAMMABLE 1-9999' WITH ALARM / 1'
TEMPERATURE CONTROL RANGE / RESOLUTION	AMBIENT +5°C TO 85°C / 0.1°C
TEMPERATURE UNIFORMITY/ ACCURACY AT 37°C	±0.2°C
TEMPERATURE CALIBRATION	YES
PLATFORM DIMENSIONS	27x20CM (20x30CM FOR NHYBRIDVX)
DATA-LOGGING CAPACITY	RS-232
OPERATING VOLTAGE	110/220V~ 50/60Hz (DUAL, SELECTABLE)
DIMENSIONS, CM (W x D x H)	INNER CHAMBER 34 x 22.5 x 26 EXTERIOR 44 x 46 x 45
WEIGHT	29KG

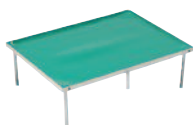
Technical Specification for Shaking-platform models only

Incubator Model	NHYBRIDVX	NHYBRIDORB	NHYBRIDREC	NHYBRIDROC
Shaker motion	Vortex	Orbital (clockwise & anticlockwise)	Reciprocal	Rocking
Speed	50-1500rpm	0-200rpm	5-100rpm	5-100rpm
Optional rotisserie speed	5-100rpm	5-100rpm	5-100rpm	5-100rpm
Resolution	1rpm	1rpm	1rpm	1rpm

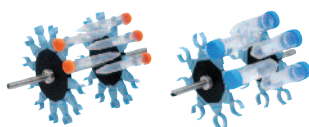
Hybridisation Rotisserie Options for all models except basic:



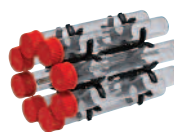
Extra 27x20cm Platform Option:
For Orbital & Reciprocal models



Extra 27x20cm Platform Option:
For Orbital & Reciprocal models



HYB-16RT and HYB-24RT for
16x50ml & 24x15ml conical tubes



HYB-8RT for 8x40mm

ORDERING INFORMATION

NHYBRIDBASIC	Incubator only with 2 stainless steel shelves	HYBRIDORB	Orbital Incubator with 270x200mm platform
HYB-SSMP	Stainless Steel Mesh Plate with 4 holders 32.5 x 34.5 cm	HYBRIDREC	Reciprocal Incubator with 270x200mm platform
NHYBRIDVX	Vortex Incubator with 200x300mm platform for 4 microplates	HYB-8RT	1x Rotisserie for 8x40mm glass tubes*
NHYBRIDROC	Rocking Incubator with 270x200mm platform	HYB-16RT	1x Rotisserie for 16x50ml disposable conical tubes*
HYB-SH	Supporting Holders for Stainless Steel Mesh Plate, pack of 4	HYB-24RT	1x Rotisserie for 24x15ml disposable conical tubes*
HYB-8RT	35 mm tube Rotisserie for 8 tubes*	NHYB-P2720	Additional 27x20cm platform to double capacity of incubators
HYB-16RT	50 ml conical tube Rotisserie for 16 tubes*	NHYBFH-250	1x250ml flask holder for NHYBRIDORB & NHYBRIDREC platforms
HYB-24RT	15 ml conical tube Rotisserie for 24 tubes*	NHYBFH-500	1x500ml flask holder for NHYBRIDORB & NHYBRIDREC platforms
HYBBT40X150	1x Glass tube 40x150mm (d x l) for HYB-8RT	NHYBFH-250-SET	5x250ml flask holders for NHYBRIDORB & NHYBRIDREC platforms
HYBBT40X200	1x Glass tube 40x200mm (d x l) for HYB-8RT	NHYBFH-500-SET	4x500ml flask holders for NHYBRIDORB & NHYBRIDREC platforms
HYBBT40X300	1x Glass tube 40x300mm (d x l) for HYB-8RT	HYBBT40X150	1x Glass tube 40x150mm (d x l) for HYB-8RT
		HYBBT40X200	1x Glass tube 40x200mm (d x l) for HYB-8RT
		HYBBT40X300	1x Glass tube 40x300mm (d x l) for HYB-8RT
HOTPLATE	Hotplate, 19 x 19 cm	STIR	Magnetic Stirrer, 19 x 19 cm
HOTSTIR	Hotplate Magnetic Stirrer 19 x 19 cm		

*tubes not included

microcentrifuge

DENVILLE 260D

- DIGITAL DISPLAY OF TIME AND SPEED
- EXCEPTIONALLY QUIET - BRUSHLESS MOTOR, 55dBA
- UNIQUE SELF-COOLING, VENTILATION SYSTEM
- COLD ROOM COMPATIBLE
- CHOICE OF 18-PLACE OR 24-PLACE ROTORS
- ADAPTERS FOR 0.2ML AND 0.5ML TUBES
- TWO YEAR WARRANTY

Technical Specifications

SPEED:	500 TO 14,000 RPM
MAX. RCF:	16,000 XG
SPEED INCREMENTS:	100 RPM
TIMER:	0.5-99 MINUTES WITH HOLD
NOISE LEVEL:	55dBA
DIMENSIONS:	23 x 29 x 19CM
WEIGHT:	5.9 KGS.
ACCELERATION (18 PL./24 PL.):	13 SEC.
DECELERATION: (18 PL./24 PL.):	10 SEC.



The Denville 260D incorporates all the most requested features in a single affordable microcentrifuge. The 260D is the quietest centrifuge in its class when used with either of its 45° angle rotors. These 45° angle rotors accept all types of 1.5ml and 2.2ml tubes, including screw-top and self-standing "skirted" tubes. A new strip rotor accepts 0.2ml PCR 8-strips or standard 1.5ml tubes. All angle rotors are autoclavable and are supplied with a polypropylene cover that "snaps" on or off easily with one hand.

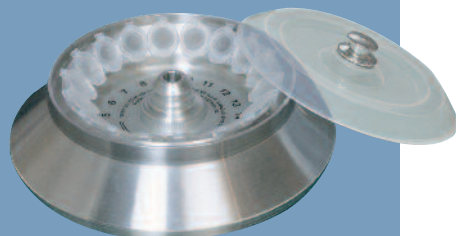
With its efficient ventilation system, the unit remains cool during repetitive and prolonged operation. Incorporating a self-cooling ventilation system, even after successive 30 minute spins, sample temperature will not increase by more than 4°C. The 260D may be used in a cold room.

Digital display of time and speed with simple "one touch" keypads make setting of parameters quick and effortless. Speed may be shown in rpm or RCF (g-force) at the touch of a button. The 260D may also be used for limited or momentary spins, generating up to 16,000xg (14,000rpm).

The 260D series is covered by a two year warranty.

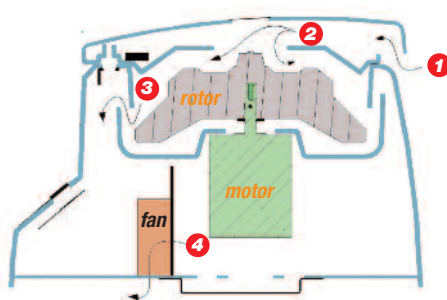


18 tube rotor

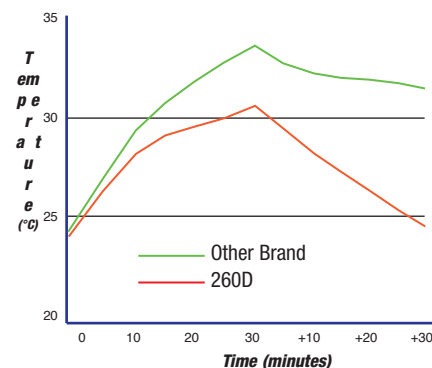


24 tube rotor

Airflow Diagram



- 1 Ambient air enters lid through rear duct
- 2 Rotor or fan draws air over rotor to keep samples cool
- 3 Air enters unit core to cool motor and electronics
- 4 Fan or rotor push air out through holes in the base



Comparison of sample temperatures within rotor chamber. Denville 260D vs another leading brand. Repetitive 5 minute runs

ORDERING INFORMATION

C-0260D-18	Microcentrifuge with 18 tube angle rotor, (14,000 rpm/16,000 xg max.) r=7.3cm.
C-0260D-24	Microcentrifuge with 24 tube angle rotor, 14,000rpm max (two rows of 12 tubes)
C-1205	Adapters for 0.5ml tubes, pk/6
C-1222	Adapters for 0.2ml PCR tubes, pk/6
C-0240-2R	Optional 24 tube 45° angle rotor, (14,000rpm/16,000 xg max - two rows of 12 tubes) (Outer: 14,000 rpm/16,000 xg max., r=7.3cm.) (Inner: 14,000 rpm/14,024 xg max., r=6.4cm.)

MINI CENTRIFUGE



Unlike traditional mini centrifuges, the new multiFuge 12 eliminates the need to change rotors when switching between microtubes and PCR strips. The included, unique COMBI-Rotor is all that is required for running 12 microtubes and 4 PCR strips simultaneously.

With a fixed speed that produces 2,000 x g, this centrifuge is perfect for quick spin downs. Simply close the lid and the unit quickly ramps up to 5500 rpm. Open the lid, and the rotor quickly decelerates for removal of samples.

At just 14cm wide and less than 11cm high, the multiFuge 12 truly is a personal centrifuge with unmatched capacity and flexibility.



