



**Abtek**  
Biologicals Ltd

## About US

Abtek Biologicals was incorporated in 1981 after acquisition of a company established in the field of disc manufacture since 1971. The range of products of Abtek was rapidly developed from a simple range of discs to include identification products, computerised sensitivity and identification systems, freeze dried antibiotics for the determination of antibiotic susceptibility in plates and freeze dried selective isolation supplements.

The philosophy of Abtek has been to offer the customer precisely the products that fit their requirements. Accordingly products are made in small lots which gives the client the freshest material with the longest of shelf life.

Abtek is accredited with the British Standards Institute for quality assurance to the ISO 13485 standard. We welcome a close contact with all our clients to ensure that the products that we offer conform with the exacting standards of all our clients.

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**bsi.**  
Certificate of Registration  
QUALITY MANAGEMENT SYSTEM - ISO 13485: 2003

This is to certify that:  
**Abtek Biologicals Limited**  
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Brookfields Business Park  
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Liverpool  
L9 7AR  
United Kingdom

Hold Certificate Number: MD 87641  
and operating a Quality Management System which complies with the requirements of ISO 13485: 2003 for the following scope:  
The manufacture of microbiological laboratory products.

For and on behalf of BSI:  
Gary Fenton, Global Assurance Director

Originally registered: 03/02/2005    Latest issue: 06/01/2014    Expiry Date: 02/02/2017  
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The certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract. An electronic certificate can be retrieved at [www.bsigroup.com/ClientDirectory](http://www.bsigroup.com/ClientDirectory).  
Information and Contacts: BSI, Standards Central, 389, Chiswick, Uxbridge, Middlesex UB8 3PH, UK. Tel: +44 (0)1628 550000.  
BSI Assurance UK Limited, registered in England under number 900221 at 389 Chiswick High Road, London W6 4AL, UK.  
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## Antibiotic Sensitivity Test discs in Cartridges and Vials

Antibiotic	Content (µg)	Cartridge (50 discs)	Vial (100 discs)	CLSI	BSAC	EUCAST
Amikacin	10	05-AMK10-C	03-AMK10			X
Amikacin	30	05-AMK30-C	03-AMK30	X	X	X
Amoxicillin	2	05-AMX2-C	03-AMX2		X	X
Amoxicillin	10	05-AMX10-C	03-AMX10		X	
Amoxicillin	25	05-AMX25-C	03-AMX25		X	
Ampicillin	2	05-AMP2-C	03-AMP2		X	X
Ampicillin	10	05-AMP10-C	03-AMP10	X	X	X
Ampicillin	25	05-AMP25-C	03-AMP25		X	
Ampicillin	30	05-AMP30-C	03-AMP30			
Ampicillin / Sulbactam	10/10	05-UNZ10-C	03-UNZ10	X		X
Apramycin	15	05-APR15-C	03-APR15	X		
Augmentin (Amoxycillin / Clavulanate)	3	05-AUG3-C	03-AUG3		X	X
Augmentin (Amoxycillin / Clavulanate)	30	05-AUG30-C	03-AUG30	X		X
Azithromycin	15	05-AZM15-C	03-AZM15	X	X	
Azlocillin	75	05-AZL75-C	03-AZL75	X		
Aztreonam	15	05-AZT15-C	03-AZT15			
Aztreonam	30	05-AZT30-C	03-AZT30	X	X	X
Bacitracin	10 units	05-BAC10-C	03-BAC10			
Carbenicillin	100	05-CAR100-C	03-CAR100	X	X	
Cefacetrile	30	05-CCL30-C	03-CCL30	X	X	X
Cefaclor	30	05-CCT30-C	03-CCT30			
Cefadroxil	30	05-CDR30-C	03-CDR30		X	X
Cefamandole	30	05-CMD30-C	03-CMD30	X	X	
Cefazolin	30	05-CZL30-C	03-CZL30	X		
Cefdinir	5	05-CNR5-C	03-CNR5		X	
Cefepime	30	05-CFP30-C	03-CFP30	X	X	X
Cefixime	5	05-CXM5-C	03-CXM5	X	X	X
Cefmetazole	30	05-CMZ30-C	03-CMZ30		X	
Cefoperazone	30	05-CPZ30-C	03-CPZ30		X	
Cefoperazone	75	05-CPZ75-C	03-CPZ75	X		
Cefoperazone / Sulbactam	50	05-CPS50-C	03-CPS50			
Cefoperazone / Sulbactam	100	05-CPS100-C	03-CPS100			
Cefotaxime	5	05-CTX5-C	03-CTX5		X	X
Cefotaxime	30	05-CTX30-C	03-CTX30		X	
Cefotitan	30	05-CTT30-C	03-CTT30	X	X	
Cefotiam	30	05-CTM30-C	03-CTM30			
Cefoxitin	10,	05-CXT10-C	03-CXT10		X	
Cefoxitin	30	05-CXT30-C	03-CXT30		X	X
Cefquinome	30	05-CFQ30-C	03-CFQ30			
Cefpirome	30	05-CPM30-C	03-CPM30		X	X
Cefpodoxime	10	05-CPD10-C	03-CPD10	X	X	X
Cefpodoxime	30	05-CPD30-C	03-CPD30	X		
Cefprozil	30	05-CFO30-C	03-CFO30	X		
Cefsulodin	30	05-CDN30-C	03-CDN30			
Ceftazidime	10	05-CAZ10-C	03-CAZ10			X
Ceftazidime	30	05-CAZ30-C	03-CAZ30	X	X	
Ceftibutin	10	05-CTB10-C	03-CTB10		X	X
Ceftibutin	30	05-CTB30-C	03-CTB30		X	X
Ceftizoxime	30	05-CZM30-C	03-CZM30		X	
Ceftifour	20	05-CFU20-C	03-CFU20		X	
Ceftifour	30	05-CFU30-C	03-CFU30		X	
Ceftriaxone	5	05-CTR5-C	03-CTR5		X	
Ceftriaxone	30	05-CTR30-C	03-CTR30	X	X	X

Antibiotic Sensitivity test discs are available in Cartridges of 5 x 50 Discs, or in Vials of 100 Discs

Other Antibiotics or Strengths not listed may be available please contact us at [info@abtekbio.com](mailto:info@abtekbio.com) for details.

Dispensers and Ejectors are also available.

Description	Order code
6 Place Cartridge Dispensor	DISP6
Single Cartridge Ejector	EJECTOR



## Antibiotic Sensitivity Test discs in Cartridges and Vials

Antibiotic	Content (µg)	Cartridge (50 discs)	Vial (100 discs)	CLSI	BSAC	EUCAST
Cefuroxime	5	05-CRX5-C	03-CRX5		X	
Cefuroxime	30	05-CRX30-C	03-CRX30	X	X	X
Cephalexin	5	05-CLX5-C	03-CLX5		X	
Cephalexin	30	05-CLX30-C	03-CLX30		X	X
Cephalothin	30	05-CLT30-C	03-CLT30		X	
Cephadrine	30	05-CRD30-C	03-CRD30		X	
Chloramphenicol	10	05-CHL10-C	03-CHL10		X	
Chloramphenicol	30	05-CHL30-C	03-CHL30	X	X	X
Cinoxacin	100	05-CNX100-C	03-CNX100	X		
Ciprofloxacin	1	05-CPR1-C	03-CPR1		X	
Ciprofloxacin	5	05-CPR5-C	03-CPR5	X	X	X
Ciprofloxacin	30	05-CPR30-C	03-CPR30		X	
Clarithromycin	2	05-CLM2-C	03-CLM2		X	
Clarithromycin	15	05-CLM15-C	03-CLM15	X		
Clindamycin	2	05-CLN2-C	03-CLN2	X	X	X
Clindamycin	10	05-CLN10-C	03-CLN10		X	
Clindamycin	30	05-CLN30-C	03-CLN30		X	
Cloxacillin	5	05-CXC5-C	03-CXC5			
Cloxacillin	10	05-CXC10-C	03-CXC10			
Colistin	10	05-COL10-C	03-COL10	X		
Colistin	20	05-COL20-C	03-COL20			
Colistin	25	05-COL25-C	03-COL25		X	
Colistin	100	05-COL100-C	03-COL100		X	
Doxycycline	10	05-DOX10-C	03-DOX10			
Doxycycline	30	05-DOX30-C	03-DOX30	X	X	
Enrofloxacin	5	05-ENO5-C	03-ENO5	X		
Ertapenam	10	05-ERT10-C	03-ERT10	X	X	X
Erythromycin	5	05-ERY5-C	03-ERY5		X	
Erythromycin	15	05-ERY15-C	03-ERY15	X		X
Florfenicol	30	05-FFL30-C	03-FFL30			
Flucloxacillin	5	05-FLX5-C	03-FLX5			
Flumequine	30	05-FLQ30-C	03-FLQ30			
Fosfamyacin	200	05-FOS200-C	03-FOS200	X	X	
Framycetin	100	05-FRA100-C	03-FRA100			
Fuarazolidone	10	05-FUR10-C	03-FUR10			
Fuarazolidone	20	05-FUR20-C	03-FUR20			
Fuarazolidone	50	05-FUR50-C	03-FUR50			
Fuarazolidone	100	05-FUR100-C	03-FUR100			
Fusidic Acid	10	05-FUS10-C	03-FUS10		X	X
Gatifloxacin	2	05-GAT2-C	03-GAT2		X	
Gatifloxacin	5	05-GAT5-C	03-GAT5	X	X	
Gentamicin	10	05-GEN10-C	03-GEN10	X	X	X
Gentamicin	30	05-GEN30-C	03-GEN30			X
Gentamicin	120	05-GEN120-C	03-GEN120			
Gentamicin	200	05-GEN200-C	03-GEN200		X	
Griseofulvin	10	05-GFL10-C	03-GFL10			
Imipenem	10	05-IMP10-C	03-IMP10	X	X	X
Kanamycin	30	05-KAN30-C	03-KAN30	X		
Levofloxacin	1	05-LEV1-C	03-LEV1		X	
Levofloxacin	5	05-LEV5-C	03-LEV5	X		X
Lincomycin	2	05-LIN2-C	03-LIN2			
Lincomycin	5	05-LIN5-C	03-LIN5			
Linezolid	10	05-LNZ10-C	03-LNZ10	X	X	X

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Dispense



## Antibiotic Sensitivity Test discs in Cartridges and Vials

Antibiotic	Content (µg)	Cartridge (50 discs)	Vial (100 discs)	CLSI	BSAC	EUCAST
Linezolid	30	05-LNZ30-C	03-LNZ30	X		
Lomefloxacin	10	05-LOM10-C	03-LOM10	X		
Loracabef	30	05-LOR30-C	03-LOR30			
Loracabef	10	05-LOR10-C	03-LOR10	X		
Mecillinam	10	05-MEC10-C	03-MEC10	X	X	X
Mecillinam	50	05-MEC50-C	03-MEC50		X	
Meropenem	10	05-MER10-C	03-MER10	X	X	X
Methicillin *	5	05-MET5-C	03-MET5		X	
Metronidazole	2.5	05-MTZ2.5-C	03-MTZ2.5			
Metronidazole	5	05-MTZ5-C	03-03-MTZ5		X	
Metronidazole	50	05-MTZ50-C	03-03-MTZ50			
Metronidazole	80	05-MTZ80-C	03-03-MTZ80			
Mezlocillin	75	05-MEZ75-C	03-MEZ75	X	X	
Minocycline	30	05-MIN30-C	03-MIN30	X	X	X
Moxalactam	30	05-MOX30-C	03-MOX30	X		
Moxifloxacin	1	05-MXF1-C	03-MXF1		X	
Moxifloxacin	5	05-MXF5-C	03-MXF5	X	X	X
Mupirocin	5	05-MUP5-C	03-MUP5		X	
Mupirocin	20	05-MUP20-C	03-MUP20		X	
Mupirocin	200	05-MUP200-C	03-MUP200			X
Nafcillin	1	05-NAF30-C	03-NAF30	X		
Nalidixic acid	30	05-NAL30-C	03-NAL30	X	X	X
Neomycin	10	05-NEO10-C	03-NEO10		X	
Neomycin	30	05-NEO30-C	03-NEO30			
Netilmicin	10	05-NET10-C	03-NET10		X	X
Netilmicin	30	05-NET30-C	03-NET30	X		
Nitrofurantoin	100	05-NIT100-C	03-NIT100			X
Nitrofurantoin	200	05-NIT200-C	03-NIT200		X	
Nitrofurantoin	300	05-NIT300-C	03-NIT300	X		
Nitroxolin	10	05-NIC10-C	03-NIC10			
Nitroxolin	20	05-NIC20-C	03-NIC20			
Nitroxolin	30	05-NIC30-C	03-NIC30			
Norfloxacin	2	05-NOR2-C	03-NOR2		X	
Norfloxacin	10	05-NOR10-C	03-NOR10	X		X
Novobiocin	5	05-NOV5-C	03-NOV5			
Novobiocin	30	05-NOV30-C	03-NOV30			
Ofloxacin	5	05-OFL5-C	03-OFL5	X	X	X
Ofloxacin	10	05-OFL10-C	03-OFL10			
Ofloxacin	25	05-OFL25-C	03-OFL25		X	
Oleandomycin	15	05-OLN15-C	03-OLN15			
Oleandomycin	50	05-OLN50-C	03-OLN50			
Oxolinic Acid	2	05-OXA2-C	03-OXA2			
Oxolinic Acid	10	05-OXA10-C	03-OXA10			
Oxacillin	1	05-OXC1-C	03-OXC1	X	X	X
Oxacillin	5	05-OXC5-C	03-OXC5			
Oxacillin	10	05-OXC10-C	03-OXC10			
Oxytetracycline	25	05-OXT25-C	03-OXT25			
Oxytetracycline	30	05-OXT30-C	03-OXT30			
Pefloxacin	30	05-PEF30-C	03-PEF30			
Penicillin	1 unit	05-PEN1-C	03-PEN1		X	X
Penicillin	10 unit	05-PEN10-C	03-PEN10			
Piperacillin	30	05-PIP30-C	03-PIP30			X

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Antibiotic	Content (µg)	Cartridge (50 discs)	Vial (100 discs)	CLSI	BSAC	EUCAST
Piperacillin	75	05-PIP75-C	03-PIP75		X	
Piperacillin	100	05-PIP75-C	03-PIP75	X		
Piperacillin / Tazobactam	30/6	05-TZP36-C	03-TZP36			X
Piperacillin / Tazobactam	75/10	05-TZP85-C	03-TZP85			
Piperacillin / Tazobactam	100/10	05-TZP110-C	03-TZP110			
Piperimidic Acid	20	05-PPA20-C	03-PPA20			
Polymyxin B	30 units	05-POL30-C	03-POL30			
Polymyxin B	100 units	05-POL100-C	03-POL100			
Polymyxin B	300 units	05-POL300-C	03-POL300	X		
Quinupristin / Dalfopristin (Synercid)	15	05-SYN15-C	03-SYN15	X	X	X
Rifampicin	2	05-RIF2-C	03-RIF2		X	
Rifampicin	5	05-RIF5-C	03-RIF5	X	X	X
Rifampicin	30	05-RIF30-C	03-RIF30			
Roxithromycin	15	05-ROX15-C	03-ROX15			
Roxithromycin	30	05-ROX30-C	03-ROX30			
Spectinomycin	25	05-SPC25-C	03-SPC25		X	
Spectinomycin	100	05-SPC100-C	03-SPC100	X		
Spiramycin	30	05-SPR30-C	03-SPR30			
Spiramycin	100	05-SPR100-C	03-SPR100			
Streptomycin	10	05-STR10-C	03-STR10	X	X	
Streptomycin	300	05-STR300-C	03-STR300			
Sulphamethoxazole	25	05-SMX25-C	03-SMX25		X	
Sulphamethoxazole	100	05-SMX100-C	03-SMX100		X	
Sulphathiazole	300	05-STZ300-C	03-STZ300			
Sulphonamide	200	05-SUL200-C	03-SUL200			
Sulphonamide	250	05-SUL250-C	03-SUL250			
Sulphonamide	300	05-SUL300-C	03-SUL300	X		
Teicoplanin	30	05-TCP30-C	03-TCP30	X	X	X
Teithromycin	15	05-TLM15-C	03-TLM15	X	X	X
Temocillin	30	05-TEM30-C	03-TEM30		X	
Tetracycline	10	05-TET10-C	03-TET10		X	
Tetracycline	30	05-TET30-C	03-TET30	X		X
Thiamphenicol	30	05-THI30-C	03-THI30			
Ticarcillin	75	05-TIC75-C	03-TIC75	X	X	X
Ticarcillin \ clavulanate	85	05-BBL85-C	03-BBL85		X	X
Tigecycline	15	05-TIG15-C	03-TIG15	X	X	X
Tilmicosin	15	05-TIL15-C	03-TIL15			
Tilmicosin	30	05-TIL30-C	03-TIL30			
Tobramycin	10	05-TOB10-C	03-TOB10	X	X	X
Tobramycin	30	05-TOB30-C	03-TOB30			
Timentin	85	05-TMT85-C	03-TMT85		X	
Trimethoprim / Sulphamethoxazole (Cotrimoxazole)	1.25 / 23.75	05-COT25-C	03-COT25	X	X	X
Trimethoprim	2.5	05-TRM2.5-C	03-TRM2.5		X	
Trimethoprim	5	05-TRM5-C	03-TRM5	X	X	X
Trimethoprim	25	05-TRM25-C	03-TRM25			
Trovofloxacin	10	05-TRV10-C	03-TRV10	X		
Tylosin	30	05-TYL30-C	03-TYL30			
Vancomycin	5	05-VAN5-C	03-VAN5		X	X
Vancomycin	15	05-VAN15-C	03-VAN15			
Vancomycin	30	05-VAN30-C	03-VAN30	X		
Blank discs		21-BLANK-C	21-BLANK			

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Dispensers and Ejectors are also available.



## ESBL discs

Antibiotic	Content (µg)	Cartridge (50 discs)	Vial (100 discs)	CLSI	BSAC	EUCAST
Ceftazidime / Clavulanate	30/10	05- CZV40-C	03-CZV40		X	
Cefpodoxime / Clavulanate	10/1	05- CDV11-C	03-CDV11		X	
Cefpirom / Clavulanate	30/10	05-CFV40-C	03-CFV40			
Cefepim / Clavulanate	30/10	05-CPV40-C	03- CPV40		X	
Cefotaxime / Clavulanate	30/10	05-CXV40-C	03-CXV40		X	
Cefepime / Clavulanate	30/10	05-CZP40-C	03-CZP40			

## Antifungal discs in Cartridges and Vials

Antibiotic	Content (µg)	Cartridge (50 discs)	Vial (100 discs)	CLSI	BSAC
Amphotericin B	20	05-AMT20-C	03-AMT20		
Amphotericin B	40	05-AMT40-C	03-AMT40		
Clotrimazole	10	05-CLO10-C	03-CLO10		
Clotrimazole	10	05-CLO10-C	03-CLO10		
Econazole	50	05-ECN50-C	03-ECN50		
Fluconazole	10	05-FLC10-C	03-FLC10		
Fluconazole	25	05-FLC25-C	03-FLC25	X	
Fluconazole	40	05-FLC40-C	03-FLC40	X	
Flucytosine	1	05-FLU1-C	03-FLU1		
Halquinol	100	05-HAL100-C	03-HAL100		
Isoconazole	50	05-ISO50-C	03-ISO50		
Itraconazole	1	05-ITR1-C	03-ITR1		
Itraconazole	10	05-ITR10-C	03-ITR10		
Ketoconazole	10	05-KET10-C	03-KET10		
Ketoconazole	20	05-KET20-C	03-KET20		
Miconazole	10	05-MIC10-C	03-MIC10		
Natamycin	10	05-NAT10-C	03-NAT10		
Nystatin	100	05-NYS100-C	03-NYS100		
Voriconazole	1	05-VOR1-C	03-VOR1	X	

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# Antibiotic Multirings

Description	Antibiotic Tips	Presentation	Product Code
<b>Gram Positive</b>	Ampicillin AMP 10 Penicillin PEN 10 Gentamicin GEN 10 Tetracycline TET 30 Polymyxin B POL 30 Oxacillin OXC 5 Neomycin NEO 30 Lincomycin LIN 15	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-TRA10</b>
<b>Gram Positive</b>	Amoxicillin AMX 25 Augmentin AUG 30 Cephalexin CLX 30 Erythromycin ERY 15 Cloxacillin CXC 5 Cotrimoxazole COT 25 Cefuroxime CRX 30 Cefaclor CCL 30	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-NH1</b>
<b>Gram Positive</b>	Ampicillin AMP 2 Chloramphenicol CHL 10 Erythromycin ERY 10 Cefoxitin CXT 30 Penicillin PEN 1.5 Streptomycin STR 10 Sulphafurazole SFZ 100 Tetracycline TET 10	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-SE58A</b>
<b>Gram</b>	Ciprofloxacin CPR 30 Ceftazidime CAZ 30 Amikacin AMK 30 Piperacillin PIP 100 Imipenem IMP 30 Ceftriaxone CTR 30 Cefotaxime CTX 30 Norfloxacin NOR	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-NH3</b>
<b>Gram</b>	Polymyxin B POL 30 Oxacillin OXC 5 Streptomycin STR 10 Neomycin NEO 30 Spectinomycin SPC 25 Lincomycin LIN 15 Sulphonamide SUL-300 Tylosin TYL 30	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-TRA9</b>
<b>Urine &amp; Gram Negative</b>	Gentamicin GEN 10 Ofloxacin OFL 30 Nitrofurantoin NIT 200 Cefaclor CCL 30 Nalidixic acid NAL 30 Augmentin AUG 30 Cefuroxime CRX 30 Minocycline MIN 30	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-NH2</b>
<b>Urine &amp; Gram Negative</b>	Amoxicillin AMX 25 Azlocillin AZL 75 Cefador CCL 30 Doxycycline DOX 30 Nitrofurantoin NIT 100 Pipemidic Acid PPA 20 Tobramycin TOB 10 Cotrimoxazole COT 25	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-TRA4</b>
<b>Urine &amp; Gram Negative</b>	Ampicillin AMP 10 Amoxicillin AMX 25 Gentamicin GEN 10 Tobramycin TOB 10 Doxycycline DOX 30 Pipemidic Acid PPA 20 Nitrofurantoin NIT 100 Cotrimoxazole COT 25	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-TRA6</b>
<b>Fungal</b>	Amphotericin AMT 20 Clotrimazole CLO 10 Econazole ECN 10 Flucytosine FLU 1 Ketoconazole KET 10 Miconazole MIC 10 Natamycin NAT 10 Nystatin NYS 100	Sealed Tin of 8- tipped rings 1 x 100 rings	<b>03-LD2</b>

Almost all Sensitivity test Rings are manufactured to order to customer specification, we carry a small selection of stock items, see table.

For information regarding Manufactured to Order Rings please contact us at [info@abtekbio.com](mailto:info@abtekbio.com)

Minimum Orders may apply.





## Identification discs in Cartridges and Vials

Description	Disc Content	Identification	Presentation	Product Code
Bacitracin	0.04 units	<i>β-haemolytic streptococci</i> gp A	Vial x 100 discs	03-BAC.04
Bacitracin	0.1 units	<i>β-haemolytic streptococci</i> gp A	Vial x 100 discs	03-BAC.1
Bacitracin	0.2 units	<i>β-haemolytic streptococci</i> gp A	Vial x 100 discs	03-BAC.2
Optochin	5µg	<i>Streptococcus pneumoniae</i>	Vial x 100 discs	03-OPT
X		<i>H. ducreyi</i>	Vial x 100 discs	03-X
V		<i>H. parainfluenzae</i>	Vial x 100 discs	03-V
X + V		<i>H. influenzae</i>	Vial x 100 discs	03-XV
<b>ALA</b>				
Lysostaphin		<i>Staphylococcus</i>	Vial x 50 discs	03-LYS
Novobiocin	5µg	<i>Staphylococcus saprophyticus</i>	Vial x 100 discs	03-NOV5
Metronidazole	50µg		Vial x 100 discs	03-MTZ50
Trimethoprim	5µg	<i>Gardnerella vaginalis</i>	Vial x 100 discs	03-TRM5
Suphathiazole	1mg	<i>Gardnerella vaginalis</i>	Vial x 100 discs	03-STZ1000
Bile	5mg	<i>Gardnerella vaginalis</i>	Vial x 100 discs	03-TXBIL
Colistin	10µg	gram negative Anaerobes	Vial x 100 discs	03-COL10
Kanamycin	1000µg	gram negative Anaerobes	Vial x 100 discs	03-KAN1000
Vancomycin	5µg	gram negative Anaerobes	Vial x 100 discs	03-VAN5
SPS		identification of anaerobes	Vial x 100 discs	03-TXSPS
Bile		identification of anaerobes	Vial x 100 discs	03-TXBIL
Brilliant Green		identification of anaerobes	Vial x 100 discs	03-TXBGM
Urease		Detection of Urease activity	Vial x 100 discs	21-TXURE
PYR		<i>Streptococcus pyogenes</i>	Vial x 100 discs	03-PYR

Most Identification discs can be supplied in Cartridges of 5 x 50 discs or vials.



## Identification discs in Cartridges and Vials

Description	Disc Content	Identification	Presentation	Product Code
O129	10µg	<i>Vibrio spp.</i>	Vial x 100 discs	21-O12910
O129	150µg	<i>Vibrio spp.</i>	Vial x 100 discs	21-O129150
ONPG		<i>o</i> -galactosidase activity in Gram negative rods	Vial x 100 discs	21-ONPG
Oxidase		Cytochrome Oxidase	Vial x 100 discs	03-OX
Catarrhalis		<i>Moraxella catarrhalis</i>	Vial * 25 discs	21-TXCAT
C-390		<i>Pseudomonas aeruginosa</i>	1 x 50	03-C390-V
Nitrocefin		B-lactamase	Vial x 100 discs	21-NCF
Cefoxitin	10µg	<i>Staphylococci</i>	Vial of 100 discs	03-CXT10
Cadmium acetate	130µg	MRSA Typing	Vial x 100 discs	03-TXCA
Cadmium nitrate	6µg	MRSA Typing	Vial x 100 discs	03-TXCN
Ethidium bromide	20µg	MRSA Typing	Vial x 100 discs	03-TXEB
Ethidium bromide	60µg	MRSA Typing	Vial x 100 discs	03-TXEBH
Mercuric chloride	10µg	MRSA Typing	Vial x 100 discs	03-TXMC
Phenyl mercuric	10µg	MRSA Typing	Vial x 100 discs	03-TXPMA
Propamidine isethionate	10µg	MRSA Typing	Vial x 100 discs	03-TXPI
HIP		hydrolysis of sodium hippurate		21-HIP

Most Identification discs can be supplied in Cartridges of 5 x 50 discs or vials.



## Identification Rings

Description	Antibiotic Tips	Presentation	Product Code
<i>Bacteroides fragalis</i>	Erythromycin 60µg Penicillin G 2µg Rifampicin 15µg Kanamycin 1000µg Colistin sulphate 10µg Vancomycin 5µg Bile 5000µg Brilliant Green 100µg	Sealed Tin of 8- tipped rings 1 x 50 rings	03-AID-01
<i>Gardnerella vaginalis</i>	Metronidazole 50 Trimethoprim 5 Sulphathiazole 1mg Bile 5mg	Sealed Tin of 8- tipped rings 1 x 50 rings	03-GV
Extended Spectrum β-lactamases (ESBLs)	Meropenem Ceftazidime Cefotaxime Amoxicillin + Clavulanate	Sealed Tin of 4- tipped rings 1 x 25 rings	03-ESBL



## Identification Strips and Reagents

Description	Presentation	Product Code
Catalase Reagent	10 X Dropper bottle	12-CAT
Beta lactamase Strips	50 Strips per Canister	21-BET-A
Oxidase Test Strips	25 Strips per Canister	21-OXSTRIP
MRSA Detection Strips	50 Strips per Canister	21-MW982
Coagulase Plasma EDTA	5 X 2ml vials	21-E993



## Selective Culture Media Supplements

Description	Presentation	Code
<b>Anaerobes Gram Negative</b> Nalidixic acid, Vancomycin, Menadione, Sodium succinate, Haemin	Pack of 10 Vials	<b>IS/A1-A</b>
<b>Anaerobes Non Sporing</b> Nalidixic acid, Menadione, Sodium pyruvate, Haemin	Pack of 10 Vials	<b>IS/A2-A</b>
<b>Actinomyces spp</b> Metronidazole, Nalidixic acid	Pack of 10 Vials	<b>IS/A3-A</b>
<b>Anaerobes Clostridia</b> Neomycin 75mg	Pack of 10 Vials	<b>IS/A4-A</b>
<b>Anaerobes Clostridia</b> Neomycin 100mg	Pack of 10 Vials	<b>IS/A5-A</b>
<b>Anaerobes</b> Kanamycin 75mg/l	Pack of 10 Vials	<b>IS/A6-A</b>
<b>Anaerobes</b> Nalidixic acid 10mg/l	Pack of 10 Vials	<b>IS/A8-A</b>
<b>Anaerobes</b> Nalidixic acid, Vancomycin	Pack of 10 Vials	<b>IS/A9-A</b>
<b>Anaerobes</b> Amikacin 100mg/l	Pack of 10 Vials	<b>IS/A10-A</b>
<b>Anaerobes growth</b> Sodium bicarbonate, Glucose, Sodium pyruvate, Cysteine, Haemin, Vitamin K, L-arginine, Sodium succinate, Sodium pyrophosphate	Pack of 10 Vials	<b>IS/AG-A</b>
<b>Aspergillus fumigatus</b> Penicillin, Streptomycin	Pack of 10 Vials	<b>IS/AF-A</b>
<b>Aeromonas hydrophilia Ryans</b> Ampicillin	Pack of 10 Vials	<b>IS/AH-A</b>
<b>Bacillus cereus</b> Polymixin B MYP, PREP	Pack of 10 Vials	<b>IS/BC-A</b>
<b>Bacillus cereus</b> Polymixin B PEMBA	Pack of 10 Vials	<b>IS/BCH-A</b>
<b>Bacteroides ureolyticus</b> Teicoplanin 20mg/l	Pack of 10 Vials	<b>IS/BU-A</b>
<b>Bordetella pertussis</b> Cephalexin 40mg/l	Pack of 10 Vials	<b>IS/BP-A</b>
<b>Brucella Farrell's</b> Polymyxin B, Bacitracin, Natamycin, Nalidixic acid, Nystatin, Vancomycin	Pack of 10 Vials	<b>IS/BA-A</b>

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## Selective Culture Media Supplements

Description	Presentation	Code
<b>Campylobacter CCDA Blood Free</b> Cefoperazone, Amphotericin	Pack of 10 Vials	<b>IS/CS1-A</b>
<b>Campylobacter Bolton Enrichment CVTC</b> Cefoperazone, Vancomycin, Trimethoprim, Cyclohexamide	Pack of 10 Vials	<b>IS/CS2-A</b>
<b>Campylobacter Bolton Enrichment CVTN</b> Cefoperazone, Vancomycin, Trimethoprim, Natamycin	Pack of 10 Vials	<b>IS/CSN2-A</b>
<b>Campylobacter Bolton Enrichment CVTA</b> Cefoperazone, Vancomycin, Trimethoprim, Amphotericin	Pack of 10 Vials	<b>IS/CSA2-A</b>
<b>Campylobacter Skirrow</b> Vancomycin, Polymyxin B, Trimethoprim	Pack of 10 Vials	<b>IS/CS3-A</b>
<b>Campylobacter Preston</b> Rifampicin, Polymyxin B, Trimethoprim, Natamycin	Pack of 10 Vials	<b>IS/CS4-A</b>
<b>Campylobacter Blaser Wang</b> Vancomycin, Polymyxin B, Trimethoprim, Amphotericin B, Cephalothin	Pack of 10 Vials	<b>IS/CS5-A</b>
<b>Campylobacter Butzlers</b> Bacitracin, Natamycin, Colistin sulphate, Cephalozin, Novobiocin	Pack of 10 Vials	<b>IS/CS6-A</b>
<b>Campylobacter Blood Free</b> Cefoperazone	Pack of 10 Vials	<b>IS/CS7-A</b>
<b>Campylobacter Exeter</b> Cefoperazone, Trimethoprim, Polymyxin B, Amphotericin B, Sodium pyruvate, Sodium metabisulphite, Ferrous sulphate	Pack of 10 Vials	<b>IS/CS8-A</b>
<b>Campylobacter Enrichment</b> Vancomycin, Trimethoprim	Pack of 10 Vials	<b>IS/CS9-A</b>
<b>Campylobacter CTA</b> Cefoperazone, Teicoplanin, Amphotericin B	Pack of 10 Vials	<b>IS/CS11-A</b>
<b>Campylobacter Karmali</b> Cefoperazone, Vancomycin, Amphotericin B, Sodium pyruvate	Pack of 10 Vials	<b>IS/CS12-A</b>
<b>Campylobacter Growth</b> Sodium pyruvate, Sodium metabisulphite, Ferrous sulphate	Pack of 10 Vials	<b>IS/CSG-A</b>
<b>Clostridium perfringens</b> Sulphadiazine	Pack of 10 Vials	<b>IS/CP1-A</b>
<b>Clostridium perfringens</b> Oleandomycin, Polymyxin B	Pack of 10 Vials	<b>IS/CP2-A</b>
<b>Clostridium perfringens TSC</b> Cycloserine	Pack of 10 Vials	<b>IS/CP3-A</b>
<b>Clostridium perfringens SFP</b> Kanamycin, Polymyxin B	Pack of 10 Vials	<b>IS/CP4-A</b>
<b>Clostridium perfringens SFP</b> Cycloserine, Polymyxin B	Pack of 10 Vials	<b>IS/CP5-A</b>
<b>Clostridium difficile</b> Cycloserine, Cefoxitin	Pack of 10 Vials	<b>IS/CD-A</b>
<b>Clostridium difficile</b> Cycloserine, Cefoxitin	Pack of 10 Vials	<b>IS/CD2-A</b>
<b>Clostridium difficile</b> Cycloserine, Cefoxitin	Pack of 10 Vials	<b>IS/CD3-A</b>

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## Selective Culture Media Supplements

Description	Presentation	Code
<b><i>E Coli 0157</i></b> Cefixime, Potassium tellurite	Pack of 10 Vials	<b>IS/EC-A</b>
<b><i>E Coli 0157 Enrichment</i></b> Novobiocin 20mg/l	Pack of 10 Vials	<b>ES/EC2-A</b>
<b><i>E Coli 0157 Enrichment</i></b> Vancomycin, Cefixime , Cefsulodin	Pack of 10 Vials	<b>ES/EC3-A</b>
<b><i>E Coli Early Detection</i></b> Triphenyl Tetrazolium chloride	Pack of 10 Vials	<b>IS/EC4-A</b>
<b><i>Gardnerella vaginalis</i></b> Colistin sulphate, Nalidixic acid	Pack of 10 Vials	<b>IS/GV-A</b>
<b><i>Gardnerella vaginalis</i></b> Gentamicin, Nalidixic acid, Amphotericin B	Pack of 10 Vials	<b>IS/GV2-A</b>
<b>Gram Positive Cocci (Staph &amp; Strep)</b> Colistin sulphate, Nalidixic acid	Pack of 10 Vials	<b>IS/GPC-A</b>
<b><i>Haemophilus spp</i></b> Bacitracin 75mg/l	Pack of 10 Vials	<b>IS/HI1-A</b>
<b><i>Haemophilus spp</i></b> Bacitracin 300mg/l	Pack of 10 Vials	<b>IS/HI2-A</b>
<b><i>Haemophilus spp</i></b> Bacitracin, Vancomycin, Clindamycin, Amphotericin B	Pack of 10 Vials	<b>IS/HI3-A</b>
<b><i>Haemophilus spp</i> GROWTH (X &amp; V FACTORS)</b> Nicotine dinucleotide, Haemin	Pack of 10 Vials	<b>IS/HIG-A</b>
<b><i>Haemophilus spp.</i> GROWTH (V FACTOR)</b> Nicotine dinucleotide	Pack of 10 Vials	<b>ES/STA-A</b>
<b><i>Helicobacter pylori</i></b> Vancomycin, Trimethoprim, Cefsulodin, Amphotericin B	Pack of 10 Vials	<b>IS-A /HP2</b>
<b><i>Lactobacillus</i></b> Vancomycin	Pack of 10 Vials	<b>IS/LB-A</b>

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## Selective Culture Media Supplements

Description	Presentation	Code
<b>Legionella pneumophila GVPN</b> Glycine, Vancomycin, Polymyxin B, Natamycin	Pack of 10 Vials	<b>IS/LG-A</b>
<b>Legionella pneumophila GVPC</b> Glycine, Vancomycin, Polymyxin B, Cyclohexamide	Pack of 10 Vials	<b>IS/LGC-A</b>
<b>Legionella pneumophila MWY</b> Glycine, Vancomycin, Polymyxin B, Natamycin, Bromothymol blue, Bomocresol purple	Pack of 10 Vials	<b>IS/LG2-A</b>
<b>Legionella pneumophila BMPN</b> Cefamandole, Polymyxin B, Natamycin	Pack of 10 Vials	<b>IS/LG3-A</b>
<b>Legionella pneumophila BMPA</b> Cefamandole, Polymyxin B, Cyclohexamide	Pack of 10 Vials	<b>IS/LG30-A</b>
<b>Legionella pneumophila BCYE Growth with Cysteine</b> Potassium hydroxide, ACES buffer, Ferric pyrophosphate, Cysteine, α-ketoglutaric acid	Pack of 10 Vials	<b>IS/LGG-A</b>
<b>Legionella pneumophila BCYE Growth without Cysteine</b> Potassium hydroxide, ACES buffer, Ferric pyrophosphate, α-ketoglutaric acid	Pack of 10 Vials	<b>IS/LGW-A</b>
<b>Legionella pneumophila BCYE Growth with Cysteine</b> α-ketoglutaric acid	Pack of 10 Vials	<b>IS/LGB-A</b>
<b>Legionella pneumophila BCYE Growth with Cysteine</b> Cysteine, α-ketoglutaric acid	Pack of 10 Vials	<b>IS/LGBW-A</b>
<b>Legionella pneumophila BCYE Growth with Cysteine</b> Ferric pyrophosphate, Cysteine	Pack of 10 Vials	<b>IS/LGG2-A</b>
<b>Legionella pneumophila BCYE Growth without Cysteine</b> Ferric pyrophosphate	Pack of 10 Vials	<b>IS/LGGW-A</b>

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## Selective Culture Media Supplements

Description	Presentation	Code
<b>Listeria spp. Oxford</b> Cefotetan, Cyclohexamide, Colistin sulphate, Acriflavine, Fosfomycin	Pack of 10 Vials	IS/LM1C-A
<b>Listeria spp. Modified Oxford</b> Cefotetan, Natamycin, Colistin sulphate, Acriflavine, Fosfomycin	Pack of 10 Vials	IS/LM1-A
<b>Listeria spp. Oxfrord Acriflavin Free</b> Cefotetan, Cyclohexamide, Colistin sulphate, Fosfomycin	Pack of 10 Vials	IS/LM2-A
<b>Listeria spp.</b> Moxalactam, Colistin I	Pack of 10 Vials	IS/LM3-A
<b>Listeria spp. Palcam</b> Polymyxin B, Ceftazidime, Acriflavine	Pack of 10 Vials	IS/LM5-A
<b>Listeria spp.</b> Ceftazidimel	Pack of 10 Vials	IS/LM6-A
<b>Listeria spp. Modified Palcam</b> Polymyxin B, Ceftazidime, Acriflavin	Pack of 10 Vials	IS/LM7-A
<b>Listeria spp.</b> Polymyxin B, Ceftazidime	Pack of 10 Vials	IS/LM8-A
<b>Listeria spp. Chromogenic</b> Polymyxin B, Ceftazidime, Nalidixic Acid, Amphotericin B	Pack of 10 Vials	IS/LM9-A
<b>Listeria spp. NAC Enrichment broth Bolton</b> Nalidixic acid, Cyclohexamide, Acriflavine	Pack of 10 Vials	ES/LI-A
<b>Listeria spp. NAC Enrichment broth Bolton</b> Nalidixic acid, Natamycin, Acriflavine	Pack of 10 Vials	ES/LIN-A
<b>Listeria spp. UVMI</b> Nalidixic acid, Acriflavine	Pack of 10 Vials	ES/LI2-A
<b>Listeria spp. Half Strength Fraser</b> Ferric Ammonium citrate, Acriflavine, Nalidixic acid	Pack of 10 Vials	ES/LI3-A
<b>Listeria spp. Fraser</b> Ferric Ammonium citrate, Acriflavine, Nalidixic acid	Pack of 10 Vials	ES/LI4-A
<b>Listeria spp. Fraser without Ammonium Ferric Citrate</b> Acriflavine, Nalidixic acid	Pack of 10 Vials	ES/LI5-A -A
<b>Listeria spp. Half Fraser without Ammonium Ferric Citrate</b> Acriflavine, Nalidixic acid	Pack of 10 Vials	ES/LI6-A
<b>Listeria spp.</b> Nalidixic acid	Pack of 10 Vials	ES/LI7-A
<b>Listeria spp. Fraser Ammonium Ferric Citrate</b> Ferric Ammonium citrate	Pack of 10 Vials	ES/LI8-A

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## Selective Culture Media Supplements

Description	Presentation	Code
<b>Neisseria Gonorrhoea LCAT</b> Lincomycin, Colistin sulphate, Amphotericin B, Trimethoprim	Pack of 10 Vials	IS/NG1-A
<b>Neisseria Gonorrhoea VCA</b> Vancomycin, Colistin sulphate, Amphotericin B	Pack of 10 Vials	IS/NG2-A
<b>Neisseria Gonorrhoea VCAT</b> Vancomycin, Colistin sulphate, Amphotericin B, Trimethoprim	Pack of 10 Vials	IS/NG3-A
<b>Neisseria Gonorrhoea LCT</b> Lincomycin, Colistin sulphate, Trimethoprim	Pack of 10 Vials	IS/NG4-A
<b>Neisseria Gonorrhoea CVAT</b> Vancomycin, Colistin sulphate, Amphotericin B, Trimethoprim	Pack of 10 Vials	IS/NG5-A
<b>Neisseria Gonorrhoea VCT</b> Vancomycin, Colistin sulphate, Trimethoprim	Pack of 10 Vials	IS/NG6-A
<b>Neisseria Gonorrhoea VCNT</b> Vancomycin, Colistin sulphate, Nystatin, Trimethoprim	Pack of 10 Vials	IS/NG7-A
<b>Neisseria Gonorrhoea VCN</b> Vancomycin, Colistin sulphate, Nystatin	Pack of 10 Vials	IS/NG8-A
<b>Neisseria Gonorrhoea growth</b> Yeast Diallylsate, Dextrose, Sodium bicarbonate	Pack of 10 Vials	IS/YDA-A
<b>Neisseria Gonorrhoea vitamin growth</b> Vitamin B12, L-glutamine, Adenine, Guanine, p-amino benzoic acid, L-cystine, NAD, Packerboxylase, Ferric nitrate, Thiamine, L-cysteine, Glucose	Pack of 10 Vials	IS/VIT-A
<b>Pseudomonas CFC</b> Cephalothine, Fucidic Acid, Cetrimide	Pack of 10 Vials	IS/PS1-A
<b>Pseudomonas CN</b> Cetrimide, Nalidixic acid	Pack of 10 Vials	IS/PS2-A
<b>Burkholderia cepacia</b> Ticarcillin, Polymyxin B	Pack of 10 Vials	IS/PS3-A
<b>Burkholderia cepacia enrichment</b> Vancomycin, Polymyxin B, Amphotericin B	Pack of 10 Vials	ES/PS4-A
<b>Burkholderia cepacia enrichment</b> Vancomycin, Polymyxin B, Amphotericin B	Pack of 10 Vials	ES/PS4-A
<b>Burkholderia cepacia</b> Ticarcillin, Polymyxin B, Gentamycin	Pack of 10 Vials	IS/PS5-A
<b>Salmonella enrichment</b> Novobiocin	Pack of 10 Vials	ES/SM-A
<b>Salmonella enrichment</b> Cefsulodin 20mg / Litre	Pack of 10 Vials	ES/SM2-A
<b>Salmonella enrichment</b> Novobiocin 40mg / Litre	Pack of 10 Vials	ES/SM4-A
<b>Salmonella spp.</b> Cefsulodin Novobiocin	Pack of 10 Vials	IS/SA2-A
<b>Shigella spp.</b> Novobiocin	Pack of 10 Vials	IS/SH-A

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All of the range is tested for their specific organism, but also against a battery of test organisms to determine levels of inhibition. The products are also tested for sterility. Product stability is reviewed at regular intervals.



Volume	Order code Suffix
500ml	-A
1 Litre	-B
2.5 Litre	-C
5 Litre	-D
10 Litre	-X
2 Litre	-2
3 Litre	-3
4 Litre	-4
8 Litre	-8
15 Litre	-15

## Selective Culture Media Supplements

Description	Presentation	Code
<b>Mycobacterium tuberculosis PANTA</b> Polymyxin B, Azlocillin, Nalidixic acid, rimethoprim, Amphotericin B	Pack of 10 Vials	<b>TB/MYC-A</b>
<b>Mycobacterium tuberculosis OADC growth</b> Albumin factor V, Oleic acid, Glucose, Catalase	Pack of 10 Vials	<b>TB/GS-A</b>
<b>Staphylococci</b> Sulphamethazine	Pack of 10 Vials	<b>IS/SC-A</b>
<b>Staphylococci Methicillin resistant</b> Oxacillin 4mg/l	Pack of 10 Vials	<b>IS/ORS-A</b>
<b>Staphylococci Methicillin resistant</b> Cefoxitin	Pack of 10 Vials	<b>IS/MRS-A</b>
<b>Staphylococci Rabbit Plasma Fibrinogen</b> Rabbit Plasma, Fibrinogen, Tellurite, Trypsin Inhibitor	Pack of 10 Vials for 100ml media	<b>IS/RPF-100</b>
<b>Streptococci</b> Colistin sulphate , Oxolinic acid	Pack of 10 Vials	<b>IS/ST-A</b>
<b>Streptococci</b> Triphenyl Tetrazolium chloride	Pack of 10 Vials	<b>IS/ST2-A</b>
<b>Streptococci</b> Kanamycin	Pack of 10 Vials	<b>IS/ST3-A</b>
<b>Taylorella equigenitalis</b> Amphotericin	Pack of 10 Vials	<b>IS/TE-A</b>
<b>Total Bacterial Counts</b> Natamycin	Pack of 10 Vials	<b>IS/TCN-A</b>
<b>VRE &amp; HLARE</b> Vancomycin, Gentamycin, Colistin, Nalidixic Acid, Amphotericin B	Pack of 10 Vials	<b>IS/VRE-A</b>
<b>VRE &amp; HLARE</b> Meropenem	Pack of 10 Vials	<b>IS/VRE1-A</b>
<b>VRE &amp; HLARE</b> Vancomycin	Pack of 10 Vials	<b>IS/VRE2-A</b>
<b>VRE &amp; HLARE</b> Gentamycin	Pack of 10 Vials	<b>IS/VRE2-A</b>
<b>Yersinia CIN</b> Cefsulodin, Irgasan, Novobiocin	Pack of 10 Vials	<b>IS/YEX-A</b>
<b>Yersinia CN</b> Cefsulodin, Novobiocin	Pack of 10 Vials	<b>IS/YX2-A</b>
<b>Yersinia</b> Ticicillin, Irgasan	Pack of 10 Vials	<b>IS/YX3-A</b>

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All of the range is tested for their specific organism, but also against a battery of test organisms to determine levels of inhibition. The products are also tested for sterility. Product



Volume	Order code Suffix
500ml	-A
1 Litre	-B
2.5 Litre	-C
5 Litre	-D
10 Litre	-X
2 Litre	-2
3 Litre	-3
4 Litre	-4
8 Litre	-8
15 Litre	-15

## Selective Culture Media Supplements

Description	Presentation	Code
<b>Yeasts &amp; Fungi</b> Chlormaphenicol	Pack of 10 Vials	<b>IS/YM1-A</b>
<b>Yeasts &amp; Fungi</b> Oxytetracycline	Pack of 10 Vials	<b>IS/YM2-A</b>
<b>Yeasts OGYE</b> Oxytetracycline 100mg/l	Pack of 10 Vials	<b>IS/YM2-A</b>
<b>Dermatophytes</b> Cyclohexamide / Chloramphenicol	Pack of 10 Vials	<b>IS/YM3-A</b>
<b>Yeasts &amp; Fungi</b> Streptomycin	Pack of 10 Vials	<b>IS/YM5-A</b>
<b>Yeasts &amp; Fungi</b> Chlorotetracycline	Pack of 10 Vials	<b>IS/YM6-A</b>
<b>PNPG200</b> Para-nitrophenyl glycerin 200mg/l	Pack of 10 Vials	<b>PNPG200</b>
<b>PNPG1000</b> Para-nitrophenyl glycerin 1000mg/l	Pack of 10 Vials	<b>PNPG1000</b>

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All of the range is tested for their specific organism, but also against a battery of test organisms to determine levels of inhibition. The products are also tested for



Volume	Order code Suffix
500ml	-A
1 Litre	-B
2.5 Litre	-C
5 Litre	-D
10 Litre	-X
2 Litre	-2
3 Litre	-3
4 Litre	-4
8 Litre	-8
15 Litre	-15

## Blood Culture

The culture of blood in bottled broth has been a standard technique for the detection of bacteraemia in the laboratory. A variety of highly nutritious culture media are used to demonstrate fastidious anaerobes or facultative anaerobes. The medium may be supplemented with sodium polyanethol sulphonate, as a means of reducing the activity of antibacterials introduced into the medium with the blood. It is common practice to use two blood culture bottles for each specimen, one with a medium that is suited to anaerobes such as Thioglycollate Broth and another for fastidious facultative anaerobes, such as brain heart infusion.