Unique COMBI-Rotor



Compact, low profile design

- COMBI-ROTOR FOR TUBES AND STRIPS
- TWICE THE CAPACITY OF TRADITIONAL MINI CENTRIFUGES
- NEARLY SILENT OPERATION
- STARTS & STOPS WITH OPENING/CLOSING OF THE LID

Technical Specifications

SPEED:	5,500 RPM / 2,000 x g
CAPACITY:	12 x 1.5 / 2.0 ML TUBES, 32 x 0.2 ML PCR TUBES, 4 x PCR STRIPS (8x0.2 ML)
DIMENSIONS:	14 x 20 x 11.2 CM
WEIGHT:	5 KG

MICROCENTRIFUGE

Quickspin is perfect for microfiltration and rapid spin-down of sample from the walls and caps of microcentrifuge tubes.

Occupying less than 6 inches square of bench space, the Quickspin has a very small footprint, making it easy to use in the lab. Rotors and adaptors, which may be easily interchanged, are supplied as standard to accommodate 1.5 ml, 0.5 ml and 0.4 ml tubes, as well as 0.2 ml strips and individual tubes.

A highly durable stainless steel hinge pin facilitates easy opening of the translucent lid, while an on/off switch is located on the side of the centrifuge to start and stop operation. Alternatively, with the switch in the 'on' position, the centrifuge can be started and stopped by closing and opening the lid.



- SUPPLIED WITH BOTH STANDARD MICROTUBE AND STRIP TUBE ROTORS
- IDEAL FOR QUICK SPIN-DOWNS AND MICROFILTRATION
- STARTS AND STOPS IN SECONDS
- COMPACT DESIGN

Technical Specifications

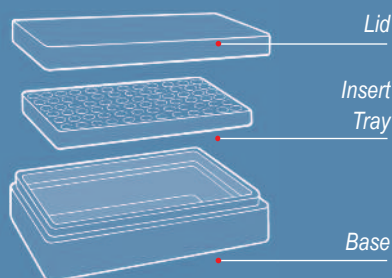
MAXIMUM SPEED	6000RPM
MAXIMUM G FORCE	2,000 x g
CAPACITY	6 x 1.5/2.0 ML 2 x 0.2ML STRIPS
DIMENSIONS (W x D x H)	15 x 15 x 11.7 CM
WEIGHT	0.45 KG

ORDERING INFORMATION

C0812	MyFUGE™ Mini Centrifuge, with COMBI-Rotor for 12 microtubes and PCR strips/tubes	C0812-A5	Adaptors, 0.5 ml, pack of 6
		C0812-A2	Adaptors, 0.2 ml, pack of 6
QSPIN	QuickSpin complete with 1.5/2.0 ml rotor, strip tube rotor, 0.5 and 0.4 ml adaptors, Purple lid		

eprak

- IDEAL FOR LOW TEMPERATURE STORAGE
- SUITABLE FOR 0.5ML AND 1.5ML MICROTUBES + 2.0ML CRYOTUBES
- IDEAL LOW COST TRANSPORTATION
- COMPACT DESIGN
– 185 x 110 x 60MM



LOW COST TUBE STORAGE

The Eprak is a low cost multi-purpose box manufactured in expanded polystyrene.

With its removable Insert Tray, it is ideal for use as both a work station and storage box for microcentrifuge tubes, of both 1.5ml (50) and 0.5ml (72) capacities as well as 2.0ml cryotubes (36).

Eprak can be used along with either liquid nitrogen or dry ice for flash freezing of samples, or the expanded polystyrene Insert Tray can be floated in a thermostatically controlled bath to allow defrosting or incubation of tube contents.



- EXPANDED POLYSTYRENE ALLOWS CONTROLLED TEMPERATURE CHANGES
- CAN BE USED WITH CRUSHED OR DRY ICE, WATER AND LIQUID NITROGEN

- REMOVABLE INSERT TRAY FLOATS IN WATER BATH
- DEFROSTS OR INCUBATES TUBE CONTENTS
- INSERTS CAN EASILY BE TRIMMED TO A SMALLER SIZE

STORAGE

BENCHTIDY™

BenchTidy™ Storage Boxes are functional acrylic boxes for safe storage of pipette tips, glass vials, septa, syringe filters, microcentrifuge tubes etc... Fabricated from sturdy 3mm thick, acrylic, each unit has robust hinged lids for rapid filling and dispensing. They are now available in the original clear acrylic or in Daglo 'fluorescent' multi-coloured acrylic.



ORDERING INFORMATION

BC-5003	EPRAK with 1.5ml Microtube Inserts, pk/30
BC-5004	EPRAK with 0.5ml Microtube Inserts, pk/30
BC-5008	EPRAK with 2.0ml Cryotube Inserts, pk/30

BC-5005	replacement 1.5ml Insert Trays, pk/30
BC-5006	replacement 0.5ml Insert Trays, pk/30

BenchTidy

RBT010	2-Compartment, Clear, 14 x 16 x 36.5cm
RBT012	3-Compartment, Clear, 21 x 16 x 21cm
RBT020	4-Compartment, Clear, 29 x 16 x 21cm

RBT210	2-Compartment, Multicoloured, 14 x 16 x 36.5cm
RBT212	3-Compartment, Multicoloured, 21 x 16 x 21cm
RBT220	4-Compartment, Multicoloured, 29 x 16 x 21cm

DIGITAL DRY BATH

Benchtop control of sample temperature has never been this easy or economical. The new microBlock fits almost anywhere and can even be used "on-the-go" in cars, boats or wherever a 12 volt power source is available. Its simple touch pad control with digital display is designed for "set and walk away" temperature selection and unrivaled accuracy. At less than 10.5cm. wide, microBlock is truly the first personal block incubator.



- THE SMALLEST (MOST COMPACT) EVER! FITS IN THE PALM OF YOUR HAND
- EXCHANGEABLE BLOCKS, FOR 0.2 TO 50 ML TUBES
- DIGITAL TEMPERATURE CONTROL
- CLEAR COVER IMPROVES TEMPERATURE UNIFORMITY
- PORTABLE (WITH OPTIONAL 12V CAR ADAPTER)

Technical Specifications

TEMPERATURE RANGE:	AMBIENT +5 TO 80°C
TEMPERATURE ACCURACY:	± 0.5°C
TEMPERATURE INCREMENTS:	0.1°C
TEMPERATURE UNIFORMITY:	± 0.2°C
DIMENSIONS:	11 x 15 x 10 cm
WEIGHT	5 KG

DRY BATHS

Digital dry baths are available in single and dual block models, and comprise a comprehensive range of interchangeable blocks. Each digital dry bath is compact and easy-to-use. Interchangeable quick-change blocks have rapid heat-up times and reproducible temperature uniformity and accuracy, and may be used in a variety of applications, which include: restriction digestion, BUN, melting agar, coagulation studies, hybridisation, Hot Start PCR® reactions and DNA denaturation. Because of an impermeable moulded aluminium alloy block construction, each Cube dry bath may also be adapted as a mini water bath incubator if desired.

Both dry baths incorporate a digital microprocessor controller for accurate temperature control in 0.1°C increments from ambient +5°C to 150°C. Rapid and easy programming is facilitated by the easy to use arrow keys on the sloped front panel, while both the temperature and running time are shown simultaneously on the conspicuous dual digital LCD display. Software options are available for data logging to a PC and computer control (please enquire).



- MICROPROCESSOR CONTROL WITH DIGITAL PERFORMANCE FOR PRECISE, ACCURATE CONTROL
- WIDE TEMPERATURE CONTROL RANGE WITH EXCELLENT UNIFORMITY
- RAPID TEMPERATURE INCREASE RATE
- LCD SCREEN SHOWING TIMER AND TEMPERATURE SIMULTANEOUSLY
- USER TEMPERATURE CALIBRATION

ORDERING INFORMATION

MBDB-01	microBlock Digital Dry Bath with block lifter (Blocks sold separately)	MB-1.5/2.0	Block, 15 x 1.5ml or 2.0ml
MB-0.2	Block, 40 x 0.2ml or 5 x PCR strips	MB-15	Block, 4 x 15ml*
MB-0.5	Block, 24 x 0.5ml	MB-50	Block, 2 x 50ml*
MB-1.5	Block, 15 x 1.5ml	MB-A12V	12V Vehicle power adaptor

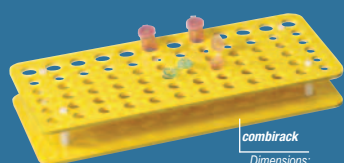
SINGLE BLOCK

TCDB-01	The Cube Dry Bath Incubator (one block unit); without block 220V
Accessories	
MD-MP01-S	Block for Microplate; Titerplate Plain Block for Single Block Unit Only
MD-MP02-S	Block for 96 wells deep Microplate or PCR plate for Single Block Unit Only
MD-MP01-D	Block for Microplate; Titerplate Plain Block for Dual Block Unit Only
MD-MP02-D	Block for 96 wells deep Microplate or PCR plate for Dual Block Unit Only
MD-B0.5/1.5	Double side block: one side for 1.5 or 2.0 ml tube, 20 wells; Opposite side for 0.5 ml tube, 30 wells
MD-B0.5PLUS1.5	Combination block : for 0.5 ml tube, 12 wells and for 1.5 or 2.0 ml tube, 12 wells (on the same side)
MD-B0.2	Block for 0.2 ml tube, 64 wells or for 0.2 ml PCR strip tubes for 8 wells x 8

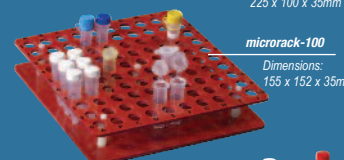
DUAL BLOCK

TCDB-02	The Cube Dry Bath Incubator (dual block unit); without block 220V
MD-B0.5	Block for 0.5 ml tube, 20 wells
MD-B1.5	Block for 1.5 ml tube, 20 wells
MD-B13	Block well size 13 mm, 20 wells
MD-B17	Block for 15 ml centrifuge tube, 12 wells
MD-B20	Block well size 20 mm, 12 wells
MD-B25	Block well size 25 mm, 6 wells
MD-B29	Block for 50 ml centrifuge tube, 4 wells
MD-RS232	RS232 Cable
MD-DSLW	Single License Software Package for Datalogging

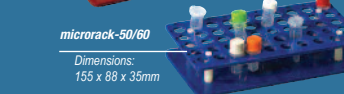
microtubes



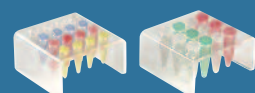
combirack
Dimensions:
225 x 100 x 35mm



microrack-100
Dimensions:
155 x 152 x 35mm



microrack-50/60
Dimensions:
155 x 88 x 35mm



mini microrack
Dimensions: 80 x 80 x 40mm

TUBE RACKS

Available in red, blue, green and yellow, these tube racks are made in standard 3mm acrylic for normal lab use.