The infecting organism is not numerous and a large amount of blood has to be used to demonstrate the presence of infecting organism. It is normal to inoculate the test medium with a volume of blood equal to 10% of the final combined volume, e.g. 5ml of blood would be added to 45ml of medium. With young children this volume may not be achievable and the paediatric preparations are designed to be inoculated with 1ml of blood into 9ml of broth.

Description	Presentation	Product Code
<b>Trypticase Soy Broth</b> Tryptone, Soy Peptone, Sodium Chloride, Di-Potassium hydrogen, o-phosphate, D-Glucose, Polyanetholesulfonic acid	Adult Bottle (20ml capacity with 9ml of broth) 1 x 10	<b>12-TSB9P</b>
<b>Trypticase Soy Broth</b> Tryptone, Soy Peptone, Sodium Chloride, Di-Potassium hydrogen, o-phosphate, D-Glucose, Polyanetholesulfonic acid	Adult Bottle (20ml capacity with 13.5ml of broth) 1 x 10	<b>12-TSB13P</b>
<b>Trypticase Soy Broth</b> Tryptone, Soy Peptone, Sodium Chloride, Di-Potassium hydrogen, o-phosphate, D-Glucose, Polyanetholesulfonic acid	Adult Bottle (100ml capacity with 45ml of broth) 1 x 5	<b>12-TSB45A</b>
<b>Trypticase Soy Broth</b> Tryptone, Soy Peptone, Sodium Chloride, Di-Potassium hydrogen, o-phosphate, D-Glucose, Polyanetholesulfonic acid	Adult Bottle (100ml capacity with 70ml of broth) 1 x 5	<b>12-TSB70A</b>
<b>Thioglycollate Broth</b> Selected BHI solids, Proteose Peptone, d-Glucose, Sodium Chloride, Disodium Phosphate, Polyanetholesulfonic acid	Adult Bottle (20ml capacity with 9ml of broth) 1 x 10	<b>12-THG9P</b>
<b>Thioglycollate Broth</b> Selected BHI solids, Proteose Peptone, d-Glucose, Sodium Chloride, Disodium Phosphate, Polyanetholesulfonic acid	Adult Bottle (20ml capacity with 13.5ml of broth) 1 x 10	<b>12-THG13P</b>
<b>Thioglycollate Broth</b> Selected BHI solids, Proteose Peptone, d-Glucose, Sodium Chloride, Disodium Phosphate, Polyanetholesulfonic acid	Adult Bottle (100ml capacity with 45ml of broth) 1 x 5	<b>12-THG45A</b>
<b>Thioglycollate Broth</b> Selected BHI solids, Proteose Peptone, d-Glucose, Sodium Chloride, Disodium Phosphate, Polyanetholesulfonic acid	Adult Bottle (100ml capacity with 70ml of broth) 1 x 5	<b>12-THG70A</b>
<b>Brain Heart Infusion</b> Beef Extract, Yeast Extract, Peptone Extract, d-Glucose, Sodium Chloride, Polyanetholesulfonic acid, Sodium Thioglycollate	Adult Bottle (20ml capacity with 9ml of broth) 1 x 10	<b>12-BHI9P</b>
<b>Brain Heart Infusion</b> Beef Extract, Yeast Extract, Peptone Extract, d-Glucose, Sodium Chloride, Polyanetholesulfonic acid, Sodium Thioglycollate	Adult Bottle (20ml capacity with 13.5ml of broth) 1 x 10	<b>12-BHI13P</b>
<b>Brain Heart Infusion</b> Beef Extract, Yeast Extract, Peptone Extract, d-Glucose, Sodium Chloride, Polyanetholesulfonic acid, Sodium Thioglycollate	Adult Bottle (100ml capacity with 45ml of broth) 1 x 5	<b>12-BHI45A</b>
<b>Brain Heart Infusion</b> Beef Extract, Yeast Extract, Peptone Extract, d-Glucose, Sodium Chloride, Polyanetholesulfonic acid, Sodium Thioglycollate	Adult Bottle (100ml capacity with 70ml of broth) 1 x 5	<b>12-BHI70A</b>



## Bacteriuria Test Strips

Urine testing forms a major part of any laboratories' work load. Many of the urines are sterile and many contain an infective agent. Collection procedures can cause the contamination of otherwise sterile samples. It has been shown that levels up to 10,000 organisms per ml are probably caused by contamination and that a level exceeding 100,000 cfu per ml is significant.

There are many methods for the quantification of organisms in urine, ranging from simple cultural techniques to expensive automated apparatus. One of the most cost effective and simple techniques uses a sterile paper strip to pick up precise amounts of urine which are plated onto media to give a count after incubation which is related to the number of bacteria in the original sample.

The product is sterile strips of filter paper, 6cm \* 0.5cm, with a bend 1.2cm from the tip.

The tip of the strip is dipped into a urine sample and allowed to drain. The damp end of the strip (the bent end) is pressed into contact with a suitable culture plate (McConkey agar without salt or CLED, to reduce swarming of *Proteus spp*). It is allowed to remain in contact with the plate surface for a few seconds, and is then discarded. A number of such contacts can be made on areas of one plate, making the method very cost-effective. These areas can be marked on the back of the plate as a grid to aid positioning the test and identifying the sample.

After overnight incubation, the number of colonies on each area is counted. More than 20-30 colonies indicates probable bacteriuria; less than 5 colonies is considered negative; counts between 5 & 20 are inconclusive

Description	PRESENTATION	Product Code
<b>BACTERIURIA TEST STRIP</b>	5 x 200 Strips per box	<b>21-BACT</b>



## Viabank

For the long-term storage of microorganisms at low temperatures, VIABANK vials containing a minimum of 25 glass beads covered in a Cryogenic preservative solution. Each box contains 80 VIABANK vials with either 4 different coloured caps in each box or a choice of one colour from the four options. The boxes conveniently stack in freezer racks.

Description	Presentation	Product Code
<b>VIABANK Mixed</b> Blue, Green, Red & Yellow Caps & beads	Box of 80 tubes	<b>21-VIMA</b>
<b>VIABANK Blue</b> All Blue Cap & beads	Box of 80 tubes	<b>21-VIBA</b>
<b>VIABANK Green</b> All Green Cap & beads	Box of 80 tubes	<b>21-VIGA</b>
<b>VIABANK Red</b> All Red Cap & beads	Box of 80 tubes	<b>21-VIRA</b>
<b>VIABANK White</b> All Yellow Cap & beads	Box of 80 tubes	<b>21-VIWA</b>
<b>VIABANK Yellow</b> All Yellow Cap & beads	Box of 80 tubes	<b>21-VIYA</b>
<b>VIABANK Yeasts and Moulds</b> All Grey Cap & beads	Box of 80 tubes	<b>21-VMGA</b>
<b>VIABANK Anaerobe</b> All Orange Cap	Box of 80 tubes	<b>21-VAOA</b>
<b>VIABANK Meat Free</b> All Black beads Clear Cap	Box of 80 tubes	<b>21-VMMF</b>



## Dehydrated Culture Media

Description	Product Code
2 X YT	LAB179-A
2xYT with Agar	LAB180-A
4-methylumbelliferyl-B-D-glucuronide	MC406-E1
5-bromo-4-chloro-3-indolyl-beta-D-gal	MC405-E1
Acid Hydrolysed Casein	MC007-A
Aeromonas Agar	LAB167-A
Agar No 1 Bact. High Clarity	MC002-A
Agar No 2 Bacteriological General Purpos	MC006-A
Agar No 4 Plant Tissue Culture	MC029-A
BACILLUS (P.E.M.B.A) MEDIUM	LAB193-A
Bacteriological Peptone	MC024-A
Baird Parker Medium Base	LAB085-A
Baird Parker Medium Base (ISO)	LAB285-A
Balanced Peptone No 1	MC004-A
BCYE LEGIONELLA ISOLATION MEDIUM	LAB195-A
Beef Extract (Dehydrated)	MC019-A
Bile Aesculin Agar	LAB207-A
Bile Salts No 3	MC025-E
Bismuth Sulphite Agar Base A	LAB013A-A
Bismuth Sulphite Agar Base B	LAB013B-A
Blood Agar Base	LAB028-A
Blood Agar Base No 2	LAB015-A
Brain Heart Infusion Agar	LAB048-A
Brain Heart Infusion Broth	LAB049-A
Brilliant Green Agar (Modifield)	LAB034-A
Brilliant Green Bile 2% Broth	LAB051-A
Bromocresol Purple Lactose Agar	LAB121-A
Buffered Listeria Broth	LAB139-A
Buffered Peptone Water	LAB046-A
Buffered Peptone Water (ISO)	LAB204-A
C.E.M.O Agar Base	LAB078-A
Campylobacter Enrichment Broth	LAB135-A
Campylobacter Sel. Medium (IMP Blood Fre	LAB112-A
CARY BLAIR MEDIUM (SPECIAL FOR BIOTEC)	LAB505-A
Cetrimide Agar	LAB133-A
Cled Medium (Bevis)	LAB006-A
Cled Medium (Mackey + Sandys)	LAB041-A
Clostridium Difficile Isolation Medium	LAB160-A
Columbia Agar Base	LAB001-A
Columbia Peptone	MC012-A
Cronobacter sakazakii Enrich Broth (ISO)	LAB081-A
D.C.L.S. Agar	LAB003-A
D.N.'Ase Agar	LAB095-A
DE- Neutralising Broth	LAB187-A
De-Neutr. Agar	LAB188-A
Desoxycholate Citrate Agar	LAB029-A
Desoxycholate Citrate Agar (Hynes)	LAB065-A
Dextrose Tryptone Agar	LAB020-A
DG18 Agar (ISO)	LAB218-A
Diassalm	LAB537-A
DRBC Agar (ISO)	LAB217-A
DTM Dermatophyte Test Medium	LAB117-A
EC MEDIUM	LAB171-A
EE Broth	LAB091-A
Endo Agar Base	LAB060-A
Eosin Meth. Blue Agar (Levine)	LAB061-A
Eugon Agar	LAB525-A
Eugon Broth	LAB526-A
Fastidious Anaerobe Agar	LAB090-A
Fastidious Anaerobe Broth	LAB071-A
Fluid Thioglycollate Medium USP	LAB025-A
Foot & Mouth Vaccine Peptone	MC033-A
Fraser Broth Base	LAB164-A
GC Agar Base	LAB067-A
Gelatine	MC015-A
Glucose (Dextrose)	MC013-A
Hektoen Enteric Medium	LAB110-A
Hoyles Medium Base	LAB027-A
ISO Susceptibility Test Agar	LAB170-A
ISOPROPYL-BETA-D-THIOGALACTOPYRANOSIDE	MC402-E1
Kanamycin Aesculin Azide Agar	LAB106-A
Kanamycin Aesculin Azide Broth	LAB107-A
Kligler Iron Agar	LAB059-A
L-Palcamy Broth	LAB144-A
LACTALBUMIN HYDROLYSATE	MC040-A
Lactose	MC020-A
Lactose Broth	LAB126-A
Lauryl Tryptose Broth	LAB196-A
LB (HI-SALT) BROTH	LAB191-A
LB (LENNOX) AGAR	LAB174-A
LB (LENNOX) BROTH	LAB173-A
Lethen Agar	LAB185-A
Lethen Broth	LAB184-A
Listeria Enrichment Broth	LAB138-A
Listeria Enrichment Broth (FDA) (PLUS)	LAB579-B5
Listeria Isolation Medium (Oxford)	LAB122-A
LISTERIA MONO. BLOOD AGAR (MODIFIED)	LAB172-A



## Dehydrated Culture Media

Description	Product Code
Liver Extract	MC034-A
LURIA BERTONI AGAR	LAB168-A
LURIA BERTONI BROTH	LAB169-A
Lysine Agar	LAB201-A
Lysine Iron Agar	LAB054-A
Lysine Iron Cystine Neutral Red Broth	LAB572-E
M-17 Agar	LAB092-A
M.L.C.B. Agar	LAB116-A
M.R.S Agar	LAB093-A
M.R.S. Broth	LAB094-A
MacConkey Agar (With Salt)	LAB030-A
Macconkey Agar (Without Salt)	LAB002-A
MacConkey Agar No 2	LAB216-A
MacConkey Agar No 3	LAB045-A
Macconkey Broth Purple	LAB005-A
Malt Extract Agar 500G	LAB037-A
Malt Extract Broth	LAB169-A
Malt Extract Powder	MC023-A
Maltose Monohydrate	MC022-A
Mannitol (D-Mannitol)	MC014-A
Mannitol Salt Agar	LAB007-A
Maximal Recovery Diluent	LAB103-A
MEAT PEPTONE	MC018-A
Membrane Lauryl Sulphate Broth	LAB082-A
Microbial Content Test Agar	LAB189-A
Milk Agar	LAB019-A
Milk Plate Count Agar	LAB115-A
Minerals Modified Glutamate	LAB080A-A
Mod.Laur.Sulph.Tryp.Broth ISO+MUG+Trypn	LAB077-A
Modified Giolitti & Cantoni Broth (ISO)	LAB219-A
Modified Giolitti & Cantoni Broth (ISO)	LAB219-B2.5
Modified Giolitti & Cantoni Broth (ISO)	LAB219-B5
MTSB For E.Coli 0157	LAB165-A
Mueller Hinton Agar (II)	LAB039-A
Mueller Hinton Broth	LAB114-A
Mueller Kauffman Tetrathionate Broth	LAB042-A
Mueller Kaufmann Tet. Nov. Broth (MKTTn)	LAB202-A
Mycological Peptone 2 X 250GM	MC009-A
Neutralising Broth Base	LAB186-A
Nutrient Agar	LAB008-A
Nutrient Broth 'E'	LAB068-A
Nutrient Broth No 2 BP	LAB014-A
NZCYM BROTH	LAB182-A
NZY BROTH	LAB181-A
O.G.Y.E. Agar	LAB089-A
O.R.S.I.M.	LAB192-A
Orange Serum Agar	LAB147-A
Ox Bile	MC010-A
P.R.E.P Agar (B Cereus)	LAB073-A
Palcam Agar Base	LAB148-A
Peptone Water	LAB104-A
Perfringens Agar (O.P.S.P)	LAB109-A
PERFRINGENS AGAR BASE (TSC/SFP)	LAB194-A
Plate Count Agar	LAB149-A
Plate Count Agar A.P.H.A	LAB010-A
Potato Dextrose Agar	LAB098-A
Proteose Peptone	MC011-A
Pseudomonas Agar Base	LAB108-A
R2A Broth	LAB203-A
R2A Medium	LAB163-A
RAKA-RAY No.3 (increased gel strength)	LAB199-A
Raka-Ray No.3 Agar	LAB198-A
Rappaport-Vassiladis (MSRV) Semi Solid	LAB150-A
Rappaport-Vassiladis Medium	LAB086-A
Reinforced Clostridial Medium Agar	LAB023-A
Reinforced Clostridial Medium Broth	LAB022-A
Ringers Solution 1/4 Strength Tablets	LAB100Z-A
Rose Bengal Chloramphenicol Agar	LAB036-A
Sabouraud Dextrose Agar	LAB009-A
Sabouraud Liquid Medium USP	LAB033-A
Sabouraud Maltose Agar	LAB111-A
Selenite Broth Base	LAB044A-A
Selenite Cystine Broth Base	LAB055A-A
Sensitivity Test Agar (STA)	LAB012-A
Simmons Citrate Agar	LAB069-A
Skimmed Milk Powder (2x250G)	MC027-A
Slanetz & Bartley	LAB166-A
Sodium Chloride (Bact)	MC017-A
Sodium Desoxycholate	MC026-E
Sodium Glutamate 130G	LAB080B-A
Sodium Thioglycollate	MC016-A
Sorbitol Macconkey Agar 500GM	LAB161-A
Soy Peptone	MC003-A
Special Tryptone	MC035-A
SS Agar	LAB052-A
Sugar Free Agar	LAB087-A
T.C.B.S. Cholera Medium	LAB096-A
T.Y.C Medium	LAB035-A



## Dehydrated Culture Media

Description	Product Code
Terrific Broth	LAB183-A
Tetrathionate Broth Base	LAB097-A
Thioglycollate Medium (Brewer)	LAB064-A
Todd Hewitt Broth	LAB075-A
Triple Sugar Iron Agar	LAB053-A
Tryptone	MC005-A
Tryptone Bile Agar	LAB072-A
Tryptone Glucose Extract Agar	LAB063-A
Tryptone Soy Agar U.S.P	LAB011-A
Tryptone Soy Agar U.S.P	LAB011-B5
Tryptone Soy Broth Usp	LAB004-A
Tryptone Water	LAB129-A
Tryptose	MC008-A
Tryptose Phosphate Broth	LAB062-A
Urea Agar Base	LAB130-A
Urea Broth Base	LAB131-A
UVM Broth Base	LAB155-A
V.R.B.A. with MUG	LAB573-A
Violet Red Bile Agar	LAB031-A
Violet Red Bile Glucose Agar	LAB088-A
W.L. Nutrient Agar	LAB079-A
Water Plate Count Agar	LAB197-A
Wort Agar	LAB038-A
Wort Broth	LAB099-A
XLD Agar	LAB032-A
Yeast & Mould Agar	LAB200-A
Yeast Extract (Powder)	MC001-A
Yeast Extract (Powder)	MC001-B25
Yeast Extract Agar	LAB018-A
Yeast Extract Dextrose Chlor. Agar	LAB119-A
Yersina C.I.N. Agar Base	LAB120-A
YPD	LAB175-A
YPD WITH AGAR	LAB176-A





## Yeast Sensitivity Test Media

Abtek semi synthetic sensitivity medium is prepared from buffered RPMI 1640 with the addition of 1.5% glucose and agar, at pH7.0.

This medium has been widely used in studies by the CLSI working party on standardisation of fungal susceptibility testing.

It is supplied as a ready to melt medium in 100ml bottles for plate preparation.

The zones achieved with standard organisms on this media are included in the pack inserts.

Description	Presentation	Product Code
Yeast Sensitivity Test Media	10 Bottles	12-YST100

## Glucose Methylene Blue

For the sensitivity testing of yeast, by CLSI methods.

Patients who are hospitalised for long periods of time, or who are immunocompromised, often suffer from yeast infections, particularly from the *Candida spp.* In order to prevent prolonged ineffective antifungal treatment with Fluconazole and Voriconazole, the CLSI developed methods for the sensitivity testing of *Candida spp.*

Glucose Methylene Blue (GMB) is a media supplement containing 2% glucose to improve and accelerate the growth of the yeast, and 0.5µg of methylene blue to aid growth visualisation and interpretation.

The supplement can be added during agar production, or the plate can be flooded before use. Abtek Fluconazole and /or Voriconazole susceptibility testing discs can then be placed onto the agar and the zone of inhibition after overnight incubation can be measured to indicate the susceptibility of the isolate.

Description	Presentation	Product Code
GLUCOSE METHYLENE BLUE	10 Vials	12-GMB10
GLUCOSE METHYLENE BLUE	10 Vials	12-GMB100



## MIC Sensitivity Testing

Antibiotic	Presentation	Product Code	Examples of BSAC or CLSI Breakpoints
Amikacin	Pack of 10 Vials	AMK µg/mls	AMK16/100
Amoxicillin	Pack of 10 Vials	AMX µg/mls	AMX16/100
Amoxicillin + clavulanate	Pack of 10 Vials	AUG µg /mls	AUG16/100
Ampicillin	Pack of 10 Vials	AMP µg/mls	AMP16/100
Ampicillin + Sulbactam	Pack of 10 Vials	UNZ µg/mls	UNZ8/100
Azithromycin	Pack of 10 Vials	AZM µg/mls	AZM2/1000
Azlocillin	Pack of 10 Vials	AZL µg/mls	AZL64/100
Aztreonam	Pack of 10 Vials	AZT µg/mls	AZT16/200
Bacitracin	Pack of 10 Vials	BAC µg/mls	BAC10/100
Carbenicillin	Pack of 10 Vials	CAR µg/mls	CAR32/200
Cefecetile	Pack of 10 Vials	CCT µg/mls	
Cefaclor	Pack of 10 Vials	CCL µg/mls	CCL16/300
Cefadroxil	Pack of 10 Vials	CDR µg/mls	CDR16/100
Cephalexin	Pack of 10 Vials	CLX µg/mls	CLX16/200
Cefamandole	Pack of 10 Vials	CMD µg/mls	CMD16/100
Cefazolin	Pack of 10 Vials	CZL µg/mls	CZL16/100
Cefazedon	Pack of 10 Vials	CZD µg/mls	
Cefepime	Pack of 10 Vials	CFP µg/mls	CFP16/100
Cefixime	Pack of 10 Vials	CXM µg/mls	CXM2/100
Cefoperazone	Pack of 10 Vials	CPZ µg/mls	CPZ16/100
Cefotaxime	Pack of 10 Vials	CTX µg/mls	CTX4/100
Cefotetan	Pack of 10 Vials	CTT µg/mls	CTT16/500
Cefotiam	Pack of 10 Vials	CTM µg/mls	
Cefoxitin	Pack of 10 Vials	CXT µg/mls	CXT16/200
Cefmenoxime	Pack of 10 Vials	CMX µg/mls	
Cefmetazole	Pack of 10 Vials	CMZ µg/mls	CMZ16/100
Cefpirome	Pack of 10 Vials	CPM µg/mls	
Cefpodoxime	Pack of 10 Vials	CPD µg/mls	CPD4/100
Cefprozil	Pack of 10 Vials	CFO µg/mls	CFO16/100
Cephadrine	Pack of 10 Vials	CRD µg/mls	
Cefsulodin	Pack of 10 Vials	CDN µg/mls	
Ceftazidime	Pack of 10 Vials	CAZ µg/mls	CAZ2/100
Ceftibutin	Pack of 10 Vials	CTB µg/mls	CTB16/100
Ceftizoxime	Pack of 10 Vials	CZM µg/mls	CZM16/100
Ceftriaxone	Pack of 10 Vials	CTR µg/mls	CTR16/500
Cefuroxime	Pack of 10 Vials	CRX µg/mls	CRX16/100
Cephalothin	Pack of 10 Vials	CLT µg/mls	CLT16/100
Cefpirome	Pack of 10 Vials	CPM µg/mls	CPM20/200
Cefatrizine	Pack of 10 Vials	CTZ µg/mls	
Chloramphenicol	Pack of 10 Vials	CHL µg/mls	CHL16/100
Chlortetracycline	Pack of 10 Vials	CHT µg/mls	CHT8/100
Cinoxacin	Pack of 10 Vials	CNX µg/mls	CNX32/100
Ciprofloxacin	Pack of 10 Vials	CPR µg/mls	CPR1/100
Clarithromycin	Pack of 10 Vials	CLM µg/mls	CLM0.5/100
Clindamycin	Pack of 10 Vials	CLN µg/mls	CLN0.5/200
Cloxacillin	Pack of 10 Vials	CXC µg/mls	CXC4/100

Sensifluids are vials of freeze dried antibiotics at specific concentrations for dissolution in a specified volume of culture medium.

With the increasing use of replication techniques for susceptibility testing, the need for convenient, ready-to-use antibiotic powders exists. The product is supplied as a lyophilised vial containing an accurately controlled amount of the antibiotic with an inert stabilising agent.

The products are available from the stock list or are made to order. They cover any practicable concentration of antibiotic and volume of culture medium (agar or broth), from as little as 100mls to as much as 5000mls.

Addition of 5ml of sterile water gives full solution very rapidly. The solution is added to the prepared medium, mixed and the plates poured or broth dispensed.

Sensifluids are supplied in packs of 10 sealed glass vials. Each pack must contain vials of the same specifications.



## MIC Sensitivity Testing

Antibiotic	Presentation	Product Code	Examples of BSAC or CLSI Breakpoints
Colistin	Pack of 10 Vials	COL µg/mls	COL4/100
Co-amoxiclav	Pack of 10 Vials	AUG µg/mls	AUG1/100
Co-trimoxazole	Pack of 10 Vials	COT µg/mls	COT2/100
Doxycycline	Pack of 10 Vials	DOX µg/mls	DOX1/100
Enrofloxacin	Pack of 10 Vials	ENO µg/mls	
Ertapenam	Pack of 10 Vials	ERT µg/mls	ERT1/100
Erythromycin	Pack of 10 Vials	ERY µg/mls	ERY.5/100
Fluconazole	Pack of 10 Vials	FLC µg/mls	FLC16/100
Flumequine	Pack of 10 Vials	FLQ µg/mls	FLQ4/100
Flucytosine	Pack of 10 Vials	FLU µg/mls	
Flucloxacilin	Pack of 10 Vials	FLX µg/mls	
Framycetin	Pack of 10 Vials	FRA µg/mls	
Furazolidine	Pack of 10 Vials	FUR µg/mls	
Fusidic acid	Pack of 10 Vials	FUS µg/mls	FUS1/100
Fosfomycin	Pack of 10 Vials	FOS µg/mls	FOS128/100
Gatifloxacin	Pack of 10 Vials	GAT µg/mls	GAT1/100
Gentamicin	Pack of 10 Vials	GEN µg/mls	GEN4/100
Griseofulvin	Pack of 10 Vials	GFL µg/mls	
Imipenem	Pack of 10 Vials	IMP µg/mls	IMP2/100
Isoconazole	Pack of 10 Vials	ISO µg/mls	
Kanamycin	Pack of 10 Vials	KAN µg/mls	KAN1/100
Ketoconazole	Pack of 10 Vials	KET µg/mls	
Levofloxacin	Pack of 10 Vials	LEV µg/mls	LEV2/100
Lincomycin	Pack of 10 Vials	LIN µg/mls	
Linezolid	Pack of 10 Vials	LNZ µg/mls	LNZ4/100
Lomefloxacin	Pack of 10 Vials	LOM µg/mls	LOM4/100
Loracabef	Pack of 10 Vials	LOR µg/mls	LOR16/100
Mecillinam	Pack of 10 Vials	MEC µg/mls	MEC8/100
Meropenem	Pack of 10 Vials	MER µg/mls	MER4/100
Metronidazole	Pack of 10 Vials	MTZ µg/mls	MTZ8/1000
Mezlocillin	Pack of 10 Vials	MEZ µg/mls	MEZ16/100
Minocycline	Pack of 10 Vials	MIN µg/mls	MIN0.5/100
Moxalactam	Pack of 10 Vials	MOX µg/mls	MOX16/100
Moxifloxacin	Pack of 10 Vials	MXF µg/mls	MXF1/100
Mupirocin	Pack of 10 Vials	MUP µg/mls	MUP4/100
Nafcillin	Pack of 10 Vials	NAF µg/mls	NAF1/1000
Nalidixic acid	Pack of 10 Vials	NAL µg/mls	NAL16/100
Natamycin	Pack of 10 Vials	NAT µg/mls	
Neomycin	Pack of 10 Vials	NEO µg/mls	
Netilmicin	Pack of 10 Vials	NET µg/mls	NET4/100
Nitrofurantoin	Pack of 10 Vials	NIT µg/mls	NIT32/100
Nitrocin	Pack of 10 Vials	NIC µg/mls	
Norfloxacin	Pack of 10 Vials	NOR µg/mls	NOR4/100
Novobiacin	Pack of 10 Vials	NOV µg/mls	
Nystatin	Pack of 10 Vials	NYS µg/mls	
Ofloxacin	Pack of 10 Vials	OFL µg/mls	OFL1/100

Sensifluids are vials of freeze dried antibiotics at specific concentrations for dissolution in a specified volume of culture medium.

With the increasing use of replication techniques for susceptibility testing, the need for convenient, ready-to-use antibiotic powders exists. The product is supplied as a lyophilised vial containing an accurately controlled amount of the antibiotic with an inert stabilising agent.

The products are available from the stock list or are made to order. They cover any practicable concentration of antibiotic and volume of culture medium (agar or broth), from as little as 100mls to as much as 5000mls.

Addition of 5ml of sterile water gives full solution very rapidly. The solution is added to the prepared medium, mixed and the plates poured or broth dispensed.

Sensifluids are supplied in packs of 10 sealed glass vials. Each pack must contain vials of the same specifications.



## MIC Sensitivity Testing

Antibiotic	Presentation	Product Code	Examples of BSAC or CLSI Breakpoints
Oleandomycin	Pack of 10 Vials	OLN µg/mls	
Oxacillin	Pack of 10 Vials	OXC µg/mls	OXC1/100
Oxolinic Acid	Pack of 10 Vials	OXA µg/mls	
Oxytetracycline	Pack of 10 Vials	OXT µg/mls	
Perfloxacin	Pack of 10 Vials	PEF µg/mls	
Piperacillin	Pack of 10 Vials	PIP µg/mls	PIP16/100
Penicillin	Pack of 10 Vials	PEN µg/mls	PEN0.12/100
Piperacillin / Tazobactam	Pack of 10 Vials	TZPµg/mls	TZP16/200
Piperimidic Acid	Pack of 10 Vials	PPA µg/mls	
Polymyxin B	Pack of 10 Vials	POL µg/mls	POL4/100
Quinupristin / Dalfopristin	Pack of 10 Vials	SYN µg/mls	
Rifabutin	Pack of 10 Vials	RFB µg/mls	
Rifampicin	Pack of 10 Vials	RIF µg/mls	RIF0.06/100
Rifamycin	Pack of 10 Vials	RMC µg/mls	
Roxithromycin	Pack of 10 Vials	ROX µg/mls	
Sparfloxacin	Pack of 10 Vials	SAR µg/mls	SAR2/100
Spiramycin	Pack of 10 Vials	SPR µg/mls	
Sisomicin	Pack of 10 Vials	SIS µg/mls	
Spectinomycin	Pack of 10 Vials	SPC µg/mls	SPC64/100
Streptomycin	Pack of 10 Vials	STR µg/mls	STR8/100
Sulphamethoxazole	Pack of 10 Vials	SMX µg/mls	SMX32/100
Teicoplanin	Pack of 10 Vials	TCP µg/mls	TCP8/100
Telithromycin	Pack of 10 Vials	TLM µg/mls	TLM0.5/100
Temocillin	Pack of 10 Vials	TEM µg/mls	TEM8/100
Tetracycline	Pack of 10 Vials	TET µg/mls	TET1/100
Thiamphenicol	Pack of 10 Vials	THI µg/mls	
Ticarcillin	Pack of 10 Vials	TIC µg/mls	TIC32/100
Tigecycline	Pack of 10 Vials	TIG µg/mls	TIG2/100
Ticarcillin / clavulanate	Pack of 10 Vials	BBL µg/mls	BBL16/100
Timentin	Pack of 10 Vials	BBL µg/mls	BBL16/100
Tobramycin	Pack of 10 Vials	TOB µg/mls	TOB4/100
Trovafoxacin	Pack of 10 Vials	TRV µg/mls	TRV2/100
Tylosin	Pack of 10 Vials	TYL µg/mls	
Trimethoprim	Pack of 10 Vials	TRM µg/mls	TRM1/100
Vancomycin	Pack of 10 Vials	VAN µg/mls	VAN8/100

Sensifluids are vials of freeze dried antibiotics at specific concentrations for dissolution in a specified volume of culture medium.

With the increasing use of replication techniques for susceptibility testing, the need for convenient, ready-to-use antibiotic powders exists. The product is supplied as a lyophilised vial containing an accurately controlled amount of the antibiotic with an inert stabilising agent.

The products are available from the stock list or are made to order. They cover any practicable concentration of antibiotic and volume of culture medium (agar or broth), from as little as 100mls to as much as 5000mls.





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**D**LAB



CENTRIFUGES



THERMAL CONTROL



MISCELLANEOUS



DISTILLING



LIQUID HANDLING





## Company Profile

DLAB Scientific Co., Ltd, known as Dragon Lab - Founded in 2002, is now one of the leading companies worldwide for high quality laboratory instruments and equipment for industries, diagnostics and research.

All our products are designed and manufactured in accordance with ISO9001/13485 by our dedicated and experienced R&D Engineering team. Our quality control processes start from the metal processing all the way through to the final inspections of the end products and adhere to worldwide accepted quality standards.

With growing international presence and to create a new corporate identity, we have created a new brand "DLAB". Consequently, Dragon Laboratory Instruments changed to DLAB Scientific, the original manufacturer of bench top equipments. DLAB has subsidiaries in USA as DLAB Scientific Inc. and in India as DLAB Scientific Private Limited.

DLAB Scientific Co., Ltd is committed to become a one-stop partner for distributors worldwide with a growing range of general laboratory instruments. Our products are characterized by reliability, high accuracy and have a highly competitive value along with skilled application and after-sales support.

Our brands include: DRAGONLAB™, DLAB™, DRAGONMED™, DRAGON™ and so on.

*"DLAB is always your accessible solution"*



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DLAB products are manufactured in accordance with ISO9001 and ISO13485. All products comply with EU and North America standards, CE, cTUVus, FCC marked and subjected to the strict QC control.

DLAB instruments are tested and conform to the following safety and EMC standards:

EN 61010-1 UL 3101-1 CAN/CSA C22.2(1010-1)

EN 61010-2-10 EN 61326-1 EMC-guidelines: 89/336/EWG Instrument guidelines: 73/023/EWG



# Liquid Handling



## dPette+ Multifunction Electronic Pipette

## dPette Simple Electric Pipette

### Features

- High accuracy, high performance stepper motor ensures accuracy and repeatability, eliminating manual pipetting errors
- A motor driven digital control pipette with multifunction
- 2 buttons handle all operational settings
- Light weight, ergonomic design, small body dimension for easy handling that guarantees fatigue free pipetting
- Pipetting, Mixing, Stepper and Dilution(Only dPette+)
- Pipetting, Mixing(dPette)
- Adjustable speeds for aspiration and dispensing
- Li-ion battery and dual charging modes enable longer operation time
- Self calibration – dPette can be connected to a PC via. USB for calibration by the user. Third party calibration is not required



**dPette+**

**dPette**

### Specifications

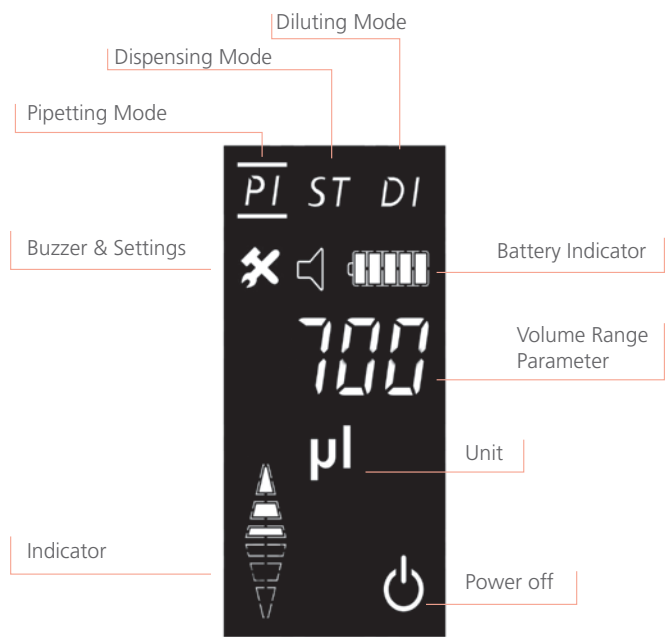
Channels	Volume Range	Increment	Test Volume	Error limits in accordance to ISO8655-2			
				accuracy error		precision error	
				$\mu\text{L}$	%	s.d.* $\mu\text{L}$	CV%*
1	0.5-10	0.01	10	$\pm 0.10$	$\pm 1.00$	0.05	0.50
			1	$\pm 0.035$	$\pm 3.50$	0.03	3.00
1	5-50	0.1	50	$\pm 0.40$	$\pm 0.80$	0.15	0.30
			5	$\pm 0.15$	$\pm 3.00$	0.125	2.50
1	30-300	1	300	$\pm 1.80$	$\pm 0.60$	0.60	0.20
			30	$\pm 0.90$	$\pm 3.00$	0.21	0.70
1	100-1000	5	1000	$\pm 6.00$	$\pm 0.60$	2.00	0.20
			100	$\pm 3.00$	$\pm 3.00$	0.60	0.60

\* s.d. = Standard Deviation

\*CV = Coefficient of Variation

# Electronic Pipette

dPette is an innovative electronic pipette developed by DLAB. It combines the feature of manual pipette as ergonomic and light weight with the feature of electronic pipette as labor-saving and high performance, it offers new pipetting experience to the users.





## MicroPette plus

121°C  
FULLY  
Autoclavable

### Features

- Fully autoclavable
- Ergonomic design provides excellent operating experience
- Easy-to-read volume display
- The pipettes cover the volume range from 0.1µL to 5mL
- Easy calibration and maintenance
- Manufactured from innovative materials
- Each MicroPette Plus supplied with an
- Individual calibration certificate according to ISO8655
- Online calibration is available



## MicroPette plus multi-channel

121°C  
FULLY  
Autoclavable

### Features

- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assembly allow for easy repair and maintenance
- Compound material-made tip cone secures high sealing performance
- Compatible with most universal tip brands
- Online calibration is available



# Mechanical Pipettes



## Fully autoclavable

The MicroPette Plus pipettes are fully autoclavable, enable easy cleaning and reduce the risk of contamination. Steam autoclaving can be performed at 121°C, 1 bar for 20 minutes. After autoclaving, the pipette must be cooled down and left to dry for 12 hours before use.

It is recommended to check the performance of the pipette after each autoclaving. Greasing and sealing of the pipette piston after every 10th autoclaving will secure an enhanced function.



## MicroPette

### Features

- Pipettes cover a volume range from 0.1µL to 10mL
- Ergonomic design provides excellent operating experience
- Large display window allows for easy volume identification
- Easy calibration and maintenance
- Each MicroPette supplied with an individual calibration certificate according to ISO8655
- Online calibration is available

121°C  
HALF  
Autoclavable



## MicroPette multi-channel

121°C  
HALF  
Autoclavable

### Features

- 8 and 12 channel pipettes are appropriate for 96 well plates
- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assemblies allowing easy repair and maintenance
- Compound material-made tip cone secures high sealing performance
- Compatible with most universal tip brands
- Online calibration is available



# Mechanical Pipettes



8 channels

## Calibration

All DLAB pipettes have been quality tested according to ISO8655-2:2002 and are supplied with individual calibration certificates. The quality control includes gravimetric testing of each pipette with distilled water at 22°C. Our website [www.dlabsci.com](http://www.dlabsci.com) allows users to access DLAB online calibration software and achieve accurate and timely calibration.

Online calibration software is FREE to DLAB pipette users



# Mechanical Pipette Volume Selection

## Specifications

This list is appropriate for MicroPette and MicroPette plus (Adjustable and Fixed volume)

### Single-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.1-2.5µL	0.05µL	2.5µL	2.50%	0.0625	2.00%	0.05
		1.25µL	3.00%	0.0375	3.00%	0.0375
		0.25µL	12.00%	0.03	6.00%	0.015
0.5-10µL	0.1µL	10µL	1.00%	0.1	0.80%	0.08
		5µL	1.50%	0.075	1.50%	0.075
		1µL	2.50%	0.025	1.50%	0.015
2-20µL	0.5µL	20µL	0.90%	0.18	0.40%	0.08
		10µL	1.20%	0.12	1.00%	0.1
		2µL	3.00%	0.06	2.00%	0.04
5-50µL	0.5µL	50µL	0.60%	0.3	0.30%	0.15
		25µL	0.90%	0.225	0.60%	0.15
		5µL	2.00%	0.1	2.00%	0.1
10-100µL	1µL	100µL	0.80%	0.8	0.15%	0.15
		50µL	1.00%	0.5	0.40%	0.2
		10µL	3.00%	0.3	1.50%	0.15
20-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
		100µL	0.80%	0.8	0.30%	0.3
		20µL	3.00%	0.6	1.00%	0.2
50-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
		100µL	0.80%	0.8	0.30%	0.3
		50µL	1.00%	0.5	0.40%	0.2
100-1000µL	5µL	1000µL	0.60%	6	0.20%	2
		500µL	0.70%	3.5	0.25%	1.25
		100µL	2.00%	2	0.70%	0.7
200-1000µL	5µL	1000µL	0.60%	6	0.20%	2
		500µL	0.70%	3.5	0.25%	1.25
		200µL	0.90%	1.8	0.30%	0.6
1000-5000µL	50µL	5000µL	0.50%	25	0.15%	7.5
		2500µL	0.60%	15	0.30%	7.5
		1000µL	0.70%	7	0.30%	3
2-10mL	0.1mL	10mL	0.60%	60	0.20%	20
		5mL	1.20%	60	0.30%	15
		2mL	3.00%	60	0.60%	12



# Mechanical Pipette Volume Selection

## 8-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

## 12-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

## Fixed Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
5µL	-	5µL	1.3%	0.065	1.2%	0.06
10µL	-	10µL	0.8%	0.08	0.8%	0.08
20µL	-	20µL	0.6%	0.12	0.5%	0.1
25µL	-	25µL	0.5%	0.125	0.3%	0.075
50µL	-	50µL	0.5%	0.25	0.3%	0.15
100µL	-	100µL	0.5%	0.5	0.3%	0.3
200µL	-	200µL	0.4%	0.8	0.2%	0.4
250µL	-	250µL	0.4%	1.0	0.2%	0.5
500µL	-	500µL	0.3%	1.5	0.2%	1.0
1000µL	-	1000µL	0.3%	3.0	0.2%	2.0
2000µL	-	2000µL	0.3%	6.0	0.15%	3.0
5000µL	-	5000µL	0.3%	15	0.15%	7.5

## Levo Plus Pipette Filler

### Features

- Compatible with most of the plastic and glass pipettes from 0.1 -100mL
- Eight speeds of selection for aspiration and dispensing different liquids
- Large LCD display showing low battery warning and speed settings
- Enables single-handed operation with minimum effort
- Light and ergonomic design providing easy usability
- High capacity Li-ion battery enable long runtime of operation
- Powerful pump fills a 25mL pipette in <7 seconds
- 0.45µm replaceable hydrophobic filter
- Rechargeable during use

Large LCD display showing low battery warning and speed settings

Select the desired coarse speed by pressing the button +/-



Aspiration operation buttons

Operating button for motor and gravity dispensing

Hydrophobic filter 0.45µm

Silicone adapter for 0.1-100mL pipette tip, fully autoclavable



### Specifications

Aspiration Speed	25mL<7s (8 shift)
Dispensing Speed	Motor (8 shift)/Gravity
Battery	Lithium-ion
Battery Service Life	More than 8 Hours of Intermittence Use
Charging Time	2-3 Hours
Pipette Types	Glass or Plastic Pipette (0.1-100mL), Pasteur Pipettes
Filter	0.45µm Hydrophobic
Weight	200g

# Pipette Filler

## Levo ME Pipette Filler

Levo ME pipette filler has an excellent feature and ergonomic design, suitable for almost all commonly used glass or plastic pipettes.

### Features

- Enables single-handed operation with minimum effort
- Compatible with most of the plastic and glass pipettes from 0.1-100mL
- Easily adjustable speed control
- 0.45µm replaceable hydrophobic filter
- Stable and reliable performance, elegant appearance
- High capacity Li-ion battery enable long operation time.



### Specifications

Aspiration Speed	25ml<7s
Dispensing Speed	Motor/Gravity
Battery	Lithium-ion
Battery Service Life	More than 8 Hours of Intermittence Use
Charging Time	2-3 Hours
Pipette Types	Glass or Plastic Pipette (0.1-100mL), Pasteur Pipettes
Filter	0.45µm Hydrophobic
Weight	200g

# Pipette Controllers & Pumps

## Levo

### Pipette Controller

#### Features

- Ease of use
- Precise pipetting control
- Robust and light weight
- Compatible with most of the plastic and glass pipettes from 0.1 -100mL
- 3µm replaceable hydrophobic filter
- Easy cleaning and maintenance



Compress the suction bellows before attaching the pipette

Button to expel residual liquid when using blow-out pipette

Aspiration and dispensing comfortably achieved with a sensitive lever

## Levo E

### Pipette Pump

#### Features

- Volume capacity 2mL, 10mL and 25mL
- Colour-coded by volume with green, blue and red
- Thumb wheel guarantees precise operation
- Resistant to acids and alkalis
- Easy for cleaning and maintenance



3µm replaceable Hydrophobic filter

Silicone adapter for 0.1-100mL pipette tip, fully autoclavable



Designed for single-handed operation, Pipette Pump identifies itself with a thumbwheel, allowing precise aspiration or dispensing. The feature of side lever enables complete liquid dispensing, without a droplet remaining.



# Stepper

Based on the principle of positive displacement, StepMate Stepper is designed for trouble-free and reliable dispensing of liquids, especially for high viscosity, high density and high vapor pressure. The 48-step dispensing allows for enhanced accuracy and usability.

## StepMate Stepper

Optimized for smooth dispensing of even the smallest volumes

### Features

- Light and ergonomic solution provides easy usability
- Single-handed operation
- Volume range from 10 $\mu$ L to 5mL
- Up to 48 dispensing steps
- Maintenance free
- Equipped with durable tip
- insertion lever
- Fits seven sizes of disposable polypropylene syringes from 0.5mL to 50mL

Five easy-to-select settings control dispensing volume

By pushing the slide upwards, the syringe is filled up

### How to select dispensing volume

Find the required dispensing volume in the table  
Use the adjusting wheel to set the required volume  
Select and insert a suitable tip  
Follow the maximum dispensing steps

Tip volume

Dispensing Volume

Tips \ Sel	1	2	3	4	5
0.50ml	10 $\mu$ l	20 $\mu$ l	30 $\mu$ l	40 $\mu$ l	50 $\mu$ l
1.25ml	25 $\mu$ l	50 $\mu$ l	75 $\mu$ l	100 $\mu$ l	125 $\mu$ l
2.50ml	50 $\mu$ l	100 $\mu$ l	150 $\mu$ l	200 $\mu$ l	250 $\mu$ l
5.00ml	100 $\mu$ l	200 $\mu$ l	300 $\mu$ l	400 $\mu$ l	500 $\mu$ l
12.50ml	250 $\mu$ l	500 $\mu$ l	750 $\mu$ l	1000 $\mu$ l	1250 $\mu$ l
25.00ml	500 $\mu$ l	1000 $\mu$ l	1500 $\mu$ l	2000 $\mu$ l	2500 $\mu$ l
50.00ml	1000 $\mu$ l	2000 $\mu$ l	3000 $\mu$ l	4000 $\mu$ l	5000 $\mu$ l
Steps	48	23	15	11	8

Steps

The stop lever secures the syringe





DLAB stepper tips are particularly suitable for dispensing of fluids with high viscosity, high vapor pressure etc.

Tips are made from high-quality materials (Cylinder: PP, Piston: PE-HD) without soft lubricants or other additives.



## Specifications

Note: The first and last dispensing liquid should be discarded for precision.

Dial setting		1	2	3	4	5			
Number of steps		48	23	15	11	8			
Cat. No.	Syringe volume (mL)	Sample volume (μL)					A %	P %	Description
17900032	0.50	10	20	30	40	50	± 0.8	≤ 0.7	0.5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900033	1.25	25	50	75	100	125	± 0.8	≤ 0.5	1.25mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900034	2.50	50	100	150	200	250	± 0.8	≤ 0.4	2.5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900035	5.00	100	200	300	400	500	± 0.4	≤ 0.3	5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900036	12.50	250	500	750	1000	1250	± 0.3	≤ 0.3	12.5ml, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900037	25.00	500	1000	1500	2000	2500	± 0.2	≤ 0.3	25mL, piston PE-HD, cylinder PP, 1 packing, 2pcs/packing with 1 pc adapter
17900038	50.00	1000	2000	3000	4000	5000	± 0.2	≤ 0.2	50mL, piston PE-HD, cylinder PP, 1 packing, 2pcs/packing with 1 pc adapter

# Electronic Titrator

## dTrite Electronic Titrator

The dTrite Digital Burette provides accurate, precise and convenient bottle-top titration, as well as optimum operator safety.

It combines both magnetic stirrer and titrator functions, making it easier for the operator to achieve satisfactory results in the field of analytical chemistry, food industry, water analysis etc.