MicroRacks are ideal for routine use with 60x 0.5ml or 50x or 100x 1.5ml microcentrifuge tubes. Because these racks have an open base, samples may be placed in direct contact with ice or water for sample incubation.

Combi-Racks are configured in 6 rows of 12 holes, with Row 1 accommodating 12x 1.5/2ml tubes, and Rows 2-6 for a maximum 48x 0.2ml tubes, Combi-Racks are well-suited to thermal cyclers or dry baths with blocks for up to sixty 0.2/1.5ml tubes.

In clear acrylic, **Mini MicroRacks** are ultra-compact racks making them ideal for manipulations involving just a few tubes. They are available for 0.5 and 1.5ml tubes. With no base, they are perfect for water and ice baths for controlling tube temperatures.

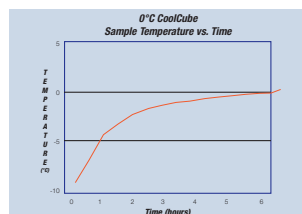


ICECOOL BATHS



- DURABLE PLASTIC
- EASILY CLEANED
- EXCELLENT LONG TERM THERMAL STORAGE

IceCool Baths are constructed of durable plastic and offer both robustness and long life. They will also withstand reasonable use with dry ice. Lids are available for the large bucket.



vortex mixer

This variable speed Vortex Mixer combines fast, efficient mixing with minimal vibration. Unlike other vortex mixers using elliptical orbits, its true circular orbit facilitates uniform sample-vortexing even at low speed. The CombiCup™



head, which is supplied as standard, accepts many different tube sizes, while the unique overmoulding technology used in its manufacture provides a sturdy plastic core with non-slip TPE that fits optional heads for microplates, microtubes, PCR strip tubes, 15ml and 50ml tubes and blood vials. The unit may be used in 'touch' or continuous mode: 'touch' mode being activated by simply depressing the sample head and then stopped by releasing the pressure. An optimised counter balance system minimises vibration and movement of the unit during operation, whereas its lightweight construction and small footprint allows it to be readily transported and used in areas where space is restricted. The unit is also safe for use in temperature controlled environments, and may be used within a cold room.

- POWERFUL, RELIABLE MOTOR WITH OPTIMISED COUNTER BALANCE
- CIRCULAR ORBIT FOR EFFECTIVE VORTEXING AT ANY SPEED
- COMBICUP HEAD ACCEPTS A VARIETY OF TUBE SIZES
- VERSATILE HEAD ATTACHMENT ACCESSORIES FOR MICROPLATES AND DIFFERENT TUBE SIZES

Technical Specifications

SPEED RANGE	115V 230V	0 - 3400 RPM 0 - 2850 RPM
OPERATING MODES	TOUCH OR CONTINUOUS	
AMBIENT OPERATING RANGE	4 - 65°C	
DIMENSIONS (WxDxH)	14cm x 16cm x 13cm	
WEIGHT	2.2Kg	
ELECTRICAL	115V OR 230V, 50/60Hz	

ORDERING INFORMATION

BC-4001	MicroRack-60, 60 x 0.5ml, (available in blue, green, red and yellow)	BC-4031	Mini MicroRack-12, 12 x 1.5ml
BC-4003	MicroRack-100, 100 x 1.5ml, (available in blue, green, red and yellow)	BC-4032	Mini MicroRack-16, 16 x 0.5ml
BC-4004	MicroRack-50, 50 x 1.5ml, (available in blue, green, red and yellow)	<i>Microracks are available in colour options, please specify by adding colour code to order code; B=blue, G=green, R=red, Y=yellow</i>	
BC-4017	CombiRack, 60 x 0.5ml/12 x 1.5ml, (available in blue, green, red and yellow)		
CSLIB	Large IceCool Bath - White	CSLIBLID	Lid for Large IceCool Bath - White
CSMIB	Mini IceCool Bath - White		
VORTEX	Vortex Mixer with general purpose head	S0200-23	for 8 x 15ml and 8 x 12/13mm Diam. tubes
Optional Head Attachments		S0200-24	for 6 x 50ml tubes
S0200-21	for 24 x 1.5/2.0ml tubes, 24 x 0.5ml tubes and 32 x 0.2ml tubes (or 4 tube strips)	S0200-25	for 12 x 1.5/2.0ml tubes, held horizontally
S0200-22	for 1 microplate or 64 x 0.2ml tubes or 8 x 0.2ml tube strips	S0200-26	for 4 x 15ml tubes, held horizontally
		S0200-27	for 2 x 50ml tubes, held horizontally

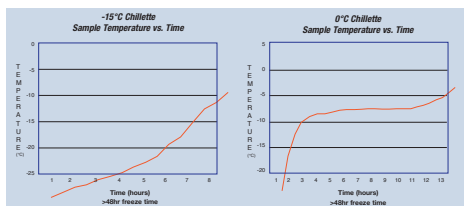
PORTABLE TUBE COOLER

Chillette™-12 is a highly effective benchtop tube cooler small enough to fit in the palm of a hand. In addition to bottom and side insulation, Chillette also has a screw cover filled with liquid refrigerant which sends cold air down to the samples inside. After being kept in a -20°C freezer overnight, the 0°C Chillette will keep samples at 0°C or below for over 8 hours. The -15°C version will maintain between -5° and -20°C for 6 hours. With a size of only 105 x 118mm, it is ideal for transporting samples. Chillette is leakproof, requires no ice, and won't wet the tubes or samples.



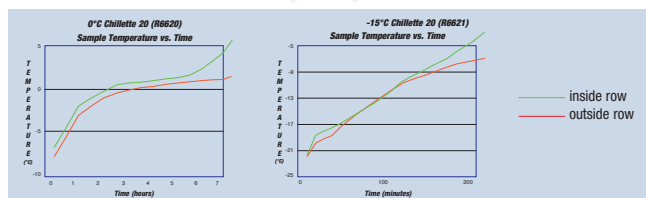
Dimensions: 105 mm ø x 118mm

0.5ml tube adapter



CHILLETTE™-20

Chillette™-20 coolers provide safe storage for PCR reagents, cells, enzymes, etc. Simply place it in a freezer overnight and it's ready to stay cold on the bench for hours. Chillette 20 is stackable and its small footprint requires little freezer space. Its reversible format accepts 0.5ml tubes on one side and 1.5ml to 2.0ml tubes on the flip side. Dimensions: 4.25 x 6.5 x 4" (108 x 165 x 102mm)



- STAYS COOL WITHOUT ICE - SAMPLES WILL NOT GET WET
- MAINTAINS 0°C FOR UP TO 8 HOURS
- HOLDS 12 x 1.5ML OR 2.0ML TUBES

- UP TO 5 HOURS OF COLD STORAGE
- REVERSIBLE.....HOLDS 20 TUBES (0.5ML OR 1.5/2.0ML)



stackable

- MAINTAINS 0°C FOR 4 HOURS
- HOLDS BOTH MICROTUBES AND A PCR PLATE
- CAN BE USED AS A PCR WORKSTATION

Technical Specifications

TEMPERATURE:	0°C FOR UP TO 4 HOURS
CAPACITY:	36 x 1.5ML 96 x 0.2ML 12 x 0.2ML PCR STRIPS 1 x 96 WELL PCR PLATE
DIMENSIONS:	142 x 142 x 63.5MM
WEIGHT:	900G
MATERIAL:	DURASTAR POLYMER

coolcube



CoolCube is designed to store samples safely on the lab bench without sample degradation caused by temperature increase or fluctuation. CoolCube maintains temperature at approximately 0°C for up to four hours. Simply place it in a freezer overnight and it will be ready to use.

One side of the CoolCube can be used as a convenient PCR workstation for 12 standard 1.5/2.0ml microtubes with one 96 well PCR plate, or with 12x 0.2ml strips or 96x0.2ml tubes. The other side may be used to hold up to 36 standard 1.5/2.0ml microtubes.)

ORDERING INFORMATION

R-6650	Chillette 12 tube cooler for 0°C, Hold time: 8 hrs	R6620	Chillette 20 personal tube cooler for 0°C, Hold time: 5 hrs
R-6651	Chillette 12 tube cooler for -15°C, Hold time: 6 hrs	R6621	Chillette 20 personal tube cooler for -15°C, Hold time: 3 hrs
R-6650-5	Holder for 0.5ml tubes, pk/6	CLCB	Coolcube Storage Rack

XL3000i pipettes

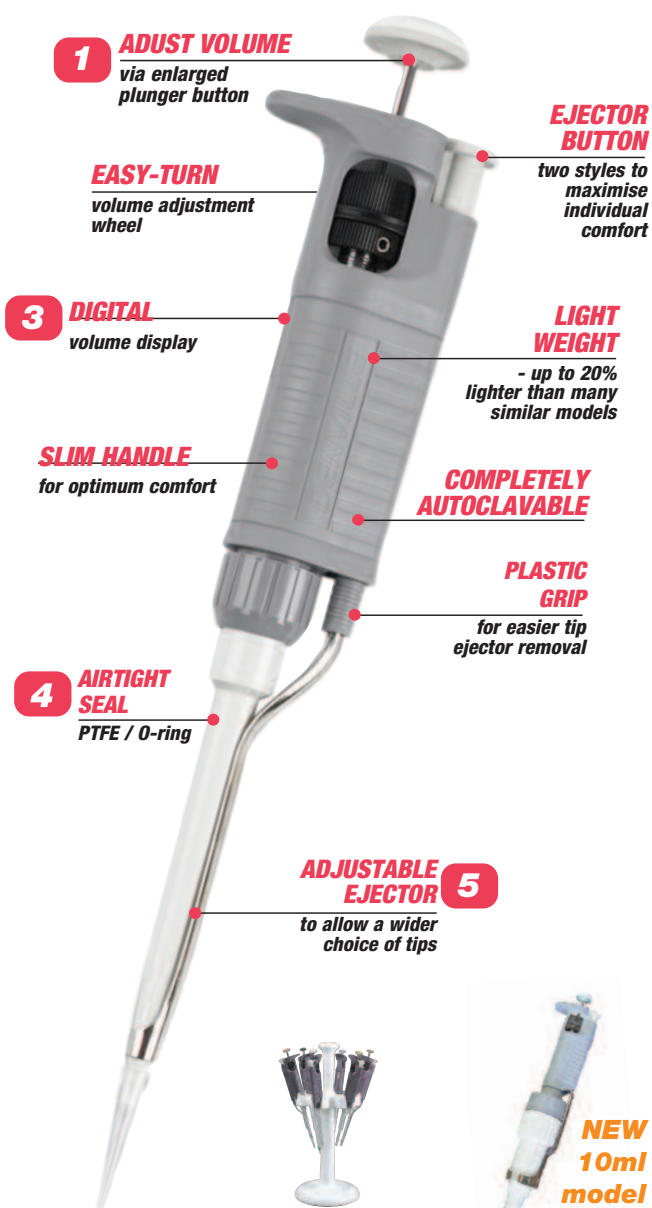
DENVILLE SINGLE CHANNEL

- COMPLETELY AUTOCLAVABLE
- CONTINUOUSLY ADJUSTABLE
- VOLUME ADJUSTMENT ALSO POSSIBLE VIA PLUNGER PUSH BUTTON
- REDUCED SPRING PRESSURES MINIMISE FATIGUE
- COMFORTABLE, ERGONOMIC HAND GRIP
- EIGHT DIFFERENT MODELS COVERING THE RANGE FROM 0.1µL TO 10000µL

Eight models of Denville XL3000i™ Pipettes cover all volumes from 0.1µl up to 10ml. A continuously adjustable volumeter with digital readout allows simple and accurate dispensing. The robust construction along with the low thermal coefficient of the body of each XL3000i™ will prevent hand heat affecting sample measurements and reproducibility, even in prolonged usage. Being lighter than many other similar pipettes, they are even more comfortable to hold and operate for extended periods - even in the smallest hand. This feature will also reduce the incidence of operator fatigue and Repetitive Strain Injury.

The XL3000i™ requires minimal maintenance. Its precise, self-locking stainless steel micrometer accurately adjusts the stroke of the polished, acid-resistant stainless steel piston. Each piston is machined to very fine tolerances which, in conjunction with its self-lubricating O-ring and PTFE seal, minimises the need for attention. Using a series of height adapters, the tip ejector position on the shaft is adjustable to allow the pipette's use with virtually all brands of tips. The user may also choose from either of the two supplied ejector button styles to suit their preferred handling position.

Each model is supplied with its own individual certificate of calibration, as a guarantee of the unit's quality.



Free Calibration key supplied with each pipette



ORDERING INFORMATION

Cat. No.	Volume Range	Accuracy %	Coeff. Variation %	Cat. No.	Volume Range	Accuracy %	Coeff. Variation %
P-3950-2A	0.1 to 2µl	±12 to 1.5	±6.0 to 0.7	P-3950-200A	20 to 200µl	±1.2 to 0.6	better than ±1%
P-3950-10A	0.5 to 10µl	±3.6 to 0.5	±3.6 to 0.3	P-3950-1000A	100 to 1000µl	±0.9 to 0.6	better than ±1%
P-3950-20A	2 to 20µl	±4.0 to 0.8	±3.0 to 0.4	P-3950-5000A	1 to 5ml	±0.6 to 0.5	better than ±1%
P-3950-100A	10 to 100µl	±1.6 to 0.8	better than ±1%	P-3950-10MLA	1 to 10ml	±2.5 to 0.5	better than ±1%
Cat. No.	Description			Cat. No.	Description		
BC-4020	Pipette Stand, 4-position			BC-4021	Pipette Stand, 3-position		

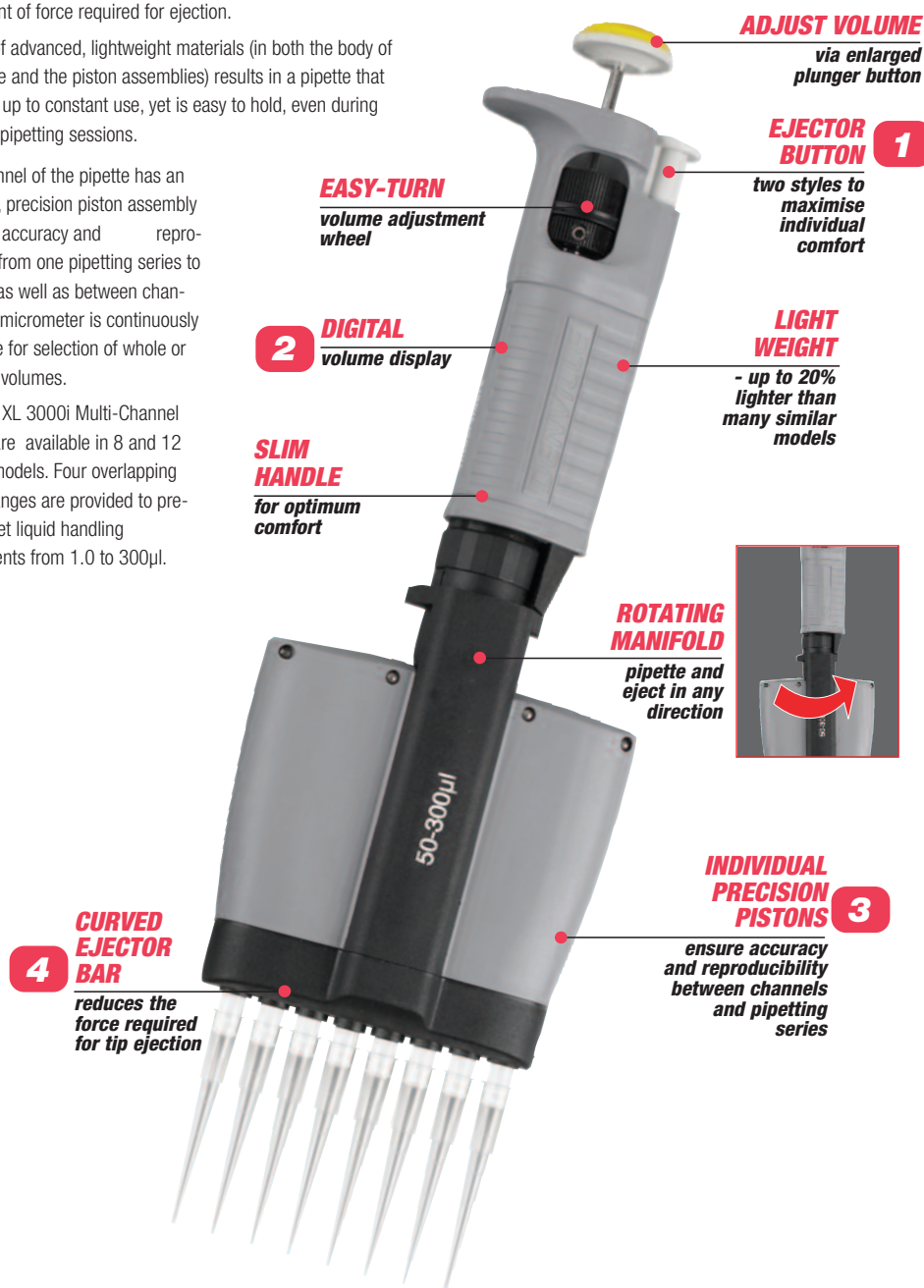
DENVILLE SCIENTIFIC INC.

Denville's XL 3000i Multi-Channel Pipettes allow for comfortable pipetting by both right and left handed users. The plunger and ejector buttons are ergonomically located and operate smoothly. For comfortable pipetting in any direction, the tip manifold rotates 360°. The innovative ejector bar is curved, allowing the tips to be pushed off in steps, therefore reducing the amount of force required for ejection.

The use of advanced, lightweight materials (in both the body of the pipette and the piston assemblies) results in a pipette that will stand up to constant use, yet is easy to hold, even during extended pipetting sessions.

Each channel of the pipette has an individual, precision piston assembly to ensure accuracy and reproducibility from one pipetting series to the next, as well as between channels. The micrometer is continuously adjustable for selection of whole or fractional volumes.