### Features

- High quality motor providing excellent precision and accuracy
- Electronic control decreases the repetitive strain injury
- Remote control panel prevents manual disturbance during operation
- Built-in magnetic stirrer support

### Specifications

Volume Range	0.01mL-99.99mL, Max piston lift is 10mL, resolution is 10 $\mu$ L
Volume Accuracy	R=0.2% CV=0.07%
Velocity	16 stages
Operating Temperature Range	10°C-30°C
Quality Control	DIN EN ISO 8655
Control Type	External control, including the stirrer and the burette program

# Electronic Bottle-Top Dispenser

## dFlow Electronic Bottle-Top Dispenser

### Features

- Motor operation minimizes the grip force
- Electronic control decreases the repetitive strain injury
- Remote control panel prevents manual disturbance during operation
- Two Dispensing modes, dispenser and stepper function options



### Specifications

Volume Range	0.1-99.9mL, Max piston lift is 10mL, resolution is 100 $\mu$ L
Volume Accuracy	Dispenser: R = 10mL $\pm$ 30 $\mu$ L; CV = 10ml $\pm$ 10 $\mu$ L Stepper: R = 1mL $\pm$ 6 $\mu$ L; CV = 1ML $\pm$ 9 $\mu$ L
Operating Temperature Range	10°C-30°C
Quality Control	DIN EN ISO 8655
Contro Type	External control



# Bottle-Top Dispensers

## DispensMate Bottle-Top Dispenser

Easy-to-use volume adjustment

Smooth piston design provides effortless dispensing

Adapters allow fitting to standard reagent bottles

Filling tube adjusts easily for different size bottles

Closure cap protects, against reagent contact and is easy to attach/detach, without taking gloves off.



### Features

- Excellent chemical resistance, components are made of PTFE, FEP, BSG, PP
- Fully autoclavable at 121°C
- Four ranges of bottle-top dispenser covering a volume range from 0.5mL to 50mL
- Easy for cleaning and maintenance
- The optional flexible discharge tube with safety handle permits fast and precise dispensing
- Vapor pressure max. 500mbar, viscosity max. 500mm<sup>2</sup>/s,
- temperature max. 40°C, density max. 2.2g/cm<sup>3</sup>
- Dispensmate is supplied with S40, GL32, GL38, GL25, GL28 sized adapters

### Specifications

Cat. No.	Volume Range mL	Graduation mL	A±		CV≤	
			%	µL	%	µL
7032100001	0.5-5	0.1	0.5	25	0.2	10
7032100002	1.0-10	0.2	0.5	50	0.2	20
7032100003	2.5-25	0.5	0.5	125	0.2	50
7032100004	5.0-50	1.0	0.5	250	0.2	100

### Accessories

Cat. No.	Description
17100553	GL45, Adapter, 45mm
17000069	S40, Adapter, 45/40mm
17400131	GL32, Adapter, 45/32mm
17400132	GL38, Adapter, 45/38mm
17400133	GL25, Adapter, 32/25mm
17400134	GL28, Adapter, 32/28mm
17400037	Reagent Bottle (Brown, 1L, Optional)
17400021	Filling tube(m)
17100073	Discharge tube(m)

# Vacuum Aspiration System



SafeVac is designed for laboratory waste recovery and separation of liquid and solid. It can be widely used in cell culture, DNA extraction, microplate waste removal, and any other liquid separation or recovery.

## SAFEVAC Vacuum Aspiration Systems

### Features

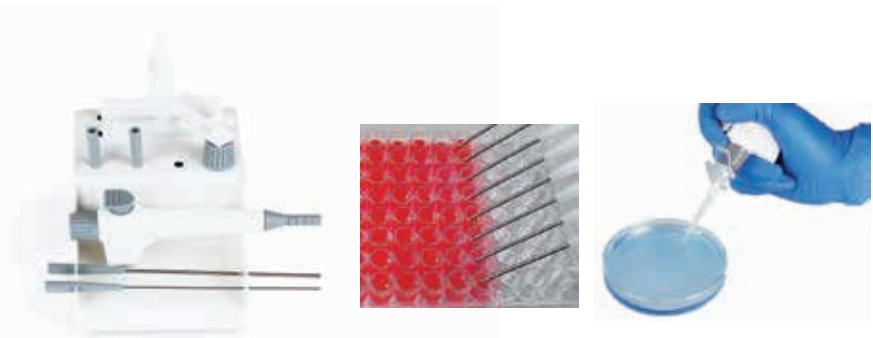
- Vacuum power can be set to different levels to achieve 1mL/S to 15mL/S aspiration speed
- Sensitive level sensor to prevent liquid overflow during operation
- Fully autoclavable waste collection bottle, tubing and handle
- Lid, tubing and handle are easy for disassembling, cleaning and autoclaving
- Wide range of adapters to fit tube, microplate and disk plate for various tasks
- Interchangeable hand operator -tip adapters make it suitable for various tasks from single channel to 8-channel based on the applications in tube, micro plate, disk plate etc

### Specifications

Vacuum range	0-600mbar
Aspirating speed	1-15mL/S
Autoclave component	tube; waste bottle; operation handle;
Dimension[WxDxH]	180x240x450mm
Weight	3kg
Input voltage	100-240VAC, 50/60 Hz
Bottle Volume	4L

Hydrophobic filter  
0.45µm  
Φ6mm

Wide range of adapters fit well with tube, microplate and disk plate for various of tasks, all of which can be fully autoclaved ( At 121°C 1 bar for 20 minutes. After autoclaving the equipment must be cooled down before use ).



# Thermal Control



## TC1000-G Thermal Cycler Gradient

## TC1000-S Thermal Cycler Standard

Thermal cyclers are essential laboratory instruments in the field of biotechnology, cloning, genotyping, mutagenesis, etc.

The TC1000-G features gradient function to achieve excellent heating and cooling rates and temperature uniformity in a single run, fulfilling every wish for easy optimization of PCR assays with high throughput.

### Features

- Reliable heating/cooling elements and precise temperature control
- Unique design of block ensures the temperature uniformity and repeatable results
- 7 inch Large color touch panel screen for easy programming with user friendly software
- High performance DSP and temperature control
- Fast heating and cooling rate
- Large user program storage



# Thermal Cyclers



Excellent temperature uniformity



Gradient function



LCD touch panel



Excellent temperature accuracy



## Specifications

	TC1000-G	TC1000-S
Sample Capacity	96X0.2mL PCR tube, 8X12 PCR plate or 96 well plate	96X0.2mL PCR tube, 8X12 PCR plate or 96 well plate
Heating Temperature Range	4-105°C	4-105°C
Lid Temperature Range	30-110°C	30-110°C
Temperature Display Accuracy	±0.1°C	±0.1°C
Temperature Control Accuracy [at 55°C]	±0.3°C	±0.3°C
Temperature uniformity[at 55°C]	<0.3°C	<0.3°C
Max. Heating/Cooling Rate	3°C/Sec	3°C/Sec
Gradient Temperature Setting Range	30-99°C	-
Gradient Range	1-42°C	-
Adapter block material	aluminum	aluminum
Display	7" LCD 800x480	7" LCD 800x480
Input	Touch panel	Touch panel
User defined file system	Max. 30 segments 99 cycles max. 16 folder and 16 files each folder	Max. 30 segments 99 cycle max. 16 folder and 16 files each folder
Power off protection	Yes	Yes
Power Supply	100-120V/200-240V,50/60Hz	100-120V/200-240V,50/60Hz
Dimension[WxDxH]	280x370x250 mm	280x370x250 mm
Weight	11kg	11kg

## HB120-S

### Dry bath

#### Features

- A wide range of temperature control up to 120°C
- Timer function support is available
- Various types of optional blocks are available
- Overheating protection
- Lid for protection and heat preservation



#### Specifications

	HB120-S
Functions	Heating
Temperature range	Room temp.-120°C
Temperature control accuracy [at 37°C]	± 0.5°C
Temperature uniformity	± 0.5°C
Max. heating rate	5.5°C/min
Timer	0min-99h59min
Screen	LED
Overheating protection	140°C
Adapter block material	aluminum
Voltage, Frequency	100-120V/220-240V,50Hz/60Hz
Power	160W
Dimension[WxDxH ]	175 x 290 x 85mm
Weight	3kg

Cat.No.	Block types	Capacity	Diameter Depth
18900218		0.2mLx54	6.4mm 15mm
18900219		0.5mLx40	8.2mm 26.4mm
18900253 (1.5mL) 18900220 (2mL)		1.5mLx40 2mLx40	11mm 34.7mm
18900221		5/15mLx28	17mm 48mm
18900222		50mLx8	29.8mm 48mm
18900224		0.2mL+0.5mL+1.5/2mL 18+18+18	-
18900223		96 or 384 well plate	-



Adapter block selection



Overheating protection



Timer



LED display



# Dry Bath



Mini Dry bath is portable, compact and convenient. It is useful for rapid and uniform heating of biological samples, in applications like preservation and denaturation of nucleic acids and proteins and many other applications.

## Mini HCL100 Mini HC100 Mini H100 Dry Bath

### Features:

- Light in weight
- LCD display of both temperature and time.
- Rapid calibration support
- Overheating protection
- Optional blocks with different capacities are available
- Safe and stable
- USB interface to save the data
- Mini HCL100 with hot lid provided to preserve the generated heat

Cat.NO.	Block types	Capacity	Diameter x depth
18900414		0.2mlx40	6.4x20 mm
18900415		0.5mlx24	8.2x28.4mm
18900416		1.5mLx15	11.2x31mm
18900428		2mlx15	11x31mm
18900417		5mLx6	17x31mm
18900426		15mlx4	16.4x45mm
18900427		50mlx2	29x45mm

### Specifications

	Mini HCL100	Mini HC100	Mini H100
Display	LCD	LCD	LCD
Temperature setting range[°C]	0-100	0-100	25-100
Temperature range [°C]	Room temperature-23~100	Room temperature-23~100	Room temperature+5~100
Temperature control accuracy[°C]	±0.5	±0.5	±0.5
Temperature display accuracy[°C]	0.1	0.1	0.1
Minimum time taken for heating(25°C-100°C)	≤20min	≤20min	≤20min
Minimum time for cooling (20°C-0°C)	≤25min	≤25min	/
Max. Heating Rate	8°C /min	8°C /min	6.5°C /min
Max. Cooling Rate	3°C /min	3°C /min	/
Time setting range	0-999min/0-999sec	0-999min/0-999sec	0-999min/0-999sec
No. of programs in memory	9(2steps for each)	9 (2steps for each)	9(2steps for each)
Rapid calibration	Support	Support	Support
USB interface	Support	Support	Support
Error code reminder	Support	Support	Support
External dimension [mm]	110x162x140	110x162x140	110x162x140
Overall weight [kg]	≤1	≤1	≤1
Power supply	DC12V,100-240V, 50/60Hz	DC12V,100-240V, 50/60Hz	DC12V,100-240V, 50/60Hz
Power[w]	60	60	60
Operating temperature[°C]	+10-40	+10-40	+10-40
Operating humidity [% RH]	≤80	≤80	≤80

## HC110-Pro Dry bath with cooling

### Features

- Precise temperature control for heating and cooling
- Flexible adapter selection
- Programmable
- Compatible with various tubes
- Quick interchange of blocks with magnet adhesion technology and without any tools
- Block equipped with a lid for heat preservation



Excellent temperature accuracy



Programmable



Adapter self recognition



Cat.No.	Blocks	Speed	Capacity	Diameter x Depth
18900401		1500rpm	24x0.5mL	8.1x26mm
18900402		1500rpm	24x1.5mL	10.9x30.8mm
18900403		1500rpm	24x2mL	10.9x30.8mm
18900404		1500rpm	8x5mL (round bottom)	13.6x42mm
18900405		1400rpm	8x5mL (cone bottom)	17x51.5mm
18900406		800rpm	8x15mL	16.9x80mm
18900407		600rpm	4x50mL	29.6x80mm
18900420		1500rpm	0.2mLx96 PCR plate	-
18900423		1500rpm	microplate	-

### Specifications

	HC110-Pro
Functions	Heating & cooling
Temperature range	Heating: room temp. - 110°C Cooling: room temp. - below room temp. 25°C
Temperature setting range specifications	-5~110°C
Temperature control accuracy[@20~45°C]	± 0.5°C
Temperature uniformity[@20~45°C]	Max ± 0.5°C
Max. heating rate	5.5°C/min
Max. cooling rate	2.5°C/min (100°C-room temp.) 0.5°C/min (below room temp.)
Screen	TFT
Program	9
Overheating protection	150°C
Adapter block material	aluminum
Voltage, Frequency	100~240V,50/60Hz
Power	200W
Dimension[WxDxH] (without the heating block)	200x235x120mm
Weight	7.3kg



# Thermo Mix

The Thermo Mix series allow for precise and efficient heating and mixing, as well as excellent temperature accuracy and uniformity, offering a wide range of applications, such as gene synthesis, gene purification, gene and protein denaturation, enzymatic reaction, bacterial growth, etc.



## HCM100-Pro

Thermo Mix

## HM100-Pro

Thermo Mix with heating

## H100-Pro

Thermo control

### Features

- Excellent mixing result
- Stable and wide range of speed adjustment
- Precise temperature control for heating and cooling
- Flexible adapter selection
- Programmable
- Compatible with various tubes
- Quick interchange of blocks with magnet adhesion technology and without any tools
- Block equipped with a lid for heat preservation



Blocks self recognition



### Specifications

	HCM100-Pro	HM100-Pro	H100-Pro
Functions	Heating, cooling & mixing	Heating & mixing	Heating
Temperature range	Heating: room temp. - 100°C Cooling: room temp. - below room temp. 15°C	Heating: room temp. - 100 °C	Heating: room temp+5 °C. - 100°C
Temperature setting range specifications	0.1~100°C	15~100°C	15~100 °C
Temperature control accuracy[@ 20~45°C]	± 0.5°C	± 0.5°C	± 0.5°C
Temperature uniformity[@ 20~45°C]	Max. ± 0.5°C	Max. 0.5 °C	Max. ± 0.5°C
Max. heating rate	5.5°C/min	5.5°C/min	5.5°C/min
Max. cooling rate	5°C /min(100°C-room temp.) 0.5°C/min(below room temp.)	-	-
Mixing frequency	200-1500rpm	200-1500rpm	-
Mixing orbit	3mm	3mm	-
Screen	TFT	TFT	TFT
Program	9	9	9
Overheating protection	150°C	150°C	150~
Adapter block material	aluminum	aluminum	Aluminum
Voltage, Frequency	100-240V,50/60Hz	100-240V,50/60Hz	100-240V,50/60Hz
Power	200W	200W	200W
Dimension[WxDxH] ( without the heating block )	200x235x120mm	200x235x120mm	200x235x120mm
Weight	7.3kg	7.3kg	7.3kg

# Distilling



# Rotary Evaporator

## RE100-Pro Digital Rotary Evaporator

LCD Digital Rotary Evaporator is an essential instrument in chemical laboratories for the efficient and gentle removal of solvents from samples by evaporation. It offers an excellent distilling solution in a wide range of applications.



### Features:

- Digital display of both rotation speed and heating temperature allows for optimal control of all distillation processes
- Automatic motor lift releases the evaporating flask to a safe position in case of power failure
- 5L heating bath with wide temperature range from room temp. to 180°C, Water/oil heating mode can be changed only through a switch
- Overheating protection temperature at 220°C
- Speed range from 20 to 280rpm, and interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1700cm<sup>2</sup>) with excellent cooling effect
- Ejection mechanism ensures easy removal of evaporating flask
- Patented double spring sealing ring which is made of PTFE provides an excellent sealing performance
- Remote function provides PC control and data transmission



Large LCD display



USB connector



Chemical resistance



Overheating protection



Compatible with all range of glassware

### Specifications

	RE100-Pro
Motor Type	Brushless DC motor
Speed Range	20-280rpm
Display	LCD(speed, temperature, time)
Clockwise and Anti-clockwise	Yes
Heating Temperature Range	Room temp. to 180°C
Control Accuracy	water: ±1°C oil: ±3°C
Heating Power	1300W
Stroke Displacement	automatic 150mm
Timer	Yes
Time Setting Range	1-999min
Dimension[D×W×H]	465×457×583mm
Weight	15kg
Permissible Ambient Temperature	5-40°C
Permissible Relative Humidity	80%RH
Protection Class	IP20
USB Interface	Yes
Voltage/Frequency	100-120/200-240V 50/60 Hz
Power	1400 W

DLAB LED Digital Rotary Evaporator is a basic chemical laboratory instrument suitable for evaporation, distillation and separation of chemicals. It can be used as a multifunctional system in combination with vacuum pump, vacuum controller and circulating refrigerators to provide excellent distillation solutions in many laboratory applications.

## Features:

- 5L heating bath with a wide temperature range (room temp. to 180°C), independent temperature control, make it can be used separately. Water/oil heating mode can be changed only through a switch
- Manual lift combined with auxiliary lift for precise positioning of the glassware
- PID control ensures high temperature accuracy at  $\pm 1^\circ\text{C}$  (water)
- Overheating protection temperature at 220°C
- Boil-dry protection, automatically power off if heating without water/oil in the heating bath
- Speed range from 20 to 200rpm, timing interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1200/1700cm<sup>2</sup> for selection), double helix condensing tube + center circular arc design to speed up the flow rate of liquid with excellent cooling effect
- Ejection mechanism ensures easy exchange of evaporating flask
- Adjustable immersion angle
- Patented double spring sealing ring which is made of PTFE provides an excellent sealing performance
- Remote function provides PC control and data transmission
- Compatible with the entire range of RE100-Pro glassware



USB connector



Chemical resistance



Overheating protection



Compatible with all range of glassware

## RE100-S

### LED Digital Rotary Evaporator



## Specifications

	RE100-S
Motor Type	Brushless DC motor
Speed Range	20-200rpm
Display	LED (speed, temperature, time)
Clockwise and Anti-clockwise	Yes
Heating Temperature Range	Room temp. to 180°C
Control Accuracy	water: $\pm 1^\circ\text{C}$ oil: $\pm 3^\circ\text{C}$
Heating Power	1010 W
Stroke Displacement	Manual 110mm + auxiliary 100mm
Interval Time Setting Range	1~999s
Dimension [D×W×H]	Main Unit: 440×320×450mm Heating Bath: 300×300×240mm
Weight	Main Unit: 7kg Heating Bath: 3kg
Permissible Ambient Temperature	5~40°C
Permissible Relative Humidity	80%RH
Protection Class	IP20
USB Interface	Yes
Voltage/Frequency	100~120/200~240V 50/60 Hz
Power	1100 W

# Rotary Evaporator | Accessories

## Condenser



### Vertical

Cat. No.	Glassware type	Volume	Cooling surface
18900165	Evaporating flask(NS29/32) Receiving flask(KS35/20)	1000mL	1700cm <sup>2</sup>
18900173	Evaporating flask(NS24/40) Receiving flask(KS35/20)	1000mL	1700cm <sup>2</sup>
18900166	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS35/20)	1000mL	1700cm <sup>2</sup>
18900174	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1700cm <sup>2</sup>
18202410	evaporating flask (NS 29/32) Receiving flask (KS 35/20)	1000mL	1200cm <sup>2</sup>



### Diagonal

Cat. No.	Glassware type	Volume	Cooling surface
18900163	Evaporating flask(NS29/32)Receiving flask(KS35/20)	1000mL	1700cm <sup>2</sup>
18900171	Evaporating flask(NS24/40)Receiving flask(KS35/20)	1000mL	1700cm <sup>2</sup>
18900164	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS 35/20)	1000mL	1700cm <sup>2</sup>
18900172	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1700cm <sup>2</sup>



### Heating Bath

Cat. No.	Description	Volume
18900201	Rotary Evaporator, 220V	5L
18900202	Rotary Evaporator, 110V	5L
6033100210	LED heating bath, 100V-120/200-240V,50/60HZ	5L



## Glassware



### Evaporating flask

Cat. No.	Volume	Size
18300116	50mL	NS 29/32
18300117	100mL	NS 29/32
18300118	250mL	NS 29/32
18300119	500mL	NS 29/32
18300120	1000mL	NS 29/32
18300121	2000mL	NS 29/32
18300655	50mL	NS24/40
18300201	100mL	NS 24/40
18300202	250mL	NS 24/40
18300203	500mL	NS 24/40
18300204	1000mL	NS 24/40
18300205	2000mL	NS 24/40



### Receiving flask

Cat. No.	Volume	Size
18300107	100ml	KS 35/20
18300108	250ml	KS 35/20
18300109	500ml	KS 35/20
18300110	1000ml	KS 35/20
18300111	2000ml	KS 35/20



### Distilling spider with 5 flasks(without flask)

Cat. No.	Volume	Size
18900194	/	NS 29/32, NS24/29
18900177	/	NS 29/42, NS24/40



### Foam brake

Cat. No.	Volume	Size
18300093	250ml	NS 29/32
18300207	250ml	NS 24/40



### Vapor tube

Cat. No.	Volume	Size
18100998	/	NS 29/32
18300206	/	NS 24/40

### Connector

Cat. No.	Volume	Size
18300094	/	NS 29/32, NS24/29
18300095	/	NS 29/32, NS19/26
18300096	/	NS 29/32, NS14/23
18300199	/	NS24/40, NS19/22
18300200	/	NS 24/40, NS14/20
18900193	/	NS 24/40, NS 29/42

# Low Temperature Circulator

DLAB Low Temperature Circulator, lowers temperature in place of chilled tap water, is water-efficient and provides high cooling efficiency, capable of almost any cooling requirements in lab or industrial environments. With a compact structure and environment-friendly design, it is an ideal choice for labs.

## CCP5-15 Low Temperature Circulator

### Features & Advantages

- Temperature range: -15- room temperature
- Employs PID temperature control with built-in PT1000 temperature sensor that provides high accuracy of temperature control
- A crystal-clear LED display that switches between display of set temperature and that of actual temperature
- The entire unit is capable of protection against short circuit, over-current, overload and delayed start
- Integrated design of drain outlet and water outlet that allows easy drainage
- German-made pump that is environment-friendly, low-noise and durable
- The compressor employs state-of-the-art R290 environment-friendly refrigerant to protect environment and human health

- The part in contact with liquid is made of stainless steel or high-quality corrosion-resistant material;



- User-friendly operating panel configuration that allows easy operation;



- A large-volume open reservoir allows easy filling and supports cold trap experiment;



- The caster design allows the entire unit to move easily.



# Low Temperature Circulator



## Specifications

### CCP5-15

Range of temperature control	-15°C-Room temperature
Temperature adjustment accuracy	0.1°C
Temperature control accuracy	±0.5°C
Reservoir capacity	5L
Range of temperature adjustment	-30°C~30°C
Temperature display	LED
Type of temperature sensor	PT1000
Compressor refrigerant	R290
Circulating pump throughput	12L/min
Circulating pump head	6m
In-out cycle interface	12mm pagoda-type interface
RS232 interface	Yes
Machine power	350W
Maximum overall dimensions	370*460*700 (mm)
Weight	46Kg
Power supply	220V 50Hz/60Hz
Operating environment	10°C~40°C ≤80% RH

	Cooling capacity					
°C	-15	-10	-5	0	5	10
W	381	460	553	661	786	900



# Vacuum Controller

The vacuum controller serves as a device for labs to display, adjust and control the degree of vacuum in vacuum systems. It generally constitutes the vacuum control system of rotary evaporator along with vacuum pump, which enables repeatable distillation experiment and recovery of many kinds of solvents in an efficient and automatic manner.



## VC100 Vacuum Controller

### Features

- A wide range of measurement and control, 1-1,000mbar
- Two control modes of single-point control and programmed control available for choice as needed
- Can store up to 5 programs, each containing up to 5 segments of programming control
- A large-size TFT touch screen display control allows easy operation
- All parts in contact with vapor or liquid are made of PTFE, ceramics or other high-performance materials and can effectively resist corrosion caused by organic solvents, water, acid and alkali
- A built-in vent valve can feed inert gas into system equipment
- One-stroke decompression allows easy installation and dismantling of vacuum system
- Can be connected with pump power control for temporary shutdown of pump power supply after reaching stable degree of vacuum for energy conservation and environmental protection. Can also be operated in the normally open statue of pump



### Specifications

	VC100
Vacuum setting range	1-1000mbar
Vacuum measurement range	1-1000mbar
Control operation mode	Single-point control mode, Programmed control mode
Control program	Can store up to 5 programs, each containing 5-step control (capable to set the degree of vacuum and time)
Setting method	Touch screen setting
Display	5" TFT
Sensor overload pressure	1,500mbar
Connector diameter	8mm
Materials in contact with vapor	PTFE, PP, silicone and ceramics
Power	600W
Compatible conditions with vacuum pump	power of 50Hz vacuum pump ≤400W power of 60Hz vacuum pump ≤500W
Overall dimensionsW×D×H	189×207×193mm
Weight	4.0kg
Power supply	110—240V,50Hz/60Hz
Operating environment	10°C~40°C, ≤80%RH

## Additional

### MZ 1C Chemistry-design diaphragm pump

#### Specification

Number of heads / stages: 2 / 2  
 Max. pumping speed: 0.75 m<sup>3</sup>/h  
 Ultimate vacuum (abs.): 12mbar  
 Nozzle Size: DN 8-10 mm  
 Rated motor power: 0.06kW  
 Rated motor speed: 1500/1800 rpm  
 Noise level: 45dB  
 ATEX: II 3G IIC T3 X Internal Atm. only

#### Cat. No.

#### Voltage

18900231	Cn plug, 100V-120V/200-230V 50Hz/60Hz
18900232	Euro plug, 100V-120V/200-230V 50Hz/60Hz
18900233	USA plug, 100V-120V/200-230V 50Hz/60Hz
18900234	UK plug, 100V-120V/200-230V 50Hz/60Hz



### C410 Chemistry-design diaphragm pump

#### Specification

Maximum Vacuum: 13mbar  
 Work Mode: Continuous Operation  
 Nozzle Size: 8mm, Power: 95W  
 Motor speed: 1450rpm  
 Flow Rate:

mbar	1000	880	750	600	480	280
L/min	25	22	20	12	7.5	5



### Vacuum regulator/moisture trap

#### Cat. No.

#### Description

18900186  
 In use of control small volume, installed in a vacuum between DVR480 and vacuum system.  
 Material: PVDF, PTFE, ABS, Borosilicate Glass, Stainless Steel



### Seals and other accessories

#### Cat. No.

#### Description

18202027	PTFE vacuum seal	
18900362	Ultra resistant FFKM seal for applications with highly abrasive solutions	
18900190	Evaporation flask clip (red) CS002440	
18900188	Evaporation flask clip (green) CS002942	

# Mixing & Heating



# Magnetic Hotplate Stirrers

DLAB 550°C series magnetic stirrer is developed for demanding applications. It is widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc. Combining with glass ceramic work plate, brushless DC motor and external temperature sensor, the work plate temperature is optimized up to 550°C.

## MS7-H550-Pro LCD Digital Magnetic Hotplate Stirrer

### Features

- LCD display for precise monitoring of speed and temperature
- Built-in PID controller ensures safe heating of the medium with overheating protection
- Max. heating plate temperature 550°C
- Glass ceramic work plate provides excellent chemical resistant performance and most efficient heat transfer
- External temperature control is possible by connecting the temperature sensor(PT1000) with an accuracy at  $\pm 0.2^{\circ}\text{C}$
- Digital speed controlling, max. speed at 1500rpm
- Outstanding brushless DC motor enables more stirring power
- Two rotating knobs enable easy adjustment of speed and temperature
- The "HOT" warning will flash when the work plate temperature is above 50°C even when the hotplate is turned off
- Remote function provides PC control and data transmission



## MS7-H550-S LED Magnetic Hotplate Stirrer

### Features

- LED display for precise monitoring of temperature
- A wide speed range of 0 to 1500rpm
- Max. Heating plate temperature 550°C
- External temperature control is possible by connecting the temperature sensor(PT1000) with accuracy at  $\pm 0.2^{\circ}\text{C}$
- The "HOT" warning will flash if the work plate temperature is above 50°C





Overheating protection



External sensor



Wide range of accessories



Chemical resistance



### Specifications

	MS7-H550-Pro	MS7-H550-S
Work plate Dimension [W x D]	184x184mm (7 inch)	184x184mm (7 inch)
Work plate material	Glass ceramic	Glass ceramic
Motor type	Brushless DC motor	Shaded pole motor
Motor rating input	18W	15W
Motor rating output	10W	1.5W
Power	1050W	1030W
Heating output	1000W	1000W
Voltage	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz
Stirring positions	1	1
Max. stirring quantity, [H <sub>2</sub> O]	20L	10L
Max. magnetic bar[length]	80mm	80mm
Speed range	100-1500rpm resolution ±1rpm	0-1500rpm
Speed display	LCD	Scale
Temperature display	LCD	LED
Heating temperature range	Room Temp.-550°C, increment 1°C	Room temp.-550°C, increment 5°C
Temperature control accuracy	±1°C(<100°C) ±1%(>100°C)	±10°C
Overheating protection	580°C	580°C
Temperature display accuracy	±0.1°C	±1°C
External temperature sensor	PT1000 (accuracy ±0.2)	PT1000 (accuracy ±0.2)
"Hot" warning	50°C	50°C
Data connector	RS232	-
Protection class	IP21	IP21
Dimension [WxDxH]	215x360x112mm	215x360x112mm
Weight	5.3kg	4.5kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH

## Magnetic Hotplate Stirrers

D LAB 340°C magnetic hotplate stirrers include all leading safety standards and features for superior ease of use and are cost-effective. They are widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals, etc.

### **MS-H-Pro<sup>T</sup>** LCD Digital Magnetic Hotplate Stirrer with Timer



### **MS-H-Pro<sup>+</sup>** LCD Digital Magnetic Hotplate Stirrer



#### Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control with max. temperature at 340°C
- Digital speed control with max. speed up to 1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 20L
- Safety circuits provide overheating protection
- The "HOT" warning will flash if the plate temperature is above 50°C even when the hotplate is turned off
- Wide range timer function from 1min to 99h59min(MS-H-Pro<sup>T</sup> only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-Pro<sup>T</sup> displays the time also)
- External temperature control is possible by connecting the temperature sensor(PT 1000) with accuracy at ±0.2°C
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- A wide variety of accessories are available

# Magnetic Hotplate Stirrers



## MS-H-S Magnetic Hotplate Stirrer

### Features

- Maintenance free brushless DC motor
- Max. temperature to 340°C
- Stirring speed up to 1500 rpm
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- Safety circuits provide overheating protection
- A wide variety of accessories are available



External sensor



Brushless DC motor



Wide range of accessories



RS232 connector



Chemical resistance





## Specifications

	MS-H-PRO <sup>+</sup>	MS-H-PRO <sup>T</sup>	MS-H-S
Work plate dimension	φ135mm(5 inch)	φ135mm(5 inch)	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic	stainless steel cover with ceramic	stainless steel cover with ceramic
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Motor rating input	18W	18W	18W
Motor rating output	10W	10W	10W
Power	550W	550W	530W
Heating output	500W	500W	500W
Voltage	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz
Stirring positions	1	1	1
Max. stirring quantity[H <sub>2</sub> O]	20L	20L	20L
Max. magnetic bar[length]	80mm	80mm	80mm
Speed range	100-1500rpm resolution±1rpm	100-1500rpm resolution±1rpm	0-1500rpm resolution±1rpm
Speed display	LCD	LCD	Scale
Temperature display	LCD	LCD	Scale
Heating temperature range	Room temp.-340°C, increment 1°C	Room temp.-340°C, increment 1°C	Room temp.-340°C
Temperature control accuracy	±1°C(<100°C) ±1%(>100°C)	±1°C(<100°C) ±1%(>100°C)	-
Over temperature protection	420°C	420°C	420°C
Temperature display accuracy	±0.1°C	±0.1°C	±0.5°C
External temperature sensor	PT1000 (accuracy ±0.2)	PT1000 (accuracy ±0.2)	-
"Hot" warning	50°C	50°C	-
Timer function	-	1min to 99h 59min	-
Data connector	RS232	RS232	-
Protection class	IP42	IP42	IP42
Dimension[WxDxH]	160×280×85mm	160×280×85mm	160×280×85mm
Weight	2.8kg	2.8kg	2.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH



# Magnetic Hotplate Stirrers

DLAB MS-H280-Pro is a perfect device for handling small volume task on daily application, as a low temperature magnetic stirrer with max. temperature at 280°C.

## MS-H280-Pro LED Digital Magnetic Hotplate Stirrer

### Features

- Digital temperature control with max. temperature up to 280°C
- Digital speed control with max. speed up to 1500rpm
- Stainless steel work plate with ceramic coating provides good chemical resistant performance
- External temperature control is possible by connecting the temperature sensor(PT1000) with an accuracy at  $\pm 0.5^{\circ}\text{C}$
- LED display shows temperature and speed
- The "HOT" warning will flash when the work plate temperature is above 50°C even if the hotplate is turned off



External sensor



Wide range of accessories



Chemical resistance



LED display



### Specifications

	MS-H280-Pro
Work plate Dimension	$\phi 135\text{mm}$ (5 inch)
Work plate material	stainless steel cover with ceramic
Motor type	Brushless DC motor
Motor rating input	5W
Motor rating output	3W
Power	515W
Heating output	500W
Voltage	100-120/200-240V 50/60Hz
Stirring positions	1
Max. stirring quantity	3L
Max. magnetic bar[length]	50mm
Speed range	200-1500rpm
Speed display	LED
Temperature display	LED
Speed display resolution	$\pm 1\text{rpm}$
Heating temperature range	Room temp.-280, increment $1^{\circ}\text{C}$
Control accuracy of work plate	$\pm 1^{\circ}\text{C}$ ( $<100^{\circ}\text{C}$ ) $\pm 1\%$ ( $>100^{\circ}\text{C}$ )
Overheating protection	$320^{\circ}\text{C}$
Temperature display accuracy	$\pm 1^{\circ}\text{C}$
External temperature sensor	PT1000 (accuracy $\pm 0.5^{\circ}\text{C}$ )
"Hot" warning	$50^{\circ}\text{C}$
Protection class	IP21
Dimension[WxDxH]	150×260×100mm
Weight	1.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

# Magnetic Hotplate Stirrers

DLAB new heating magnetic stirrer with aluminum work plate, is capable of rapid heating and stable heating as well as precise temperature control. Almost all leading safety standards and features are included for superior and are cost-effective. They are widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals, etc.

## MS-H-Pro<sup>A</sup> LCD Digital Magnetic Hotplate Stirrer

### Features

- Digital control with max. temperature at 340°C, max. speed up to 1500rpm.
- Aluminum alloy work plate with flat plane provides fast heating performance, and strong compatibility with various heating containers and heating blocks.
- High-resolution LCD display shows actual temperatures and speed.
- PID controller ensures a precise and steady heating process.
- External temperature control is possible by connecting the temperature sensor(PT 1000) with accuracy at  $\pm 0.2^{\circ}\text{C}$ .
- Brushless DC motor enables more powerful speed control.
- Three heating modes for selected ( fast heating, standard heating and stable heating ).
- Remote control function through RS232 interface provides PC control and data transmission.



### Security

- International safety certification: obtained the CE, CTÜVus, FCC and other product safety certifications issued by TUV Rheinland.
- Safety circuits provide overheating protection.
- The “HOT” warning will flash if the plate temperature is above 50°C even when the hotplate is turned off.
- Brushless DC motor is maintenance free and explosion-proof.
- Fully enclosed aluminum alloy housing with good heat dissipation performance and reliable protection capability.



### Specifications

	MS-H-Pro <sup>A</sup>
Work plate dimension	φ135mm(5inch)
Work plate material	Aluminum
Motor type	Brushless DC motor
Heating temperature range	Room temp.-340°C, increment 1°C
Temperature display accuracy	$\pm 0.1^{\circ}\text{C}$
Heating power	600w
Speed range	100-1500rpm resolution $\pm 1\text{rpm}$
Max. stirring quantity[H <sub>2</sub> O]	20L
Speed display	LCD
Temperature display	LCD
Motor rating input	18w
Motor rating output	10w
Max. magnetic bar[length]	80mm
Temperature control accuracy	$\pm 1^{\circ}\text{C}(<100^{\circ}\text{C})$ $\pm 1\%(>100^{\circ}\text{C})$
External temperature sensor	PT1000 (accuracy $\pm 0.2^{\circ}\text{C}$ )
Over temperature protection	420°C
"Hot" warning	50°C
Data connector	RS232
Protection class	IP21
Voltage	100~120/200-240V 50/60Hz
Power	650w
Dimension[WxDxH]	280×160×100mm
Weight	2.8kg
Permissible ambient temperature and humidity	5-40°C; 80%RH

# Magnetic Hotplate Stirrers

## HP380-Pro

LCD Digital Hotplate

## MS6-Pro

LCD Digital Magnetic Stirrer

## MS-H380-Pro

LCD Digital Magnetic Hotplate Stirrer

DLAB 380°C magnetic hotplate stirrers include all leading safety standards and is chemically-resistant with white ceramic work plate. They can be used in physical, chemical, analytical and biological laboratories.

### Features:

- Max. heating temperature is 380°C
- High resolution LCD displays actual temperature and speed.
- Brushless DC motor is maintenance free
- Aluminum cover with ceramic work plate, allows for immediate heat transfer
- External temperature control is possible with temperature sensor PT1000
- Digital temperature control with max. temperature at 380°C
- Digital speed control with max. speed up to 1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 5L



Specifications	MS-H380 Pro	MS6-Pro	HP380-Pro
Work plate Dimension	140x140mm	140x140mm	140x140mm
Work plate material	Aluminum cover with ceramic coating	Aluminum cover with ceramic coating	Aluminum cover with ceramic coating
Motor type	Brushless DC motor	Brushless DC motor	-
Motor rating input	2.4W	2.4W	-
Motor rating output	1.8W	1.8W	-
Power	510W	10W	510W
Heating output	500W	-	500W
Voltage	100-120/200-240V, 50/60Hz	100-240V, 50-60Hz	100-120/200-240V, 50/60Hz
Stirring positions	1	1	-
Max. stirring quantity[H <sub>2</sub> O]	5L	5L	-
Max. magnetic bar[length]	50mm	40mm	-
Speed range	200-1500rpm	200-1500rpm	-
Speed display	LCD	LCD	-
Temperature display	LCD	-	LCD
Heating temperature range	Room temp.+5°C - 380°C	-	Room temp.+5°C - 380°C
Over heat Protection	420°C	-	420°C
Temperature display accuracy	±0.1°C	-	±0.1°C
External temperature sensor	PT1000 (accuracy ±0.5°C)	-	PT1000 (accuracy ±0.5°C)
Control accuracy of sensor	±20rpm	±20rpm	-
Protection class	IP21	IP21	IP21
Dimension [W x D x H]	320x180x108mm	320x180x108mm	320x180x108mm
Weight	2.2kg	2.2kg	2.2kg
Permissible ambient temperature and humidity	5-40°C 80%RH	5-40°C 80%RH	5-40°C 80%RH

## MS-H340-S4

### LCD 4-Channel Digital Magnetic Hotplate Stirrer



It is widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc.

#### Features

- Independent heating and stirring control
- LCD display shows actual temperatures and speed
- PID controller ensures a precise and steady heating process, Max. temperature up to 340°C
- Brushless DC motor enables more powerful speed control
- External temperature sensor(PT1000) with accuracy at 0.2°C
- Overheating protection temperature at 420°C
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- A wide variety of accessories are available

#### Specifications

	MS-H340-S4
Work plate dimension	Φ135mm (5inch)
Plate material	Stainless steel with ceramic coating
Motor type	Brushless DC motor
Motor rating input	1.8W×4
Power	515W×4
Heating Power	500W×4
Voltage	100-120V,60Hz; 200-240V,50 Hz
Stirring positions	4
Max. stirring quantity of single position (H2O)	10L
Max. magnetic bar	40mm
Speed range	200-1500rpm
Speed display	LCD
Temperature display	LCD
Control accuracy of sensor	±20rpm
Temperature range	25-340°C
Over temperature protection	420°C
Temperature display accuracy	±0.1°C
External temp. sensor	PT1000 (Accuracy±0.2°C)
IP Protection class	IP21
Dimensions[WxDxH]	698×270×128mm
Weight	9.5kg
Permissible ambient temperature	5~40°C
Permissible relative humidity	80%RH

# Magnetic Hotplate Stirrers

## MS-H-S10

### 10-Position Magnetic Hotplate Stirrer

#### Features

- Maintenance-free brushless DC motor
- Max speed 1100rpm
- Max. temperature 120°C
- Stainless steel work plate, covered with silicone cushion, provides the excellent performance of heating uniformity and skid resistance



Skid resistance



Multiple position



Brushless DC motor

#### Specifications



	MS-H-S10
Work plate dimension[W x D]	180x450mm
Work plate material	Stainless steel with silicone
Motor type	Brushless DC motor
Motor rating input	12W
Motor rating output	4W
Power	490W
Heating output	470W
Voltage	100-120/200-240V 50/60Hz
Stirring positions	10
Max. stirring quantity	0.4Lx10
Max. magnetic bar[length]	40mm
Speed range	0-1100rpm
Speed display	scale
Temperature display	scale
Heating temperature range	Room temp.-120°C
Overheating protection	140°C
Protection class	IP42
Dimension[WxDxH]	182x622x65mm
Weight	3.2kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

## Alloy-Bead Heating Bath

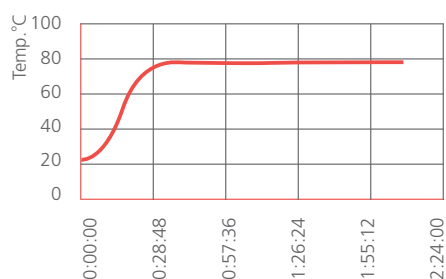
### Features

- High strength aluminum alloy bead with high thermal conductivity over wide temperature range.
- Flexible, convenient, easy to operate and adaptable to reaction vessels with different shapes and sizes.
- Accommodate the external temperature probe on the hotplate magnetic stirrer to achieve precise temperature control.
- The alloy bead does not adhere to the container inside surface, while the silicone oil is difficult to clean in the oil bath application.
- Eco-friendly, pollution free, poison free, fume free, highly safe and splash free heating.
- PTFE shell can effectively retain the heat and ensure human safety from burning injuries.
- The beads are easy to handle with. The contaminated portion can be cleaned and replaced separately.



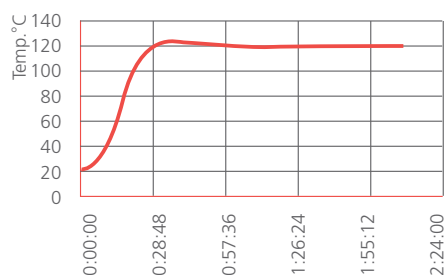
250ml water heated up to 80°C

(MS-H-ProA)



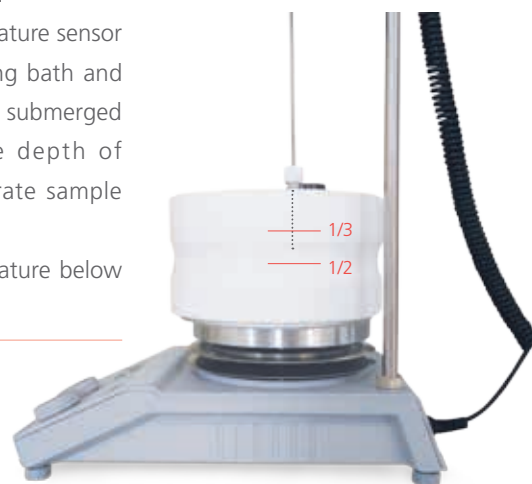
250ml silicone oil heated up to 120°C

(MS-H-ProA)



### Tips for temperature control

- We recommend to use the beads with DLAB 340, 550 and 280 series hotplate magnetic stirrers.
- Place the external temperature sensor in the hole on the heating bath and ensure that the probe is submerged within 1/2~1/3 of the depth of the bead bath for accurate sample temperature control.
- Keep the heating temperature below 260°C.



# Magnetic Hotplate Stirrers | Accessories



Cat. No.	Description	MS7-H550-Pro	MS7-H550-S	MS-H-Pro <sup>+</sup>	MS-H-Pro <sup>T</sup>	MS-H-S	MS-H280-Pro
1	Blue carrying plate, use with color quarter pies			■	■	■	■
2	Blue Fixed ring, use with color quarter pies			■	■	■	■
3	Red quarter pie, 11 holes, 4 mL reaction vessel, Ø15.2mm, 20mm depth	■	■	■	■	■	■
4	Purple quarter pie, 4 holes, 20 mL reaction vessel, Ø28mm, 24mm depth	■	■	■	■	■	■
5	Blue quarter pie, 4 holes, 30mL reaction vessel, Ø28mm, 30mm depth	■	■	■	■	■	■
6	Black quarter pie, 4 holes, 40mL reaction vessel, Ø28mm, 43mm depth	■	■	■	■	■	■
7	Green quarter pie, 6 holes, 8mL reaction vessel, Ø17.8mm, 26mm depth	■	■	■	■	■	■
8	Golden quarter pie, 4 holes, 16mL reaction vessel, Ø21.6mm, 31.7mm depth	■	■	■	■	■	■
9	Reaction block for 50mL round bottom flask (one flask capacity)			■	■	■	■
10	Reaction block for 100mL round bottom flask (one flask capacity)			■	■	■	■
11	Reaction block for 250mL round bottom flask (one flask capacity)			■	■	■	■
12	Reaction block for 500mL round bottom flask (one flask capacity)			■	■	■	■
13	F101 protective cover, temperature resistance of 135°C			■	■	■	■
14	PT1000-A, length of 230mm	■	■	■	■		■
15	PT1000-B, temperature sensor with glass coated, length of 230mm	■	■	■	■		■
16	Support clamp of PT1000	■	■	■	■		
17	Support clamp of PT1000						■

# Magnetic Hotplate Stirrers | Accessories



## Stirrer bars

Stirrer bars and stirrer bar remover(PTFE), use below 150°C

### Models

MS7-H550-Pro MS7-H550-S MS-H-Pro <sup>+</sup> MS-H-Pro <sup>T</sup> MS-H-S MS-S	MS-H280-Pro MS-PA MS-PB	MS-H-S10 MS-M-S10 FlatSpin EcoStir
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Cat. No.	Size of stirrer bars (LxØ)[mm]	Suitable for max. stirrer bar 80mm	Suitable for max. stirrer bar 50mm	Suitable for max. stirrer bar 40mm
18900006	10mmx6mm	■	■	■
18900007	15mmx8mm	■	■	■
18900008	20mmx8mm	■	■	■
18900009	25mmx8mm	■	■	■
12500005	30mmx6mm	■	■	■
18900011	40mmx8mm	■	■	■
12500004	50mmx8mm	■	■	
18900013	65mmx8mm	■		
18900014	80mmx13mm	■		
18900015	Stirrer bar remover, length of 200mm	■	■	■



# Hotplates

## HP550-S LED Hotplate

### Features

- LED screen shows temperature
- Max. temperature up to 550°C
- Separate safety circuits with fixed safety temperature of 580°C
- External temperature control is possible by connecting the temperature sensor(PT 1000) with an accuracy at  $\pm 0.5^{\circ}\text{C}$
- Glass ceramic work plate provides excellent chemical-resistant performance and most efficient heat transfer
- The "HOT" warning will flash if the work plate temperature is above 50°C even when the hotplate is turned off



Wide range of accessories



Chemical resistance



Overheating protection



"HOT" warning prevents burning



### Specifications

	HP550-S
Work plate dimension[WxD]	184x184mm(7 inch)
Work plate material	Glass ceramic
Power	1010W
Voltage Frequency	100-120/200-240V,50/60Hz
Heating Power	1000W
Heating position	1
Heating temperature range	Room temp.-550°C,increment 5°C
Control accuracy of work plate	$\pm 10^{\circ}\text{C}$
Safety temperature	580°C
Temperature display	LED
Temperature display accuracy	$\pm 1^{\circ}\text{C}$
External temperature sensor	PT1000( $\pm 0.5^{\circ}\text{C}$ )
Heating warning	50°C
Protection class	IP21
Dimension[WxDxH]	215x360x112mm
Weight	4.5kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

## MS7-S 7" Square Magnetic Stirrer

### Features

- Speed range of 0-1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 10L
- Ceramic work plate provides excellent chemical resistant performance



Chemical resistance



Strong magnetism

### Specifications

Work plate dimension[WxD]	
Work plate material	
Motor type	
Motor input power	
Motor output power	
Power	
Voltage	
Stirring positions	
Max. stirring quantity[H <sub>2</sub> O]	
Max. magnetic bar[length]	
Speed range	
Speed display	
Protection class	
Dimension[WxDxH]	
Weight	
Permissible ambient temperature and humidity	

## MS-S Magnetic Stirrer

### Features

- Maintenance free brushless DC motor
- Speed range of 0-1500 rpm
- Max. stirring quantity of H<sub>2</sub>O at 20L
- Stainless steel work plate cover with ceramic material provides good chemical resistance performance



### F100 protective cover

for non-hotplate model,  
use with MS-S



	MS7-S	MS-S
Work plate dimension[WxD]	184x184mm(7 inch)	φ135mm(5 inch)
Work plate material	Glass ceramic	Stainless steel cover with ceramic
Motor type	Shaded pole motor	Brushless DC motor
Motor input power	15W	18W
Motor output power	1.5W	10W
Power	30W	30W
Voltage	100-120/200-240V,50/60Hz	100-240V,50/60Hz
Stirring positions	1	1
Max. stirring quantity[H <sub>2</sub> O]	10L	20L
Max. magnetic bar[length]	80mm	80mm
Speed range	0-1500rpm	0-1500rpm
Speed display	Scale	Scale
Protection class	IP21	IP42
Dimension[WxDxH]	215x360x112mm	160x280x85mm
Weight	3.8kg	2.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH

# Magnetic Stirrers



## MS-PA LED Digital Magnetic Stirrer

### Features

- Digital speed control within the range of 100-1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 3L
- LED display shows speed
- Nylon+GF housing provides a good performance of chemical resistance

## MS-PB Magnetic Stirrer

### Features

- A wide range of 0-1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 3L
- Nylon+GF housing provides a good performance of chemical resistance



Chemical resistance



Strong magnetism



LED display



### Specifications

	MS-PA	MS-PB
Work plate dimension[WXD]	φ135mm(5 inch)	φ135mm(5 inch)
Work plate material	Nylon+GF	Nylon+GF
Motor type	Brushless DC motor	DC motor
Motor input power	5W	5W
Motor output power	3W	3W
Power	15W	10W
Voltage	100-120/200-240V,50/60Hz	100-120/200-240V,50/60Hz
Stirring positions	1	1
Max. stirring quantity[H <sub>2</sub> O]	3L	3L
Max. magnetic bar[length]	50mm	50mm
Speed range	200-1500rpm	0-1500rpm
Speed display	LED	Scale
Protection class	IP42	IP42
Dimension[WxDxH]	150×260×80mm	150×260×80 mm
Weight	1.8kg	1.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH

## MS-M-S10 10-Position Magnetic Stirrer

### Features

- Maintenance-free brushless DC motor
- Speed range of 0-1100rpm
- Stainless steel work plate covered with silicone cushion, provides excellent performance of skid resistance



Skid resistance



Multiple position



### Specifications

Work plate Dimension[WxD]	
Work plate material	
Motor type	
Motor input power	
Motor output power	
Power	
Voltage	
Stirring positions	
Max. stirring quantity[H <sub>2</sub> O]	
Max. magnetic bar[length]	
Speed range	
Speed display	
Protection class	
Dimension[WxDxH]	
Weight	
Permissible ambient temperature and humidity	

### MS-M-S10

180×450mm
Stainless steel with silicone coating
Brushless DC motor
12W
4W
20W
100-120/200-240V,50/60Hz
10
0.4LX10
40mm
0-1100rpm
Scale
IP21
622×205×65mm
3.2kg
5-40°C, 80%RH

# Magnetic Stirrers

## FlatSpin

### Ultra-flat Compact Magnetic Stirrer

With excellent stirring functionality, the compact shape of FlatSpin takes less bench space and makes storage easier.

#### Features

- A wide range of speed from 15 to 1500rpm
- Automatic reverse rotation for excellent mixing
- Protection class (IP65)
- PET top provides excellent chemical resistance
- Ultra silence and vibration-free



EcoStir is a magnetic stirrer customized for liquid mixing, suitable for chemical analysis, biology reagent mixing, regular laboratory experiments and liquid handling.

## EcoStir

### Economical Magnetic Stirrer

#### Features

- Maintenance free brushless DC motor
- Rare earth magnets give powerful stirring
- Stepless speed regulation 300-2000rpm
- Ultra silence and vibration-free design.
- PET top provides excellent chemical resistance
- Shaft can be fitted with a PH sensor or sensors for other purposes

#### Specifications

	FlatSpin	EcoStir
Work plate Dimension	φ90mm	φ120mm
Work plate material	PET	PET
Motor type	Motorless	Brushless DC motor
Motor output power	3W	1.2W
Power	5W	7.2W
Voltage	100-120/200-240V,50/60Hz	100-120/200-240V,50/60Hz
Stirring positions	1	1
Max. stirring quantity[H <sub>2</sub> O]	0.8L	1.5L
Max. magnetic bar[length]	40mm	40mm
Speed range	15-1500rpm	300-2000rpm
Speed setting	button	scale
Protection class	IP65	IP21
Dimension [W x D x H]	175x120x15mm	150x145x50mm
Weight	0.3kg	0.3kg
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH

## OS20-Pro OS40-Pro OS70-Pro

### LCD Digital Overhead Stirrer

DLAB Overhead Stirrers can accomplish the most demanding tasks and provide high safety and increased performance. They are widely used in chemical synthesis, pharmaceutical synthesis, physical and chemical analysis, petrochemical industries, etc.



Speed 50~2200rpm with control accuracy of  $\pm 3$ rpm



Brushless DC motor for long life, maintenance free



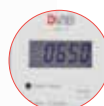
Provides a constant speed even with changes in viscosities of the sample



Safety circuits allow for safe stop function in anti-spill or overload conditions



Remote function provide PC control and data transmission



LCD display set and actual speed, Torque trend display for real-time information on viscosity changes



Self - locking drill chuck, tools free.



Stirring paddle "top-cross" design, easy to replace the container



Start/run smoothly, prevent sample splatter or overflow



Multi - purpose, multi - specification high quality stainless steel, PTFE stirring paddle optional



### Specifications

	OS20-Pro	OS40-Pro	OS70-Pro
Max. stirring quantity[H <sub>2</sub> O]	20L	40L	70L
Motor type	brushless DC motor	brushless DC motor	brushless DC motor
Motor input power	60W	120W	180W
Motor output power	50W	100W	160W
Voltage	100-240V, 50/60 Hz	100-240V, 50/60 Hz	100~240V, 50/60 Hz
Power	70W	130W	200W
Speed range	50-2200rpm	50-2200rpm	50~1100rpm
Speed display accuracy	$\pm 3$ rpm	$\pm 3$ rpm	$\pm 10$ rpm
Speed display	LCD	LCD	LCD
Torque display	LCD	LCD	LCD
Time settings range	-	-	0-99h59min
Overload protection display	LED lights	LED lights	LED lights
Max. torque	40Ncm	60Ncm	300Ncm
Viscosity max.	10000mPas	50000mPas	100000mPas
Chuck range diameter	0.5-10mm	0.5-10mm	0.5-10mm
Dimension[WxHxD]	186 x 83 x 220mm	186 x 83 x 220mm	186 x 83 x 220mm
Weight	2.8kg	2.8kg	3.2kg
Protection class	IP21	IP21	IP21
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5~40°C,80%RH
Data connector	RS232	RS232	RS232

# Overhead Stirrers

## OS20-S OS40-S

### LED Overhead Stirrer

#### Features

- High reliability and outstanding performance
- A wide range of speed from 50 to 2200rpm
- Brushless DC motor for long life, maintenance free and explosion proof
- LED screen for monitoring actual speed
- Safety circuits allow for safe stop function in anti-stall or overload conditions



Explosion-proof



Wide range of accessories



#### Specifications

	OS20-S	OS40-S
Max. stirring quantity(H <sub>2</sub> O)	20L	40L
Motor type	brushless DC motor	brushless DC motor
Motor input power	60W	120W
Motor output power	50W	100W
Voltage	100-240V, 50/60 Hz	100-240V, 50/60 Hz
Power	70W	130W
Speed range	50-2200rpm	50-2200rpm
Speed display accuracy	±3rpm	±3rpm
Speed display	LED	LED
Overload protection display	LED lights	LED lights
Max. torque	40Ncm	60Ncm
Viscosity max.	10000mPas	50000mPas
Chuck range diameter	0.5-10mm	0.5-10mm
Dimension[WxHxD]	83x220x186mm	83x.220x186mm
Weight	2.8kg	2.8kg
Protection class	IP21	IP21
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C 80%RH

## Universal plate stand

Dimension [W x D x H] : 200x310x780mm  
Material: stainless steel

**Cat. No.**

18900258



## Propeller stirrer

shaft length 400mm  
stirrer diameter 50mm

**Material:** 316L stainless steel

**Application:** Standard stirring element used at medium and high speeds

**Cat. No.**

18900071



## Straight stirrer

shaft length 40cm  
stirrer diameter 6cm

**Material:** 316L stainless steel

**Application:** Ideal for the mixing of low viscosity media at medium and high speeds

**Cat. No.**

18900072



## Paddle stirrer

shaft length 40cm  
stirrer diameter 6.8cm

**Material:** 316L stainless steel

**Application:** Suitable for samples needed gentle processing at low and medium speeds

**Cat. No.**

18900073



## Centrifugal stirrer

shaft length 40cm  
stirrer diameter 9cm

**Material:** 316L stainless steel

**Application:** Two-bladed stirrer whose blades open with increasing speed. perfect for stirring in round vessels with narrow necks. Medium to high speeds required.

**Cat. No.**

18900074



## Propeller stirrer

shaft length 35cm  
stirrer diameter 6.5cm

**Material:** PTFE coated

**Application:** Standard stirring element, used at medium and high speeds

**Cat. No.**

18900075



## Straight stirrer

shaft length 35cm  
stirrer diameter 7cm

**Material:** PTFE coated

**Application:** Ideal for the mixing of low viscosity media at medium and high speeds

**Cat. No.**

18900076



## Paddle stirrer

shaft length 35cm  
stirrer diameter 6.8cm

**Material:** PTFE coated

**Application:** Suitable for samples needed gentle processing at low and medium speeds

**Cat. No.**

18900077



## Centrifugal stirrer

shaft length 35cm  
stirrer diameter 8.5cm

**Material:** PTFE coated

**Application:** Two-bladed stirrer whose blades open with increasing speed. perfect for stirring in round vessels with narrow necks. Medium to high speeds required

**Cat. No.**

18900078





# Homogenizers

## D-160 Handheld Homogenizer

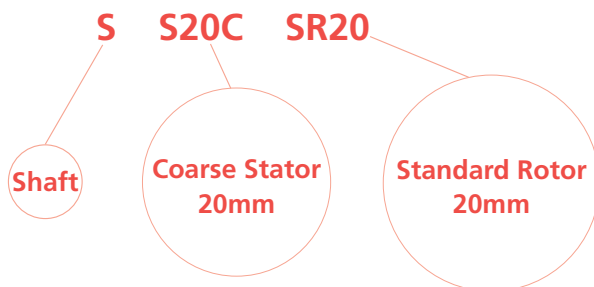
### Features:

- Ideal for manual operation due to its light weight and ergonomic design
- Processing range: 0.1-50mL or 1-250mL
- 316L stainless steel shafts are fully autoclavable and inert for highly corrosive solutions
- All shafts are interchangeable for easy dismantling and cleaning.
- 6 modes of motor speed from 8,000 to 30,000 rpm



### Specifications

	D-160	D-500
Power Supply	110-120V/60Hz 220-240V / 50-60 Hz	110-120V/60Hz 220-240V/50-60 Hz
Motor Type	160 W AC carbon brush motor	500 W AC carbon brush motor
Speed Range	8000-30000rpm	10000-30000rpm
Max. Circum. Speed	6.3-14m/sec	22.7-36m/sec
Speed Control	Dial knob	Dial knob
Working Volume [ H <sub>2</sub> O]	0.1-50mL (Dispersing shaft DS-160/5) 1-250mL (Dispersing shaft DS-160/10)	10-40000mL (Optional)
Max. Viscosity	5,000mPas	10,000 mPas
Material of Dispersing Shaft	SS 316L stainless steel, PTFE	SS 316L stainless steel, PTFE
Weight	0.6 kg	1.3 kg
Dimension [L x W x H]	46mm x 55mm x 230mm	70mm x 70mm x 255mm
Noise	72 dB(A)	79 dB(A)
Operating Environment	0-40°C, 85% rel. humidity	0-40°C, 85% rel. humidity
Protection Class	IP20	IP20



## D-500 Homogenizer

### Features:

- Viscosity up to 10,000 mPas
- 6 modes of motor speed from 10,000 to 30,000 rpm
- All-round safety guarantee for motor drive, overload protection and smooth operation
- 316L stainless steel shafts are fully autoclavable and inert for highly corrosive solutions
- Easy dismantling for fast preparation
- All shafts are interchangeable for easy dismantling and cleaning

## D-500 Homogenizer

### DS-500/1

#### SS20CSR20

Volume 10-5000mL  
Max. Circum. Speed 22.7m/sec  
**Material:** 316L  
**Application:** for solid/liquid media

**Cat. No.**  
18201331



### DS-500/2

#### SS20FER20

Volume 10-5000mL  
Max. Circum. Speed 22.7m/sec  
**Material:** 316L  
**Application:** for water and oil mixing

**Cat. No.**  
18201332



### DS-500/5

#### SS5CSR5

Volume 10-5000mL  
Max. Circum. Speed 5,8m/sec  
**Material:** 316L  
**Application:** Ideal for all homogenizing applications such as tissue homogenization, cell disruption, suspensions and clinical and medical diagnostics

**Cat. No.**  
18900117



## D-160 Handheld Homogenizer

### DS-160/5

Volume 0.1-50ml  
Max. Circum. Speed 6.3m/sec  
**Material:** 316L  
**Application:** small amounts of solid-liquid mixed

### DS-160/10

Volume 1-250mL  
Max. Circum. Speed 14m/sec  
**Material:** 316L  
**Application:** small amounts of solid-liquid mixed

**Cat. No.**  
18201329



**Cat. No.**  
18201330



### Stator



S20C



S20F



S30C



S30F



S40C

### Rotor



SR20



SR30



CR20



CR30



MR20



MR30



ER20



ER30



# Centrifuges



## D1008 Series Palm Micro Centrifuge

### Features

- Ideal for microfiltration and quick spin-downs
- Easy-to-use with dual start/stop function
- 7000rpm fixed speed
- Compatible with 2mLx8 and PCR8x2 rotors
- Quiet running, noise level  $\leq 45$ dB
- Rotor change without tools
- Accelerates and brakes in seconds
- Available in two colors i.e., green, blue



Quiet operation



Vibration free



CE  FC



### Specifications

	D1008
Max. Speed	7000rpm
Max. RCF	2680xg
Rotor Capacity	0.2/0.5/1.5/2.0mLx8; 0.2mLx16 PCR strips or 0.2mLx2 PCR 8 strips
Run Time	Continuous operation
Driving Motor	DC motor
Power	AC100-240V/50Hz/60Hz 20W
Noise Level	$\leq 45$ dB
Dimension [DxWxH]	160x170x122mm
Weight	0.5kg
Certification	CE cTUVus FCC MCA

## Available rotors



**Cat. No.** 19400015

### A08-2

Max. speed: 7000rpm  
Max. RCF: 2680×g  
Rotor capacity: 2mL/1.5mL×8, 0.2mL×8, 0.5mL×8  
Rotor material: High strength plastic  
Available rotor adapters: SA02P2, SA05P2



**Cat. No.** 19400017

### A02-PCR8

Max. speed: 7000rpm  
Max. RCF: 2680×g  
Rotor capacity: 0.2mL×16 PCR strips, 0.2 mL×2 PCR 8 strips  
Rotor material: High strength plastic

## Available adapters



**Cat. No.** 19400029

### SA02P2

0.2mL rotor adapter  
Used with A08-2 rotor  
8pcs/pk



**Cat. No.** 19400026

### SA05P2

0.5mL rotor adapter  
Used with A08-2 rotor  
8pcs/pk

# High Speed Micro-Centrifuges

## High Speed Micro Centrifuge

High speed micro centrifuges are widely used in physical and chemical analysis, biochemistry, cellular and molecular biology, clinical Labs ideal for high-end research applications

- Sedimentation of cells and viruses
- Separation of sub-cellular organelles
- Isolation of macromolecules such as DNA, RNA, proteins or lipids

## Precise control

- Brushless DC motor accelerates quickly to the set speed
- High accuracy of speed in  $\pm 20$  rpm
- Digital timer adjustable from 30 sec. to 99 min or set for continuous run
- Timer starts only when the set speed is achieved and then maintains the accuracy of separation time.

## Conforms to international safety standards and regulations

- DLAB centrifuges passed CE, cTUVus and FCC requirements. certifications, they are certified by TUV. All DLAB test items are proven with the high level of reliability and confidence according to IEC/EN 61010-1, and pass MCA test according to IEC/EN61010-2-20, including explosion-proof and bio-safe tests.
- Quiet operation, maximum reliability
- High strength metal casing ensures security during centrifugal process
- Dual door interlock design for safety(D3024 & D3024R)
- Gentle braking at low speed with efficient separation

## Ergonomic design

- User-friendly large LCD display shows real-time information
- Both RPM or G-force can be set and displayed
- The parameters can be modified after the set speed is reached.
- The short spin function is used for quick spins by pressing and holding PULSE key. The centrifuge speed can be accelerated and held at the target speed
- Automatic lid-lock release prevents sample warming and allows easy access(excluding D3024R)
- Concise display and Sound-alert



# D2012 Series

## D2012 Plus High Speed Mini Centrifuge



Brushless DC motor



LCD display



CE FCC

### Specifications

	D2012 plus
Max. Speed	15000rpm(500-15000rpm), increment: 100rpm
Max. RCF	15100xg, increment: 100xg
Speed Accuracy	±20rpm
Rotor Capacity	0.2mL/0.5mL/1.5mL/2mL×12
Run Time	30sec-99min/Continuous
Driving Motor	Brushless DC motor
Safety Devices	Door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis
Power	Single-phase, AC100V-240V, 50Hz/60Hz, 3A 100W
Noise level	≤54dB
Acceleration /Braking time	11s ↑ /9s ↓
Dimension[D×W×H]	255×245×140mm
Weight	6kg
Certification	EMC, CE, FCC, ICES, cTUVus, CB
Advanced features	Speed/RCF switch, Short-time run function, sound-alert function

### Features

- Powerful centrifugal force of 15100xg and max. speed of 15000rpm ideal for various applications
- Brushless DC motor drive quickly accelerates the rotor to set speed
- Quiet working, Low noise ≤56dB
- D2012 Plus is proven by IEC/EN 61010-1
- D2012 Plus passed the rigorous explosion-proof test and accredited with CE, cTUVus, FCC certificates, and MCA test. MCA test according to IEC/EN61010-2-20

### Available rotors



Cat. No. 19400010

#### A12-2P

for D2012plus only

Max. speed: 15000rpm

Max. RCF: 15100xg

Rotor capacity: 2mL/1.5mL×12,0.2mL×12,0.5mL×12

Rotor material: High strength plastic

Available rotor adapters: A02P2,A05P2

### Available adapters



Cat. No. 19500001

#### A02P2

0.2mL rotor adapter

Used with A12-2, A12-2P, AS24-2 and A24-2P rotors  
24 pcs/pk

Cat. No. 19500002

#### A05P2

0.5mL rotor adapter

Used with A12-2,A12-2P, AS24-2 and A24-2P rotors  
24 pcs/pk

## D1524R High-speed Refrigerated Micro Centrifuge

### Features

- Centrifuge chamber door with automatic adsorption door lock design, can be closed with a single finger.
- Precooling, the compressor will automatically start cooling as long as the set temperature is lower than the ambient temperature.
- Sound indicator to prompt that the upper cover is closed to maintain the temperature inside the chamber, after centrifugation.
- Advanced R290 fluorine free refrigerant, low carbon and environmental protection.
- Maximum rotation speed can be achieved even at 4°C.
- Up to 9 program storage capacity according to experimental needs.
- Biosafety rotor, three-layer seal for biosafety
- High-strength aluminum alloy, three layered biosafety to withstand numerous high temperature and high pressure sterilizations.
- Five rotors with 0.2mL, 0.5mL, 1.5mL, 2mL and 5mL centrifuge tubes/ PCR tubes capacity.
- An external condensation tank prevents condensate within the centrifuge chamber.



Centrifuge chamber door with automatic adsorption door lock design.



Powerful cooling capacity compressor

Clear LCD large display

Intuitive operation control panel



### Specifications

	D1524R
Max. Speed	15,000rpm (200-15,000rpm) in 100rpm increments.
Max. RCF	21,380×g, step: 10×g
Capacity	1.5/2mL×24, 0.5mL×36, PCR8×4, 5mL×12, 5mL×18.
Temperature setting	-20°C- 40°C
Run Time	30s-99 min; HOLD (continuous running)
Motor Type	DC brushless motor
Safety Performance	Dual door lock, over-speed detection, over-temperature detection with Internal diagnosis system.
Power Requirements	Single phase, 200-240V, 50Hz, 500W
Dimensions(mm)	332(Width) × 553(depth) × 283(height)
Weight	30kg
Acceleration and deceleration time	25s ↑ 25s ↓
Noise	≤56dB
Other functions	Rotation speed/RCF switchover, inching operation, running process indicator, sound alert. Acceleration/ deceleration in 9 steps, program storage capacity.



## D3024 Series

### D3024

#### High Speed Micro Centrifuge

##### Unique Features

- Special multi-flow air cooling design with patent ensures fast cooling of the rotor and low energy consumption
- Temperature display appropriate for gentle handling of sensitive samples
- Three-layer sealed rotor prevents accidental leakage during centrifugal process allowing risk-free microbial contamination
- High strength aluminum alloy rotor can be fully autoclaved for unlimited service life
- Four rotors are optional complete with 24 places 1.5/2.0mL tubes, bigger 5.0mL, smaller 0.2mL and 0.5mL tubes with adapters



### D3024R

#### High Speed Refrigerated Micro Centrifuge

##### Powerful cooling system for precise temperature control

- Pre-cooling program ensures optimal protection of the sample before warming
- Guaranteed 4°C cooling within only 7 minutes of both chamber and samples even at maximum speed and capacity utilization
- Sound-alert allows your undivided attention on other tasks warming
- Lid lock facility allows for internal temperature maintenance even after centrifugation
- Intermittent temperature control mode, CFC-free refrigerant and low carbon life rotor capacity
- Three-layer sealed rotor prevents accidental leakage during centrifugal process allowing risk-free microbial contamination
- High strength aluminum alloy rotor can be fully autoclaved for unlimited service life
- Four rotors are optional complete with 24 place 1.5/2.0mL tubes, bigger 5.0mL, smaller 0.2mL and 0.5mL tubes with the use of adapters
- Quiet running, noise level  $\leq$  54dB



# D3024 Series



Brushless DC motor



Wide range of rotors



CE FC



CE FC

## Specifications

	D3024	D3024R
Max. Speed	15000rpm(200-15000rpm), increment:10rpm	15000rpm(200-15000rpm), increment:10rpm
Max. RCF	21380×g, increment:10×g	21380×g, increment: 10×g
Speed Accuracy	±20 rpm	±20 rpm
Temperature Range	-	-20°C-40°C
Rotor Capacity	5mL×18, 5mL culture tubex12 0.2mL/0.5mL/1.5mL/ 2mL×24, 0.5mL×36, PCR8×4	5mL×18, 5mL culture tubex12 0.2mL/0.5mL/1.5mL/ 2mL×24, 0.5mL×36, PCR8×4
Run Time	30sec-99min/Continuous	30sec-99min/Continuous
Motor	Brushless DC motor	Brushless DC motor
Safety Devices	Dual door interlock, Over-speed detection, Automatic internal diagnosis	Dual door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis
Power	Single-phase, AC200V-400V, 50Hz/60Hz, 5A, AC100V-120V, 50Hz/60Hz, 8A 200W	Single-phase, AC200V-240V, 50Hz/60Hz, 10A, AC100V-120V, 50Hz/60Hz, 10A 400W
Acceleration /Braking time [Sec]	25s ↑ 25s ↓	25s ↑ 25s ↓
Dimension[W×D×H]	280×364×266mm	338×580×324mm
Weight	12kg	30kg
Certification	CE cTUVus FCC MCA	CE cTUVus FCC MCA
Advanced Features	Speed/RCF switch; Short-time run function; sound-alert function	Speed/RCF switch; Short-time run function; sound-alert function
Noise Level	≤64dB	≤56dB





DLAB rotors are manufactured from military-industrial grade aluminum alloy with high mechanical strength for precise running and safety (excludes D2012 plus rotor)

- Every rotor can reach a max. speed of 15000rpm
- Rotors are seated on a tapered shaft, concentric and self-aligning, perfect to achieve running stability at high speeds
- D3024 & D3024R with bio-safety rotors/ anti- sample overflow prevents accidental leakage and risk free centrifugal process
- microbial contamination. D3024 & D3024R rotors have passed MCA test according to IEC/EN61010-2-20, including mechanical safety and bio-safety tests
- High strength aluminum alloy rotors are fully autoclavable and provide unlimited service life (D2012 plus rotor not included)
- Powerful cooling system minimizes rotor heating. D3024 rotors heat up to > 10°C and D2012 rotors less than 8°C after running an hour

**Seals within the aluminum alloy rotor**

## Rotor Features

### Fully autoclavable

High strength aluminum alloy rotors are fully autoclavable, withstanding steam sterilizing at 121°C for 20 minutes, with unlimited service life.

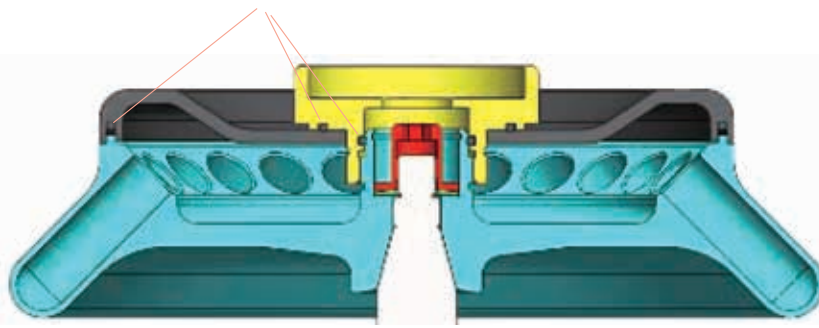
### Bio-safety

Aspired to be the top-of-the-line model, D3024 & D3024R rotors are designed to prevent sample leakage. Each and every rotor is hermetically sealed by three rubber seals.

### Mechanical safety

DLAB centrifuges are constructed under MCA conditions according to IEC/EN61010-2-20, causing disruption by partially cutting and overloading rotor assembly, and guarantee that no part shall be detached to cause danger to person or the environment.

Three rubber seals fitted to achieve bio-safe condition



## Available rotors



**Cat. No.** 19400006

### AS24-2 for D3024 & D3024R & D1524R

Max. speed: 15000rpm  
 Max. RCF: 21380×g  
 Rotor capacity: 2mL/1.5mL×24/0.2mL×24/0.5mL×24  
 Rotor material: Aluminum alloy  
 Bio-safe(Bio sealing): Yes  
 Available rotor adapters: A02P2,A05P2



**Cat. No.** 19400032

### AS12-V5 for D3024 & D3024R & D1524R

Max. speed: 15000rpm  
 Max. RCF: 21380×g  
 Rotor capacity: 5mL×12(Cone bottom)  
 Rotor material: Aluminum alloy  
 Bio-safe(Bio sealing): Yes



**Cat. No.** 19400007

### AS36-05 for D3024 & D3024R & D1524R

Max. speed: 15000rpm  
 Max. RCF: 21380×g  
 Rotor capacity: 0.5mL×36,0.2mL×36  
 Rotor material: Aluminum alloy  
 Bio-safe(Bio sealing): Yes  
 Available rotor adapters: A02P05



**Cat. No.** 19400008

### AS4-PCR8 for D3024 & D3024R & D1524R

Max. speed: 15000rpm  
 Max. RCF: 21380×g  
 Rotor capacity: 0.2mL/PCR8×4  
 Rotor material: Aluminum alloy  
 Bio-safe(Bio sealing): Yes

# D1524R & D3024 Series | Rotors and Adapters



**Cat. No.** 19400012

## AS18-5

for D3024 & D3024R & D1524R

Max. speed :15000rpm  
Max. RCF:21380×g  
Rotor capacity:5mL×18 ( Round bottom )  
Rotor material:Aluminum alloy  
Bio-safe(Bio sealing):Yes

## Available adapters



**Cat. No.** 19500001

## A02P2

0.2mL rotor adapter  
Used with A12-2, A12-2P, AS24-2 and A24-2P rotors  
24pcs/pk



**Cat. No.** 19500002

## A05P2

0.5mL rotor adapter  
Used with A12-2, A12-2P, AS24-2 and A24-2P rotors  
24pcs/pk



**Cat. No.** 19500003

## A02P05

0.2mL rotor adapter  
Used with AS36-05 rotor  
36pcs/pk



DLAB hematocrit centrifuge with AC24P hematocrit rotor is used for determination of volume fractions of erythrocytes in blood for diagnostic purposes and doping tests. Also it is used for the photometric determination of bilirubin content in neonate blood samples. Hematocrit centrifuge with A24-2P tube rotor, can be used for extraction of DNA and RNA.

## DM1424 Hematocrit Centrifuge

### Features:

- Speed range of 200-14000rpm, max. RCF 18620×g
- Precise control of speed and time separately
- Easy operation with intuitive menu and easy-to-read display
- Maintenance-free brushless DC motors
- Pulse operation for quick spins
- Rotor capacity: Hematocrit rotor:
- Hematocrit rotor:24 capillary max. speed:12000rpm
- Tube rotor: 1.5/2mL×24 max. speed: 14000rpm



CE  FC

## DM1224 Economical Hematocrit Centrifuge

### Features:

- Max.speed is 12000rpm, max. RCF 13680×g
- Precise control of speed and time separately
- Rotor capacity: Hematocrit rotor: 24 capillary



### Specifications

	DM1424	DM1224
Speed Range	200-14000rpm, increment: 10rpm	500-12000rpm, increment: 100rpm
Max. RCF	18620×g	13680×g
Speed Accuracy	±20	±100
Rotor Capacity	2 type	1 type
Run Time	30sec-99min/Continuous	10sec-99min/Continuous
Motor	Brushless DC motor	Brushless DC motor
Display	LCD	LCD
Safety Devices	Door interlock, Overspeed detector; Automatic internal diagnosis, Automatic rotor identification	Door interlock
Acceleration/Braking time	30s ↑ 30s ↓	40s ↑ 40s ↓
Power	Single-phase, 200V-240V, 50Hz/60Hz, 5A; 100V-120V, 50Hz/60Hz, 5A 160W	Single-phase, 200V-240V, 50Hz/60Hz, 5A; 380W
Dimension[WxDxH]	280×364×274mm	280×364×213mm
Weight	10kg	10kg
Certification	CE cTUVus FCC MCA IVD	-
Advanced features	Speed/RCF switch; Short-time run function; sound-alert function	Speed/RCF switch; Short-time run function; sound-alert function

# DM1424 Series | Rotors and Adapters

## Available rotors



### A24- 2P DM1424

Cat. No. 19400013

Max. speed: 14000rpm  
Max. RCF: 18620×g  
Rotor capacity: 2mL/1.5mL×24,0.2mL×24,0.5mL×24  
Rotor material: High strength plastic  
Available rotor adapters: A02P2,A05P2,A10P15 & Mat



### AC24 DM1424 & DM1224

Cat. No. 19400047

Max. speed: 12000rpm  
Max. RCF: 13680×g  
Rotor capacity: capillary tubes x24  
Rotor material: High strength aluminum

## Available adapters



### A02P2

Cat. No. 19500001

2mL to 0.2mL rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk



### A05P2

Cat. No. 19500002

2mL to 0.5mL rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk



### A02P05

Cat. No. 19500003

Rotor adapter, used with A12-10P, 12pcs/pk

# Low-speed Centrifuges

DLAB Low-speed centrifuges are widely used in the separation of serum, plasma, urea, blood samples and other routine applications in hospital and research laboratories.

## Conforms to international safety standards and regulations

- DLAB Low-speed centrifuges are marked with CE, cTUVus and FCC, and passed the explosion-proof test / MCA test according to IEC/EN61010-2-20
- Passed EN 61010-2-101:2002 particular requirements for In-vitro diagnostic (IVD) medical equipment
- High strength plastic rotor gives excellent balance to guarantee stable operation
- Dual protection housing particularly advantageous for safe running
- Brushless DC motor precisely accelerates to the set speed



## Precise control

- Powerful CPU for easy operation of speed, time and all other parameters
- High accuracy of speed
- Digital timer adjustable from 30 sec. to 99 min or set for continuous run
- Gentle braking at low speeds with efficient separation

## Ergonomic design

- Easy operation thanks to intuitive menu and easy-to-read display
- RPM or G-force can be set and displayed
- Parameters can be modified after the set speed is reached
- Pressing and holding PULSE key for quick spin function
- Automatic lid-lock release
- Easy-to-read processing display and sound alert





## DM0412 Series

DLAB DM0412 & DM0412S Low-speed centrifuges support small volumes applications. The centrifuges are supplied with an angle rotor that can hold up to 50mLx6, 15mLx6 (A6-50P), 15mLx8, or 10mL/7mL/5mLx12 (A12-10P) vacuum tubes.

They are widely used in medical and veterinary practices for the centrifugation of blood and urine samples in qualitative analysis of water and soil samples. These centrifuges are also used in universities and other research institutes

### DM0412 Low-speed Centrifuge

#### Features:

- Easy programming to achieve high accuracy of speed control
- Easy operation with intuitive menu and easy-to-read display
- Rotor speed can be set and displayed by RPM or G-force
- Maintenance-free brushless DC motors
- Quick spin function with press and hold pulse key
- Lid with electric lock and automatic release function saves processing time and prevents samples overheating
- Automatic self-diagnosis on startup showing accumulative running time and last running parameters
- Braking time 2 gears adjustable (for A6-50P rotor)
- A12-10P and A6-50P are not interchangeable

### DM0412S Economical Low-speed Centrifuge

#### Features:

- speed range of 300-4500rpm
- Individual control of speed and time
- Faster acceleration and deceleration
- Perfectly suitable for 15mL cell culture tubes and a full line of collection tubes



## DM0412 Series



CE  FC

### Specifications

	DM0412	DM0412S
Speed Range	300-4500rpm, increment: 100rpm	300-4500rpm, increment:100rpm
Max. RCF	2490×g	2490×g
Speed accuracy	±20rpm	±100rpm
Rotor type	A12-10P, A6-50P	A12-10P
Run Time	30sec-99min HOLD(Continuous operation)	1sec-99min HOLD(Continuous operation)
Motor	Brushless DC motor	DC motor
Display	LCD	LED
Safety Devices	Door interlock, Overspeed detector; Automatic internal diagnosis	Door interlock, Over-speed detection
Acceleration/Braking time	A12-10P: 20s ↑ 13s ↓ A6-50P: 20s ↑ 20 s /90 s ↓	23s ↑ 23s ↓
Power	Single-phase, 100V-240V,50Hz/60Hz, 3A 70W	Single-phase,200V-240V,50Hz/60Hz, 3A;100V-120V,50Hz/60Hz, 3A 70W
Dimension[WxDxH]	301×354×217mm	301×354×217mm
Weight	6kg	6kg
Certification	CE, cTUVus, IVD	-
Advanced features	Speed/RCF switch;Short-time run function; sound-alert function	sound-alert function



# DM0412 Series | Rotors and Adapters

## Available rotors



Cat. No. 19200348

### A12-10P

for DM0412 & DM0412s & DM0424 & DM0408

Max. speed: 4500rpm  
 Max. RCF: 2490×g  
 Rotor capacity: 8×15mL, 12×10mL  
 Rotor material: High strength plastic













Cat. No. 19100197

### A6-50P

For DM0412(A6-50P)

Max. speed: 4000rpm  
 Max. RCF: 1800×g  
 Rotor capacity: 50ml×6, 15ml×6  
 Rotor material: High strength plastic

Available tubes	Tube quantity	Dimension (ΦL×mm)	Adapters	Maximum speed(rpm)	Radius (cm)	Maximum RCF (×g)
15mL con 	8	17×120		4500	11	2490
1.5-5mL vacu 	12	13×75	A10P15 & Plug 	4500	9.8	2218
4-7 mL vacu 	12	13×100	A10P15 	4500	11	2490
		16×75			9.8	2218
8.5-10 mL vacu 	12	16×107		4500	11	2490
2.7-3 mL(EU) collection tube 	12	11×66	A10P15 & Plug 	4500	9.8	2218
7.5-8.2 mL(EU) collection tube 	12	15×92	A10P15 	4500	11	2490

Note: Made of plastic, A12-10P rotor cannot be autoclaved or applied with UV irradiation. Regular sterilization is recommended.

## DM0424 & DM0408 Series

D LAB low speed clinical centrifuges are widely used in the medical industry. Ideal for separation of serum, plasma, urine, fecal samples in biochemical & medical laboratories. It is an essential equipment of every clinical laboratory, blood bank, medical college and medical research institute.

### DM0424 Clinical Centrifuge

#### Features:

- Max. speed 4000rpm.
- Rotor speed can be set in RPM/RCF, with 3 programs storage capacity for routine applications.
- Max. capacity 50ml×4, Adapt to different sizes of blood collection tubes and centrifuge tubes suitable for swing out rotor and angle rotor.
- Automatic internal diagnosis and self-detection.
- Maintenance-free brushless DC motor.



### DM0408 Clinical Centrifuge

#### Features:

- Speed range of 300-4000rpm.
- 3 programs storage capacity for routine applications.
- Automatic internal diagnosis.
- Maintenance free brushless DC motor.



#### Specifications

	DM0424	DM0408
Speed range	500-4000rpm increment: 100rpm	300-4000rpm increment: 100rpm
Max. RCF	2500×g	1900×g
Speed accuracy	±100rpm	±100rpm
Rotor	Swing6×15ml Swing4×50ml Angle 24×15 ml, Angle 12×10ml/8×15ml	Angel 8×15ml(Default), Angel 10ml×12
Run time	1-99min, HOLD	1-99min, HOLD
Motor	Brushless DC motor	Brushless DC motor
Display	LCD	LED
Program	Blood: 3200rpm, 10min. Urine: 1800rpm, 5min. Faecal: 1300rpm, 10min.	Blood: 3200rpm, 10min Urine: 1800rpm, 5min Faecal: 1300rpm, 10min
Safety Device	Automatic internal diagnosis	Automatic internal diagnosis
Acceleration/deceleration	3 ↑ 4 ↓ steps	25s ↑ 35s ↓
Power	Single phase, 100V-240V, 50Hz/60Hz	Single phase, 100V-240V, 50Hz/60Hz
Dimension(W×D×H)	364×440×268mm	286×367×227mm
Weight	14.5kg	9.2kg
Noise	≤62dB(A)	≤60dB(A)



# DM0424 & DM0408 Series | Rotors and Adapters

## Available rotors



### S6-15 **Cat. No.**19400082 for DM0424

Max. speed: 4000rpm  
Rotor capacity: 15ml×6  
Rotor material: Aluminum alloy  
Default adaptor: A15P22, A5P17



### S4-50 **Cat. No.**19400100 for DM0424

Max. Speed: 4000rpm  
Rotor capacity: 50ml×4  
Rotor material: Aluminum alloy  
Default adaptor: A15P30, A5P17



### A24-15P **Cat. No.**19400101 for DM0424

Max. speed: 4000rpm  
Rotor capacity: 15ml×24  
Rotor material: High strength plastic  
Default adaptor: A15P22, A5P17



### A8-15P **Cat. No.**19400084 for DM0424/DM0408

Max. Speed: 4000rpm  
Rotor capacity: 15ml×8  
Rotor material: High strength plastic  
Default adaptor: A15P22



### A12-10P **Cat. No.**19200348 for DM0424/DM0408 DM0412/DM0412S

Cat.No. 19200348  
Rotor capacity: 15ml×8, 10ml×12  
Rotor material: High strength plastic

## Available adapters



### A15P30 **Cat. No.**19500024

50ml change 15ml adapter,  
Adapted to 17×120mm centrifuge  
tube, 13/16×100mm blood  
collection tube 4pcs/pk,  
for S4-50



### A15P22 **Cat. No.**19500021

15ml adapter for 17×120mm  
centrifuge tube, 13/16×100mm  
blood collection tube 24 pcs/pk,  
for S6-15, A24-15P, A8-15P



### A5P17 **Cat. No.**19500022

5ml adapter, Adapted to 13×75mm  
blood collection tube 24 pcs/pk,  
for S4-50, S6-15, A24-15P



### A2P17 **Cat. No.**19500023 (Optional)

1.5/2ml Cryogenic Vials/ centrifuge  
tube adapter, 24 pcs/pk, for S4-50,  
S6-15, A24-15P, A12-10P, A6-50P



## DM0636 Series

DLAB DM0636 Multi-Purpose Low-speed Centrifuge is ideal for the centrifugation of samples in clinical chemistry, cytology, research laboratories, industrial laboratories, etc.

This centrifuge is suitable for tubes with caps, blood collection or urine tubes. Swing-out bucket rotors and adapters can be compatible with standard tubes up to 100mL at low speed.

### DM0636 Multi-Purpose Low-speed Centrifuge

#### Features

- Speed can be set from 300- 6000rpm
- Maximum capacity of the centrifuge: 100 mLx4
- 9 Acceleration/10 Brake speed settings to ensure optimal separation
- A wide range of accessories(fixed angle and swing-out bucket rotors)
- Automatic rotor identification
- Timers can be set up to 99 min. for short run/ continuous run
- 9 procedures stored in memory makes the operation much simplified
- Maintenance-free brushless DC motors



#### Specifications

	DM0636
Speed range	300-6000rpm increment:10rpm
Max. RCF	4300xg
Speed accuracy	±20rpm
Max. Capacity	100mLx4
Run Time	30sec-99mins/continuous
Motor	Brushless DC
Display	LCD
Program Memory	9
Safety Devices	Door Imbalance protection Over speed & Over temperature detection
Acceleration/Deceleration	9 ↑ /10 ↓ steps
Power	660W; Single-phase AC220V-240V, 50Hz/60Hz, 6.3A; AC110V-120V,50Hz/60Hz,10A
Dimension[WxDxH]	445x579x269mm
Weight	36kg
Certification	CE
Advanced features	speed/rcf switch; Rotor identification

# DM0636 Series | Rotors and Adapters



## Uncapping block

for S4-100 rotor



## SE4-100(Standard accessory) for DM0636 & DM0636R

Cat. No. 19400041

Max. speed: 4000rpm

Max. RCF: 2950xg

Rotor material: stainless steel body and adapter



19400045



19400044



19400043



19400042

bucket	x 4												
tube	x 36		x 16			x 8	x 4	x 4	x 4	x 8	x 20		
Nominal volume	3-7mL		10mL	12mL	15mL	50mL	100mL	85mL	50mL	15mL	3-7mL		
φ×L mm	13×75	13×100	16×100	17×105	17×120	29.5×100	38×108	38×104	29.5×100	17×120 13×100 13×75	13×100 13×75		
tube													
adapter	with plug						 A100P80		 A100P50		 A100P15		 A100P10
Package	36						4		4	4	8	4	
Tubes per rotor	36	36	16	16	16	8	4	4	4	8	20		
Radius(cm)	14	16.5	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.1	14.7		
Max RCF (g-force)	2500	2950	2840	2840	2840	2840	2840	2840	2840	2700	2630		

## Available rotors



**Cat. No.** 19400062

### S2-MP

DM0636

Max. speed: 4000rpm

Max. RCF: 2200×g

Rotor capacity: Micro-plates 384-PCR; 96-PCR

Rotor material: stainless steel body and aluminum buckets



**Cat. No.** 19400036

### AS12-PCR8

DM0636

Max. speed: 6000rpm

Max. RCF: 4020×g

Rotor capacity: PCR 8 trips×12

Rotor material: aluminum

Bio-safe(Biosealing): Yes



**Cat. No.** 19400034

### AS30-2

DM0636

Max. speed: 6000rpm

Max. RCF: 4020×g

Rotor capacity: 2mL×30

Rotor material: aluminum

Bio-safe(Biosealing): Yes



**Cat. No.** 19400037

### AS60-2

DM0636

Max. speed: 6000rpm

Max. RCF: 4020×g

Rotor capacity: 2mL×60

Rotor material: aluminum

Bio-safe(Biosealing): Yes



# DM0636 Series | Rotors and Adapters

## Available rotors



### AS6-50V

Cat. No. 19400038

DM0636

Max. speed: 6000rpm  
 Max. RCF: 4020×g  
 Rotor capacity: 50mL×6 or 15mL×6  
 Rotor material: aluminum  
 Bio-safe(Biosealing): Yes



### AS18-5V

Cat. No. 19400035

DM0636

Max. speed: 6000rpm  
 Max. RCF: 4020×g  
 Rotor capacity: 5mL×18  
 Rotor material: stainless steel body and aluminum buckets



### A8-50

Cat. No. 19400039

DM0636

Max. speed: 5000rpm  
 Max. RCF: 3960×g  
 Rotor capacity: 50mL×8 or 15mL×16  
 Rotor material: aluminum body and stainless steel adapter



### A30-15

Cat. No. 19400040

DM0636

Max. speed: 4500rpm  
 Max. RCF: 3210×g  
 Rotor capacity: 15mL×30  
 Rotor material: aluminum body and stainless steel adapter  
 Bio-safe(Biosealing): Yes

Capacity	3-7mL Blood collection tube	10mL Blood collection tube	12mL urine tube	15mL
φ×L mm	13×100	16×100	17×105	17×120
Tubes Quantity	30	30	30	30

# Miscellaneous



# Vortex Mixers



DLAB Vortex Mixers are ideal instruments for mixing liquid components in tubes, resuspension of cells, using an eccentric mechanism. They are widely used in biological and chemical analysis applications.

## MX-S Vortex Mixer

## MX-F Vortex Mixer

### Features:

- Touch operation or continuous mode
- Variable speed control from 0 to 2500rpm (MX-S)
- Fixed Speed 2500rpm (MX-F)
- Used for various mixing applications with optional adapters (MX-S)
- Specially designed vacuum suction feet for body stability
- Robust aluminum-cast construction



Wide range of accessories

### Specifications

	MX-S (Adjustable speed)	MX-F (Fixed speed)
Voltage	100-120V/200-240V,50/60Hz	100-120V/200-240V,50/60Hz
Power	60W	60W
Mixing motion	Orbital	Orbital
Orbital diameter	4mm	4mm
Motor type	Shaded pole motor	Shaded pole motor
Motor rating input	58W	58W
Motor rating output	10W	10W
Speed range	0-2500rpm	2500rpm
Speed display	Scale	-
Run type	Touch operation/ Continuous	Touch operation/ Continuous
Dimension[WxHxD]	127x130x160mm	127x130x160mm
Weight	3.5kg	3.5kg
Permissible ambient temperature	5-40°C	5-40°C
Permissible relative humidity	80%RH	80%RH
Protection class	IP21	IP21



### VT1.1 Standard top (Default)

for <math>\varnothing</math>30mm tubes and small vessels

Cat. No. 18900034





## MX-E Economic Vortex Mixer

### Features:

- For small amount of sample mix
- Touch operation
- Fixed speed: 3000rpm
- Small and beautiful
- DC brushless motor, stable performance



### Specifications

	MX-E
Power supply [VAC]	100-240
Frequency [Hz]	50/60
Power [W]	12
Mixing motion	Orbital
Revolving diameter [mm]	4.8
Motor rating output[W]	10
Rotational speed [rpm]	3000
Operating mode	Inching
External dimension [mm]	133×133×80
Dimension of packing box [mm]	250×185×130
Weight [kg]	0.6
Allowable environment temperature [°C]	5-40
Permissible Ambient Temperature	≤80%RH
Protection class	IP21



# Vortex Mixers | Accessories



## VT1.2 Tube holding rod

used with tube adapters

**Cat. No.** 18900044

## VT1.3 Universal top plate

Ø 100mm

**Cat. No.** 18900035



## VT1.3.1 tube adapter

for 48 holes test tubes, Ø6mm

**Cat. No.** 18900020



## VT1.3.2 tube adapter

for 15 holes test tubes, Ø10mm

**Cat. No.** 18900021



## VT1.3.3 tube adapter

for 12 holes test tubes, Ø12mm

**Cat. No.** 18900022



## VT1.3.4 tube adapter

for 8 holes test tubes, Ø16mm

**Cat. No.** 18900023



## VT1.3.5 tube adapter

for 8 holes test tubes, Ø20mm

**Cat. No.** 18900024



## VT1.3.6 Platform pad

for <math>\lt; \text{Ø}99\text{mm}</math> tubes and small vessels

**Cat. No.** 18900043



### Application of accessories

Accessories	Adjustable speed model (0-2500rpm)	
	Touch mode (High speed area)	Continuous mode (Low speed area)
VT1.1	Y	Y
VT1.2 + VT1.3.1	Y	
VT1.2 + VT1.3.2	Y	
VT1.2 + VT1.3.3	Y	
VT1.2 + VT1.3.4	Y	
VT1.2 + VT1.3.5	Y	
VT1.3 + VT1.3.6	Y	
VT1.3 + VT1.3.1		Y
VT1.3 + VT1.3.2		Y
VT1.3 + VT1.3.3		Y
VT1.3 + VT1.3.4		Y
VT1.3 + VT1.3.5		Y



## VT1.3.7 vacuum chuck

made of rubber

**Cat. No.** 18900158



DLAB Microplate Mixer is used for holding single or double microplates. The compact shape of MX-M Microplate Mixer occupies less bench space and makes the storage easier. It is widely used in life sciences including microbiology, cell and molecular biology, immunology and biotechnology.