Denville's XL 3000i Multi-Channel Pipettes are available in 8 and 12 channel models. Four overlapping volume ranges are provided to precisely meet liquid handling requirements from 1.0 to 300µl.



- COMPLETELY AUTOCLAVABLE
- VOLUME ADJUSTMENT NOW POSSIBLE VIA PLUNGER PUSH BUTTON AS WELL AS 'THUMB-WHEEL'
- REDUCED SPRING PRESSURES MINIMISE FATIGUE
- LIGHTWEIGHT BODY
- ROTATING MANIFOLD
- INDIVIDUAL PRECISION PISTONS
- CURVED, LOW FORCE EJECTOR BAR



Conventional holding style - standard ejector button



Side holding style - large ejector button for increased comfort



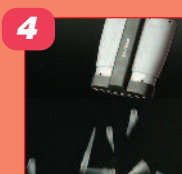
Easy read digital display



Individual channels



Tip Ejector Bar...



removes used tips with minimal force

ORDERING INFORMATION

Cat. No.	Channels	Volume Range	Accuracy %	Coeff. Variation %	Cat. No.	Channels	Volume Range	Accuracy %	Coeff. Variation %
P3971-6	8	1 to 10µl	±8.0 to 2.0	<8.0 to 2.0	P3971-11	12	1 to 10µl	±8.0 to 2.0	±8.0 to 2.0
P3971-8	8	5 to 50µl	±3.0 to 1.0	<1.8 to 0.45	P3971-12	12	5 to 50µl	±3.0 to 1.2	<2.0 to 0.5
P3971-9	8	20 to 200µl	±1.4 to 0.8	<0.7 to 0.5	P3971-15	12	20 to 200µl	±1.4 to 0.8	<0.8 to 0.5
P3971-10	8	50 to 300µl	±1.4 to 0.9	<0.7 to 0.5	P3971-18	12	50 to 300µl	± 1.4 to 0.9	<0.8 to 0.5
Cat. No.	Description				Cat. No.	Description			
P3971-21	Stand for 8-channel pipette				P3971-23	Universal stand for single & multichannel pipettes			

labelling systems

TOUGH-TAGS™



APPLICATIONS

- MICROTUBES
- SIDEWALL
- LASER
- SLIDE
- SPOTS
- CRYGENIC
- OVEN-SAFE

Standard Tough-Tags™ are manufactured in chemically inert polyester and have a strong adhesion to all plastics and other materials. Unlike conventional tape or paper materials, these labels will withstand steam-autoclaving, boiling water baths, freezing to -20°C*, plus brief contact with organic solvents and caustic agents without peeling.

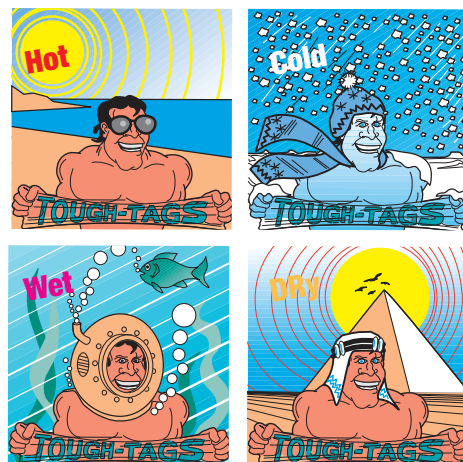
Convenient and Quick - Simply mark the matt label with a lab marker, peel it from the release paper, and press it on to the tube.

Centrifuge and Vortex Compatible - Microcentrifuge tubes with wrap-around labels slide easily in and out of rotors without binding. they are ideal for use with all brands of centrifugal filters and concentrators. Tough-Tags are scuff and smear resistant, and cannot be removed by even the most vigorous shaking or vortexing.

Durable - Unlike paper and many other label materials, this advanced polyester material will not dry out or fall off.

Coloured - Available in white, clear and a variety of bright colours for convenient identification of tubes and samples.

Sizes - Various sizes are available to suit the application.



Formats - Tough-Tags™ are available in rolls or in sheet form for the processing of large numbers of samples using a laser or inkjet printer.

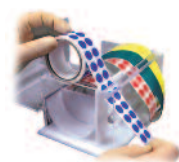
Tough-Tags

MICROTUBE



Microtube Tough-Tags™ are designed for all types of microcentrifuge tubes and vials. They are available in clear, white and a variety of colours in two sizes, small and large.

General Purpose Tough-Tags™ in white, are sized to fit a variety of laboratory containers, such as 50ml plastic centrifuge tubes or glass test tubes.



Tough-Tags

SIDEWALL



Sidewall Tough-Tags™ are slender pre-cut 38 x 6mm labels designed for the sidewalls of microtitre plates, petri dishes and other containers. These labels will withstand solvents, incubation in high humidity, boiling water baths and freezing to -20°C and may in certain circumstances be used to -70°C with caution.

ORDERING INFORMATION

TTGP1000	Tough-Tags™, White, general purpose, 38 x 19mm, roll of 1000	TTLG1000	Tough-Tags™, Clear, large, 32 x 12.5mm, roll of 1000
TTSC1000	Tough-Tags™, Clear, small, 24 x 12.5mm, roll of 1000	TTLW1000	Tough-Tags™, White, large, 32 x 12.5mm, roll of 1000
TTSW1000	Tough-Tags™, White, small, 24 x 12.5mm, roll of 1000	TTLR1000	Tough-Tags™, Red, large, 32 x 12.5mm, roll of 1000
TTSR1000	Tough-Tags™, Red, small, 24 x 12.5mm, roll of 1000	TTLY1000	Tough-Tags™, Yellow, large, 32 x 12.5mm, roll of 1000
TTSY1000	Tough-Tags™, Yellow, small, 24 x 12.5mm, roll of 1000	TTLB1000	Tough-Tags™, Blue, large, 32 x 12.5mm, roll of 1000
TTSB1000	Tough-Tags™, Blue, small, 24 x 12.5mm, roll of 1000	TTLG1000	Tough-Tags™, Green, large, 32 x 12.5mm, roll of 1000
TTSG1000	Tough-Tags™, Green, small, 24 x 12.5mm, roll of 1000		
TTSWALL	Sidewall Tough-Tags™, 38 x 6mm, roll of 1000	SIDE1000	Laser Sidewall Tough-Tags™, 38 x 6mm, 156 labels/sheet, 3120

Laser Tough-Tags™ are sheets of pre-cut peel-off Tough-Tags™ labels for all sizes of microcentrifuge tube and glass vials etc. They are designed for the convenient labelling of large numbers of samples without having to manually label each tube. Laser Tough-Tags™ are compatible with all brands of laser printer and are supplied complete with set-up instructions for Microsoft® Word software.

Kiss-Cut Laser Tough-Tags™ offer another option for laser printing. They have square corners with no spacing between each label.

Laser Flag-Tags™ are ideal for those researchers who require more label space for complete sample identification. Flag-Tags™ feature an extra long (63.5mm) surface area but will still fit comfortably on either 0.5ml or 2.0ml conical microtubes.



flag-tags™ - how to apply



Laser Microscope Slide tough-tags™ labels



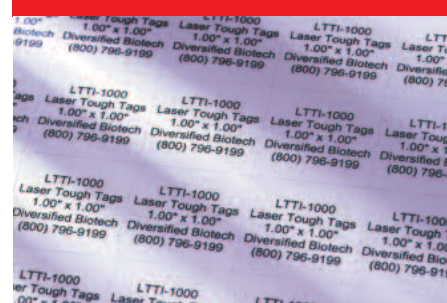
Microscope Slide Tough-Tag™ labels are ideally sized for microscope slides. Labels will withstand incubation, boiling water baths and freezing to -20°C. They will resist organic solvents and caustic agents, and will not become brittle or peel off during long term archival storage. Microscope slide labels are sold in convenient laser-printable sheets ideal for labelling large numbers of specimens.

Tough-Tags

Designed specifically for use with 0.2 or 0.5ml polypropylene PCR® reaction tube, these unique PCR Teeny Tough-Tags™ will withstand thermal-cycling, autoclaving, boiling water baths and freezing to 80°C. Teeny Tough-Tags™ will withstand brief contact with organic solvents, caustic agents plus other challenges without peeling, drying out or falling off. Use the ultra-fine Teeny Writer Pen to write on these small labels.



- IDEAL FOR LABELLING LARGE NUMBER OF SAMPLES
- COMPATIBLE WITH ALL BRANDS OF LASER PRINTERS
- AVAILABLE IN 7 DIFFERENT SIZES



- IDEAL FOR LABELLING PCR® TUBES
- WILL WITHSTAND THERMAL CYCLING PROTOCOLS

ORDERING INFORMATION

TTGP1050	Laser Tough-Tags™, General Purpose, 37 x 18.5mm, 60 labels/sheet, 1500	TTSWKK20	Laser Tough-Tags™, KissCut, 24 x 13mm, 160 labels/sheet, 3200
TSW2240	Laser Tough-Tags™, 23.5 x 12.5mm, 119 labels/sheet, 2975	TTLWKK20	Laser Tough-Tags™, KissCut, 33 x 13mm, 126 labels/sheet, 2520
TTLW2016	Laser Tough-Tags™, 31.5 x 12.5mm, 85 labels/sheet, 2125	LTTI1000	Laser Tough-Tags™, KissCut, 25 x 25mm, 80 labels/sheet, 1600
LTTM1000	Laser Teeny Tough-Tags™, 23mm x 8mm, 154 labels/sheet, 3850	FLAG1000	Laser Flag-Tags™, 64 x 13mm, 60 labels/sheet, 1500
MISL1000	Laser Microscope Slide Tough-Tags™ Labels, 22 x 22mm, 96 labels/sheet, 2400		
TTTNY	Teeny Tough Tags, 21 x 7mm, 60 labels/sheet, 1500	TNYWTR	Teeny Writer Pen, each

labelling systems

TOUGH-TAG™ SPOTS

- IDEAL FOR LABELLING ALL SORTS OF MICROTUBES AND CENTRIFUGE TUBES
- AVAILABLE IN 5 DIFFERENT COLOURS FOR EASY SAMPLE IDENTIFICATION

Tough-Tag™ Tough-Spots™ are pre-cut, peel-off dots for microcentrifuge, centrifuge, sample & test tubes. Available in 5 colours plus a special for radioactive warning labelling, they offer easy sample and tube identification. Tough-Spots™ have all the chemical and physical characteristics of standard Tough-Tags™. Spots are available in a 9.5mm, 12.5mm, 19mm and 25mm diameter sizes.