## MX-M Microplate Mixers

### Features:

- A wide range of speed from 0 to 1500rpm
- Used for various mixing applications with optional adapters
- Maintenance-free brushless DC motor



### PS1.1 Universal top plate

Used with tube adapters

**Cat. No.**18900067



### VT1.3.1 tube adapter

for 48 holes test tubes, Ø6mm

**Cat. No.**18900020



### VT1.3.2 tube adapter

for 15 holes test tubes, Ø10mm

**Cat. No.**18900021



### VT1.3.3 tube adapter

for 12 holes test tubes, Ø12mm

**Cat. No.**18900022



### VT1.3.4 tube adapter

for 8 holes test tubes, Ø16mm

**Cat. No.**18900023



### VT1.3.5 tube adapter

for 8 holes test tubes, Ø20mm

**Cat. No.**18900024



Brushless DC motor

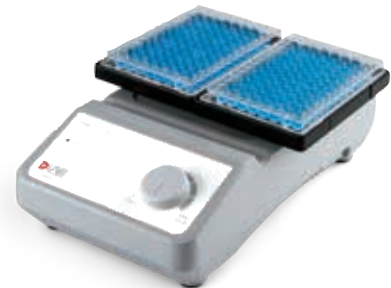


Wide range of accessories



### PS1.2 Microplate clamp

**Cat. No.**18900042



### MXM-116

Double microplate clamps

**Cat. No.**18900079

### Specifications

Shaking movement	Orbital
Orbital diameter	4.5mm
Max. shaking weight (with accessory)	0.5kg
Motor type	Brushless DC motor
Motor rating input	18W
Motor rating output	10W
Speed range	Single microplate: 0-1500rpm Double microplate: 0-1000rpm
Speed display	Scale
Voltage	100-240V,50/60Hz
Power	20W
Dimension	260×150×80mm
Weight	3kg
Permissible ambient temperature and humidity	5-40°C,80%RH
Protection class	IP21

	MX-M
Shaking movement	Orbital
Orbital diameter	4.5mm
Max. shaking weight (with accessory)	0.5kg
Motor type	Brushless DC motor
Motor rating input	18W
Motor rating output	10W
Speed range	Single microplate: 0-1500rpm Double microplate: 0-1000rpm
Speed display	Scale
Voltage	100-240V,50/60Hz
Power	20W
Dimension	260×150×80mm
Weight	3kg
Permissible ambient temperature and humidity	5-40°C,80%RH
Protection class	IP21

# Rotators

DLAB rotators give gentle but effective mixing of biological samples held in 1.5mL to 50mL tubes, and are used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics, etc.

## MX-RD-Pro LCD Digital Rotator

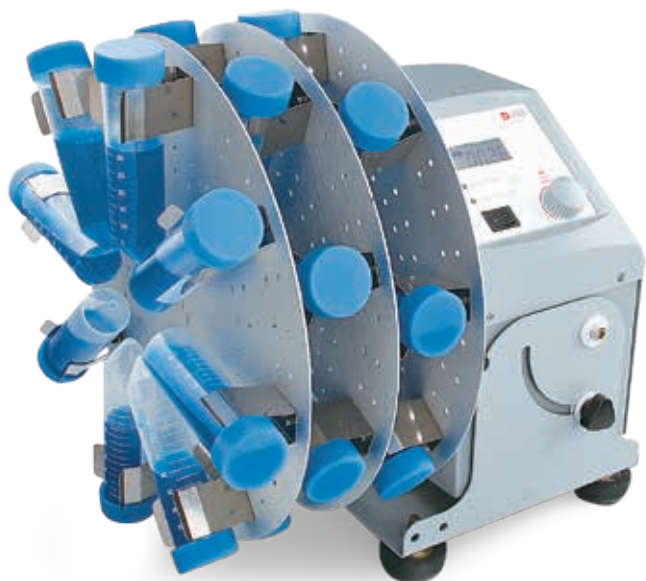
### Features

- Electronic adjustment of speed and time
- LCD display of speed and time
- Speed range from 10 to 70rpm
- Rolling action, gives gentle but effective mixing
- Adjustable mixing angle from 0 to 90°
- A wide variety of accessories are available

## MX-RD-E Economical Rotator

### Features

- Provides gentle and effective mixing of biological samples
- Adjustable speed range from 0 to 80rpm
- A wide variety of accessories are available



LCD display



Adjustable angle



Wide range of accessories



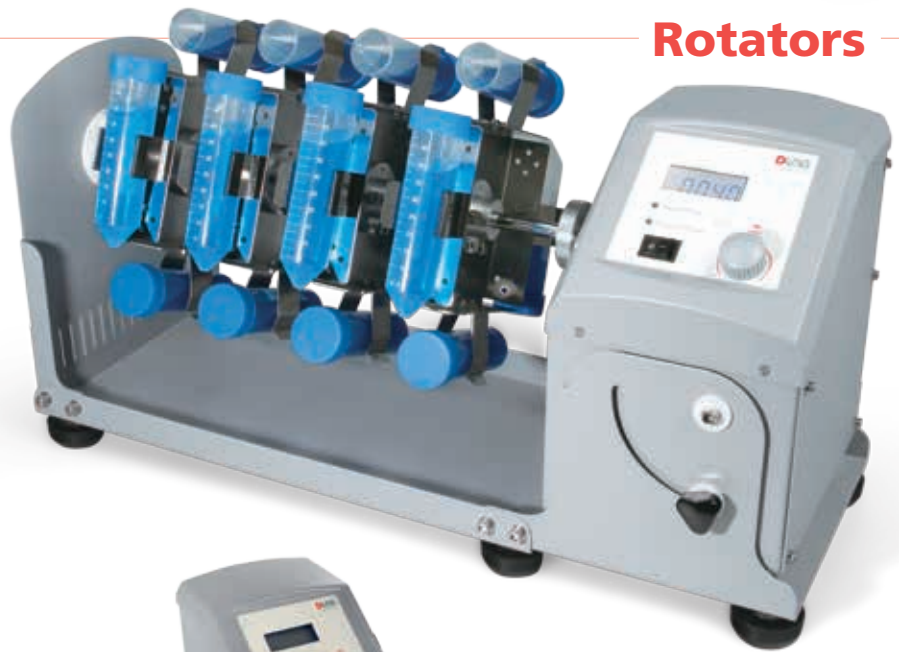
### Specifications

	MX-RD-Pro	MX-RD-E
Motor type	DC motor	DC motor
Tilt angle	0-90°	-
Speed range	10-70rpm	0-80rpm
Speed display	LCD	Scale
Timer display	LCD	Scale
Timer	1-1199min	-
Operation mode	Continuous / timer	Continuous
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	40W	20W
Dimension [DxWxH ]	280x210x300mm	300x220x310mm
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH
Protection class	IP21	IP21

## MX-RL-Pro LCD Digital Rotator

### Features

- Electronic adjustment of speed and time
- LCD display speed and time
- Speed range from 10 to 70rpm
- Provides gentle but effective rolling
- A wide variety of accessories are available



## MX-RL-E Economical Rotator

### Features

- Provides gentle but effective rolling
- Adjustable speed range from 0 to 80 rpm
- A wide variety of accessories are available



LCD display



Wide range of accessories



### Specifications

	MX-RL-Pro	MX-RL-E
Motor type	DC motor	DC motor
Speed range	10-70rpm	0-80rpm
Speed display	LCD	Scale
Timer display	LCD	Scale
Timer	1-1199min	-
Operation mode	Continuous/timer	Continuous
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	40W	20W
Dimension[D×W×H]	220×510×260mm	150×530×190mm
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH
Protection class	IP21	IP21



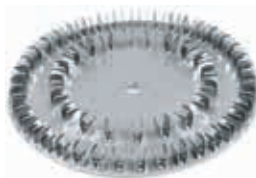


## Disk Accessories Type-1

Used for MX-RD-Pro  
for 1.5mLx60 centrifuge tubes holder

**Cat. No.**

18900160

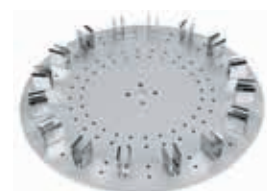


## Disk Accessories Type-2

Used for MX-RD-Pro  
for 15mLx16 centrifuge tubes holder

**Cat. No.**

18900161



## Disk Accessories Type-3

Used for MX-RD-Pro  
for 50mLx8 centrifuge tubes holder

**Cat. No.**

18900162



## Disk support rods

4pcs in a group  
use with disk accessories

**Cat. No.**

18900140



## Rotisserie Accessory Type-1

Used for MX-RL-Pro, for 1.5mLx48  
centrifuge tubes held horizontally

**Cat. No.**

18900142



## Rotisserie Accessory Type-2

Used for MX-RL-Pro, for 15mLx24  
centrifuge tubes held horizontally

**Cat. No.**

18900143



## Rotisserie Accessory Type-3

Used for MX-RL-Pro, for 50mLx24  
centrifuge tubes held horizontally

**Cat. No.**

18900144



## Rotisserie Accessory Type-4

Used for MX-RL-Pro, for 1.5mLx32  
centrifuge tubes held vertically

**Cat. No.**

18900145



## Rotisserie Accessory Type-5

Used for MX-RL-Pro, for 15mLx16  
centrifuge tubes held vertically

**Cat. No.**

18900146



## Rotisserie Accessory Type-6

Used for MX-RL-Pro, for 50mLx16  
centrifuge tubes held vertically

**Cat. No.**

18900147



## Plastic Clips

Used with MX-RL-E/MX-RD-E  
Disk/Rotisserie accessory, for  
50mL, 15mL and 1.5mL  
centrifuge tubes



The rocking rotators combine the advantages of the long axis rotator and the rocking shaker. Compared with the rocking shaker, it can provide a greater tilt angle, for better performance in some clinical laboratory applications (such as the mixing of blood samples in vacuum blood vessels). At the same time, the series minimizes redundant functional settings for straighter and simpler user operation under clinical conditions.

## SK-R30S-E Short Deck Rocking Rotator

### Features

- It can accommodate up to 10 × 5~10ml blood vessels, or 4 × 50ml tubes, with different silicon mattress accessories.



## SK-R30L-E Long Deck Rocking Rotator

### Features

- It can accommodate up to 16 × 5~10ml blood vessels, or 6 × 50ml tubes, with different silicon mattress accessories.

## SK-R30D-E Long Deck Double Layer Rocking Rotator

### Features

- It can accommodate up to 16 × 5~10ml blood vessels, or 6 × 50ml tubes on each of the two layers with different silicon mattress accessories.
- Tilt angle up to 40°.



### Specifications

	SK-R30S-E	SK-R30L-E	SK-R30D-E
Tilt angle	30±3°	30±3°	40±3°
Load capacity	1kg	1kg	1kg
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Speed range[rpm]	0~30	0~30	0~30
Operation mode	Continuous	Continuous	Continuous
Dimension (W×D ×H)	295×160×120mm	405×160×120mm	405×160×160mm
Voltage	100~240V, 50/60Hz	100~240V, 50/60Hz	100~240V, 50/60Hz
Power	15W	15W	15W
Weight	1.8kg	2kg	2.2kg
Permissible ambient temperature and humidity	5~40°C, 80%RH	5~40°C, 80%RH	5~40°C, 80%RH

### Accessories Information



Silicone mattress for 16× 5~10ml blood collection tubes on long decks



Silicone mattress for 10× 5~10ml blood collection tubes on short decks



Silicone mattress for 6× 50ml test tubes on long decks (the lower layer for SK-R30D-E)



Silicone mattress for 4× 50ml test tubes on short decks



## MX-T6-Pro LCD Digital Tube Roller

### Features

- LCD displays the speed and time
- Speed range of 10-70rpm
- Six roller design for gentle rolling and easy to clean
- Continuous or timer operation

DLAB tube rollers provide a gentle and highly efficient rolling motions, ideal for mixing blood samples, viscous substances and liquid-solid suspensions. Used in a variety of applications, such as the prevention of blood coagulation, immune precipitation, etc.



LCD display



Timer

## MX-T6-S Tube Roller

### Features

- Speed range of 0-70rpm
- Six roller design for gentle rolling and easy to clean



### Specifications

	MX-T6-Pro	MX-T6-S
Amplitude	24mm	24mm
Motor type	DC motor	DC motor
Rocking motion	Rocking and rolling	Rocking and rolling
Max. load capacity	4kg	4kg
Number of rollers	6	6
Roller size[length]	280mm	280mm
Speed range	10 -70rpm	0-70rpm
Speed display	LCD	Scale
Timer	Yes	-
Timer display	LCD	-
Time setting range	1-1199min	-
Operation mode	Continuous/timer	Continuous
Voltage	100-240V,50/60Hz	100-240V,50/60Hz
Power	30W	25W
Dimension [D×W×H]	450×260×120mm	450×260×120mm
Weight	5.1kg	4.5kg
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH
Protection class	IP21	IP21

DLAB orbital and linear shakers are ideal for almost any vessel from microcentrifuge tubes through petri dishes and microtitre plates to conical flasks.

## **SK-O330-Pro** **SK-O180-Pro** LCD Digital Orbital Shaker

### Features

- Max. load capacity is 7.5kg(O330) and 2.5kg(O180) with platform
- Double LCDs for independent display of time and speed
- Used with a wide variety of accessories
- Maintenance- free brushless DC motor
- Over speed detection and protection
- Remote function provides PC control and data transmission



## **SK-O180-E** Economical Digital Orbital Shaker

### Features

- Max. load capacity is 3kg with platform
- Speed range of 0-200rpm
- Wide range of platforms for use with a variety of vessels

## **SK-O180-S** LED Digital Orbital Shaker

### Features

- Max.load capacity is 3kg with platform
- Double LEDs for independent display of time and speed
- Speed range of 40-200rpm
- Wide range of platforms for use with a variety of vessels





Timer



Wide range of accessories



### Specifications

	SK-O330-Pro	SK-O180-Pro	SK-O180-S	SK-O180-E
Orbital diameter	10mm	4mm	20mm	20mm
Max. load capacity (with platform)	7.5kg	2.5kg	3kg	3kg
Motor type	Brushless DC motor	Brushless DC motor	DC motor	DC motor
Motor input power	28W	28W	16W	16W
Motor output power	15W	15W	10W	10W
Speed range	100-500rpm	100-800rpm	40-200rpm	0-200rpm
Speed display	LCD	LCD	LED	scale
Timer display	LCD	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	1min-19h59min	-
Voltage	100-240V,50/60Hz	100-240V,50/60Hz	100-240V,50/60Hz	100-240V,50/60Hz
Power	30W	30W	20W	20W
Weight	13.5kg	8.1kg	3.1kg	3.1kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C,80%RH	5-40°C, 80%RH
Dimension[WxDxH]	370x420x100mm	300x340x100mm	270x330x110mm	270x330x110mm
Protection class	IP21	IP21	IP21	IP21
Data connector	RS232	RS232	-	-



## **SK-L330-Pro** **SK-L180-Pro** LCD Digital Linear Shaker

### Features

- Max. load capacity is 7.5kg(L330) and 2.5kg(L180) with platform
- Double LCDs for independent display of time and speed
- Wide range of platforms for use with a variety of vessels
- Maintenance- free brushless DC motor
- Over speed detection and protection



## **SK-L180-S** LED Digital Linear Shaker

### Features

- Max. load capacity is 3kg with platform
- Double LEDs for independent display of time and speed
- Speed range of 40-200 rpm
- Wide range of platforms for use with a variety of vessels



## **SK-L180-E** Economical digital Linear Shaker

### Features:

- Max. load capacity is 3kg with platform
- Speed range of 0-200 rpm
- Wide range of platforms for use with a variety of vessels



# Shakers



Timer



Wide range of accessories



## Specifications

	SK-L330-Pro	SK-L180-Pro	SK-L180-S	SK-L180-E
Amplitude	10mm	4mm	20mm	20mm
Max. load capacity (with platform)	7.5kg	2.5kg	3kg	3kg
Motor type	Brushless DC motor	Brushless DC motor	DC motor	DC motor
Motor input power	28W	28W	16W	16W
Motor output power	15W	15W	10W	10W
Speed range	100-350rpm	100-350rpm	40-200rpm	0-200rpm
Speed display	LCD	LCD	LED	scale
Timer display	LCD	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	1min-19h59min	-
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	30W	30W	20W	20W
Weight	13.5kg	8.1kg	3.1kg	3.1kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[WxDxH]	370x420x100mm	300x340x100mm	270x330x110mm	270x330x110mm
Protection class	IP21	IP21	IP21	IP21
Data connector	RS232	RS232	-	-

D LAB rocking and 3D shakers provide perfect solution in electrophoresis gel dyeing/dicoloration, sample washing, molecular hybridization, immunoprecipitation, Western blot and cell culture.

## SK-R330-Pro LCD Digital Rocking Shaker

### Features

- Rocking motion angle 9°
- Max. load capacity is 10kg with platform
- Speed range of 10-70rpm
- Double LCDs for independent display of time and speed
- Wide range of platforms for use with a variety of vessels



## SK-R1807-S LED Digital Rocking shaker

### Features

- Rocking motion angle 7°
- Max. load capacity is 3kg with platform
- Speed range of 10-80rpm
- Double LEDs for independent display of time and speed
- Wide range of platforms for use with a variety of vessels



## SK-R1807-E Economical Rocking Shaker

### Features:

- Rocking motion angle 7°
- Max. load capacity is 3kg with platform
- Speed range of 0-80rpm
- Wide range of platforms for use with a variety of vessels







Timer



Wide range of accessories



### Specifications

	SK-R330-Pro	SK-R1807-S	SK-R1807-E
Tilt angle	9°	7°	7°
Max. load capacity (with platform)	10kg	3kg	3kg
Motor type	DC motor	DC motor	DC motor
Motor input power	40W	16W	16W
Motor output power	24W	10W	10W
Speed range	10-70rpm	10-80rpm	0-80rpm
Speed display	LCD	LED	-
Timer display	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	-
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	50W	20W	20W
Weight	9kg	3.2kg	3.2kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[WxDxH]	360x410x200mm	270x330x130mm	270x330x130mm
Protection class	IP21	IP21	IP21





## SK-D3309-Pro LCD Digital 3D Shaker

### Features

- Three-dimensional rocking motion with an angle of 9°
- Max. load capacity is 5kg with platform
- Speed range of 10-70rpm
- Double LCDs for independent display of time and speed
- Various of platform accessories



## SK-D1807-S LED Digital 3D Shaker

### Features

- Three-dimensional rocking motion with the angle of 7°
- Max. load capacity is 3kg with platform
- Speed range of 10-80rpm
- Double LEDs for independent display of time and speed
- Various of platform accessories



## SK-D1807-E Economical 3D Shaker

### Features

- Three-dimensional rocking motion with the angle of 7°
- Max. load capacity is 3kg with platform
- Speed range of 0-80rpm
- Wide range of platforms for use with a variety of vessels

# Shakers



Timer



Wide range of accessories



## Specifications

	SK-D3309-Pro	SK-D1807-S	SK-D1807-E
Tilt angle	9°	7°	7°
Max. load capacity (with platform)	5kg	3kg	3kg
Motor type	DC motor	DC motor	DC motor
Motor input power	40W	16W	16W
Motor output power	24W	10W	10W
Speed range	10-70rpm	10-80rpm	0-80rpm
Speed display	LCD	LED	scale
Timer display	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	-
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	50W	20W	20W
Weight	9kg	2.7kg	2.7kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[WxDxH]	360×430×106mm	270×330×130mm	270×330×130mm
Protection class	IP21	IP21	IP21
Data connector	-	-	-



SK330.5



**Cat. No.**

**Description**

SK-O330-Pro  
SK-L330-Pro  
SK-R330-Pro  
SK-D3309-Pro

SK-O180-Pro/S/E  
SK-L180-Pro/S/E  
SK-R1807-S/E  
SK-D1807-S/E

18900155

Dish platform with non-slip mat and fixed string (8pcs)  
Dimension[WxD]: 30x28.5cm



SK180.4



18900185

Dish attachment with non-slip mat  
Dimension[WxD]: 24x21.5cm



SK180.5



18900200

Large size dish attachment with non-slip mat  
Dimension[WxD]: 30x23cm



SK180.6



18900326

Dish attachment with non-slip mat  
Dimension[WxD]: 28x28cm



SK330.1



18900027

Universal attachment with 4 bars  
Dimension[WxD]: 30x30cm



SK330.3



18900040

Lengthways roller attachment  
Dimension[WxD]: 30x30cm



SK180.1



18900025

Universal attachment with 3 bars  
Dimension[WxD]: 24x24cm



SK180.3



18900038

Lengthways roller attachment  
Dimension[WxD]: 24x24cm



18900036

Bar for SK330.1 universal attachment



18900037

Bar for SK180.1 universal attachment



18900280

Connect sticks for double dishes shaker



# Shakers | Accessories



SK330.2



SK180.2



Cat. No.	Description	SK-O330-Pro SK-L330-Pro SK-R330-Pro SK-D3309-Pro	SK-O180-Pro/S/E SK-L180-Pro/S/E SK-R1807-S/E SK-D1807-S/E
18900028	Fixing clip attachment	■	
18900026	Fixing clip attachment		■
18900029	Fixing clip for flask volume 25mL, used with SK330.2[28pcs] SK180.2[9pcs]	■	■
18900030	Fixing clip for flask volume 50mL, used with SK330.2[16pcs] SK180.2[9pcs]	■	■
18900031	Fixing clip for flask volume 100mL, used with SK330.2[16pcs] SK180.2 [9pcs]	■	■
18900032	Fixing clip for flask volume 200/250 mL, used with SK330.2[9pcs] SK180.2[4pcs]	■	■
18900033	Fixing clip for flask volume 500mL, used with SK330.2[9pcs] SK180.2[2pcs]	■	■

## Spectrophotometer

SP-V1000/SP-UV1000/SP-V1100/  
SP-UV1100

The spectrophotometer is an indispensable instrument routinely used in colleges, universities and research institutes for quantitative analysis in fields including biotechnology and quality control of new material developed. V-Series provides high resolution, high performance and excellent stability.



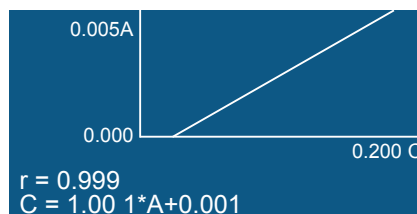
### Features

- **User Friendly Operation and Information Rich LCD Display:** The large 128 x 64 dots, backlit LCD screen with adjustable brightness control displays a large array of data also in graphical format
- **On-Board Data Storage:** The System can save the test results, up to 200 groups of data and 200 standard curves in the RAM memory
- Data can be restored after a sudden power failure
- **Auto setting wavelength:** To set wavelength automatically to calibrate the system through arrow keys to avoid operation errors
- **Automatic Switching:** Tungsten & Deuterium lamps switching is automatic. Selectable from a wavelength range of 190 to 1100nm
- **PC control through application software:** The spectrophotometer is fully equipped and capable of executing all functions in stand-alone mode. The optional application software 'Wave Professional' provides computer control for the spectrophotometer (through the built-in USB port), apart from other functions such as spectrum scan, Time scan (kinetics), multiwavelength scanning & Nucleic Acid /Protein measurement. (SP-V1100/SP-UV1100)
- **Large sample compartment:** To accommodate 5–100mm path length cuvettes with optional holders. A variety of optional accessories are available

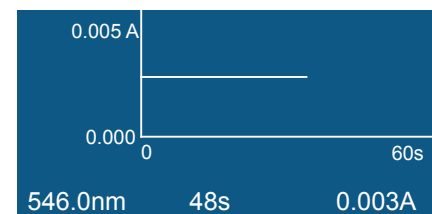
### Basic Mode

546.0nm		0.001A
No.	WL.	Abs.
1	230.0	0.001
2	340.0	0.000
3	450.0	0.002
4	540.0	0.000
5	620.0	0.003

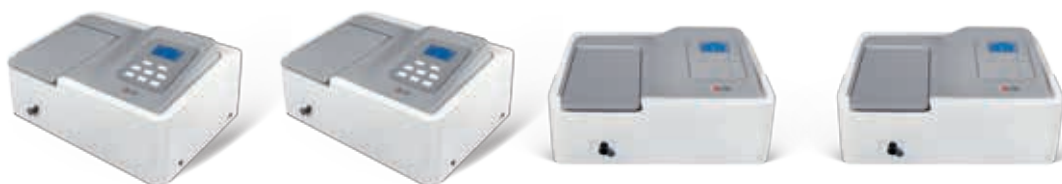
### Quantitative



### Kinetics



# Spectrophotometer



Model	SP-V1000	SP-UV1000	SP-V1100	SP-UV1100
Optical System	Single Beam	Single Beam	Single Beam	Single Beam
Light Source	Tungsten lamp	Tungsten lamp & Deuterium lamp	Tungsten lamp	Tungsten lamp & Deuterium lamp
Spectral Bandwidth	4.0nm	4.0nm	2.0nm	2.0nm
Wavelength Range	325-1000nm	200-1000nm	320-1100nm	190-1100nm
Wavelength Accuracy	±2nm	±2nm	±0.5nm	±0.5nm
Wavelength Repeatability	≤1nm	≤1nm	≤0.3nm	≤0.3nm
Photometric Range	-0.3 - 3.0 A, 0 - 200%T	-0.3-3.0A, 0-200 %T	-0.3 - 3.0 A, 0 - 200 %T	-0.3 - 3.0 A, 0 - 200%T
Photometric Accuracy	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T
Photometric Repeatability	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T
Stability	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)
Stray Light	≤0.2%T @ 360nm	≤0.2%T @ 220&360nm	≤0.05%T @ 360nm	≤0.05%T @ 220 & 360nm
Sample Compartment	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette
Display	LCD	LCD	LCD	LCD
Output	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)
Power	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W
Dimension(LxWxH)	490×360×210mm	490×360×210mm	490×360×210mm	490×360×210mm
Weight	12kg	14kg	12kg	14kg

# Spectrophotometer | Accessories



**Cat. No.** 18900337  
Micro Cell holder



**Cat. No.** 18900340  
8-position auto cell changer  
(for SP-V1100&SP-UV1100)



**Cat. No.** 18900331  
4-cell holder for 10mm squ.cuvette



**Cat. No.** 18900332  
4-cell holder for 10mm  
to 50mm squ. cuvette



**Cat. No.** 18900333  
4-cell holder for up to  
100mm squ.cuvette



**Cat. No.** 18900338  
Test tube holder(ø8-ø22mm)



**Cat. No.** 18900334  
cylindrical cell holder(ø16mm)



**Cat. No.** 18900339  
solid sample holder  
(ø1.5-3mmø1 position)



**Cat. No.** 18900335  
10mm water-jacketed 1 cell holder  
(for SP-V1100 & SP-UV1100)



**Cat. No.** 18900336  
10mm water-jacketed 4-cell holder  
(for SP-V1100 & SP-UV1100)



Square cuvettes glass/quartz  
1-5mm/10-100mm



**Cat. No.** 18900341  
12V20W halogen lamp



**Cat. No.** 18900342  
Milas deuterium lamp,10V,300mA, 30W  
(for SP-UV1000&SP-UV1100)



# GeSMART

## GeSMART

The GeSMART gel imaging system can be used for qualitative analysis of nucleic acid and protein in purification and /or separation application, or colony counting application.

### Functions & Applications

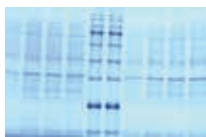
GeSMART facilitates fast access to acquire high-quality images of electrophoresis gel or transfer membrane for analysis using smartphone/ tablet. With epi-blue instead of ultraviolet light source, GeSMART is able to safely and efficiently visualize stained DNA signals after gel electrophoresis.

In addition, Coomassie blue stained SDS-PAGE and colony dishes can be observed with the light plate mounted on the GeSMART.

Optionally you can control the complete imaging system via an app on your smartphone or tablet.



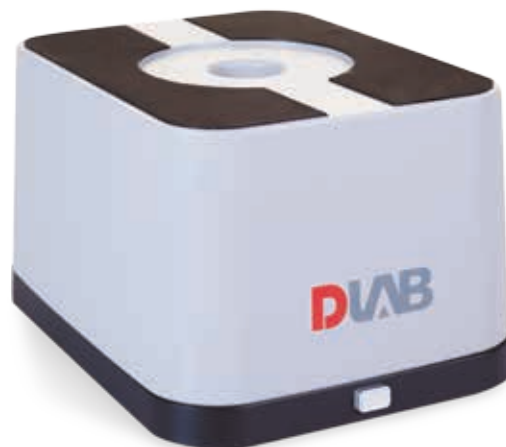
ECO Safe staining



Coomassie blue stained SDS-PAGE



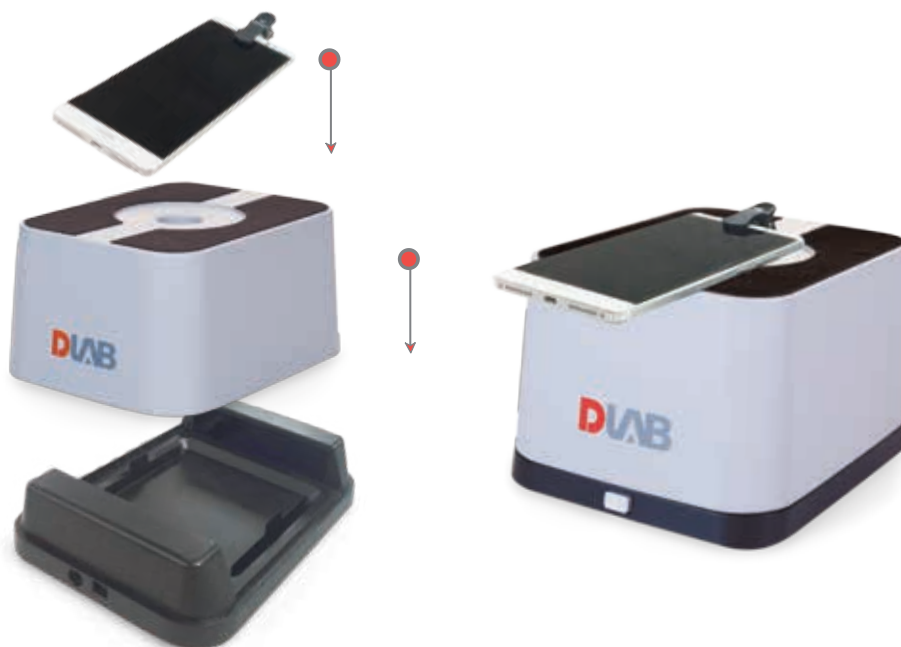
colony dish image



### Features

- Compact foot print with a field of 10×10cm
- Simple operation of experiments and quick acquisition of results
- Epi-blue light diminishes UV exposure to lab personnel and DNA damage in the sample
- Adjustable epi-blue light source emits light with high intensity and minimum heat for better light control
- Filter holders can accommodate most popular smartphones/tablets
- Optional light-weight app

### Simple assemble



## Applications:



Light source cover



Light source



Smartphone



App

Observe and cut gels safe and sound with the amber filter shield



## Specifications

### GeSMART

Light Source	470nm epi blue light
White Light Plate	Yes
Filter Protective Shield	Amber, using when observing or cutting gels
Viewing Area	10 x 10cm
Compatible Dye	DNA: ECO Safe, SYBR Safe, GelGreen Protein: Lightning Red, Silver/ Coomassie blue, SYPRO Ruby
Light Source (L x W x H)	216 x 168 x 54 mm
Light Source Cover (L x W x H)	211 x 161 x 108 mm
Total Size (L x W x H)	216 x 168 x 128 mm
Weight	1.2 Kg
Power Supply	12V / 1.5A AC power adapter
Optional app	for Android 4.4 and above or iOS9.0 and above

# Sterilizer

DLAB Infrared sterilizers are designed for sterilization of laboratory equipments like inoculating loop, inoculated needles, tweezers and other small items for high temperatures with short time sterilization. These can also be used for the low temperatures with long time sterilization to prevent contamination.

## ST800-S / ST800-E ST800-SA / ST800-EA Infrared Sterilizer

### Features

- DLAB sterilizers are fast, convenient and can replace alcohol lamps and bunsen burners
- Sterilization is completed within 5-7 seconds
- Very safe to operate with no visual fire. It is only ashing the organic matter in the depths of ceramic heating body and preventing cross contamination
- LED display of actual temperature with temp. control accuracy of 10°C
- These can be used in biology safety cabinets and clean bench space
- Precise temperature control precision and adjustable from 300 - 830°C
- Heating zone angle adjustable(ST800-SA/EA)
- Optional bracket support for inoculating loop or inoculated needles instead of holding them by hand

ST800-EA



ST800-SA



Specifications	ST800-S	ST800-E	ST800-SA	ST800-EA
Display	LED	/	LED	/
Temperature range [°C]	300~830	830	300~830	830
Central zone max temperature [°C]	825±50	825±50	825±50	825±50
The heating zone adjustable angle	/	/	0-40°	0-40°
Max. outer diameter of sterilized items [mm]	15	15	15	15
The total length of heating area [mm]	140	140	140	140
Heating tube	Ceramic	Ceramic	Ceramic	Ceramic
Shell	ABS	ABS	ABS	ABS
Dimensions [LxWxH] (mm)	180x120x217	180x120x217	180x120x186	180x120x186
Weight[kg]	1.5	1.5	1.5	1.5
Voltage[V]	220V, 50/60Hz	220V, 50/60Hz	220V, 50/60Hz	220V, 50/60Hz
Power[W]	190	190	190	190
Working temperature [°C]	-10~40	-10~40	-10~40	-10~40
Working humidity [% RH]	<80	<80	<80	<80
Storage temperature [°C]	-40~60	-40~60	-40~60	-40~60
Storage humidity [% RH]	10~90	10~90	10~90	10~90



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Service contact: [service@dlabsci.com](mailto:service@dlabsci.com)

web: [www.dlabsci.com](http://www.dlabsci.com)

# ES-160

## Fully Automatic Chemistry Analyzer

### Technical specifications

#### General information

Machine type	Random access, open reagent & locked reagent (optional)
Test speed	Constant 150 tests/hour (Mono reagent or double reagent)
Test principle	Colorimetric method, turbidimetry
Test method	1 point end, 2 point end, Fixed-Time, Kinetics
Calibration type	Linear & nonlinear

#### Sample unit

Sample tray	40 sample positions
Sample tube	Micro cup & test tube & blood collection tube can be used. ( $\Phi$ 12-13)mm * (25-100)mm
Sample volume	2-30 $\mu$ L, step by 0.1 $\mu$ L
Sample probe	Liquid surface detection, timely tracking for liquid volume. Collision avoidance
Sample barcode	Sample barcode reader (optional)

#### Reagent unit

Reagent tray	80 reagent positions (40 for R1 & 40 for R2), Non-stop cooling system with peltier pad inside, 24 hours 2 $^{\circ}$ C-14 $^{\circ}$ C, open system, could accept any reagent.
Reagent volume	20-300 $\mu$ L, step by 1 $\mu$ L
Reagent needle	Liquid surface detection, timely tracking for liquid volume. Collision avoidance.
Reagent barcode	Reagent barcode reader (optional)

#### Reaction unit

Reaction tray	44 reaction cuvettes, new amorphous optical plastics reaction cups, perfect transmittance.
Reaction volume	150 $\mu$ L-330 $\mu$ L
Reaction time	10 minutes
Temperature	Peltier pad incubation system, reaction temperature (37 $^{\circ}$ C $\pm$ 0.1 $^{\circ}$ C)

#### Mixing system

Mixer	paddle-type mixing, effective reducing of carry-over
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#### Optical system

Light source	Halogen lamp
Wavelength	340nm; 405nm; 450nm; 505nm; 546nm; 578nm; 630nm; 700nm(4 more options)
Absorbance range	0-4.0 Abs
Resolution	0.0001 Abs

#### Operating system

Operation system	Windows XP, Windows 7, Windows 8, Windows 10
Data processing	Automatic calibration, test combination, effective time management of reagents, serum index, whole process detection, linear expansion of enzyme, blank deduction, dirty cuvette memory, cross infection prevention, patient information memory and association input, automatic report audit, data fuzzy query, report statistics and printing, reference range grading, alarm information classification, user operation privilege classification management.
Report printing	6 formats optional, support custom pattern
interface	TCP/IP network interface

#### Working conditions

Power supply	AC 110/220V $\pm$ 10%, 50/60 Hz, 650W
Water consumption	6L/hour(maximum)
Dimension	750mm * 475mm * 535mm(L*W*H)
Weight	80kg



# ES-160

## Fully Automatic Chemistry Analyzer

### 150 Tests/Hour, Double Reagent

BIOELAB



WeChat Subscrip

E-LAB BIOLOGICAL SCIENCE & TECHNOLOGY CO., LTD.

Address: No. 108, Ganjiabiandong, Yaohua Street, Qixia Distict, Nanjing city, Jiangsu Province, China

Tel : 086-025-83269256

Fax : 086-025-83269255

Web : www.bioelab.net

E-mail : Jason.lu@bioelab.net

E-LAB reserves all rights to make any modification of machine without prior notice.

The customer service hot line in 24 hours

400-018-6818

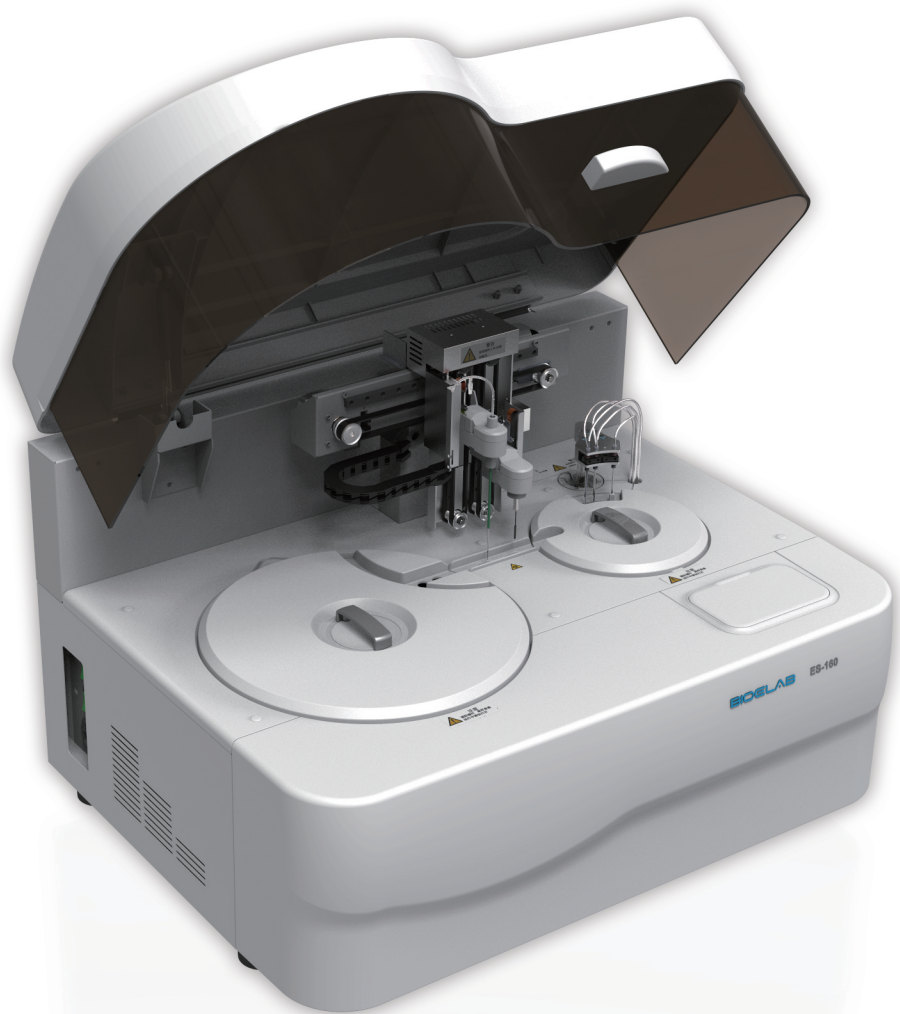


BIOELAB

# ES-160

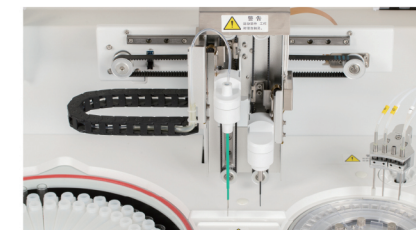
## Fully Automatic Chemistry Analyzer

- Constant 150 test / hour with double reagent
- 80 reagent positions
- Automatic liquid level sensing, anti-collision protection.
- Integrated full closed optical system, multi wavelength simultaneous detection.
- New amorphous optical plastics reaction cups, perfect transmittance.
- Maintenance free semiconductor solid state refrigeration
- Friendly surface and easy to operation



### Multifunctional precision sampling probe

- External & internal mirror polish, external & internal probe washing
- Dedicated sampling probe equipped with sensitive liquid sensor, timely feedback of reagent & sample residuals
- Collision protection, automatic probe depth adjusting



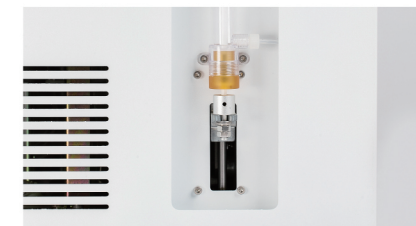
### Excellent mixer design

- Teflon coating mixer. No water dropping (reducing carry-over)
- Excellent mixing effect with standard mixing procedure



### High precision ceramic syringe

- Permanent ceramic piston
- Accurate dispensing as low as 0.1  $\mu$ l



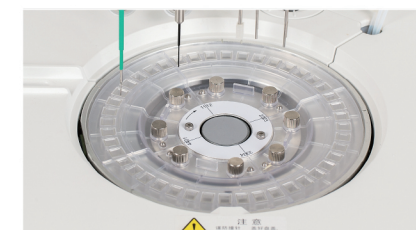
### Reagent & sample tray

- 80 reagent positions (40 for R1, 40 for R2)
- 40 sample positions, micro cup & test tube can be used
- Non-stop cooling system with peltier pad inside, 24 hours 2 $^{\circ}$ C-14 $^{\circ}$ C
- Bar code reader(optional)



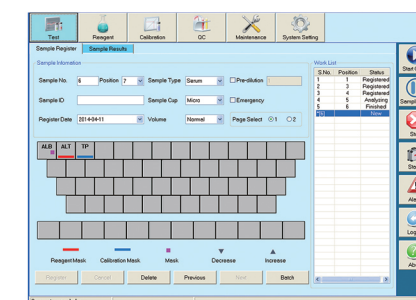
### Reaction tray

- 44 reaction cuvettes
- Reaction volume as low as 150  $\mu$ l
- Stable & accurate temperature(37 $\pm$ 0.1  $^{\circ}$ C) for reaction



### Advanced operating system

- User friendly software interface simple, easy-to-operation
- Sample automatic dilution(decrease, increase, normal)
- Reaction result automatic checking and warning, calibration result automatic checking, warning alarm log
- Linear & nonlinear calibration,Multi-points calibration up to 8 points
- Quality control apply to westgard, L-T plot, cumulative





## **Semi-automated** coagulation

**helena**  
Biosciences Europe

CoaData family and reagent solutions

# CoaData 501 | 2001 | 4001

The CoaData family are a series of compact and reliable coagulation analysers, available in 1, 2 and 4-channel configurations for convenience for a comprehensive panel of specially manufactured assays and are developed by the haemostasis reagent manufacturer.

## Key features:

- **Turbodensitometric measuring** principle providing comparable performance to fully automated coagulation systems
- **Accurate and precise** clot detection
- Excellent performance with **lipaemic** and **icteric** samples
- Available in **1, 2** and **4** channel systems
- High-capacity on-board reagent storage and long-term reagent stability for **maximum assay flexibility**
- **Extensible, open system**, with pre-programmed tests and support for future developments such as D-dimer and Whole Blood
- **Auto-reaction start** for convenience and assay precision
- **Cuvettes preloaded** with magnetic stirring bars
- **Low CVs** for instrument and reagent combinations



### CoaData 2001

Number of channels:	2
Incubation positions:	18
Reagent positions:	4 (one stirred)
Min/max reaction volume:	150ml / 300ml
Interfaces:	2 x RS232, ChipCARD reader
Thermal printer:	Integrated
On-board assay storage:	Up to 7 Assays
Result output:	seconds, %, INR, g/L, mg/dL, Ratio
Electronic start pipette:	Optional
Application settings:	Loaded or stored from ChipCARD

### CoaData 501

Number of channels:	1
Incubation positions:	4
Reagent positions:	4
Min/max reaction volume:	150ml / 300ml
Interfaces:	1 x RS232
Thermal printer:	External (optional)
On-board assay storage:	Up to 7 Assays
Result output:	seconds, %, INR, g/L, mg/dL, Ratio
Electronic start pipette:	Optional
Application settings:	N/A

Co

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# Full reagent range

ons. They provide system flexibility and specialists — Helena Biosciences Europe.

- Compatible with a **comprehensive** panel of coagulation tests
- **Low usage** of reagents for long-term economy savings



Helena Biosciences manufacture a complete range of CE-marked reagents, controls and calibrators for clot-based assays suitable for use with the CoaDATA family.

## Prothrombin Time Assay: Thromboplastin LI

Intended use: for the evaluation of the Extrinsic coagulation pathway factors; the monitoring of oral anticoagulant therapy; and in the assessment of liver function.

- Ready-to-use liquid components mixed in a 1:1 ratio prior to use:
  - Suspension of Rabbit brain tissue extract
  - Liquid Calcium Chloride (0.025M)
- Instrument specific ISI and MNPT values assigned according to WHO guidelines
- International Sensitivity Index: ISI  $\approx$  1
- Original Leon Poller technology
- Excellent sensitivity to Extrinsic factors
- Heparin insensitive up to 2 U/mL
- Long term stability: 1 month at 2...8°C and 5 days at 15...30°C
- Long term shelf life

## Activated Partial Thromboplastin Time

Intended use: for the evaluation of the Intrinsic coagulation pathway factors and in the monitoring of Heparin anticoagulant therapy.

### APTT Si L Minus (Silica)

- Ready to use liquid components:
  - Silica-contact activator combined with a phospholipid balance of low sensitivity to Lupus anticoagulant
  - Liquid Calcium Chloride (0.025M)
- WHO recommended as the activator of choice for APTT studies
- Excellent sensitivity to Intrinsic factors and Heparin
- Long term shelf life: 2 years from D.O.M. at 2...8°C
- Long term stability: 1 month at 2...8°C after opening

### APTT ES (Ellagic Acid)

- Ready to use liquid components:
  - Optically clear, soluble, ellagic acid contact activator combined with rabbit brain extract containing phospholipids in a balance with high sensitivity to Heparin and to Lupus anticoagulant
  - Liquid Calcium Chloride (0.025M)
- Excellent sensitivity to Intrinsic factors
- Highly sensitive to Heparin and Lupus anticoagulant
- Long term shelf life: 18 months from D.O.M. at 2...8°C
- Long term stability at 2...8°C after opening

## Thrombin Time

Intended use: as a qualitative indication of abnormal fibrinogen levels (high or low), or the presence of interfering substances such as FDPs or heparin.

- Single component kit
- 3 NIH Units/mL of lyophilised bovine thrombin
- Suitable concentration for immediate use post-reconstitution
- Long term shelf life: 2 years from D.O.M. at 2...8°C
- Long term stability: 7 days at 2...8°C after reconstitution

## Clauss Fibrinogen 100

Intended use: for the quantitative determination of Fibrinogen in citrated human plasma using the Clauss method.

- 100 NIH Units/mL of lyophilised bovine thrombin
- Excellent results with opto-mechanical instruments
- Excellent linearity
- Long term shelf life: 2 years from D.O.M. at 2...8°C
- Long term stability: 7 days at 2...8°C after reconstitution; 1 month at -20°C

## Factor Deficient Plasmas

Intended use: for the quantitative determination of factors in citrated human plasma of patients suspected of having a congenital or acquired coagulation factor deficiency.

- Full panel of Immunodepleted and Congenital plasmas for Intrinsic (VIII, IX, XI, XII for use with APTT reagents) and Extrinsic (II, V, VII, X for use with PT reagents) factor deficiency assays
- <1% Residual Factor activity
- Optimum levels of all other coagulation factors
- Excellent linearity
- Long term shelf life: 3 Years from D.O.M. at 2...8°C
- Long term stability: 8 Hours at 2...8°C after reconstitution

### CoaDATA 4001

Number of channels:	4
Reaction positions:	16
Reagent positions:	4 (one stirred)
Reaction volume:	150ml / 300ml
Interfaces:	1 x RS232, USB, SD-Card + ChipCARD reader
Thermal printer:	Integrated
Reagent board assay storage:	Up to 15 Assays
Result output:	seconds, %, INR, g/L, mg/dL, Ratio
Electronic start pipette:	Optional
Calibration settings:	Loaded or stored from ChipCARD

## Calibrators and controls: compatibility table

	PT	aPTT	Thrombin Time	Fibrinogen	Deficient Factors
<b>Calibrators:</b>					
SARP	✓	-	-	✓	✓
<b>Controls:</b>					
NormTrol-1	✓	✓	✓	✓	-
AbTrol-2, 3	✓	✓	✓	✓	-
SAC-1	✓	✓	-	✓	✓
SAC-2	✓	✓	-	✓	✓

### Calibrators: SARP

- Universal calibrator for CoaData and all leading coagulometers. Provides assay values for multiple parameters including PT, Fibrinogen, ATIII, Factors, Protein C, Protein S, RiCoF. All values are directly traceable to the WHO recommended ISTH biological standards.
- Long term shelf life: 3 Years from D.O.M. at 2...8°C
- Long term stability: 4 Hours at 2...8°C after reconstitution

### Controls

- Freeze-dried human plasmas
- Instrument specific ranges (NormTrol-1, AbTrol-2, AbTrol-3) for all leading coagulometers: CoaData Series, Sysmex CA®, IL ACL®, Behnk® and many more.
- Long term shelf-life: 3 Years from D.O.M. at 2...8°C
- Long term stability

## Additional specifications

	CoaData 501	CoaData 2001	CoaData 4001
<b>Measuring Principle</b>	Turbodensitometric	Turbodensitometric	Turbodensitometric
<b>Incubation temperature</b>	37.4°C ±0.4°	37.4°C ±0.4°	37.4°C ±0.4°
<b>Reaction vessel</b>	Disposable microcuvette	Disposable microcuvette	Disposable microcuvette
<b>Reaction start</b>	Automatic sensor	Automatic sensor	Automatic sensor
<b>LCD Display</b>	1 line with 8 characters	2 lines with 20 characters	2 lines with 20 characters
<b>Dimension</b>	9.7 × 21.2 × 5.2 cm	27.3 × 34.8 × 12.5 cm	27.3 × 34.8 × 12.5 cm
<b>Weight</b>	0.6 kg	3.9 kg	3.9 kg
<b>Assays</b>	PT, aPTT, Fibrinogen, Thrombin Time	PT, aPTT, Fibrinogen, Thrombin Time, Factor Deficiencies (FII, V, VII, VIII, IX, X, XI, XII)	PT, aPTT, Fibrinogen, Thrombin Time, Factor Deficiencies (FII, V, VII, VIII, IX, X, XI, XII)
<b>Reagent parameters</b>	Editable	Editable, copyable and exchangeable	Editable, copyable and exchangeable
<b>Calibration curves</b>	Editable up to 9 measuring points	Editable up to 9 measuring points	Editable up to 9 measuring points
<b>Cuvette detection</b>	Automated	Automated and counter	Automated and counter

## Ordering information

Cat. no.	Description	Qty	Cat. no.	Description	Qty
105-99-700-00	Helena CoaData 501, 1 channel coagulation analyser	1	104-99-740-00	Helena CoaData 4001, 4 channels coagulation analyser	1
	Single Cuvette with magnetic stir bar	10		Single Cuvette with magnetic stir bar	100
	Reagent Container	2		Reagent adapter	1
	Power adapter 100V - 240V	1		Dust Cover	1
211-07-010-00	Helena CuvCARD cuvettes	5 × 100		Thermal printer paper roll	1
211-01-090-00	Original CuvCARD cuvettes	5 × 100	<b>Helena CoaData 2001, 4001 Consumables:</b>		
DPU414-40B	External Printer	1	211-07-010-00	Helena CuvCARD cuvettes	5 × 100
TPR 112	Thermal Printer Paper 112 mm (5 pcs)	1	211-01-090-00	Original CuvCARD cuvettes	5 × 100
102-99-840-00	Helena CoaData 2001, 2 channels coagulation analyser	1	30.600.0982	Thermal Printer Paper (10 rolls)	1
	Single Cuvette with magnetic stir bar	100	104-89-220-01	ChipCARD	1
	Reagent adapter	1	104-89-220-00	ChipCARD Set (7pcs)	7
	Dust Cover	1	30.000.2767	Reducer Ring	1
	Thermal printer paper roll	1	30.000.1032	Teflon Mixer in Plastic Vial (13mm)	3

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 marketing@helena-biosciences.com

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 Tyne and Wear, NE11 1OSD, United Kingdom

HL-2-1971P 2011/03(2)

**helena**  
 Biosciences Europe

# Clinical Electrophoresis

## Product Portfolio

helena  
Biosciences Europe



# V8 NEXUS

> Automated > Intelligent > Connected



96 tests/hr

Serum Proteins

96 tests/hr

Urine Proteins

19 tests/hr

Immunodisplacement

16 tests/hr

CDT

32 tests/hr

Haemoglobin A1c

32 tests/hr

Haemoglobin IEF

The V8 Nexus is the next-generation clinical capillary electrophoresis analyser from Helena Biosciences, bringing improvements to hardware, automation, methods and software with a fully touchscreen-optimised Platinum 5

## Brand New Capillary Electrophoresis System

- Fast SP technology
- FlexWave capability
- LabConnect automation

## New, Improved Methods and Analytical Automation

- High-speed Serum Proteins
- Haemoglobin A1c
- Automated Haemoglobin

## Platinum 5 Analytical Interpretation Software

- Touch screen control
- Real-time V8 monitoring
- Automated Expert System

[www.helena-biosciences.com/v8nexus](http://www.helena-biosciences.com/v8nexus)

## Introduction to Helena Biosciences

Helena Biosciences is a world-leading IVD manufacturer based in the North East of England selling to end-users, distributors and OEM clients.

### UK-based manufacturer

Our global development, distribution and support operation is run from three European sites, housing our specialised R&D, manufacturing, sales and support teams.

#### Gateshead, UK



- Sales and marketing
- Design team
- Assay development
- Quality Assurance
- Software team
- Service and support
- Warehousing
- Logistics
- Administration

#### Sunderland, UK



- Research and Development
- Gel manufacture
- Reagent manufacture
- Quality Assurance
- Documentation
- Packaging
- Regulatory Affairs
- Customer support
- Warehousing and logistics

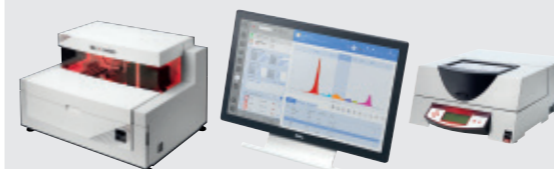
#### Emmen, Netherlands



- Capillary electrophoresis development specialists
- Analyser, assay and software research and development
- Multi-disciplinary engineering and manufacturing teams
- Sales, marketing and support
- Warehousing, logistics and distribution

## Business Divisions

### Clinical Electrophoresis



Automated analysers, reagents and software for protein quantitation in blood serum and urine for the monitoring of a variety of disease states.

**Automated Capillary Electrophoresis:**  
**Blood Cancers • Haemoglobinopathies**  
**Liver Diseases • Diabetes • Alcohol Abuse**

**Semi-Automated Gel Electrophoresis:**  
**Kidney Disease • Multiple Sclerosis**  
**Cardiovascular Disease • Bone/Liver Disease**

### Haemostasis



Complete portfolio of reagents for determination of blood coagulation and platelet function with support for many major brand analysers.

**Reagent Portfolio:**  
**Routine Screening Tests • Factor Assays**  
**Fibrinolysis • Thrombophilia**  
**Platelet Disorders • Controls • Calibrators**

**Semi-Automated Analysers:**  
**1/2/4 Channel Coagulometers • Aggregometers**

### Third Party Controls

A complete range of independently sourced quality controls allowing for the independent verification of a laboratory's QC régime, monitoring for any shift in analyser performance.



### Instruments

As the original pioneers in clinical electrophoresis, we supply the most comprehensive portfolio of world-class instrumentation, software and assays, encompassing manual and automated diagnostic systems, and routine and specialist testing solutions, for flexibility and performance in your laboratory.



**SAS-MX IEF Chamber**



**SAS-MX Gel Chamber**



**SAS-1 Plus / SAS-2**  
Compatible with V8



**SAS-3 / SAS-4**  
Compatible with V8



**V8 Nexus**  
Automated capillary analyser

Catalogue Numbers	Page	SAS-MX IEF Chamber	SAS-MX Gel Chamber	SAS-1 Plus / SAS-2 Compatible with V8	SAS-3 / SAS-4 Compatible with V8	V8 Nexus Automated capillary analyser
Serum Proteins	12	-	100100	200100	300100	-
Serum Protein (Split Beta)	13	-	100200	200200	300200	800500 <sup>†</sup>
	13	-	-	-	-	800800 <sup>†</sup>
Serum Protein (High Resolution)	14	-	101300	200700	300700	-
Urine Protein Analysis	15	-	100500	200400	300400	804110 <sup>†</sup>
	15	-	-	-	-	804111 <sup>†</sup>
	15	-	-	-	-	804112 <sup>†</sup>
Immunotyping	16	-	100300	200300	300300	800300 <sup>†</sup>
	16	-	100400	-	-	-
Urine Immunotyping	17	-	100600	200301*	300301*	800300 <sup>†</sup>
	17	-	-	200400*	300400*	-
Pentavalent Screen	17	-	-	200301	300400	-
	17	-	-	200406	300406	-
Alkaline Haemoglobin	18	-	100800	200900	300900	-
Acid Haemoglobin	19	-	100700	201000	-	-
Alkaline Phosphatase	20	-	102000	200800	300800	-
CK Isoenzymes	21	-	101800	201200	-	-
LD Isoenzymes	21	-	101900	201300	-	-
Lipoproteins	22	-	101200	201100	-	-
Cholesterol	22	-	-	200600	300600	-
HDL Cholesterol	23	-	101000	200500	300500	-
Transferrin IEF	24	-	-	103100	103100	-
Alpha-1-Antitrypsin	24	105100	-	-	-	-
IgG IEF	25	102200	-	102200	102200	-
	25	104200	-	-	104200	-
Carbohydrate Deficient Transferrin	34	-	-	-	-	803110 <sup>†</sup>

Ordering Information:

Page 26

\* in combination with user specific choice of antisera  
<sup>†</sup>To order please see page 34

# Welcome to the SAS product range – the complete clinical gel electrophoresis product range

## SAS-1 Plus and SAS-2

Integrated electrophoresis solution for laboratories running 1200-6000 tests per year.

- Up to 72 Serum Proteins per hour
- Up to 8 Immunofixations per hour



## SAS-3 and SAS-4

Integrated electrophoresis solution for laboratories running 4000-30000 tests per year.

- Up to 300 Serum Proteins per hour
- Up to 18 Immunofixations per hour



### SAS-1 Plus automated compact electrophoresis analyser

SAS-1 Plus is the ideal choice for laboratories conducting 40-100 Serum Proteins per week. Acclaimed by specialists all over the world, SAS-1 Plus supports an extensive range of clinical assays, providing users with a compact instrument that is fast, flexible, economical and ultra-reliable.

- Intuitive, multiple-language user interface
- Patented sample applicator technology ensures full protein application
- Up to 12/24 Serum Protein samples applied simultaneously; up to 2/4 samples for Immunofixation
- Precise antisera application for IFEs ensures reproducible lane coverage
- Continuous loading of different assays
- 20 editable gel programmes, with all SAS-1 Plus tests pre-programmed

### SAS-2 automated compact gel processor system

Partnering the SAS-1 Plus, Helena Biosciences' SAS-2 gel processing system is the ideal solution for small-to-medium sized laboratories. Designed with reliability, accuracy and efficiency in mind, SAS-2 automates the staining, destaining and drying of the gel, and is optimised to give extraordinary clarity of protein gels.

- Compact bench-top analyser
- Walk-away automation reduces operator intervention
- Automated gel processing with variable staining, destaining and drying programmes
- 20 editable gel programmes, with all SAS-1 Plus tests pre-programmed

### SAS-3 automated compact electrophoresis analyser

SAS-3 has gained a reputation as a superior system for a wide range of assays, ideal for laboratories conducting 60-200 tests per week. All of this reliability and performance comes in a bench-top analyser which applies a precise sample volume directly to the gel using patented sample applicators ensuring no protein loss.

- Intuitive, multiple-language user interface
- Supports a wide range of gel sizes for flexible throughput requirements
- Up to 12/24/40/60/80/100 Serum Protein samples applied simultaneously; up to 2/4/9 samples for Immunofixation
- Automated reagent and antisera application for reagent-based assays
- Optional Bar code reader for sample audit trail
- 17 editable gel programmes, with all SAS-3 tests pre-programmed

### SAS-4 automated compact gel processor system

The SAS-4 gel processor is the partner to our high performance SAS-3 electrophoresis analyser. SAS-4 automates the staining, destaining and drying of electrophoresis gels, and is optimised to provide extraordinary clarity of protein gels. Pre-programmed and compatible with a wide range of gel sizes, it minimises operator time and intervention.

- Compact bench-top system with walk-away automation
- Prepared staining/destaining solution lasts for up to 1000 samples
- Automated gel processing with user-defined programming
- All liquids external — no external level sensors
- Optimised for gel clarity
- Minimum service requirements
- 17 editable methods

## SAS-MX Gel Chamber

High performance with low prices

Established around the world for nearly 30 years, SAS-MX is simple and reliable technology matched by an exceptionally wide range of assays, delivering high performance, accuracy and reproducibility.

The standard chamber is available with an optional IEF chamber for isoelectric focusing.

- Runs Titan III cellulose acetate or agarose gel
- For *in vitro* and research labs
- Plugs straight into most power supplies
- Reusable acetate applicators for 8 samples
- Optimised gel range
- Unique interlock safety system breaks electrical circuit when chamber lid is removed
- Platinum electrodes for agarose-based, high-resolution electrophoresis
- Additional IEF chamber for isoelectric focusing



## SAS-MX IEF Chamber

Affordable and reliable isoelectric focusing solution

Straightforward equipment and consistent results with over 30 years experience in clinical electrophoresis.

### The IEF chamber features:

- Compact design
- Reusable carbon electrodes
- Removable SAS-MX Chamber Cooling Device (Sold separately cat: 3039)
- Safety cut off lid
- Fits most lab power supplies
- Footprint: (W)13cm x (D) 31cm x (H) 5cm
- Weight: <1kg
- CE Marked
- Accessories Supplied:
  - Carbon Electrodes x 2
- Accessories Required:
  - SAS-MX Chamber Cooling Device — Cat: 3039

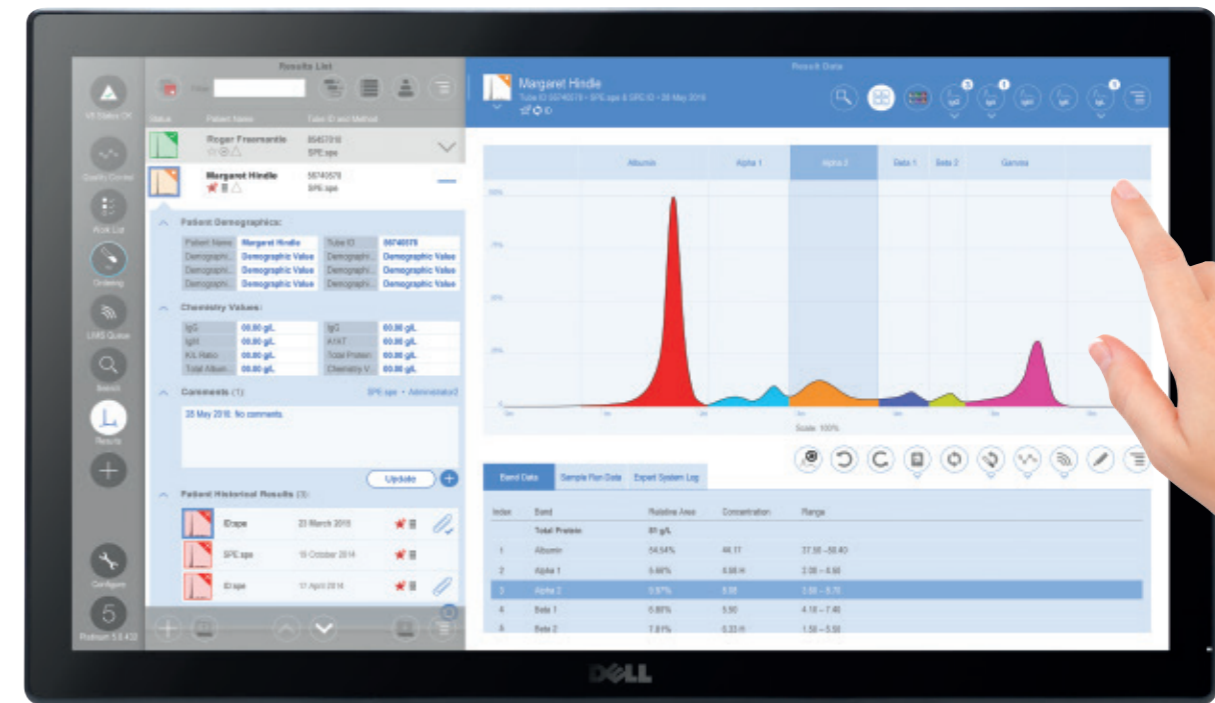
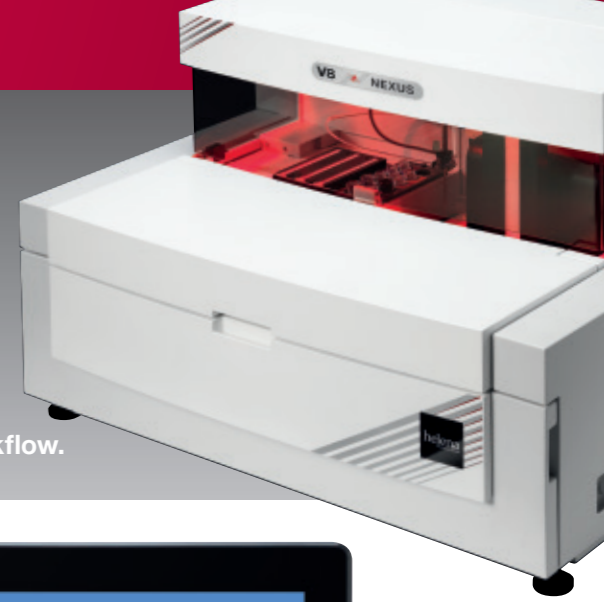


# V8 NEXUS

The V8 Nexus offers fully-integrated gel tray preparation, enabling you to make the most of your existing investment and skills, and gives you the widest possible range of analytical options as a result. Fully incorporated into our TrueIdentity audit trail functionality, V8 Nexus's unique gel integration is a must-see feature for clinicians and managers alike.

# PLATINUM 5

Putting you in complete control of your analytical, editing and reporting workflow. Interact with your data like never before. Revolutionary and powerful new analysis and interpretation software, designed to accelerate and simplify your analytical workflow.



**1**

V8 Nexus prepares the gel tray and can handle up to 160 samples per hour

**2**

The gels are processed on Helena Biosciences' semi-automated gel electrophoresis systems

**3**

The gel is scanned, edited and reported using Platinum 5 software and all results are stored in a single, consolidated database

### Touch screen navigation

- Revolutionary new touch screen interface
- Completely intuitive, multilingual software, supporting step-by-step learning process
- Natural workflows from scan to reporting, with pre-prepared report templates supplied

### Gel scan, storage and data integrity

- Full colour density scan of gels in one pass
- Twice as fast sample scanning than competitors
- Gel image generated from raw data
- Extensive and efficient data storage, with automated data back-up

### Patient demographics

- Fully definable and searchable demographics
- 'Plug and play', bidirectional LIMS connectivity
- Import patient data from LIMS including up to 12 chemistry values
- Fully customisable, self-checking database
- Full comparison of patient data

### Complete auditing and validation

- Levey-Jennings capability with Westgard rules
- Full sample, reagent and user audit trail including individual access and history for analysis security
- LIMS authorisation and quality release system for authorised users

### Sample analysis and interpretation

- User-friendly Expert System, offering automated flagging and clearing of abnormal results for reflex testing to immunotyping
- Full editing capabilities for baselines, peaks and true results
- Historical view of previous patient results, all on one screen
- Overlay facilities for sample analysis, comparisons and patient monitoring
- Enhanced image contrast functionality
- User-defined report publishing

### Powerful data management

- Database capacity of up to half a million results
- Unlimited additional searchable archives
- Customised gel and capillary method parameters
- Network database functionality for storage of data on laboratory networks
- Remote viewing of data
- Automated barcode input of QC ranges and data

### Instrument diagnostics and monitoring

- Hardware feedback for real-time status updates
- Proactive automated maintenance procedures with scheduled start-up and shut-down
- Service alert



Full multi-sample, historical audit trail from patient sampling to reporting



Patented pre-cast, semi-dry gel block system — no electrode wicks or sponges



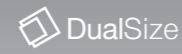
Quick, reliable and accurate market-leading patented sample applicator system



On-board Peltier-controlled temperature regulation for improved resolution, reagent incubation and gel drying



Run serum and urine samples including Pentavalent and Immunofixation simultaneously on the same gel



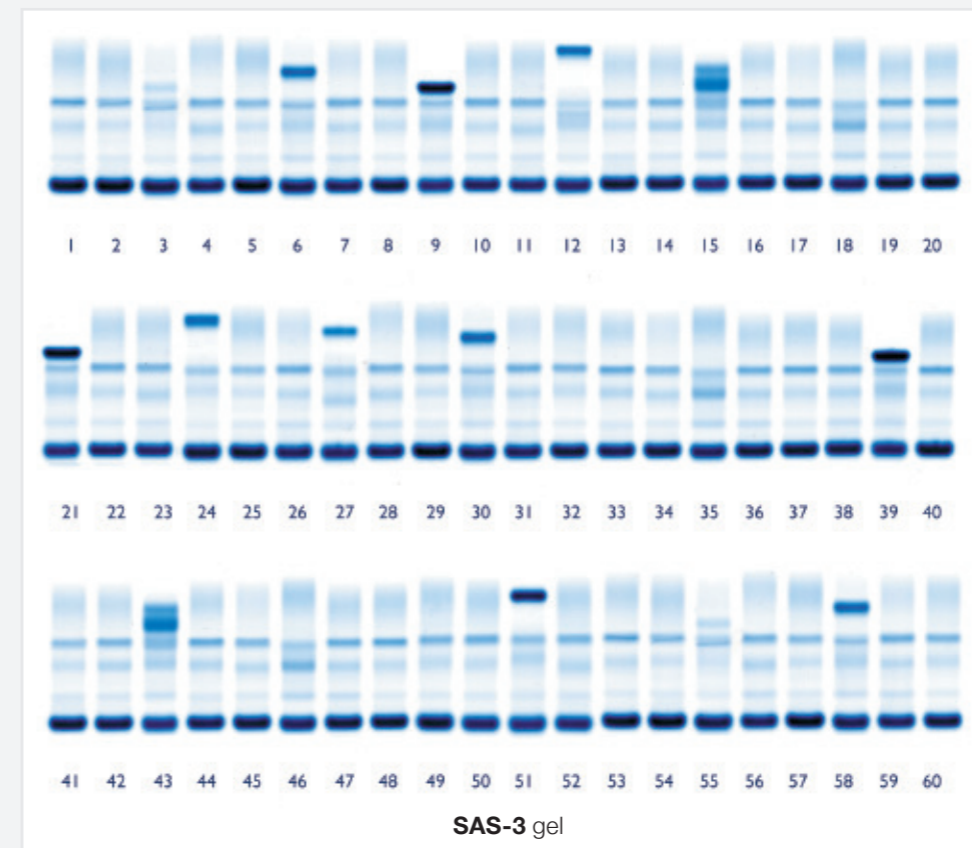
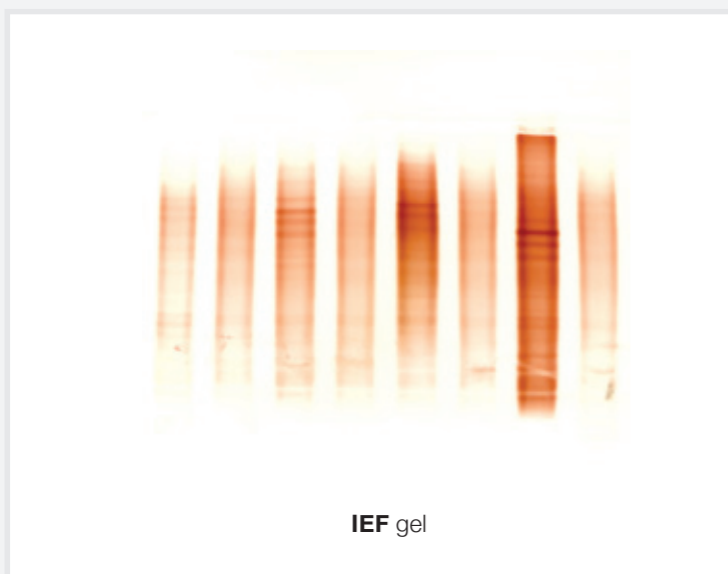
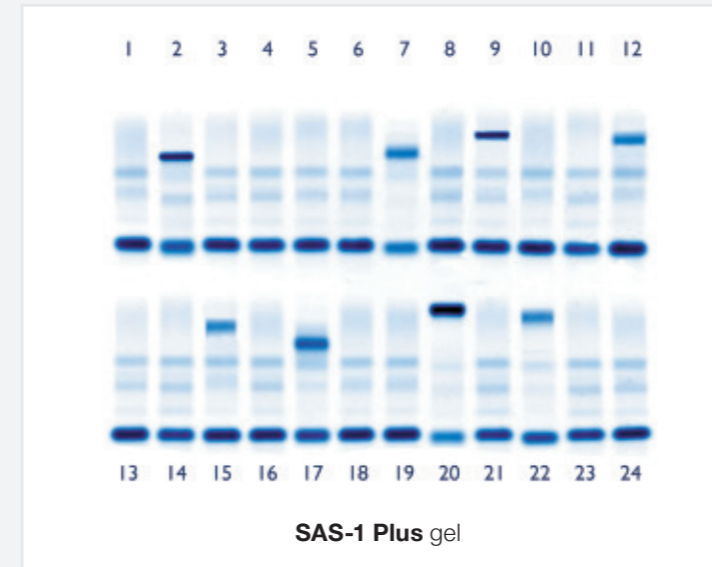
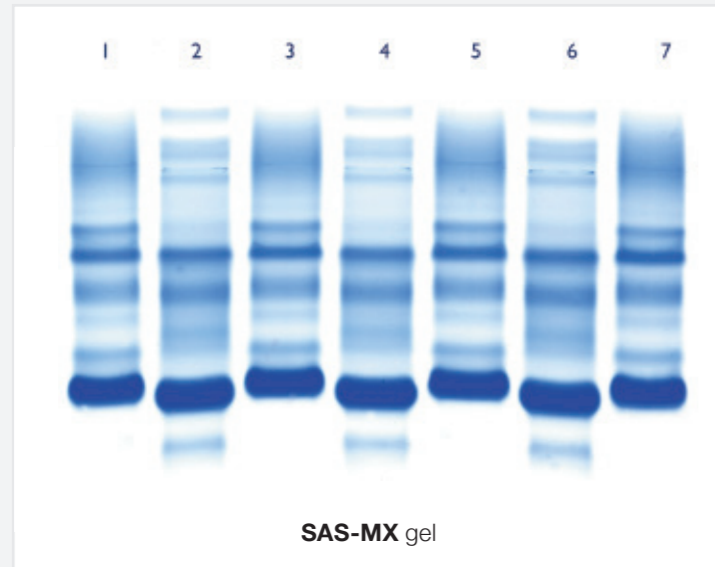
SAS-3 supports the widest range of gels, in two optimised sizes, for improved cost savings



High voltage applications for increased resolution and multiple isoelectric focusing methods

**Unique V8 Nexus gel preparation, ideal for:**

- Immunofixation
- Urine Immunofixation
- Urine Protein Analysis
- Pentavalent Screen





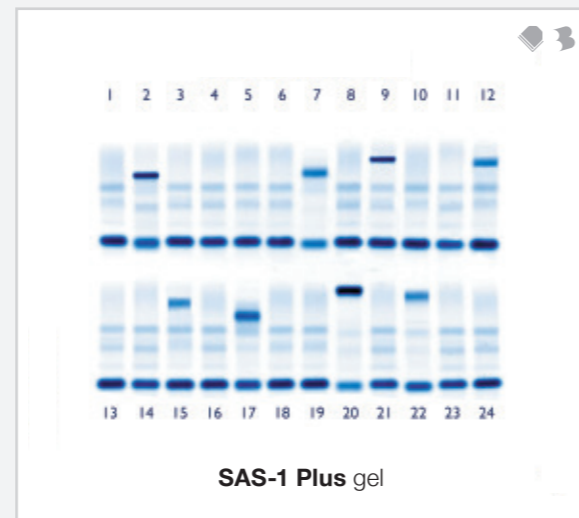
### Serum Protein

Helena Biosciences has produced the serum protein 5 band gel using an advanced gel formulation ensuring enhanced resolution and sensitivity within the Gamma region.

- Up to 100 samples can be applied simultaneously
- Complete serum protein profile
- Clear and identifiable bands produced
- All assay components included within the kit



**REF: 100100**  
10 tests/gel  
10 gels/kit



**REF: 200100**  
24 tests/gel  
10 gels/kit

- Compatible with SAS-3
- Gel trays can be prepared on V8 Nexus

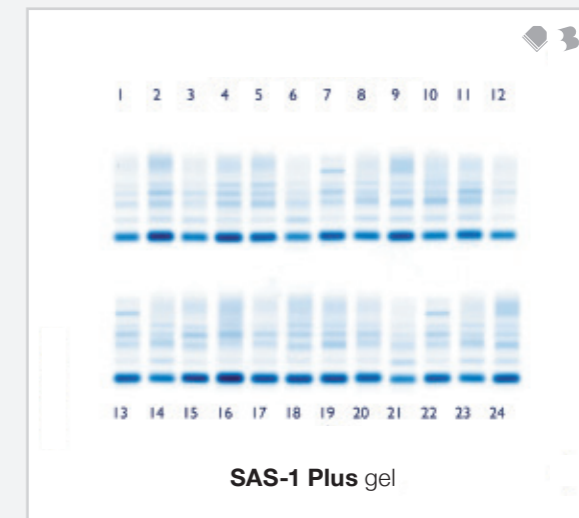
### Serum Protein (Split Beta)

Helena Biosciences has produced an additional serum protein 6 band gel for differentiation of  $\beta$ 1 and  $\beta$ 2 fractions. The split beta gel uses an advanced gel formulation ensuring enhanced resolution and sensitivity within the Beta and Gamma regions.

- Up to 60 samples can be applied simultaneously
- Complete serum protein profile
- Resolution of  $\beta$ 1 and  $\beta$ 2 fractions to aid identification of  $\beta$  region migrating monoclonal proteins
- All assay components included within the kit

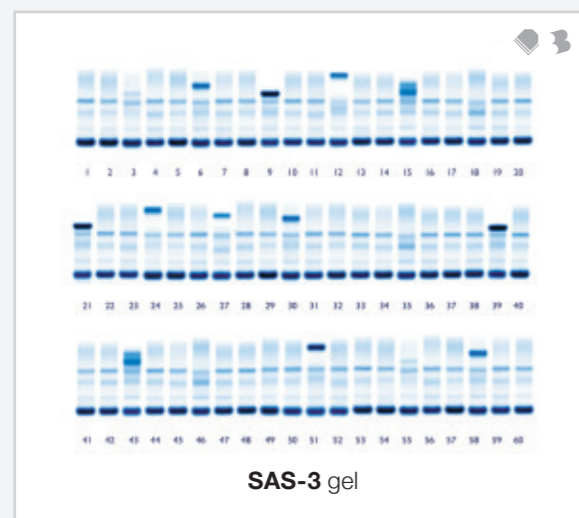


**REF: 100200**  
10 tests/gel  
10 gels/kit



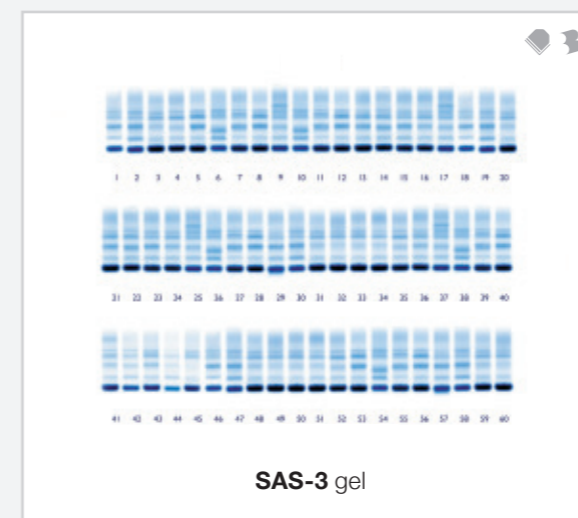
**REF: 200200**  
24 tests/gel  
10 gels/kit

- Compatible with SAS-3
- Gel trays can be prepared on V8 Nexus



**REF: 300100**  
60 tests/gel  
10 gels/kit

- Gel trays can be prepared on V8 Nexus



**REF: 300200**  
60 tests/gel  
10 gels/kit

- Gel trays can be prepared on V8 Nexus

### Serum Proteins (High Resolution)

By using high-resolution agarose electrophoresis, 15 or more proteins can be visualised in the serum. This superior resolution and sensitivity separates and detects proteins with similar electrophoretic mobilities.

- Up to 20 samples can be applied simultaneously on SAS-3
- Suitable for urine and CSF analysis
- All assay components included within the kit

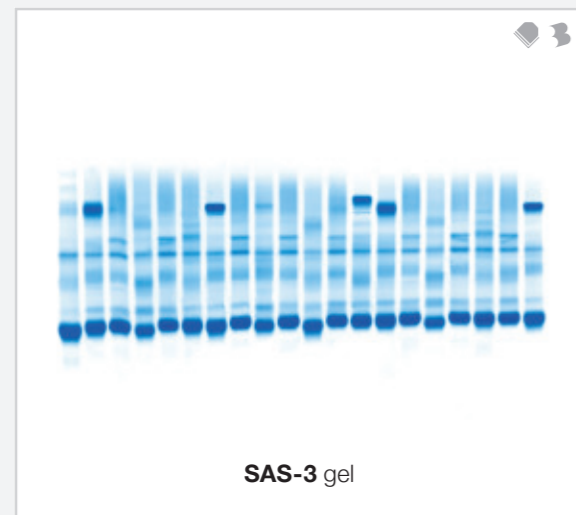


**REF: 101300**  
7 tests/gel  
10 gels/kit



**REF: 200700**  
12 tests/gel  
10 gels/kit

- Compatible with SAS-3



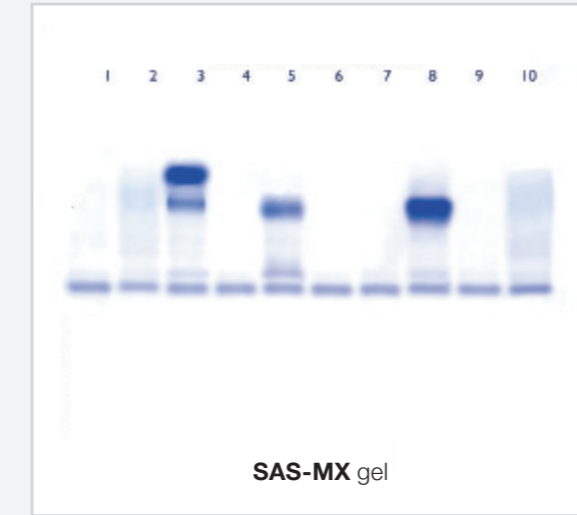
**REF: 300700**  
20 tests/gel  
10 gels/kit

- Minimum order quantities apply to this kit

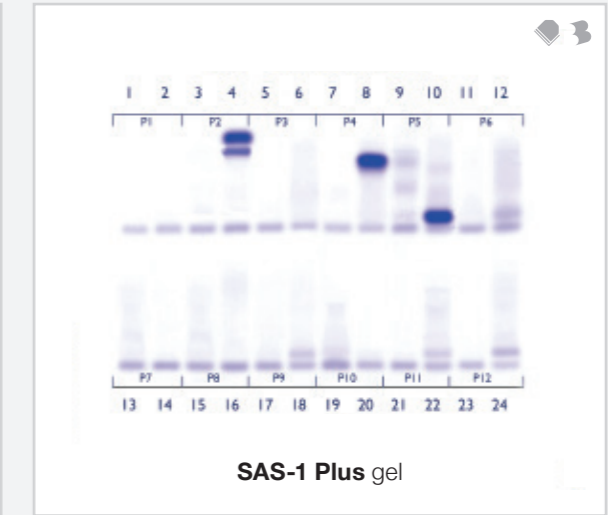
### Urine Protein Analysis

Helena Biosciences Urine Protein gel offers a unique and completely flexible approach to urine protein analysis and screening techniques. The applicator system ensures unconcentrated urine can be applied directly to the gel without the loss of protein.

- Standard urine screening
- Tailored combination of antisera for Bence Jones protein screening
- Direct urine sampling — no need to concentrate
- Clear and identifiable bands produced
- All assay components included within the kit

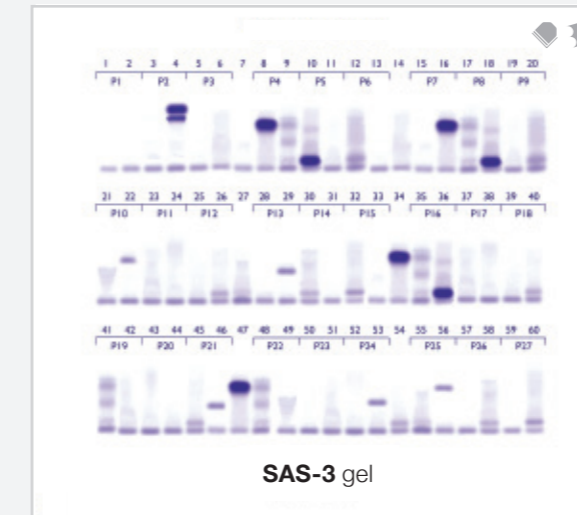


**REF: 100500**  
10 tests/gel  
10 gels/kit



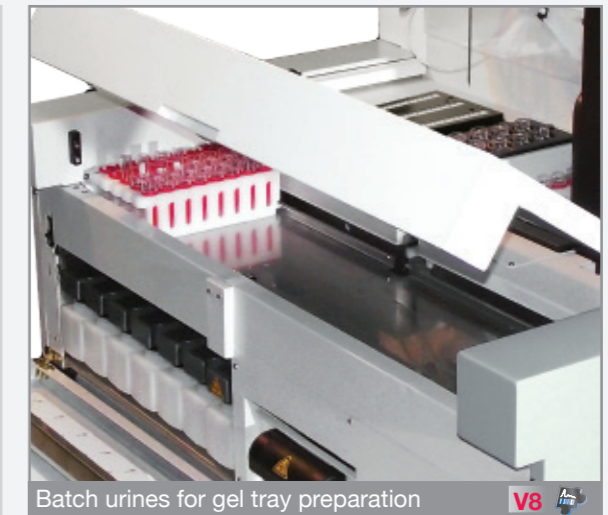
**REF: 200400**  
24 tests/gel  
10 gels/kit

- Compatible with SAS-3
- Gel trays can be prepared on V8 Nexus



**REF: 300400**  
60 tests/gel  
10 gels/kit

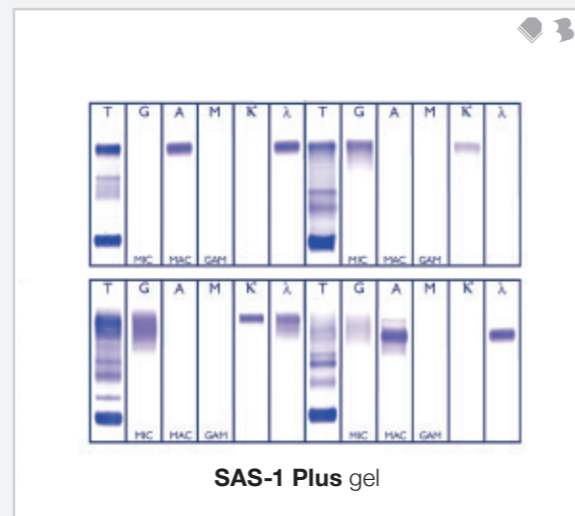
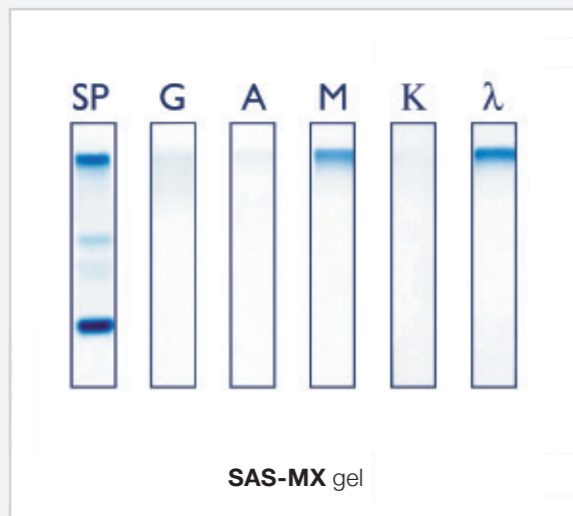
- Gel trays can be prepared on V8 Nexus



### Immunofixation

Immunofixation Electrophoresis (IFE) is characterised by its enhanced sensitivity, ease of interpretation, quick test results and excellent resolution. The SAS-MX IFE-1 Kit allows patient sample immunotyping in just over an hour with the use of colour coded antisera.

- Specific standardised sample preparation
- Up to 9 samples applied simultaneously on SAS-3
- Serum or urine protocols included
- Direct urine sampling — no need to concentrate
- Clear and identifiable bands produced
- All assay components included within the kit

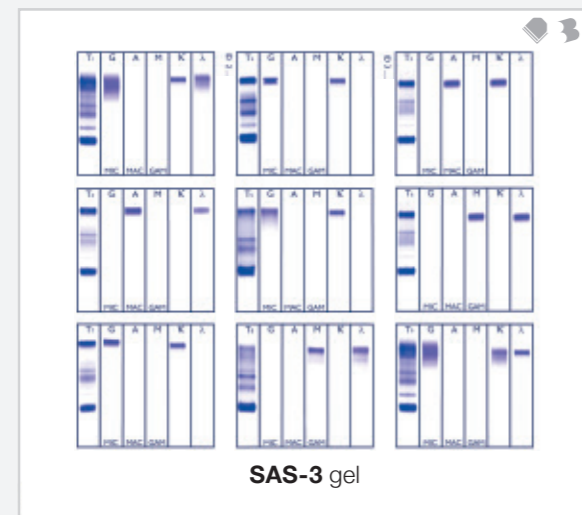


**REF: 100300**  
1 test/gel  
10 gels/kit

**REF: 100400**  
2 tests/gel  
10 gels/kit

**REF: 200300**  
4 tests/gel  
10 gels/kit

- Compatible with SAS-3
- Gel trays can be prepared on V8 Nexus



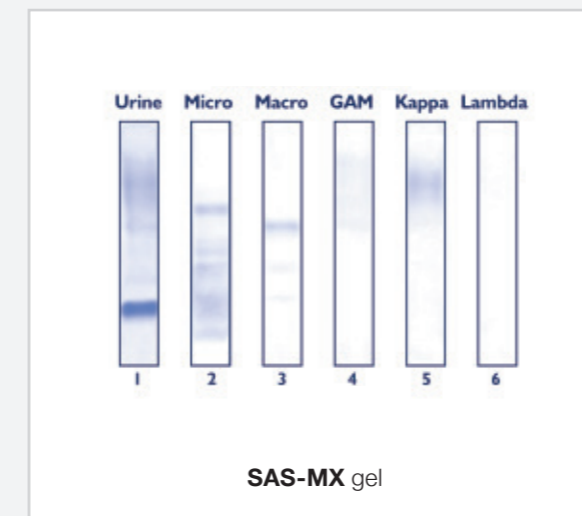
**REF: 300300**  
9 tests/gel  
10 gels/kit

- Gel trays can be prepared on V8 Nexus

### Urine Immunofixation

Urine Immunofixation Electrophoresis (IFE) is a rapid sensitive and specific method for identifying proteins in urine, aiding in the diagnosis of proteinuria and plasma cell dyscrasia. Combining sensitivity and specificity the SAS-MX Urine IFE-1 Kit offers a rapid cost-effective method for urine IFEs.

- Direct urine sampling — no need to concentrate
- Clear and identifiable bands produced
- Discrimination of Bence Jones proteins



**REF: 100600**  
1 test/gel  
10 gels/kit

**REF: 200301**  
4 tests/gel  
10 gels/kit

**REF: 200400**  
4 tests/gel  
10 gels/kit

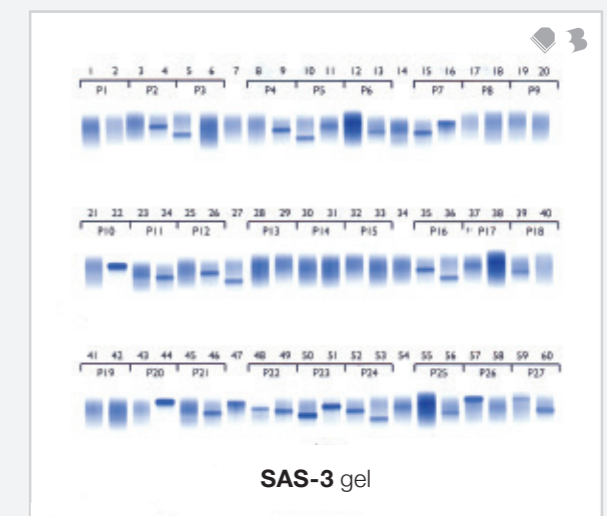
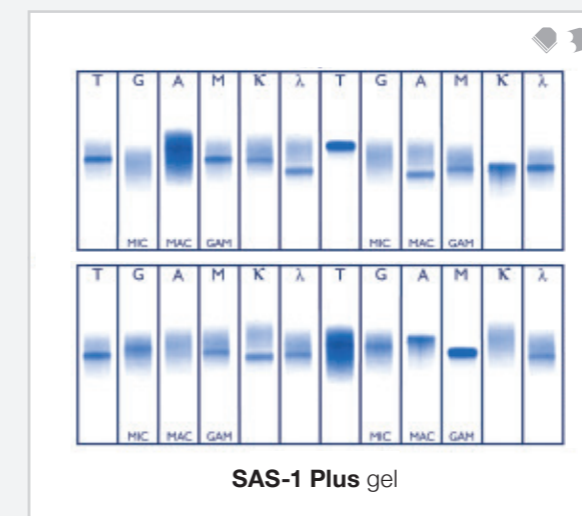
**REF: 300301**  
9 tests/gel  
10 gels/kit

**REF: 300400**  
9 tests/gel  
10 gels/kit

### Pentavalent Screen

The unique Pentavalent screen products from Helena Biosciences allow direct screening of serum and/or urine samples for monoclonal proteins either in place of standard screening methods or as a pre-IFE confirmation.

- Pentavalent Fixation
- Direct urine sampling — no need to concentrate
- Clear and identifiable bands produced



**REF: 200301\***  
12 tests/gel  
10 gels/kit  
\* + 200406 + 321200

- Compatible with SAS-3
- Gel trays can be prepared on V8 Nexus

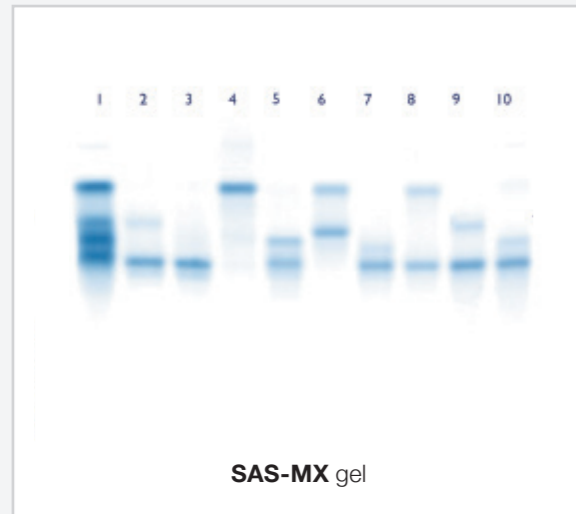
**REF: 300400\***  
60 tests/gel  
10 gels/kit  
\* + 300406 + 321300

- Gel trays can be prepared on V8 Nexus

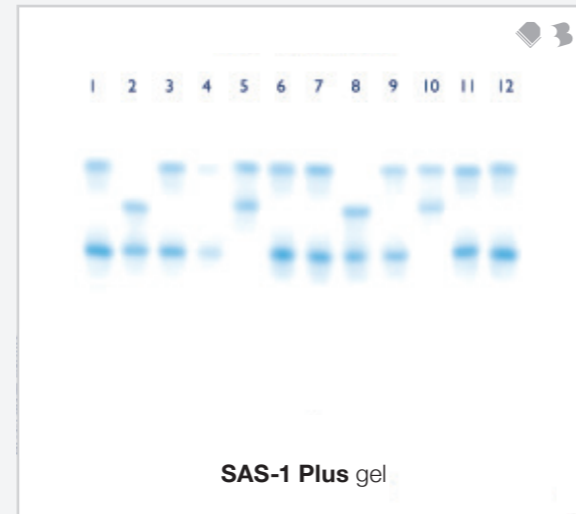
## Alkaline Haemoglobin

Helena Biosciences has produced the Alkaline Haemoglobin gel using an advanced formulation ensuring enhanced resolution and sensitivity for initial haemoglobin screening.