TOUGH-TAG™ SPOTS

LASER

- IDEAL FOR LABELLING ALL SORTS OF MICROTUBES AND CENTRIFUGE TUBES
- AVAILABLE IN 5 DIFFERENT COLOURS FOR EASY SAMPLE IDENTIFICATION



Laser Tough-Spots™ are pre-cut sheets of dots for labelling microcentrifuge tubes and cryogenic vials. Simply print with laser or inkjet printers, peel the Tough-Spot™ from the release paper, and press it on to the tube or other container. These Spots will withstand conventional and cryogenic storage conditions down to -196°C (for both vapour and liquid phase nitrogen). Laser Tough-Spots™ are chemically resistant and will withstand boiling water baths at 100°C and dry heat to 150°C without cracking, peeling or degrading. Laser Tough-Spots™ resist water soaking at room temperature and water vapour (100% relative humidity) at 35°C for at least 24 hours.

Now available in Blue, Green, Orange, Yellow and original White for 76mm and 12.7mm diameter sizes, colour Tough-Spots™ are ideal for coding samples.

ORDERING INFORMATION

TSPOTS	Tough-Spots™, White, small, 9.5mm ø, roll of 1000	TSPOT50R	Tough-Spots™, Red, large, 2.5mm ø, roll of 1000
TSPOTSR	Tough-Spots™, Red, small, 9.5mm ø, roll of 1000	TSPOT50Y	Tough-Spots™, Yellow, large, 12.5mm ø, roll of 1000
TSPOTSY	Tough-Spots™, Yellow, small, 9.5mm ø, roll of 1000	TSPOT50B	Tough-Spots™, Blue, large, 12.5mm ø, roll of 1000
TSPOTSB	Tough-Spots™, Blue, small, 9.5mm ø, roll of 1000	SPOT50G	Tough-Spots™, Green, large, 12.5mm ø, roll of 1000
TSPOTSG	Tough-Spots™, Green, small, 9.5mm ø, roll of 1000	TSPOTS75	Tough-Spots™, White, 19mm ø, roll of 1000
TSPOT50	Tough-Spots™, White, large, 12.5mm ø, roll of 1000	TSPOTS100	Tough-Spots™, White, 25mm ø, roll of 1000
SPOT1000	Laser Tough-Spots™, White, small, 9.5mm ø, 192 labels/sheet, 3640	SPOT2100	Laser Tough-Spots™, Blue, large, 13mm ø, 192 labels/sheet, 3640
SPOT1100	Laser Tough-Spots™, Blue, small, 9.5mm ø, 192 labels/sheet, 3640	SPOT2200	Laser Tough-Spots™, Green, large, 13mm ø, 192 labels/sheet, 3640
SPOT1200	Laser Tough-Spots™, Green, small, 9.5mm ø, 192 labels/sheet, 3640	SPOT2300	Laser Tough-Spots™, Orange, large, 13mm ø, 192 labels/sheet, 3640
SPOT1300	Laser Tough-Spots™, Orange, small, 9.5mm ø, 192 labels/sheet, 3640	SPOT2400	Laser Tough-Spots™, Red, large, 13mm ø, 192 labels/sheet, 3640
SPOT1400	Laser Tough-Spots™, Red, small, 9.5mm ø, 192 labels/sheet, 3640	SPOT2500	Laser Tough-Spots™, Yellow, large, 13mm ø, 192 labels/sheet, 3640
SPOT1500	Laser Tough-Spots™, Yellow, small, 9.5mm ø, 192 labels/sheet, 3640	SPOT3000	Laser Tough-Spots™, White, 19mm ø, 108 labels/sheet, 2160
SPOT2000	Laser Tough-Spots™, White, large, 13mm ø, 192 labels/sheet, 3640	SPOT4000	Laser Tough-Spots™, White, 25mm ø, 63 labels/sheet, 1260

The cryogenic series of Tough-Tags™ are pre-cut labels designed for the labelling of microcentrifuge tubes and vials for use at extremes of temperatures. These unique labels will withstand conventional freezing and cryogenic liquid nitrogen storage down to -196°C (for both vapour and liquid phase nitrogen). Additionally, they are chemically resistant and will withstand boiling water baths at 100°C and dry heat to 150°C without cracking, peeling or degrading.

Cryo-Babies™ are 32.5 x 12.5mm in size and are designed for 1.5ml microtubes and standard cryovials, while the larger Cryo-Tag™ labels are ideal for identifying test tubes, bottles, flasks, vials and freezer boxes.

Both **Cryo-Babies™** & **Cryo-Tags™** are available in laser- or inkjet-printable sheets for processing large numbers of sample labels.



Cryo-Babies for small tubes

Cryo-Tags for larger tubes

BAKE-TAGS™

Specially engineered labels for thermal extremes (-196°C to +200°C), Bake-Tag™ labels are designed to survive almost any treatment or storage environment on almost any material found in the research and clinical laboratory, without drying out, burning, melting, discolouring or peeling-off. These oven-safe marking labels will withstand extreme temperature ranges both wet and dry. Bake Tags™ will withstand conventional heat sterilising, autoclaving, cryogenic storage in liquid nitrogen and boiling water baths.

- **CRYO-TAGS™ WITHSTAND EXTREMES IN TEMPERATURE, DOWN TO -196°C**
- **AVAILABLE IN TWO SIZES FOR USE WITH MICRO/CRYOTUBES AND CENTRIFUGE TUBES**



LASER

CRYO-TAGS™

Laser Cryo-Tags™ are ultra-flexible polyolefin labels with a solvent-resistant acrylic adhesive. They are chemically inert and adhere to all plastics, glass and metal. The labels will withstand boiling water baths at 100°C and dry heat up to 150°C without cracking, peeling or degrading. Cryo-Tags™ also withstand conventional and cryogenic storage conditions (vapour and liquid phase nitrogen storage at -196°C). They resist most detergents and oils, as well as many organic solvents and caustic agents without peeling.



Cryo-Tags™ for laser printers are available in a wide variety of sizes for microtubes, cryo-tubes and other cryogenic containers and equipment. Now available in a variety of colours, Blue, Green, Orange, Red and Yellow, they are therefore ideal for colour coding samples.

- **TEMPERATURE RESISTANT - FROM 150°C (DRY HEAT) TO -196°C (VAPOUR AND LIQUID PHASE NITROGEN)**
- **IDEALLY SIZED - FITS ON A WIDE RANGE OF VIALS AND OTHER CONTAINERS**
- **DURABLE - CRYO-TAGS ARE CHEMICAL, WATER AND MOISTURE RESISTANT**
- **NOW AVAILABLE IN A VARIETY OF COLOURS**

ORDERING INFORMATION

CRY-1000	Cryo-Babies™, 32.5 x 12.5mm, roll of 1000	LCRY1200	Laser Cryo-Tags™, Rack & Box, White, 38 x 19mm, 60 labels/sheet, 1200
CRY-2000	Cryo-Tags™, 38 x 19mm, roll of 1000	LCRY1258	Laser Cryo-Tags™, Rack & Box, White, 67 x 25mm, 30 labels/sheet, 30
LCRY1700	Laser Cryo-Babies™, White, 33 x 13mm, 85 labels/sheet, 1700	LCRY2380	Laser Cryo-Tags™, White, 24 x 13mm, 119 labels/sheet, 2380
LCRY1700R	Laser Cryo-Babies™, Red, 33 x 13mm, 85 labels/sheet, 1700	LCRY2380R	Laser Cryo-Tags™, Red, 24 x 13mm, 119 labels/sheet, 2380
LCRY1700Y	Laser Cryo-Babies™, Yellow, 24 x 13mm, 85 labels/sheet, 1700	LCRY2380Y	Laser Cryo-Tags™, Yellow, 24 x 13mm, 119 labels/sheet, 2380
LCRY1700B	Laser Cryo-Babies™, Blue, 33 x 13mm, 85 labels/sheet, 1700	LCRY2380B	Laser Cryo-Tags™, Blue, 24 x 13mm, 119 labels/sheet, 2380
LCRY1700G	Laser Cryo-Babies™, Green, 33 x 13mm, 85 labels/sheet, 1700	LCRY2380G	Laser Cryo-Tags™, Green, 24 x 13mm, 119 labels/sheet, 2380
LCRY1700O	Laser Cryo-Babies™, Orange, 33 x 13mm, 85 labels/sheet, 1700	LCRY2380O	Laser Cryo-Tags™, Orange, 24 x 13mm, 119 labels/sheet, 2380
LCRY1000	Laser Cryo-Tags™, Cut to size, White, 216 x 297mm, blank	LCRY3020	Laser Cryo-Tags™, White, 76 x 51mm, 12 labels/sheet, 150
LCRY1100	Laser Cryo-Tags™, Cryo Vial, White, 43 x 19mm, 52 labels/sheet, 1040	BAKE250	Bake-Tags™, 38 x 19mm, 250

labelling systems

- IDENTIFY SAMPLES EASILY
- OIL, WATER AND ACID RESISTANT
- PAPER BASED
- WITHSTANDS EXTREMES IN TEMPERATURES, -20°C TO +121.1°C
- IDEAL FOR USE IN A FREEZER, REFRIGERATOR OR INCUBATOR
- NO ADHESIVE RESIDUE LEFT WHEN REMOVED
- SURFACE CAN BE WRITTEN ON WITH PEN, PENCIL OR LAB MARKER