- Up to 40 samples can be applied simultaneously on SAS-3
- Clear and identifiable bands produced
- All assay components included within the kit



**REF: 100800**  
10 tests/gel  
10 gels/kit



**REF: 200900**  
12 tests/gel  
10 gels/kit

- Compatible with SAS-3
- Gel trays can be prepared on V8 Nexus



**REF: 300900**  
40 tests/gel  
10 gels/kit

- Gel trays can be prepared on V8 Nexus

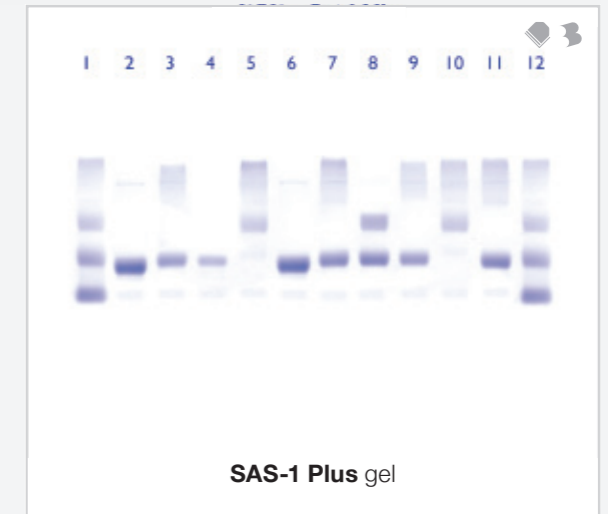
## Acid Haemoglobin

Helena Biosciences has produced the Acid Haemoglobin gel using an advanced gel formulation ensuring enhanced resolution and sensitivity for the confirmation of abnormal haemoglobin samples.

- Up to 12 samples can be applied simultaneously
- Clear and identifiable bands produced



**REF: 100700**  
10 tests/gel  
10 gels/kit



**REF: 201000**  
12 tests/gel  
10 gels/kit

- Compatible with SAS-3
- Gel trays can be prepared on V8 Nexus

## Alkaline Phosphatase

This high resolution agarose electrophoresis method for separation of Alkaline Phosphatase isoenzymes provides excellent discrimination with enhanced separation of bone and liver fractions. The gel formulation ensures separation of the macrohepatic fraction from bone and liver.

- Up to 20 samples per gel
- Single lane analysis for all Alkaline Phosphatase isoenzyme fractions
- Clear and identifiable bands produced



**REF: 102000**  
10 tests/gel  
10 gels/kit



**REF: 200800**  
12 tests/gel  
10 gels/kit

- Compatible with SAS-3



**REF: 300800**  
20 tests/gel  
10 gels/kit

- Minimum order quantities apply to this kit

## CK/LD Isoenzymes

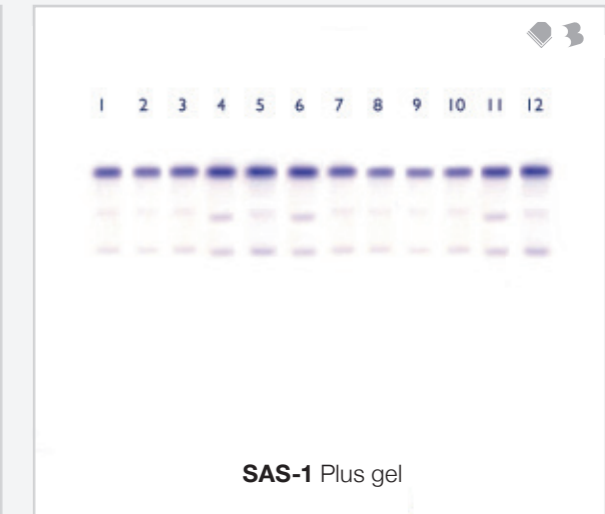
Definitive laboratory testing for documentation of Acute Myocardial Infarction (AMI) includes Creatine Kinase (CK) isoenzyme studies in conjunction with Lactate Dehydrogenase (LD) isoenzymes.

- Rapid separation of CK-MM, CK-MB and CK-BB
- Rapid separation of five LD isoenzymes
- Quantitation of LD1 and LD2; essential to documenting myocardial injury

### CK Isoenzymes



**REF: 101800**  
10 tests/gel  
10 gels/kit



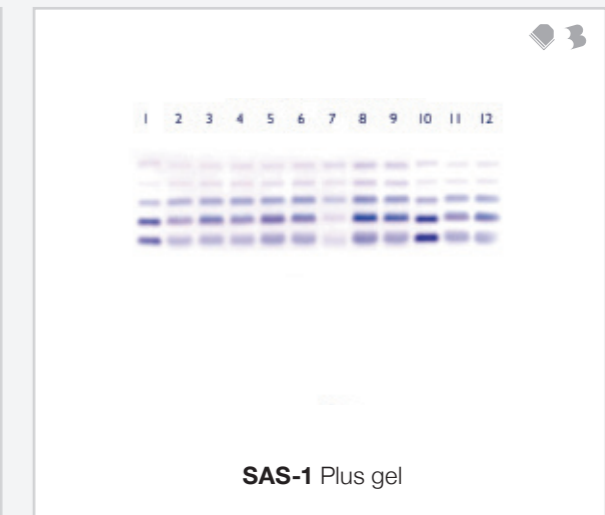
**REF: 201200**  
12 tests/gel  
10 gels/kit

- Compatible with SAS-3

### LD Isoenzymes



**REF: 101900**  
10 tests/gel  
10 gels/kit



**REF: 201300**  
12 tests/gel  
10 gels/kit

- Compatible with SAS-3

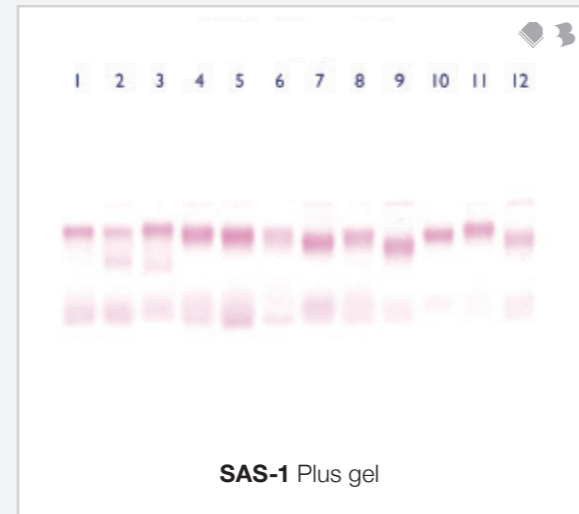
## Lipoproteins

Helena Biosciences' Lipoprotein assay for the added assessment of Coronary Heart Disease has become integral to the in depth use of cardiac patient scoring systems. The Lipoprotein electrophoresis assay is an excellent method for the phenotyping of lipoproteins giving additional patient information.

- Up to 12 samples can be applied simultaneously
- Easy and accurate quantification
- Clear and identifiable bands produced



**REF: 101200**  
10 tests/gel  
10 gels/kit

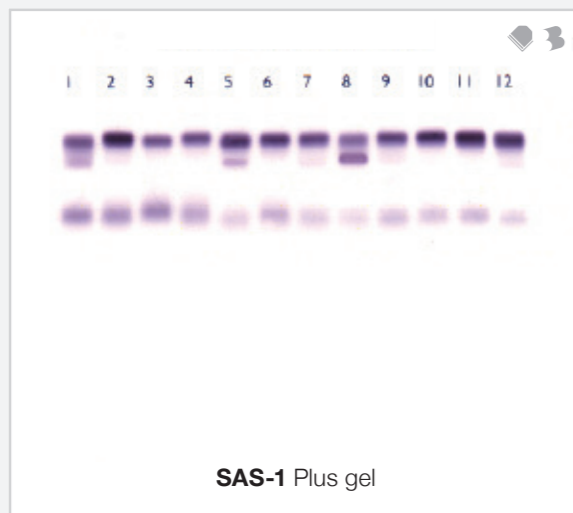


**REF: 201100** • Compatible with SAS-3  
12 tests/gel  
10 gels/kit

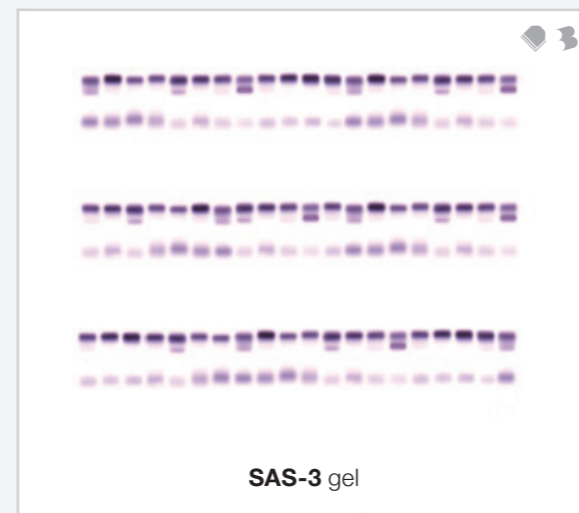
## Cholesterol

Designed for the assessment of cholesterol content of the major lipoprotein fractions. The excellent separations of the various cholesterol constituents are easily conducted without the need for additional separation techniques. The cholesterol profile assay separates into HDL, vLDL, LDL and Lp(a).

- Up to 60 samples can be applied simultaneously
- Cholesterol specific staining system
- Easy and accurate quantification
- Clear and identifiable bands produced



**REF: 200600** • Compatible with SAS-3  
12 tests/gel  
10 gels/kit • Minimum order quantities apply to this kit



**REF: 300600** • Compatible with SAS-3  
60 tests/gel  
10 gels/kit • Minimum order quantities apply to this kit

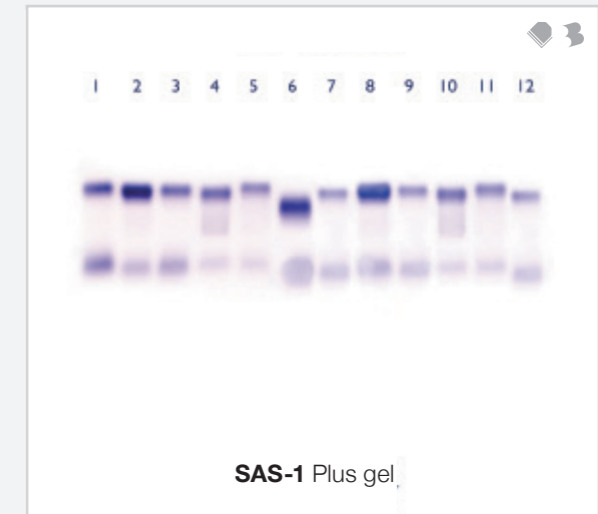
## HDL Cholesterol

The HDL Cholesterol Kit complements the Lipoprotein Kit for assessment of the cholesterol content of Alpha, Beta and pre-Beta components, recognised as HDL, vLDL and LDL.

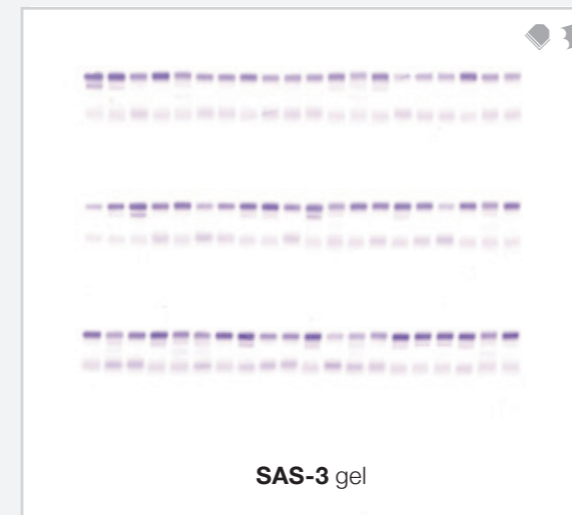
- Up to 60 samples can be applied simultaneously
- Cholesterol specific staining system
- Easy and accurate quantification
- Clear and identifiable bands produced



**REF: 101000**  
10 tests/gel  
10 gels/kit



**REF: 200500** • Compatible with SAS-3  
12 tests/gel  
10 gels/kit

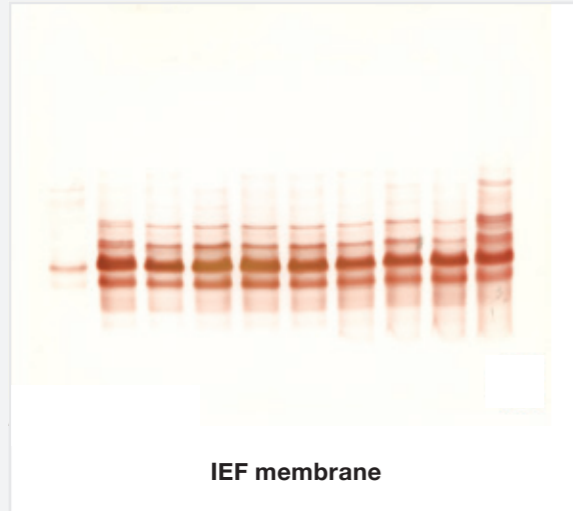


**REF: 300500** • Minimum order quantities apply to this kit  
60 tests/gel  
10 gels/kit

## Transferrin IEF

Isoelectric Focusing coupled with immunoblotting discriminates between the various isoforms of Transferrin. The method can be used for no gap qualitative analysis of serum samples to determine dysfunction in glycosilation of serum proteins found in genetic disorders/alcohol abuse.

- Up to 10 samples run per gel
- All major Transferrin isoforms clearly identified
- Applications for CSF, Transferrin Glycosilation and Tau protein
- No non-specific staining of other proteins
- All assay components within the kit
- Allows identification of Tau protein in nasal and ear fluids in the case of trauma.



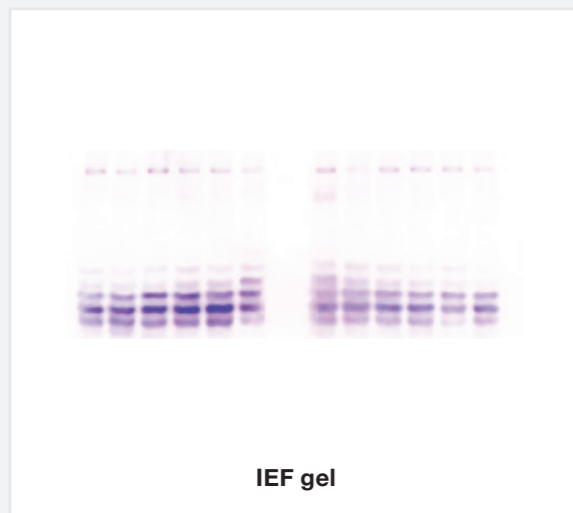
REF: 103100  
10 tests/gel  
10 gels/kit

- Minimum order quantities apply to this kit

## Alpha-1-Antitrypsin

The SAS Alpha-1-Antitrypsin IEF Kit is intended for the identification of genetic variants in human serum by a combination of iso-electric focusing and immunofixation. The Alpha-1-Antitrypsin variants are separated according to iso-electric point in an agarose IEF gel.

- 12 samples per gel
- Clear and identifiable bands produced
- All assay components included in the kit



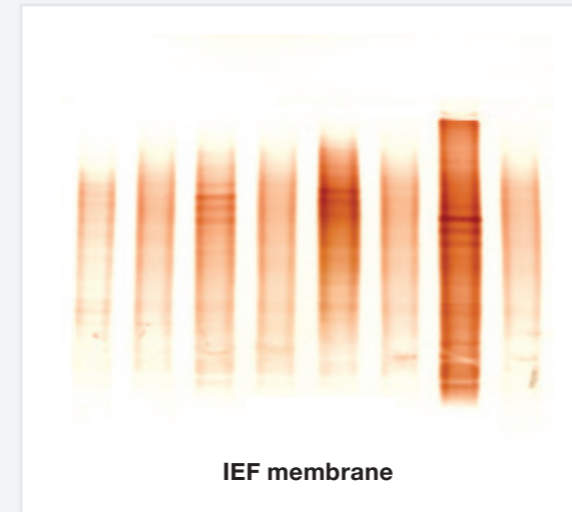
REF: 105100  
12 tests/gel  
10 gels/kit

- Minimum order quantities apply to this kit

## IgG IEF

The Helena Biosciences' IgG Isoelectric focusing kits are intended for the identification of IgG-specific oligoclonal banding in the diagnosis of Multiple Sclerosis. Paired serum and unconcentrated CSF samples are compared using Isoelectric Focusing coupled with immunoblotting.

- Up to 10 paired serum CSF samples per gel
- No pre-concentration of samples required
- IgG IEF control material available
- All assay components included within the kit
- Kappa and Lambda protocols available for easier interpretation of difficult samples
- The Helena Biosciences' method is acknowledged as the gold standard for this diagnosis.



REF: 102200  
5 tests/gel  
10 gels/kit

REF: 104200  
10 tests/gel  
10 gels/kit

### Prof E J Thompson PhD MD DSc FRCPath FRCP

“ Having dealt with Helena for 20 years now, I am obviously convinced of their excellence. The analysis of spinal fluid has been a Cinderella area due to a combination of smaller numbers of samples yet higher levels of sophistication required to detect oligoclonal IgG patterns. Helena have maintained the highest levels of quality control. This culminated in the recognition by the US Food and Drugs Administration of their kit for spinal fluid analysis. Thus the technique was further adopted by an International group of experts on the laboratory diagnosis of Multiple Sclerosis. It remains the “gold standard” in this field. ”

Dept of Neuroimmunology  
Inst of Neurology  
The National Hospital for Neurology & Neurosurgery

# Ordering Information

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
<b>Serum Proteins</b>				
100100	SAS-MX SP-10 Kit	10	10	
200100	SAS-1 SP-24 Kit	24	10	SAS-3, V8, Gel Integration
300100	SAS-3 SP-60 Kit	60	10	V8, Gel Integration
<b>Serum Proteins Split Beta</b>				
100200	SAS-MX SP-10 SB Kit	10	10	
200200	SAS-1 SP-24 SB Kit	24	10	SAS-3, V8, Gel Integration
300200	SAS-3 SP-60 SB Kit	60	10	V8, Gel Integration
<b>Immunofixation</b>				
100300	SAS-MX IFE-1 Kit	1	10	
100301	SAS-MX IFE-1 Kit (gel kit only)	1	10	
100400	SAS-MX IFE-2 Kit	2	10	
100401	SAS-MX IFE-2 Kit (gel kit only)	2	10	
200300	SAS-1 IFE-4 Kit	4	10	SAS-3, V8, Gel Integration
200301	SAS-1 IFE-4 Kit (gel kit only)	4	10	SAS-3, V8, Gel Integration
300300	SAS-3 IFE-9 Kit	9	10	V8, Gel Integration
300301	SAS-3 IFE-9 Kit (gel kit only)	9	10	V8, Gel Integration
<b>Urine Protein</b>				
100500	SAS-MX Urine Analysis-10 Kit	10	10	
200400	SAS-1 Urine Analysis Kit	24 (4- IFE)	10	SAS-3, V8, Gel Integration
300400	SAS-3 Urine Analysis Kit	60 (9- IFE)	10	V8, Gel Integration
<b>Urine Immunofixation</b>				
100600	SAS-MX Urine IFE-1 Kit	1	10	
100601	SAS-MX Urine IFE-1 Kit (gel kit only)	1	10	

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
<b>Serum Protein (High Resolution)</b>				
101300	SAS-MX Hi-Res Kit	7	10	
200700	SAS-1 Hi-Res-12 Kit	12	10	SAS-3
300700*	SAS-3 Hi-Res Kit	20	10	
<b>Serum Protein Controls</b>				
7024	Kemtrol Serum Control - Normal Kit	10 x 2mL		
7025	Kemtrol Serum Control - Abnormal Kit	10 x 2mL		
<b>Pentavalent Screen</b>				
200301	SAS-1 IFE-4 Kit (gel kit only)	24	10	SAS-3
200406	SAS-1 Pentavalent Screen Accessory Kit			
321200	Pentavalent Screen Antiserum	1 x 3mL		
300400	SAS-3 Urine Analysis Kit	60		
300406	SAS-3 Pentavalent Screen Accessory Kit			
321300	Pentavalent Screen Antiserum	10 x 3mL		
<b>Individual Antisera</b>				
<b>All SAS gels</b>				
9409	IgD Antiserum	1 x 1mL		
9410	IgE Antiserum	1 x 1mL		
<b>SAS-MX only</b>				
9412	Free Kappa Antiserum	1 x 1mL		
9413	Free Lambda Antiserum	1 x 1mL		
9400	Immunofixation Control	3 x 0.5mL		
<b>SAS-1 Plus (2mL)</b>				
220100	Urine Total Antiserum	1 x 2mL		
220200	Urine Micro Antiserum	1 x 2mL		
220300	Urine Macro Antiserum	1 x 2mL		
220400	GAM Antiserum	1 x 2mL		
220500	Free Kappa Antiserum	1 x 2mL		

\* Minimum order quantity applies to this kit



# Ordering Information

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
220600	Free Lambda Antiserum	1 × 2mL		
220700	Kappa Antiserum	1 × 2mL		
220800	Lambda Antiserum	1 × 2mL		
220900	Urine Pent/Alb Antiserum	1 × 2mL		
221000	Urine Penta Antiserum	1 × 2mL		
221100	Serum Fixative	1 × 2mL		
221400	Serum Fixative 2	1 × 2mL		
<b>SAS-3 (5mL)</b>				
320100	Urine Total Antiserum	1 × 5mL		
320200	Urine Micro Antiserum	1 × 5mL		
320300	Urine Macro Antiserum	1 × 5mL		
320400	GAM Antiserum	1 × 5mL		
320500	Free Kappa Antiserum	1 × 5mL		
320600	Free Lambda Antiserum	1 × 5mL		
320700	Kappa Antiserum	1 × 5mL		
320800	Lambda Antiserum	1 × 5mL		
320900	Urine Pent/Alb Antiserum	1 × 5mL		
321000	Urine Penta Antiserum	1 × 5mL		
321100	Serum Fixative	1 × 5mL		
321400	Serum Fixative 2	1 × 5mL		
<b>Haemoglobins</b>				
<b>Alkaline</b>				
100800	SAS-MX Alk Hb Kit	10	10	
200900	SAS-1 Alk Hb Kit	12	10	SAS-3, V8, Gel Integration
300900	SAS-3 Alk Hb Kit	40	10	V8, Gel Integration

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
<b>Acid</b>				
100700	SAS-MX Acid Hb Kit	10	10	
201000	SAS-1 Acid Hb Kit	12	10	SAS-3, V8, Gel Integration
<b>Controls</b>				
5328	AA2 Hemo Control	1 × 1mL		
5329	ASA2 Hemo Control	1 × 1mL		
5330	AFSA2 Hemo Control	1 × 1mL		
5331	AFSC Hemo Control	1 × 1mL		
<b>Isoenzymes</b>				
<b>Alkaline Phosphatase</b>				
102000	SAS-MX Alk Phos Kit	10	10	
200800	SAS-1 Alk Phos Kit	12	10	SAS-3
300800*	SAS-3 Alk Phos Kit	20	10	
<b>Creatine Kinase</b>				
101800	SAS-MX CK Vis Kit	10	10	
201200	SAS-1 CK Vis Kit	12	10	SAS-3
<b>Lactate Dehydrogenase</b>				
101900	SAS-MX LD Vis Kit	10	10	
201300	SAS-1 LD Vis Kit	12	10	SAS-3
<b>Controls</b>				
102010	Alk Phos Control	10 × 100µL		
5134	CK/LD Control	5 × 2mL		

\* Minimum order quantity applies to this kit

# Ordering Information

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
<b>Lipoproteins/Cholesterol</b>				
<b>Lipoproteins</b>				
101200	SAS-MX Lipo Kit	10	10	
201100	SAS-1 Lipo Kit	12	10	SAS-3
<b>Cholesterol</b>				
200600*	SAS-1 Cholesterol Profile Kit	12	10	SAS-3
300600*	SAS-3 Cholesterol Profile Kit	60	10	
<b>HDL</b>				
101000*	SAS-MX HDL-10 Kit	10	10	
200500	SAS-1 HDL-12 Kit	12	10	SAS-3
300500*	SAS-3 HDL Kit	60	10	
<b>Controls</b>				
5069	Lipotrol Control	5 × 1mL		
3218	Cholesterol Control	5 × 1mL		
<b>Isoelectric Focusing</b>				
<b>IgG IEF</b>				
102200	SAS IgG IEF Kit (1 Step)	5	10	SAS-1 Plus / SAS-3
102201	SAS IgG IEF Kit (gel kit only)	5	10	SAS-1 Plus / SAS-3
104200	SAS IgG IEF Plus Kit (1 Step)	10	10	SAS-3
104201	SAS IgG IEF Plus Kit (gel kit only)	10	10	SAS-3
<b>Alpha-1-Antitrypsin IEF</b>				
105100*	SAS Alpha-1-Antitrypsin IEF Kit	10	10	SAS-3
<b>Transferrin IEF</b>				
103100*	SAS Transferrin IEF Kit	10	10	SAS-1 Plus / SAS-3

\* Minimum order quantity applies to this kit

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
<b>Accessories required for IEF</b>				
5014	Development Weight			
311105	SAS Membrane Roller			
211400	Electrophoresis Staining Tray			
4061	Staining Dish			
<b>Optional Antisera</b>				
102206	SAS Kappa IEF Kit			
102207	SAS Lambda IEF Kit			
102208	SAS Free Kappa IEF Kit			
102209	SAS Free Lambda IEF Kit			
<b>Control</b>				
102210	IgG IEF Control	10 × 100µL		
<b>Instrumentation</b>				
<b>SAS-MX</b>				
4063	SAS-MX Gel Chamber			
EV1450	Consort Electrophoresis Power Supply 0 - 400V			
<b>SAS-MX IEF</b>				
4065	SAS-MX IEF Chamber			
3039	SAS-MX Chamber Cooling Device			
EV2650	Consort Electrophoresis Power Supply 0 - 600V			
<b>SAS-1 Plus / SAS-2</b>				
1531	SAS-1 Plus			
1212	SAS-2			
<b>SAS-3 / SAS-4</b>				
1527	SAS-3			
1529	SAS-4			

# Ordering Information

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
<b>SAS-1 Plus Specific consumables</b>				
210200	SAS-1 Applicators	× 10		
210300	SAS-1 Applicators	5 × 10		
<b>SAS-3 Specific consumables</b>				
312300	SAS Barcode Set			
310200	SAS-3 Applicators	× 10		
310300	SAS-3 Applicators	5 × 10		
<b>General SAS-1 Plus / SAS-3 consumables</b>				
210100	Disposable Sample Cups	× 100		
3100	REP PREP	1 × 250mL		
<b>Required for IEF gels on SAS-3</b>				
311200	SAS-3 Carbon Electrode Adapters for IEF			
311700	SAS-1 Gel Alignment Guide for SAS-3			
<b>Required for SAS-1 Plus gels on SAS-3</b>				
311600	SAS-1 Electrodes for SAS-3			
311700	SAS-1 Gel Alignment Guide for SAS-3			
311400	SAS-1 Sample Tray for SAS-3			
210800	SAS-1 IFE Antisera Template			
311300	SAS-1 Gel Holder for SAS-4			
312100	SAS Supplementary Destain	8 × 25g 8 × 50mL		
312200	SAS Supplementary Wash Additive	8 × 100mL		
<b>SAS-3 Accessories</b>				
310400	SAS-3 Carbon Electrode	× 2		
311000	SAS-3 Antisera Template	× 1		
310505	SAS-3 Reagent Spreader	× 2		
310900	SAS-3 60 Sample Tray	× 1		

Cat No	Name	Tests/Gel	Gels/Kit	Compatibility
310906	SAS-3 80 Sample Tray	× 1		
310907	SAS-3 100 Sample Tray	× 1		
311100	SAS-3 Gel Block Remover	× 1		
<b>SAS-1 Plus Accessories</b>				
210400	SAS-1 Carbon Electrode	× 2		
210500	SAS-1 Metal Electrode	× 1		
210700	SAS-1 Sample Tray	× 1		
210800	SAS-1 IFE Antisera Template	× 1		
210900	SAS-1 Gel Block Remover	× 1		
<b>Software and Accessories</b>				
<b>Platinum 5 Software</b>				
400500	Platinum Software Platinum 5 Standard Edition			
400501	Platinum Software Platinum 5 Touch Edition			
400502	Platinum Software Platinum 5 Plus Pack — Expert System, Networking and FlexLab connectivity			
<b>Accessories</b>				
400591	High-Definition LCD Touchscreen			
400592	64-bit Windows 10 PC			
400593	Transparency Scanner			
<b>V8 NEXUS Instrumentation and Consumables</b>				
<b>Instrumentation</b>				
800008	V8 V8 Nexus (220V) including Platinum 5 Standard Edition, LCD monitor and PC			
800018	V8 V8 Nexus (110V) including Platinum 5 Standard Edition, LCD monitor and PC			
<b>Consumables</b>				
830100	V8 Storage Buffer			
830200	V8 Maintenance Buffer			
830500	V8 Gel IFE Diluent Kit	5 × 20mL		

# V8 Tests – Ordering Information

Cat No	Name	Quantity
<b>Serum Protein</b>		
800500	V8 Serum Protein SPE Kit	
800800	V8 Serum Protein 6-band Zoom Kit	
802400	CEtrol Serum Control - Normal Kit	10 x 2mL
802500	CEtrol Serum Control - Abnormal Kit	10 x 2mL
<b>Urine Protein</b>		
800410	V8 Urine Preparation Buffer SP6 Kit	
800411	V8 Urine Preparation Buffer SP6 Zoom Kit	
800412	V8 Urine Preparation Buffer SPE Kit	
<b>Immunotyping</b>		
800300	V8 Immunodisplacement Kit	
<b>Haemoglobin IEF</b>		
800900	V8 Haemoglobin IEF Kit	
802600	AA2 Normal Hemo Control	1 x 1mL
802601	AA2 Elevated Hemo Control	1 x 1mL
<b>Haemoglobin A1c</b>		
801000	V8 HbA1c Kit	
802700	V8 HbA1c Control Level 1	
802800	V8 HbA1c Control Level 2	
802900	V8 HbA1c Calibrator Kit	
<b>Carbohydrate Deficient Transferrin</b>		
803110	V8 CDT Auto	
803300	V8 CDT Normal Control Kit	1 x 1mL
803400	V8 CDT Abnormal Control Kit	1 x 1mL

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## Embedding Dispensing Console

Voltage/Frequency	220 V ± 10% , 50 HZ / 110 V ± 10% , 60 HZ
Nominal power	1200 W
Working temperature	from ambient to 90°C Increments 1°C

### Capacity

Paraffin reservoir	6L
Cassettes/molds tray	1.4L (126 cassettes)

### Dimensions

Width	560mm
Depth	640mm
Height	400mm
Weight	about 26 KG

## Cryo Console

Voltage/Frequency	220 V ± 10% , 50 HZ / 110 V ± 10% , 60 HZ
Nominal power	330 W
Working temperature	15°C--15°C Increments 1°C

### Dimensions

Width	390mm
Depth	560mm
Height	390mm
Weight	about 24 KG
Capacity	70 cassettes

## Thermal Console

Voltage/Frequency	220 V ± 10% , 50 HZ / 110 V ± 10% , 60 HZ
Nominal power	335 W
Working temperature	from ambient to 75°C Increments 1°C

### Capacity

Cassettes/molds tray	2.5L (252 cassettes)
----------------------	----------------------

### Dimensions

Width	300mm
Depth	540mm
Height	390mm
Weight	about 7.5 KG



TEC 2800-T



TEC 2800-C



TEC 2800-M



# TEC 2800 Embedding Center

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Thermal Console

Embedding Dispensing Console

Cryo Console





### Embedding Dispensing Console

- Large paraffin tank capacity: 6 Liter
- The lamp brightness can be easily adjusted, according to ambient light brightness
- The large LCD screen is based on user-friendly design
- Automated “Wake up” function can be easily programmed

### Cryo Console

- The paraffin block can be cold down rapidly by the stable and environmental friendly compressor
- The temperature range is between -15 to 15° C
- 70 cassettes can be loaded on this large work surface at the same time
- User-friendly operation interface



## Characteristics



### Working surface

- The extra large working surface allows the pathologist to process more samples simultaneously
- The paraffin flow can be precisely controlled by the finger touch pad or the foot pedal
- The paraffin flow rate can be controlled by the knob
- The “built-in” forceps heating station can heat 6 forceps simultaneously



- The full information LCD screen shows current/setting temperature of paraffin tank, left/right tray, platform surface and forceps heating station respectively
- The peltier cold spot's temperature range is from ambient to -5°C



FOOT PADEL



### Thermal Console

- The Thermal console is compatible with all types of cassettes, embedding molds and processed tissues specimens
- The large capacity: 2.5L (252 cassettes)
- The temperature range can be set from ambient to 75°C
- This thermal console can also be used as a water bath

### Paraffin Trimmer (option)

- The paraffin trimmer is based on Ergonomic Design
- The heated surface allows the users to remove excess paraffin easily
- The temperature range on surface can be set between ambient to 90° C
- The user friendly interface allows users to operate it easily and safely



## Technical Specifications



Combination 1 : paraffin reservoir connects one embedding platform

1.Capacity of tissue tray :

2 baskets( 100 cassettes/basket)

2.Capacity of embedding mold tray : 100 pcs

3.Paraffin reservoir : 7 L

4.Temperature range :

Paraffin reservoir : ambient~90°C

Basket tray : ambient~90°C

Working area : ambient~90°C

Forceps holder : 65°C constantly

Cold spot : ambient~ -5°C

Embedding mold tray : ambient~90°C

5.Power : 1167VA

6.Voltage : 220V ± 10% 50Hz

7.Dimensions :

1010mm X600mm X470mm ( W\*D\*H )



Combination 2 : two embedding platform be placed at right and left side of the paraffin reservoir

1.Capacity of tissue tray :

4 baskets( 100 cassettes/basket)

2.Capacity of embedding mold tray : 200 pcs

3.Paraffin reservoir : 7 L

4.Temperature range :

Paraffin reservoir : ambient~90°C

Basket tray : ambient~90°C

Working area : ambient~90°C

Forceps holder : 65°C constantly

Cold spot : ambient~ -5°C

Embedding mold tray : ambient~90°C

5.Power : 2010VA

6.Voltage : 220V ± 10% 50Hz

7.Dimensions :

1760mm X600mm X470mm ( W\*D\*H )

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**AEC 380**

## EMBEDDING CENTER

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- Large Quantity
- High Quality
- Simplicity Operations
- Friendly Touchscreen







Embedding Module



Working Area



AEC380  
Embedding Center



Paraffin Reservoir

Cold Spot



Paraffin Trimmer

## Key Features

- Easy to learn to operate user interface with smart color touch screen.
- To meet the great demand embedded work, the embedding platform can be arranged at both right and left sides which be controlled performance separately or process embedding work simultaneously.
- AEC380 adopts six heating ways and precise temperature control system.
- Embedding module, cold spot and paraffin trimmer are integrated.
- The paraffin flow can be released by manual or foot switch through Electromagnetic valve .
- Forceps holder with constant temperature support the residual wax be drained automatically ,so it can effectively remove the paraffin adhering in the tip of the forceps.
- Embedding mold tray with constant temperature be in favor of removing the wax adhering in embedding mold ,which facilitate the recycling of embedding mold.
- The brightness of LED lights can be freely adjusted according to desired needs.
- The magnifier with metal hose which can be flexibly adjust the position according to the desired needs.
- Safety works. It adopts non-metallic materials for the focus area in contact with the user' s hands in avoid any discomfort caused by contacting heating parts during embedding .

## Cryo Console



## Key Features

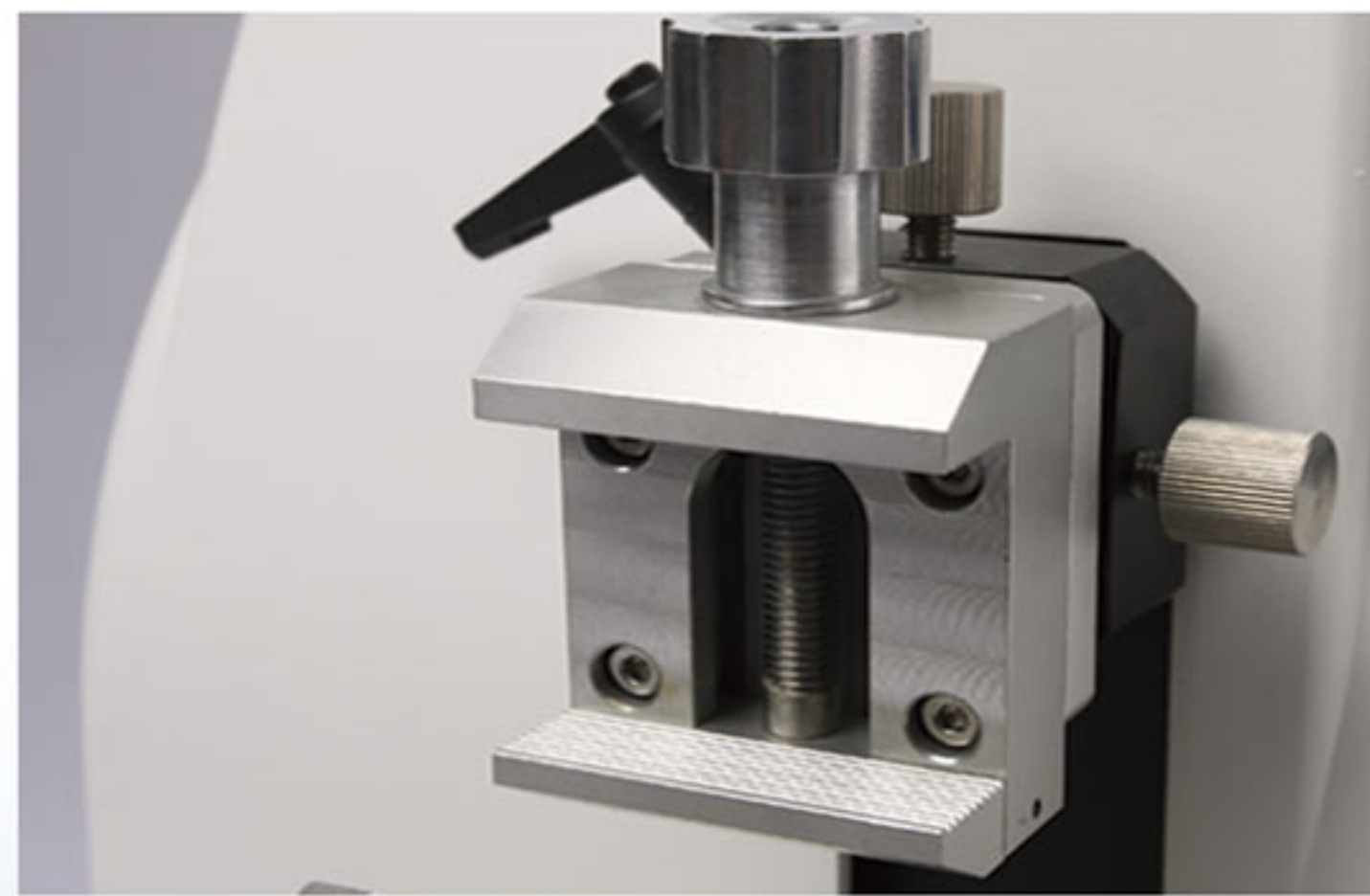
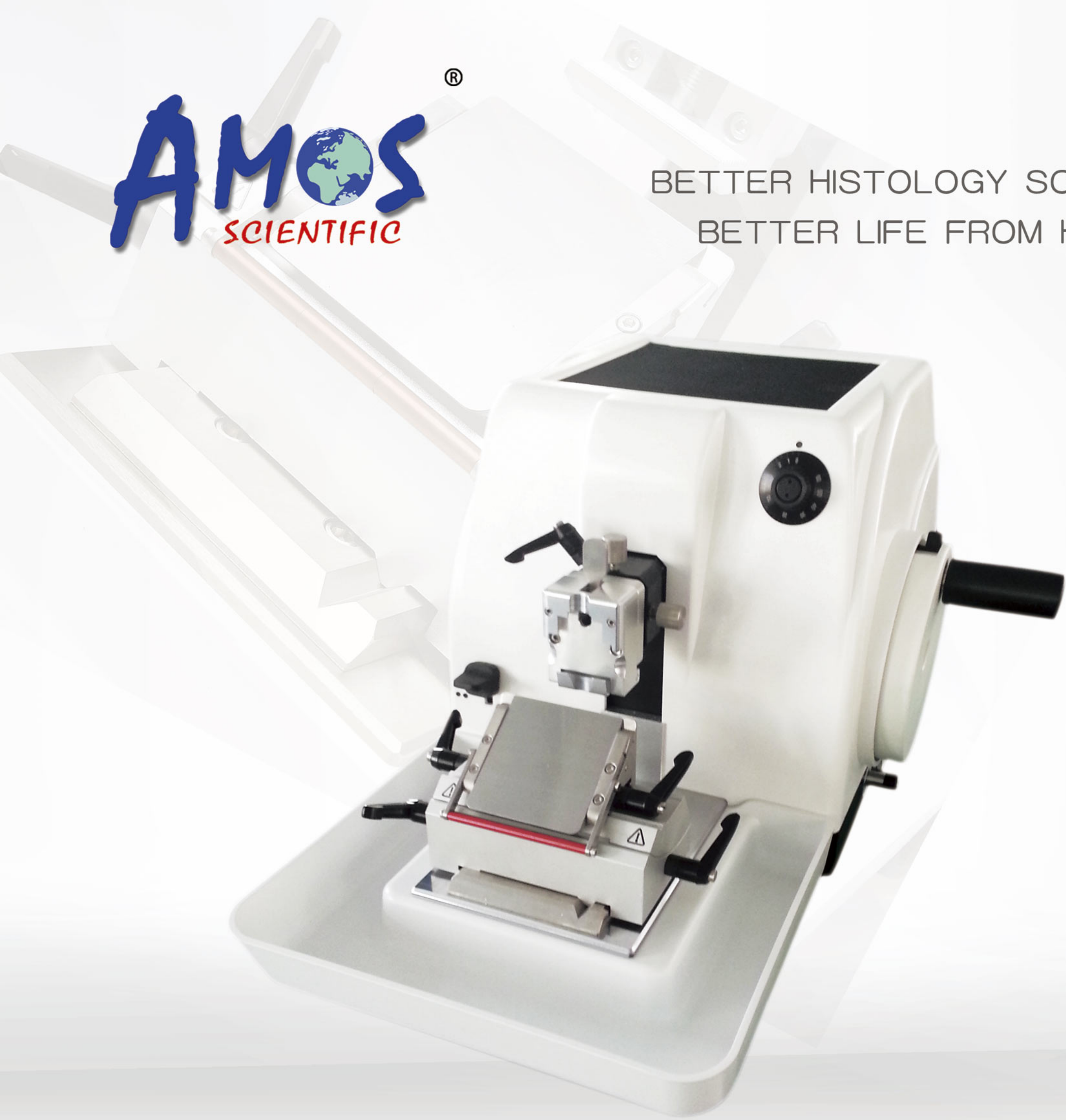
- Temperature be controlled precise and down to  $-15^{\circ}\text{C}$  rapidly.
- it has large cooling surface for 70cassettes load to meet the large work load demand.

## Technical Parameters

working temperature:  $+15^{\circ}\text{C} \sim -15^{\circ}\text{C}$  increments  $1^{\circ}\text{C}$   
 Nominal power: 330W  
 Voltage:  $220\text{V} \pm 10\%$  50Hz or  $(110\text{V} \pm 10\%$  60Hz)  
 Dimensions: 410mm  $\times$  600mm  $\times$  410mm  
 Weight: 24KG



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**AMR 400 MANUAL ROTARY MICROTOME**

## Design Features

- Spacious magnetized section waste tray
- Ergo–handwheel handle
- Convenient storage area on top of instrument
- Disposable blade holder with integrated safety finger protection guard
- Two handwheel locks : handwheel can be locked at any position
- Distortion–resistant base plate ensures optimum overall stability
- Both low & high profile disposable blade are usable
- Two types of specimen clamp : standard specimen clamp and “C” type specimen clamp
- Retraction function : 220 $\mu$ m , could be turned on/off
- Extremely smooth running force compensation system

## Technical Specifications

- Section thickness setting : 0 $\mu$ m ~ 60 $\mu$ m adjustable
  - 0 $\mu$ m ~ 2 $\mu$ m, in 0.5 $\mu$ m increments;
  - 2 $\mu$ m ~ 10 $\mu$ m, in 1 $\mu$ m increments;
  - 10 $\mu$ m ~ 20 $\mu$ m, in 2 $\mu$ m increments;
  - 20 $\mu$ m ~ 60 $\mu$ m, in 5 $\mu$ m increments;
- Trimming thickness: 10~50 $\mu$ m adjustable
- Retraction range: 150  $\mu$ m , could be turned off
- Maximum specimen size: 50 × 60 × 40 mm or standard cassette
- Specimen vertical stroke: 70 mm
- Specimen horizontal stroke: 28 mm
- Specimen holder adjusted system : Horizontal orientation:  $\pm 8^\circ$   
Vertical orientation :  $\pm 8^\circ$
- Blades holder base repositioning ( left–right) : 50mm
- Advanced feed by rotating left handwheel a circle around : 0.35mm
- Dimensions : Width : 460 mm (310mm without handwheel)  
Depth : 575 mm  
Height : 325 mm
- Weight: about 35 KG



## Technical Specifications

No	Specification	AEM 450	AEM 460	AEM 480
1	Convenient storage area on top of instrument	Yes	Yes	Yes
2	Mode	Semi-automatic	Semi-automatic	Fully-automatic Single /Continue/ Manual three modes
3	Spacious magnetized section waste tray	Yes	Yes	Yes
4	Ergo-handwheel handle	Yes	Yes	Yes
5	Disposable blade holder with integrated safety finger protection guard	Yes	Yes	Yes
6	Available with clockwise or counter-clockwise operation of the coarse feed wheel	Yes	Yes	Yes
7	Pressure plate	Silver	Silver	Silver
8	Handwheel lockable in any position via brake lever Distortion-resistant base plate ensures optimum overall stability.	Yes	Yes	Yes
9	With Emergency Stop switch	No	No	Yes
10	Blades used for:	Low & High profile disposable blade		
11	Two types of specimen clamp	Quick-release type specimen clamp &"C" type specimen clamp		
12	Compatible embedding	Paraffin,Plastic, unspecified bone		
13	LCD panel, display section thickness, trimming thickness, slice count etc	Yes	Yes	Yes
14	Memory Function	No	Yes	Yes
15	Separate control panel	No	Yes	Yes
16	Foot pedal control	No	No	Yes
17	Section thickness	0 - 600 $\mu$ m; 0 $\mu$ m-2 $\mu$ m, in 0.5 $\mu$ m ; 2 $\mu$ m-10 $\mu$ m , in 1 $\mu$ m ; 10 $\mu$ m-20 $\mu$ m, in 2 $\mu$ m ; 20 $\mu$ m-100 $\mu$ m , in 5 $\mu$ m ; 100 $\mu$ m-600 $\mu$ m , in 50 $\mu$ m		
18	Trimming thickness	0 - 600 $\mu$ m 0 $\mu$ m-2 $\mu$ m, in 0.5 $\mu$ m ; 2 $\mu$ m-10 $\mu$ m , in 1 $\mu$ m ; 10 $\mu$ m-20 $\mu$ m, in 2 $\mu$ m ; 20 $\mu$ m-100 $\mu$ m , in 5 $\mu$ m ; 100 $\mu$ m-600 $\mu$ m , in 50 $\mu$ m		
19	Retraction	20 $\mu$ m,	5-100 $\mu$ m in 5 $\mu$ m increments(can deactivate)	
20	Blades holder base repositioning(Left-Right)	50mm	50mm	50mm
21	Specimen horizontal feed	28mm	28mm	28mm
22	Vertical stroke	70mm	70mm	70mm
23	Maximum specimen size	40*50*30mm	40*50*30mm	40*50*30mm
24	Specimen holder orientation	$\pm 8^\circ$	$\pm 8^\circ$	$\pm 8^\circ$
25	Electric coarse feed Speed available	750 $\mu$ m/s	300 $\mu$ m/s (slow) 900 $\mu$ m/s(Quick)	300 $\mu$ m/s (slow) 900 $\mu$ m/s(Quick)
26	Voltage/Frequency	100V-240V,50-60Hz	100V-240V,50-60Hz	100V-240V,50-60Hz
27	Dimensions ( WxDxH)	405x575x325mm	405x575x325mm	405x575x325mm
28	Weight	34kg	35kg	37kg

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**Automated Microtome**



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## AEM 450 Semi-automatic Rotary Microtome

- AEM 450 is a semi-automated rotary microtome, ideal for routine sectioning and research applications in histopathology and laboratories. Easily operation, Safety and high-precision specimen feed, Stability performance to provide high quality sectioning results.