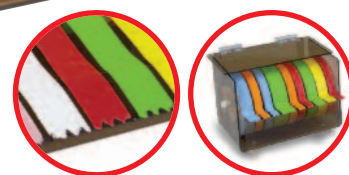
IDENTITAPES AND DISPENSERS

Self-adhesive IdentiTapes are designed to provide the perfect solution to a wide variety of labelling requirements. They are oil-proof, waterproof and acid resistant tapes which will withstand temperature extremes of -20°C to over +121°C. They will adhere to surfaces such as glass, plastic, metal, paper, rubber and any other dry surface yet can be easily removed with no adhesive residue being left on the original surface. IdentiTapes can be written on with ball point pen, pencil, felt markers or Biocom Lab Markers, shown below.

Biocom Tape Dispensers are perfect for easy one-handed access to IdentiTapes and similar coloured identification tapes. A serration on the dispensing edge allows the tape to be easily torn off. Each dispenser will take up to 12 rolls of the most popular 12.7mm wide tapes. Of 3mm smoked acrylic construction, two models are available for tapes of differing core diameters.



Dimensions:
Small 180 x 135 x 95mm
Large 215 x 180 x 140mm



LABORATORY MARKERS



Lab Marker is a special purpose marker designed to write through moisture as easily as it writes on dry surfaces. Lab Marker provides permanent marking on all types of plastic disposables. On glass, metal or porcelain surfaces the ink will not smear when subjected to water or alcohol during normal use - it can however be washed off these surfaces allowing them to be repeatedly marked. Resisting solvents such as xylene, alcohols, acetone and formalin, Lab Marker II is ideal for histology and cytology labs. Markings will not run on embedding cassettes, frosted or painted slides, or labware through repeated washes and solutions.

ORDERING INFORMATION

WIDTH	12.7mm	19.0mm	25.4mm	12.7mm	19.0mm	25.4mm
LENGTH*	12.7m	12.7m	12.7m	55m	55m	55m
White	ST12W	ST34W	ST10W	ST-120W	ST34W	ST100W
Green	ST12G	ST34G	ST10G	ST-120G	ST34G	ST100G
Yellow	ST12Y	ST34Y	ST10Y	ST-120Y	ST34Y	ST100Y
Red	ST12R	ST34R	ST10R	ST-120R	ST34R	ST100R
Pink	ST12P	ST34P	ST10P	ST-120P	ST34P	ST100P
Orange	ST12O	ST34O	ST10O	ST-120O	ST34O	ST100O
Blue	ST12B	ST34B	ST10B	ST-120B	ST34B	ST100B
Violet	ST12V	ST34V	ST10V	ST-120V	ST34V	ST100V
DISP26MM	Small Tape Dispenser, Tape core diameter 26mm		DISP76MM	Large Tape Dispenser, Tape core diameter 76mm		
			Black	Blue	Green	Red
Lab Marker, pk/10		R1401	R1403	R1405	R1406	
Lab Marker II, pk/10		R1451	-	-	-	

peristaltic pumps

Available in single, dual and tetrad formats these versatile peristaltic pumps are an ideal accessory for gradient gel formation with the VS20-DGGE. The 'easy load' head of the PP01 single peristaltic pump accommodates multiple tubes of different diameters offering the user enhanced flexibility in flow rate selection, while the PP11 single pump has the added benefit of a more powerful pump motor. The PP02 and PP12 dual and tetrad pumps are equipped with microprocessor technology for more accurate rpm control, and comprise 2 and 4 peristaltic pumps respectively that may be controlled individually. All 4 pumps are reversible and have a small footprint, occupying minimum space within the laboratory. Other applications include: filtration, sampling, chemical spraying, dispensing, transferring, feeding and filling.



- AVAILABLE IN SINGLE, DUAL AND TETRAD
- ALL 4 PUMPS ARE REVERSIBLE

Technical Specifications

	PP01	PP11	PP02	PP12
No. OF HEADS	1	1	2	4
MAX. RPM:	300	600	100	100
FLOW RATE, : 1.2-1140 ML/MIN	0.3-2280	0.6-380	0.6-380	0.6-380
DIMENSIONS: 20x34x13 (HxLxW)	20x34x13	26.5x34x18	26.5x34x18	26.5x34x18
WEIGHT, KG:	5.7	5.7	5.7	5.7

vacuum pumps



The Vacuubrand® MZ 2C + 2 AK is a quiet, low maintenance oil free vacuum pump, which generates the lowest pressure measurable reproducibly at room temperature for almost 100% efficient solvent recovery. Two round bottomed flasks collect and condense noxious gases released during gel drying, whereas inlet and outlet separators act in tandem with the diaphragm pump to facilitate controlled collection of vapours without risk of condensate entering and contaminating the pump. The pump also benefits from a compact design and construction from specially-selected chemically resistant materials, long-life easy-to-change diaphragms and valves, and gas ballast function.

Technical Specifications

UNIT DIMENSIONS (W x L x H)	24.1 x 34.5 x 32.6cm
VACUUM PUMP	CHEMISTRY DIAPHRAGM PUMP
NUMBER OF STAGES	2
PUMPING SPEED 50/60 Hz	1.9m³/h / 2.1 m³/h // 1.2cfm
ULTIMATE VACUUM (TOTAL)	9 mBAR // 6.8 Torr
ULTIMATE VACUUM WITH GAS BALLAST	15 mBAR // 11 Torr
INLET CONNECTION (IN)	HOSE NOZZLE NW 10mm
OUTLET CONNECTION (EX)	HOSE NOZZLE NW 10mm
WEIGHT	11.9kg
PUMP FLOW RATE	35 L/MIN

chiller

- SIMPLE-TO-USE ROTOR PROVIDE FAST, ACCURATE SET-UP
- CLEAR DIGITAL DISPLAY
- VISUAL AND AUDIBLE ALARM
- OPERATING SETPOINT PLUS 3 ADJUSTABLE PRESET TEMPERATURES
- USER CALIBRATION FACILITY

This chiller is available ready assembled with the thermostat mounted on the refrigerator and supplied with insulated tubing and clips to form a system ready to use. The immersion thermostat incorporates Intelligent Control Optimisation for adaptive intelligent PID temperature control and includes a powerful integral pump, making the system suitable both for immersing samples and circulating temperature controlled fluid to external devices. It includes a convenient timer function for reaction timing and a variable high temperature alarm setting. The temperature range and heater power are automatically limited according to the liquid type selected.



Technical Specifications

COOLING POWER	140W @ 0°C
TEMPERATURE RANGE	-20 to 100°C
INTEGRAL PUMP FLOW RATE	17L/MIN, MAXIMUM
COOLING/HEATING RANGE	-20 to 100°C
STABILITY	± 0.1°C

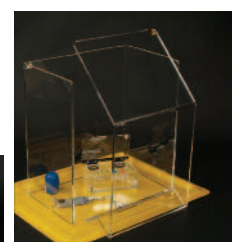
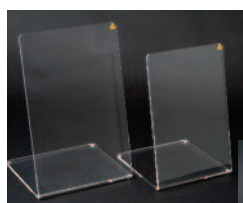
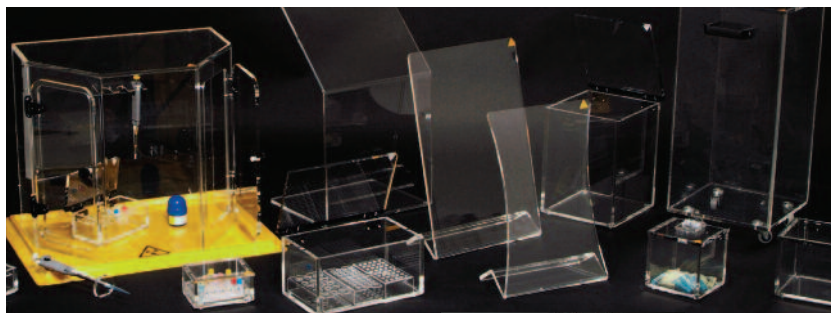
ORDERING INFORMATION

PP01	Single Peristaltic Pump	PP02	Dual Peristaltic Pump
PP11	Single Peristaltic Pump	PP12	Tetrad Peristaltic Pump
MU-S13	Silicon tube I.D. 1/32", 25 ft	MU-S18	Silicon tube I.D. 3/8", 25 ft
MU-S14	Silicon tube I.D. 1/16", 25 ft	MU-S25	Silicon tube I.D. 3/16", 25 ft
MU-S16	Silicon tube I.D. 1/8", 25 ft	MU-S17	Silicon tube I.D. 1/4", 25 ft
MZ2C	Vacuubrand Vacuum Pump, MZ 2C + 2 AK	BCCHILL	Chiller system, -20 to 100°C, including insulated tubing & clips

radiation safety

AVAILABLE IN STANDARD 10MM BETA-PROTECTING ACRYLIC, 12MM GAMMA-ATTENUATING LEAD ACRYLIC AND ALSO AS DUO SHIELDING FOR PROTECTION AGAINST BOTH TYPES OF EMISSION, THIS COMPREHENSIVE RANGE OF RADIATION SAFETY PRODUCTS COMPRISES A LARGE SELECTION OF SHIELDS, BOXES, WASTE BINS, TRAYS, PLUS ASSORTED ACCESSORIES AND CABINETS.

SHIELDING



Shields

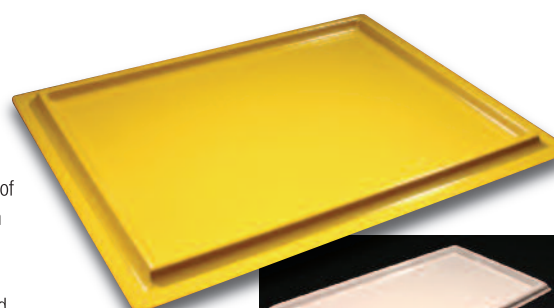
Supplied in small, medium and large sizes and with curved base 15cm-deep for use with safety trays or flat 30x30cm base for under-the-bench protection. A range of angles offers increased manoeuvrability, while clear optical acrylic aids visualisation.

AND LINERS

SPILL TRAYS

Trays and Liners

Available in general purpose, biohazard and radiation safety formats, spilltrays provide a re-usable work area with the added benefit of safe containment of spillages and lab bench protection. All trays supplied with one free liner when purchased. Additional environmentally friendly APET liners provided in packs of 25.



Cabinets

Biocom cabinets provide a convenient area to carry out work with beta and gamma emitting isotopes with complete all round protection. Each cabinet's 49 x 55 x 37cm dimensions offer a large working area without impeding vision, either in a standing or seated position.

ORDERING INFORMATION

BETA	GAMMA		BETA	GAMMA	
S1	S1G	Small Fixed 15° Angle - Flat Base 30 x 45cm, Base 30 x 30cm	S3	S3G	3-Sided Front 46 x 50cm, Sides 30 x 50cm
S1T	S1TG	Small Fixed 15° Angle - Curved Base 30 x 45cm	S4	S4G	Hourglass Shield - Flat Base 30 x 45cm, Base 30 x 30cm
S2	S2G	Large Fixed 15° Angle - Flat Base 35 x 53cm, Base 35 x 30cm	S4T	S4TG	Hourglass Shield - Curved Base 30 x 45cm
S2T	S2TG	Large Fixed 15° Angle - Curved Base 35 x 53cm	SFLEXI	SFLEXIG	Shield - Adjustable 35 x 54 or 54 x 35cm
S10	S10G	Small Fixed 45° Angle - Flat Base 30 x 45cm, Base 30 x 30cm	SF	SFG	Base Plate 45 x 41cm
S10T	S10TG	Small Fixed 45° Angle - Curved Base 30 x 45cm	-	SDUO	DuoShield - Curved Base, Beta/Gamma 30 x 45cm
S20	S20G	Large Fixed 45° Angle - Flat Base 35 x 60cm, Base 30 x 30cm	-	SFLEXITG	Shield - Adjustable, 35 x 54 or 54 x 35cm, 35mm thick
S20T	S20TG	Large Fixed 45° Angle - Curved Base 35 x 60cm	CAB	CABG	Beta Work Cabinet, 49 x 55 x 37cm

Tray Size	Radiation Hazard Tray, Yellow	BioHazard Tray, White	General Purpose Tray, White	APET liners, pk 25
46 x 26cm	TY1	T01	TW1	TL1
54 x 34cm	TY2	T02	TW2	TL2
57 x 54cm	TY3	T03	TW3	TL3
68 x 54cm	TY4	T04	TW4	TL4
70 x 46cm	TY5	T05	TW5	TL5
113 x 54cm	TY6	T06	TW6	TL6

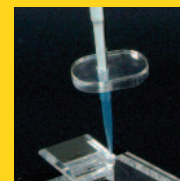
AND WASTE BINS

Biocom storage boxes are manufactured with hinged lids and accommodate interchangeable inserts that hold microtubes, centrifuge tubes, scintillation vials, universals, cryotubes and falcon tubes. Also supplied is our range of floor-standing and benchtop bins with anti-slip feet and hinged lids. These serve as an ideal solution for short-term storage of radioactive waste or radioisotopes. Both the Beta and Gamma storage bins are available in five sizes, while the two largest bin models have wheels for easy transportation. Optional heavy duty drawstring bags may also be purchased.



Accessories

Other accessories available include pipette guards, radiation tape and warning signs and labels.



ORDERING INFORMATION

BETA	GAMMA	Box Size
B0.4	B0.4G	MiniBox 5.5 x 8.5 x 8.5cm
B0.8	B0.8G	MidiBox 6 x 16.5 x 8.5cm
B6.5	B6.5G	MaxiBox 14 x 28 x 16.5cm
B3.5	B3.5G	Box for four way racks 14 x 17.5 x 15cm
B8	B8G	Transport Box 7.5 x 29.5 x 38cm

R1.5		Mini Box Insert - 16 x 1.5ml tubes
R50		Maxi Box Insert - 8 x 50ml Centrifuge tubes
R0.5		Mini Box Insert - 20 x 0.5ml tubes
R3F		Maxi Box Insert - 3 x Falcon tubes, 8 x 1.5ml tubes
R1.5L		Midi Box Insert - 32 x 1.5ml Eppendorf tubes
R2F		Maxi Box Insert - 2 x Falcon tubes, 8 x 1.5ml tubes
R0.5L		Midi Box Insert - 40 x 0.5ml Eppendorf tubes

BETA	GAMMA	Bin Size
B1	B1G	1L, use with bag BAG1 13 x 10 x 8cm
B2TIP	B2TIPG	2L, use with bag BAG1 13 x 13 x 13cm
B2MCTIP	B2MCTIPG	2L, use with bag BAG1 13 x 13 x 13cm
B3	B3G	3.3L, use with bag BAG1 15 x 15 x 15cm
B10	B10G	10L, use with bag BAG2 25 x 20 x 20cm
B15	B15G	15L, use with bag BAG2 29.5 x 21.5 x 23.5cm

BETA	GAMMA	
PB2	PB2G	Pipette Shield - Biohit PS1000 Beta
PB1	PB1G	Pipette Shield - Biohit PS200 Beta
PB3	PB3G	Pipette Shield - Biohit PS5000 Beta
PG3	PG3G	Pipette Shield - Gilson P1000 Beta
PG1	PG1G	Pipette Shield - Gilson P20/100 Beta
PG2	PG2G	Pipette Shield - Gilson P200 Beta

BETA	GAMMA	Box Size
BDUO	BDUOG	Duo Box 7 x 10 x 6cm
BLOCK	BLOCKG	Block for 4 x 1.5ml Eppendorf tubes 5 x 3.5 x 14cm
BLOCKL	BLOCKLG	Cover for B4 1 x 3.5 x 14cm
STORE	STOREG	Beta-Storage/Transport Block 7 x 15 x 12cm
COV	COVG	Carboy Cover 59 x 38 x 38cm

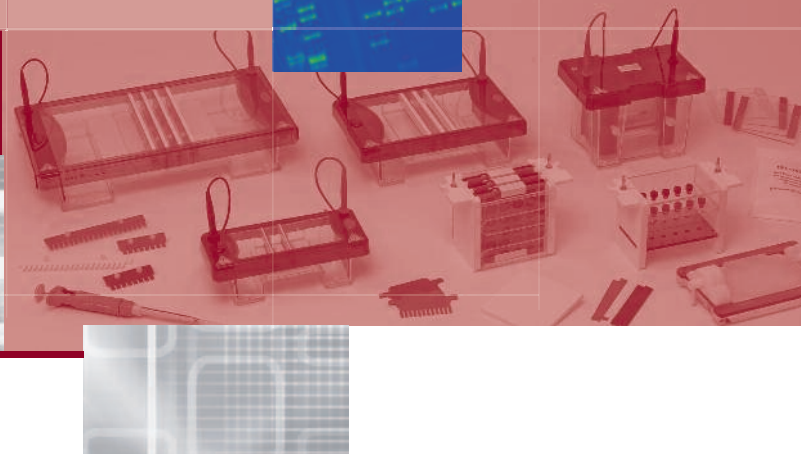
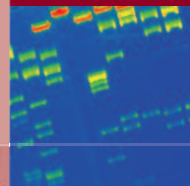
R20		Maxi Box Insert - 8 x 20ml Scintillation vials
RDUO		Midi Box Insert - 16 x 1.5 and 16 x 0.5ml tubes
R5		Maxi Box Insert - 15 x 5ml Scintillation vials
R2		Midi Box Insert - 32 x 2ml Cryotubes
RU		Maxi Box Insert - 8 x Universals
R15		Maxi Box Insert - 15 x 15ml Centrifuge tubes

BETA	GAMMA	Bin Size
B5TIP	-	Large 5L, use with bag BAG2 33 x 13 x 13cm
B20	B20G	20L, use with bag BAG5 38 x 21.5 x 23.5cm
B53	B53G	53L, use with bag BAG5 40 x 49 x 27cm
B47	-	47L with Wheels, use with bag BAG6 58 x 28.5 x 27cm
B122	-	122L with Wheels, use with bag BAG6 74 x 41 x 41cm

LABS		Radiation Labels, pk/25 25x25mm
LABL		Radiation Labels, pk/25 50x50mm
RADTAPE		Radiation Tape, pk/25 25mm x 66m

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FOR OTHER PRODUCTS AVAILABLE FROM BIOCOM.
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