## AEM 460 Semi-automatic Rotary Microtome

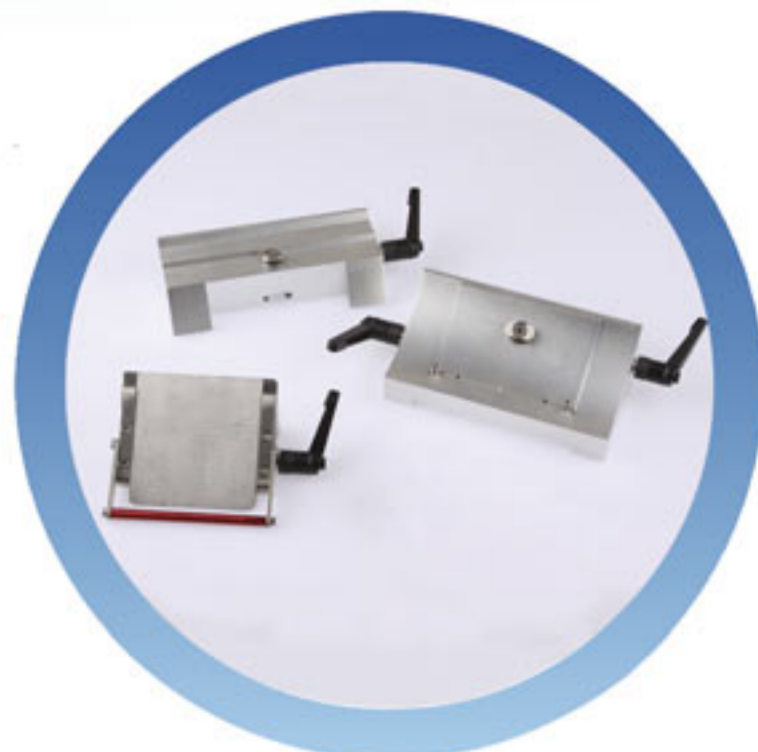
- AEM 460 is a semi-automated rotary microtome, robust instrument be used for cutting paraffin, plastic, unspecified bone and so on.
- Unique user-friendly display panel and Most comfortable separate handpad for perfect and precision sectioning.
- Two speed of specimen forward and backward movement for selection. Retraction can be turned On/Off and the retraction distance could be adjustable. Feed function allows fast movement to a memoried cutting position only that is designed for a large number standard cassette cutting.

## AEM 480 Fully-automatic Rotary Microtome

- AEM 480 is a fully-automated rotary microtome, designed with smooth running handwheel and stepping-motor advance technology for precision, efficiency and stability superior sectioning.

- User safety, Unique user-friendly display panel and Most comfortable separate handpad, Stability to provide superior sectioning results.

- It allows motorized and manual sectioning. Emergency stop button quickly stops the motor drive once activated. Foot pedal is selected to further protect the machine.



## Technical Specifications

No	Specification	Model	Model	Model
1	Rotary Motorized Microtome	ERM 3000	ERM 3100	ERM 4000
2	Mode	Semi-automatic	Semi-automatic	(Fully-automatic) Single /Continue/ Manual three modes
3	Spacious magnetized section waste tray	Yes	Yes	Yes
4	Convenient storage area on top of instrument	Yes	Yes	Yes
5	Ergo-handwheel handle	Yes	Yes	Yes
6	Disposable blade holder with integrated safety finger protection guard	Yes	Yes	Yes
7	Pressure plate	Silver	Silver	Silver
8	Handwheel lockable in any position via brake lever	Yes	Yes	Yes
9	Distortion-resistant base plate ensures optimum overall stability.	Yes	Yes	Yes
10	With Emergency Stop switch	No	No	Yes
11	Blades used for:	Low & High profile disposable blade		
12	Two types of specimen clamp	Quick-release type specimen clamp & "C" type specimen clamp		
13	Compatible embedding	Paraffin, Plastic, unspecified bone		
14	Display panel	Yes	Yes	Yes
15	Memory Function	No	Yes	Yes
16	Separate control panel	No	Yes	Yes
17	Foot pedal control	No	No	Yes
18	Section thickness	0 to 600 μm; 0μm-2μm, in 0.5μm increments; 2μm-10μm, in 1μm increments; 10μm-20μm, in 2μm increments; 20μm-100μm, in 5μm increments; 100μm-600μm, in 50μm increments		
19	Trimming thickness	0 to 600 μm 0μm-2μm, in 0.5μm increments; 2μm-10μm, in 1μm increments; 10μm-20μm, in 2μm increments; 20μm-100μm, in 5μm increments; 100μm-600μm, in 50μm increments		
20	Retraction	20μm, unadjustable	5-100μm in 5μm increments (could be turned off)	
21	Blades holder base repositioning (Left-Right)	50mm	50mm	50mm
22	Specimen horizontal feed	28mm	28mm	28mm
23	Vertical stroke	70mm	70mm	70mm
24	Maximum specimen size	40*50mm	40*50mm	40*50mm
25	Specimen holder orientation	± 8°	± 8°	± 8°
26	Electric coarse feed Speed available	750μm/s	300μm/s (slow) & 900μm/s (rapid)	300μm/s (slow) & 900μm/s (rapid)
27	Motorized cutting Speed			5 grades (1st: 100-164mm/s, 2nd: 164-228mm/s 3rd: 228-292mm/s 4th: 292-356mm/s 5th: 356-420mm/s)
28	Voltage/Frequency	100 V~240 V ± 10% , 50 ~ 60 HZ		
29	Dimensions ( W × D × H)	41 × 55 × 32cm	41 × 55 × 32cm	41 × 55 × 32cm
30	Weight	About 36 KG	About 37 KG	About 39 KG



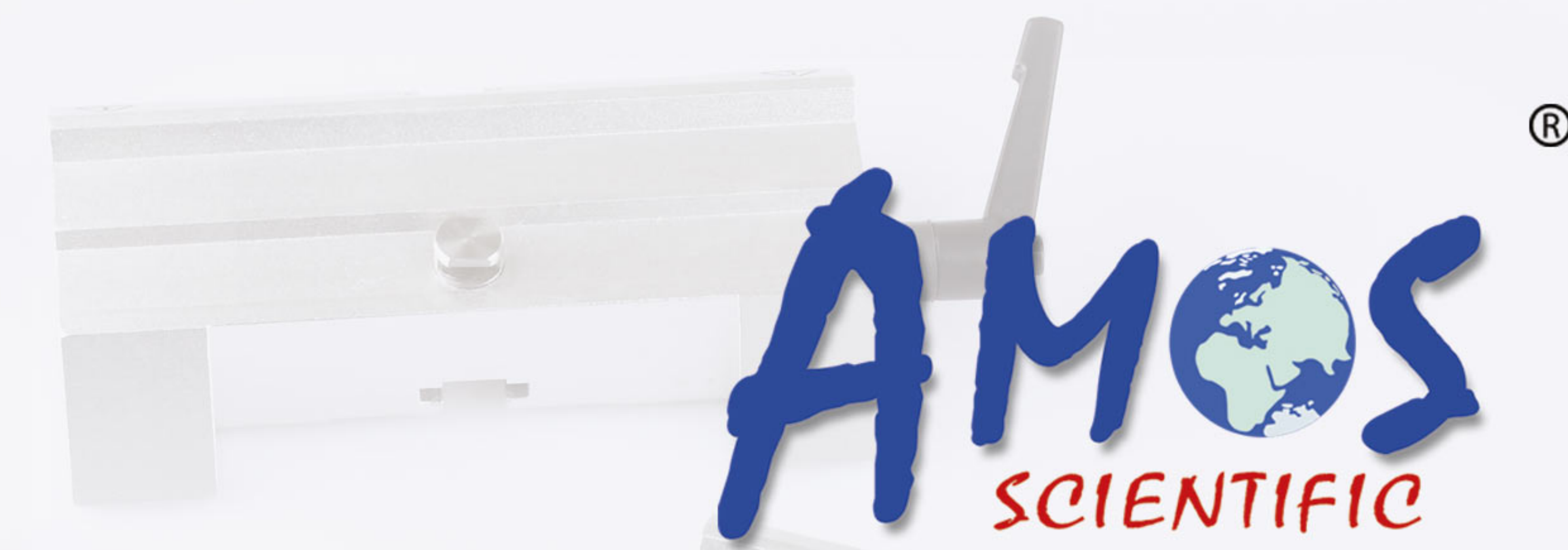
ERM 3000



ERM 3100



ERM 4000



# Automated Microtome

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## ERM 3100 Semi-automatic Rotary Microtome

ERM 3100 is a semi-automatic rotary microtome, the robust instrument can be used for cutting hard materials.

The unique User-friendly display and the redesigned external control panel for producing high-quality sections.



The retraction function can be set up On or Off and the retraction distance can also be adjusted. There are two speeds can be selected for moving the specimen forward or backward. The feed function allows the specimen move back to a memorized cutting position, which specially designed for a large number of standard cassettes sectioning .

## ERM 3000 Semi-automatic Rotary Microtome



ERM 3000 is a semi-automatic rotary microtome, ideal for routine sectioning and research applications in histopathology and laboratories .

ERM 3000 has the easy operation system, safe and high precision specimen feed system to offer the stable and superior sectioning results.

## ERM 4000 Fully-automatic Rotary Microtome

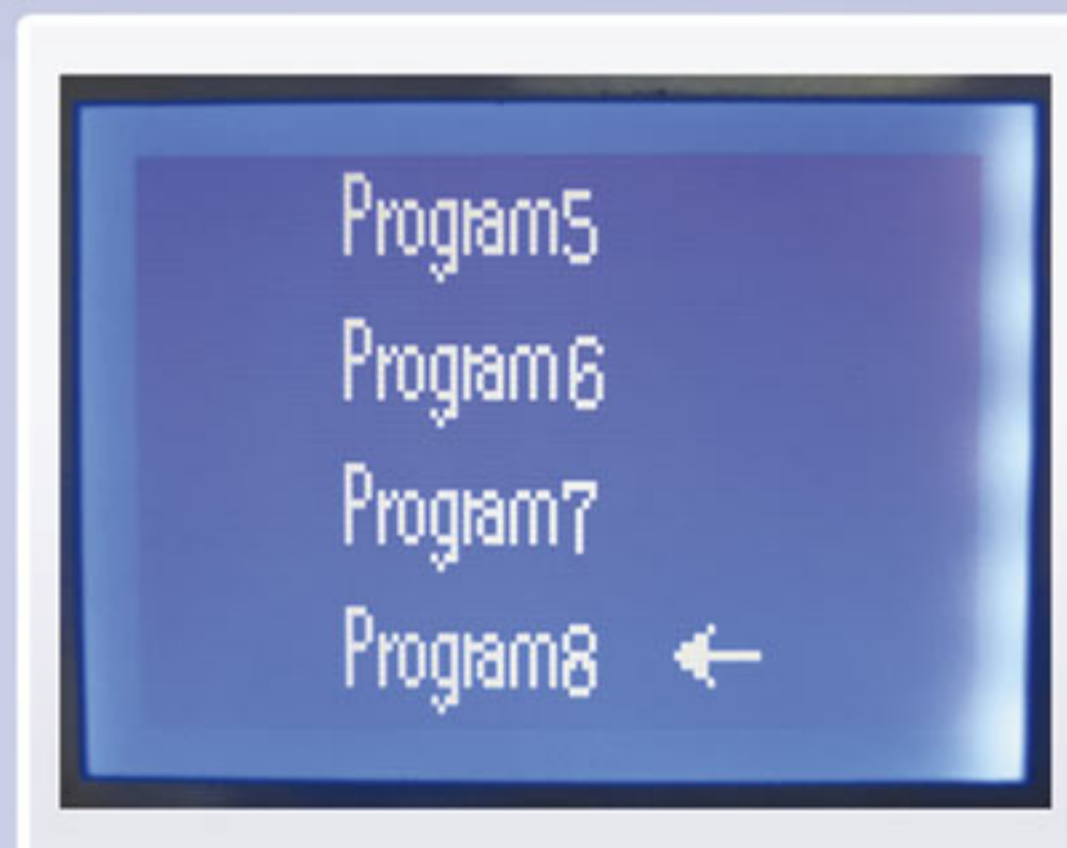
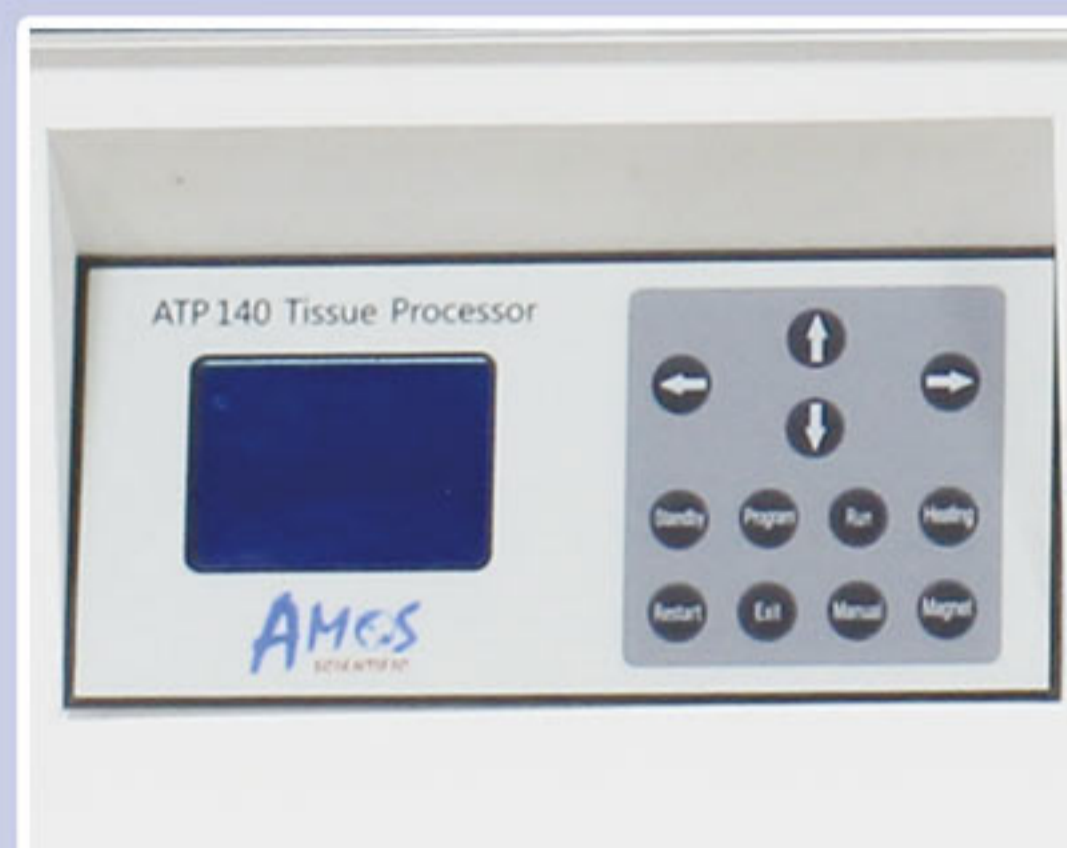


ERM 4000 is a fully-automatic microtome designed with smooth running handwheel and stepping-motor, all advanced technologies are utilized for precision, efficient, stable and superior sectioning.

The unique User-friendly display and the redesigned external control panel for producing high-quality sections .



ERM 4000 allows users to choose between motorized or manual sectioning mode. 5 speeds from slow to fast meet the users' special requirements under the motorized mode. Pushing the emergency stop button immediately stops cutting. The foot pedal controller is also available as an option feature.



# Tissue Processor

ATP 140 TISSUE PROCESSOR

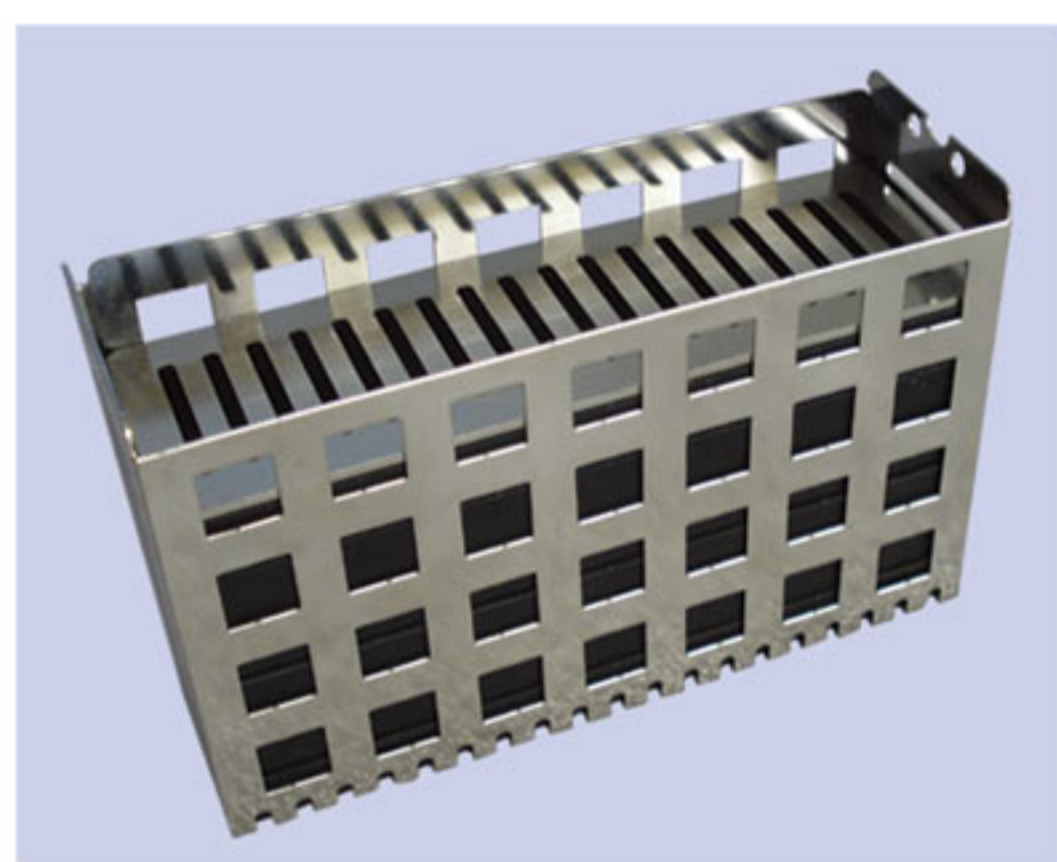
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## Characteristics

- Protecting samples from damages: The rack returns to the protection tank to avoid samples from damages if there were any contact between the rack and obstacles when moving into any reagent tank during operation.
- Self-adapted lids utilized with the multiple gasket seal offer the excellent sealing performance, which minimized the volatilization of reagents.
- The organic glass cover, sealing strips and double layer active carbon filter ensure no air contamination between laboratory and staining chambers.
- Delay function be activated automatically and the delay range from 0-48 hours.
- During processing procedure, the processing time can be adjusted by manual operation function on control panel .
- Re-run function: In case of “power off” or unsatisfied processing performance, the re-run function can start the re-processing procedure from a certain step .

## Universal rack system



Rack



Open-flat grid



2X7 grid panel  
for large tissues



3X10 grid panel  
for small tissues

## Technical Specifications

NO	Specification	ATP 140
1	Number of racks	2
2	Number of tanks	14 (10 reagent plastic tanks & 4 wax stainless steel tanks)
3	Number of stored programs	8 (4 groups)
4	Capacity of tank	1.3L
5	Number of samples in process one time	144 standard cassettes
6	Retention time in each tank	1 minute ~ 99 hours and 59 minutes
7	Agitation time in each tank	5 sec~30 sec adjustable (default value is 15 sec) Two baskets in turn every 5 minutes
8	Drip stay time	2 seconds~ 99 seconds , adjustable (default Value:20 sec)
9	Delay time	0~48 hours
10	Temperature range	55°C~70°C
11	Temperature tolerance	± 1°C
12	Power supply	220V±10%, 50Hz / 110V±10%, 60Hz
13	Max power	450 W
14	Dimensions ( W×D×H)	1247×470 × 550 mm
15	Weight	about 75 KG



## Technical Specifications

### PARAFFIN BATHS

Number of paraffin bath	3pcs
Capacity	3.5Liters each
Temperature	55-70°C
Temperature accuracy	± 1°C
Paraffin melting time	approx.10hours

### RETORT BATH

Number of Retort bath	1pc
Capacity	max 300cassettes(3baskets )
Processing retort volume	4.5Liters
Temperature(paraffin):	55-70°C
Temperature(processing reagent):	55°C
Temperature accuracy:	± 1°C
Negative pressure max:	700mbar
Positive pressure max:	350mbar

### WASTE REAGENT BOTTLES

Number of waste reagent bottle	1pc
Maximum bottle volume::	5Liters

### REAGENT BOTTLES

Number of reagent bottles:	9pcs
Maximum bottle volume::	5Liters

### CLEANING BOTTLES

Number of cleaning bottles:	4pcs
Maximum bottle volume::	5Liters

### WASTE WAX BOX

Number of waste wax box:	1pc
Maximum bottle volume::	4Liters

Color touch screen: 10inches

Power supply: 220 V AC

Frequency: 50/60 Hz

Power: <1000 VA

Fuse: main power 3A, heating power 5 A

Dimensions: L: 650mm ,  
W: 690mm ,  
H: 1270mm ,

Weight (net): approx190kg

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SCIENTIFIC  
**AVTP 2500**

## VACUUM TISSUE PROCESSOR

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## Display & Remote

- Friendly and easy to learn the color touch screen with graphic symbols.
- Every work status be clearly displayed in large color touch screen.



- 4 different level sensors to create great efficiency process.

## Intelligent

- Simplified software with intelligent control.
- Reagent replacement automatically. When the using times of first alcohol bottle arrive to max while the alcohol concentration is lower the required, the first bottle of alcohol be drained firstly and pump the alcohol from bottle 2 on the purpose of saving reagent.
- Up to hundreds protocols meets different tissue processing requirement and modifying the current protocol.

## Security

- Tissue was placed in retort bath. Don't contact with air to drying under safety condition during processing.
- The whole processing is under a vacuum environment avoid harmful gas overflow to harm health.
- Safe and reliable retort cover so as to protect the safety of operation.



## Reliable

- Two kinds distributing valve for Reagent and wax be treat reagent and wax separately, maximum to prevent the tube blocking under ambient temperature.
- Power failure protection function. The external UPS be optional can protect tissue from suffering damage once meet power failure. When power is restored, the previous protocols is automatically resumed and completed.
- Check the seal situation automatically before working, and alarm any problem happens



## Key Features

- Pluggable reagent bottle make easies to drain and fill reagent.
- The maximum capacity is 300 cassettes to meet the different requirement.
- Paraffin bath and Retort bath made by high quality stainless steel that easy to clean.
- Reagent management remind the user maintenance automatically, to ensure the satisfactory results.
- Fill the reagent and drain automatically.
- Intelligent the wax fill and drain
- Monitoring the processing by manual to help maintenance easily.
- Variety cleaning adapts different clean conditions.





AST 500



AST 550

# CRYOSTAT MICROTOME

AST 500 SEMI-AUTOMATIC CRYOSTAT MICROTOME

AST 550 FULLY-AUTOMATIC CRYOSTAT MICROTOME

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# Cryostat Microtome Design Features

AST 500 Semi-automatic Cryostat Microtome	AST 550 Fully-automatic Cryostat Microtome
It is designed under overall engineering and ergonomic concept. All the components are processed by computer numerical controlled machine.	
Retraction function prevents specimen damage from blade.	
Total thickness calculation.	
The low temperature refrigeration system with environment friendly refrigerant R404.	
Adopt UV and O <sup>3</sup> sterilize for 30 minutes every time.	
Peltier specimen clamp refrigeration can be turn On or Off manually.	
Two defrosting methods: manual and automatic.	
-	Two running ways : manual and automatic.
-	Emergency stop function : Press the red button to stop running when any emergency happens.
The high precision unit is enclosed outside the cryostat chamber to prevent it from thermal expansion and contraction , and keeps minimum maintenance requirement .	
Artificial intelligent interface is easy to learn and operate.	
LCD screen can display all information including thickness, thickness sum , controlling time, temperature, timed on/off and so on. Sleep Function. After activating this function, the temperature in cryostat chamber can be kept between -1℃ and -10℃; After stopping this function, the temperature in freeze chamber will arrive to working temperature within 30 minutes.	
Control panel with locking function could avoid wrong operation.	
Handwheel locking function.	
Wide freezing shelf can load 8 specimen cassettes simultaneously ,and two of them are equipped with peltier to meet different temperature .	

# Cryostat Microtome Technical Specifications

	AST 500	AST 550
Freeze chamber minimum temperature	-35℃±2℃	
Freeze shelf minimum temperature	-45℃±5℃	
Lowest temperature of Peltier unit on freeze shelf	-55℃±5℃	
Lowest temperature of Peltier unit on Specimen Clamp	-50℃±5℃(working time of Peltier is 15 minutes.)	
Maximum specimen size	35×35mm	
Specimen vertical stroke	48±1mm	
Specimen horizontal stroke	15±0.2mm	
Coarse feeding speed	300μm/s (slow) or 900μm/s(rapid)	
Section thickness range	0μm ~ 100μm adjustable; 3μm ~ 10μm, in 1μm increments; 20μm ~ 100μm, in 5μm increments;	0μm ~ 3μm, in 0.5μm increments; 10μm ~ 20μm, in 2μm increments;
Trimming thickness range	10μm ~ 600μm adjustable; 50μm ~ 100μm, in 10μm increments;	10μm ~ 50μm, in 5μm increments; 100μm ~ 600μm, in 50μm increments;
Retraction range	0~80μm adjustable , in 5μm increments	
Electric coarse feed	-	Slow 300μm/s ± 30μm/s Rapid 900μm/s ± 30μm/s
Motorize cutting speed	-	75-230mm/s±10%;
Voltage and frequency	220 V ± 10% , 50 HZ / 110 V ± 10% , 60 HZ	
Nominal Power	1000 W	
Weight	about 130 KG	
Dimensions(W×D×H)	805×715×1210mm	



Water Bath  
Slide Dryer

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## AWB 210 WATER BATH

### Technical data of AWB 210 Water Bath

- Water trough dimensions: 230 × 180 × 56 mm
- Temperature control accuracy: ± 1 °C
- Temperature range: ambient temperature ~75 °C
- Rated voltage: 220V ± 10% 50/60 Hz or 110V ± 10% 50/60 Hz
- Nominal power: 350W
- Outside dimensions (W × D × H): 328 × 300 × 85 mm
- Weight: about 2.4kg
- Capacity : 2.3 L





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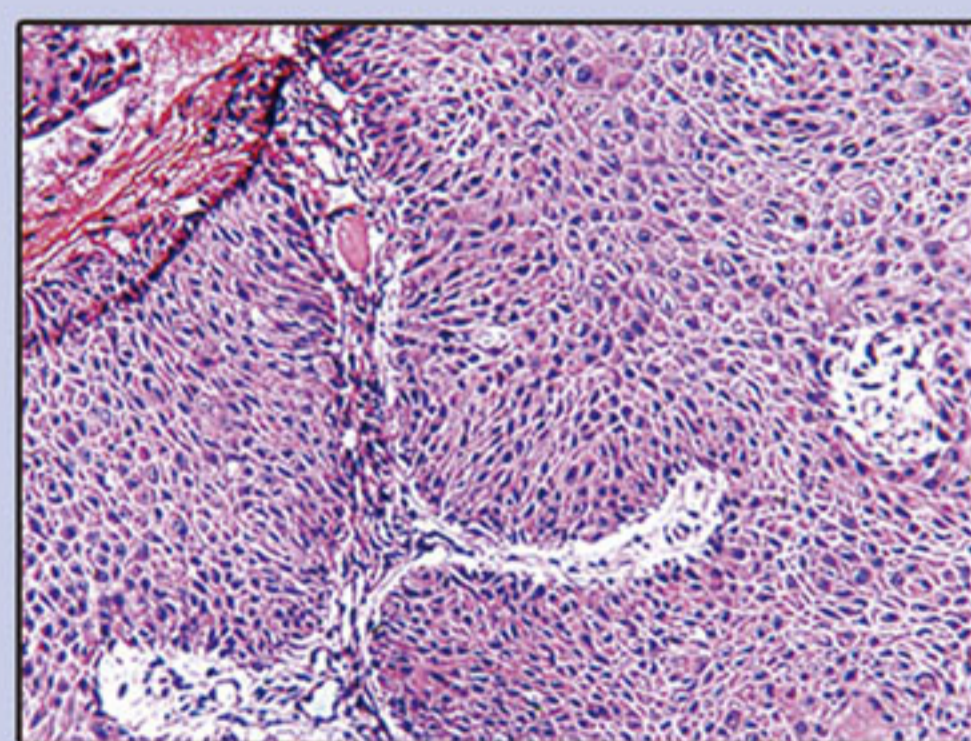


## ASD 220 SLIDE DRYER

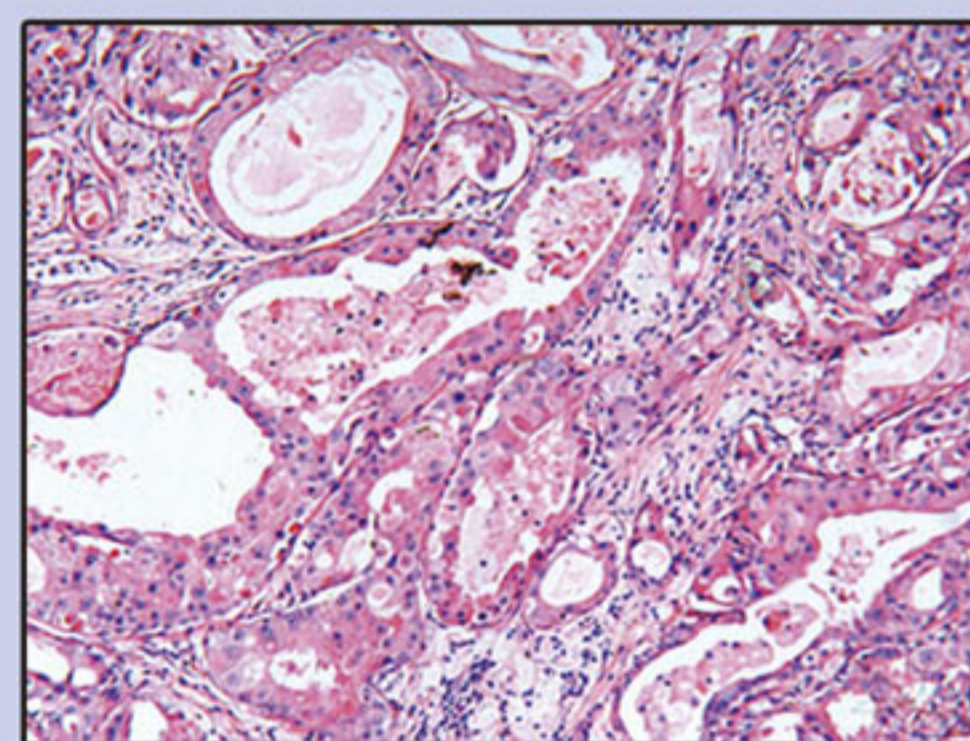
### Technical Specifications

- Temperature control accuracy:  $\pm 1^{\circ}\text{C}$
- Temperature range: ambient temperature  $\sim 90^{\circ}\text{C}$
- Capacity : can load 60 slides simultaneously
- Rated voltage:  
220V  $\pm 10\%$ , 50/60 Hz / 110V  $\pm 10\%$ , 50/60 Hz
- Nominal power: 330W
- Outside dimensions(mm): 330(W)  $\times$  305(D)  $\times$  85(H)
- Weight: 2.75kg

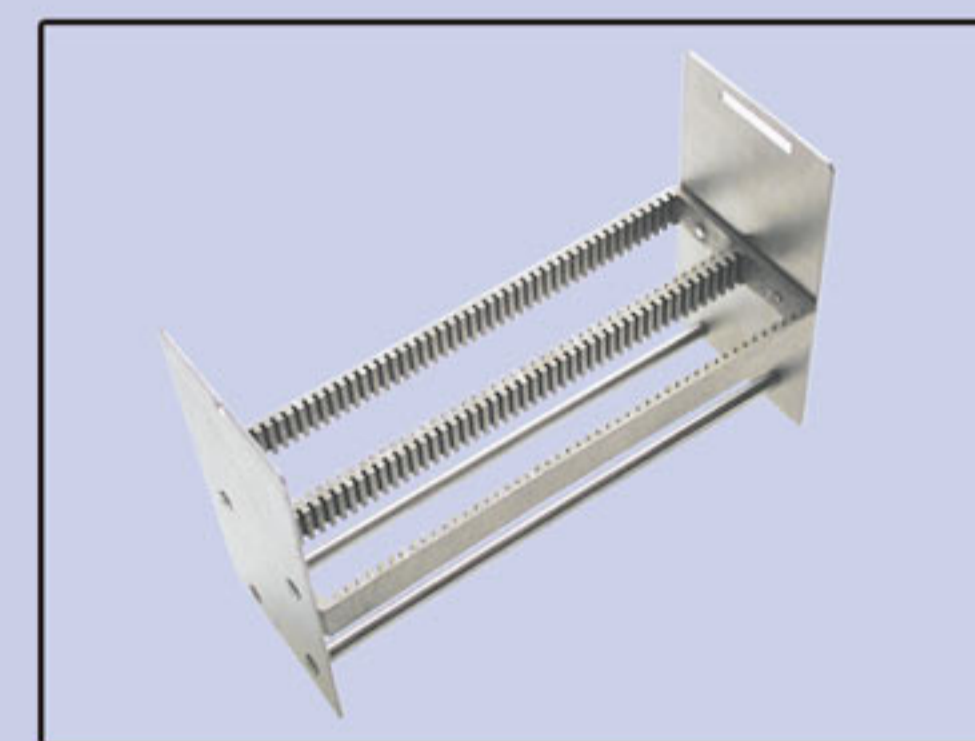
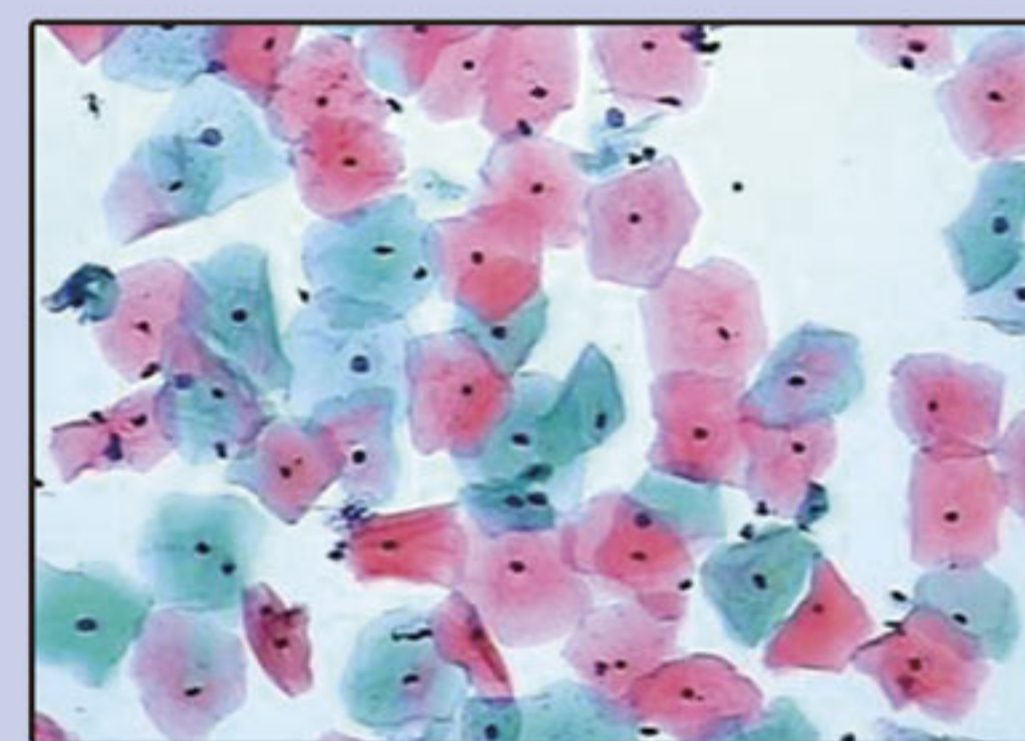




**H&E Staining**



**Pap Staining**



**Staining Rack**

# ASS 190 Slide Stainer



## Characteristics

- Advanced Microcomputer intelligent control system .
- Two protocols can run simultaneously in two slide racks respectively that can dramatically improve staining efficiency .
- In addition to staining function, users also can set up maximum 25 steps in one programs for special requirements tests.
- 4 groups (8 different) programs can be set up respectively for meeting various staining requirement, washing function is also included.
- Automated program checking function: this function can protect the device from damages in case of incorrect programming .
- Alarm function : the alarm“beeps” goes off once any incorrect operation is detected .
- Second running function : it can start to run from desired step when it happens to some problem or does not get good effect in first running .
- The high-performance stepping motor utilized to ensure the stability and accuracy with low noise level .
- The streamlined exterior shape makes it easier to clean .
- Concerning users’health: The active carbon utilized to absorb volatile gases and prevent toxic gases from entering the laboratory environment .
- LCD: with user-friendly keyboard to program and display all information concerning staining .
- Protection function: it can prevent damage to tissue samples caused by rack movement be physically blocked while in operation .
- The in/out water pipe allows to wash the tissue at any stages .

## Technical Specifications

NO	Specification	ASS 190
1	Quantity of slide racks	2
2	Capacity	96 slides at a time ( 48 slides on each slide rack)
3	Number of tanks	19
4	Volume of container	800ml for each tank , the first and second tank comprise the washing station
5	Staining time in each tank	1 seconds~99minutes 59 seconds , can be set as desired
6	Two racks can be agitated every 15 seconds and the agitation time can be set from 5 to 30 seconds	
7	Voltage/Frequency	220V ± 10% , 50HZ / 110V ± 10% , 60HZ
8	Power	120 W
9	Dimensions ( W×D×H)	1247x470x550mm
10	Weight	about 75kg



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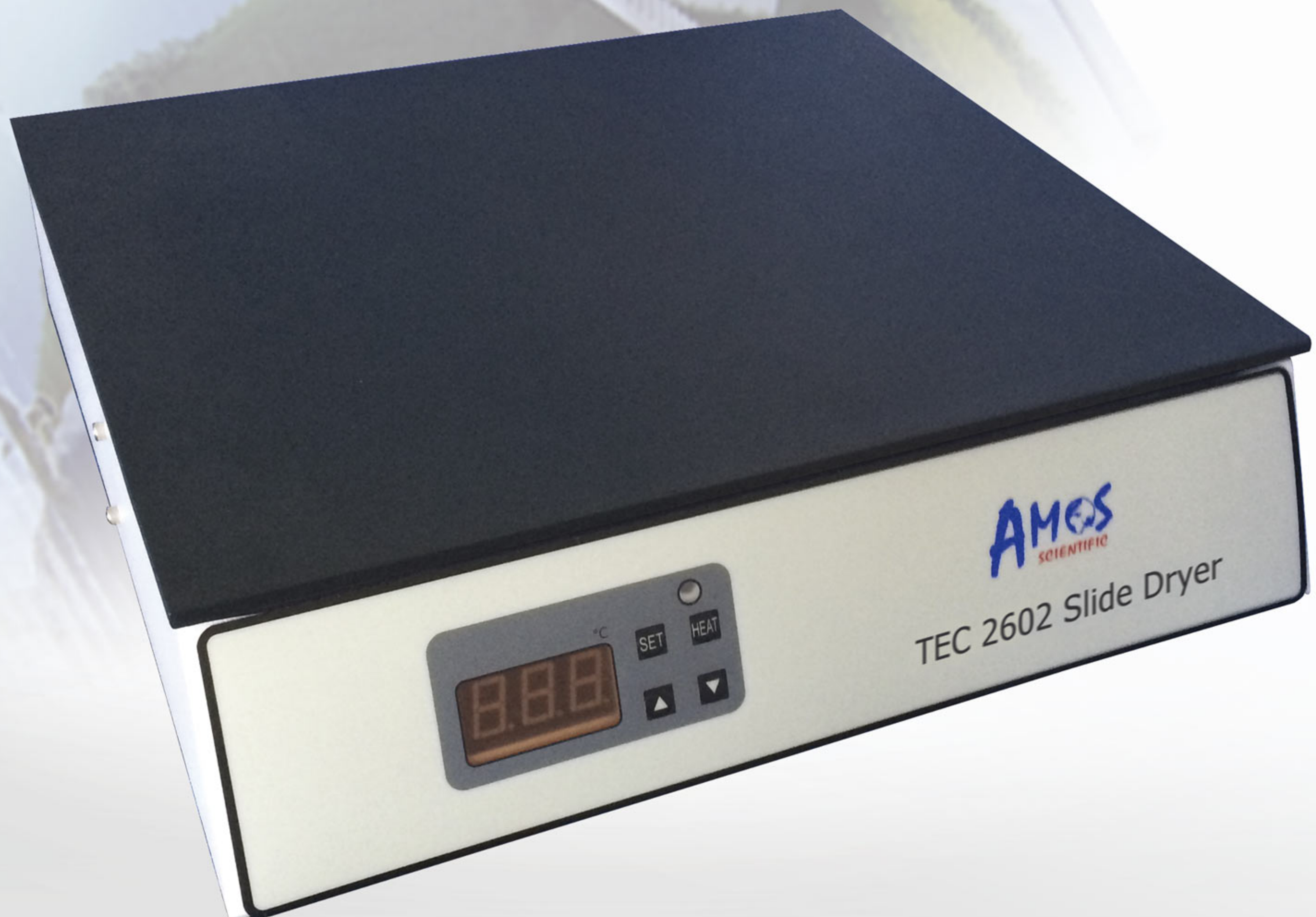
- Quik Processing
- Uniform heating
- Large Capacity

## ADO 260 DRYING OVEN

### Technical Specifications

- Inside dimension(WxDxH): 400x290x350mm
- Temperature range: 30 ~ 80°C
- Temperature accuracy : ± 1°C
- Rated voltage: 220V ± 10% 50HZ
- Rated power : 850W ( Heater power: 800W )
- Dimension ( W×D×H ) : 500mm× 360mm× 620mm
- Tray size(W×D): 270mm × 400mm, Number: 2.
- Weight: 33Kgs





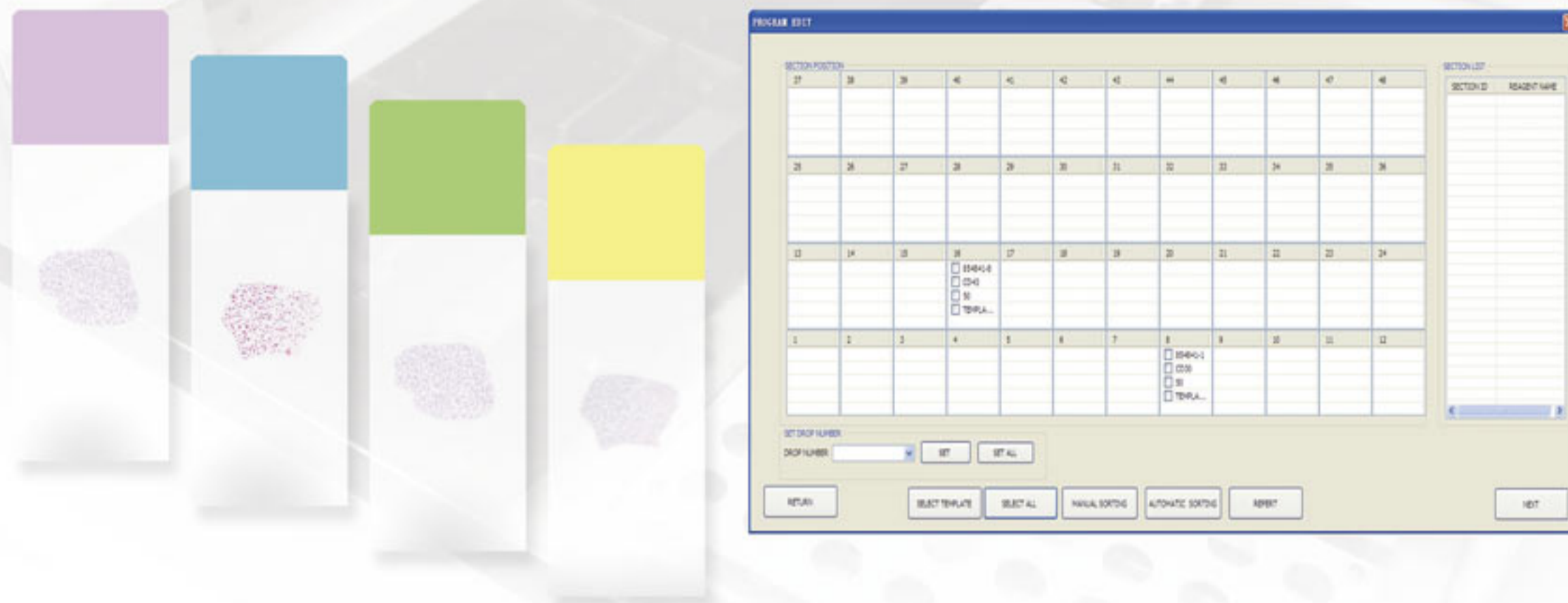
# TEC 2602 SLIDE DRYER

## Technical data of TEC 2602 Slide Dryer

- Table top: 324 × 272 mm
- Temperature control accuracy : ± 1 °C
- Temperature range: ambient temperature ~90 °C
- Capacity : can load 40 slides simultaneously
- Rated voltage: 220V ± 10% 50/60 Hz or 110V ± 10% 50/60 Hz
- Nominal power: 350W
- Outside dimensions (W × D × H): 324 × 300 × 85 mm
- Weight: about 2.75kg



## AIHS 620 Immunohistochemistry Stainer



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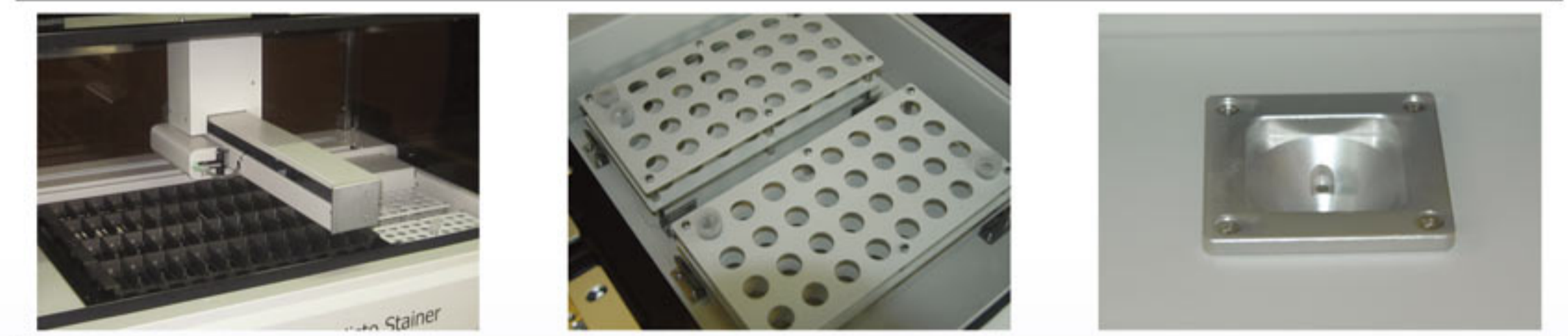
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- Program can be changed at any time if required and can be made according to the user's requirements.
- More than one hundred programs can be made for standardized Immunostainer and rapid special staining.
- One computer can control several Immuno-Histo Stainers simultaneously.
- To ensure the continuity and completeness of an experimental running, an external power supply can be provided.
- Such running conditions as running time and running progress can be clearly monitored at any time.

### Technical Parameters:

- Capacity: 48 microtome section and 64 kinds of reagents
- Reagent titer increment: 50ul, 75ul, 100ul, 150ul, 200ul, 250ul .
- Outside dimensions(W × D × H): 1015 × 665 × 520 mm
- Power supply: 220V ± 10% at 50/60Hz or 110V ± 10% at 50/60Hz
- Nominal power: 350W
- Weight: about 116Kg

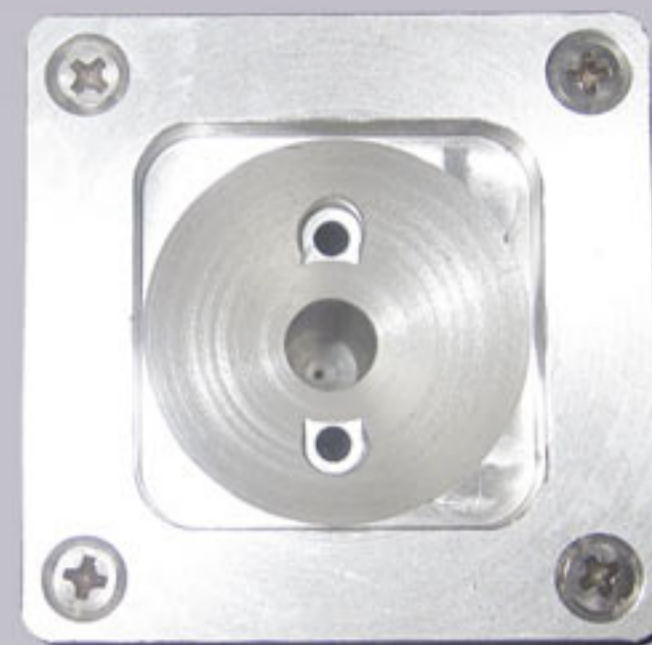
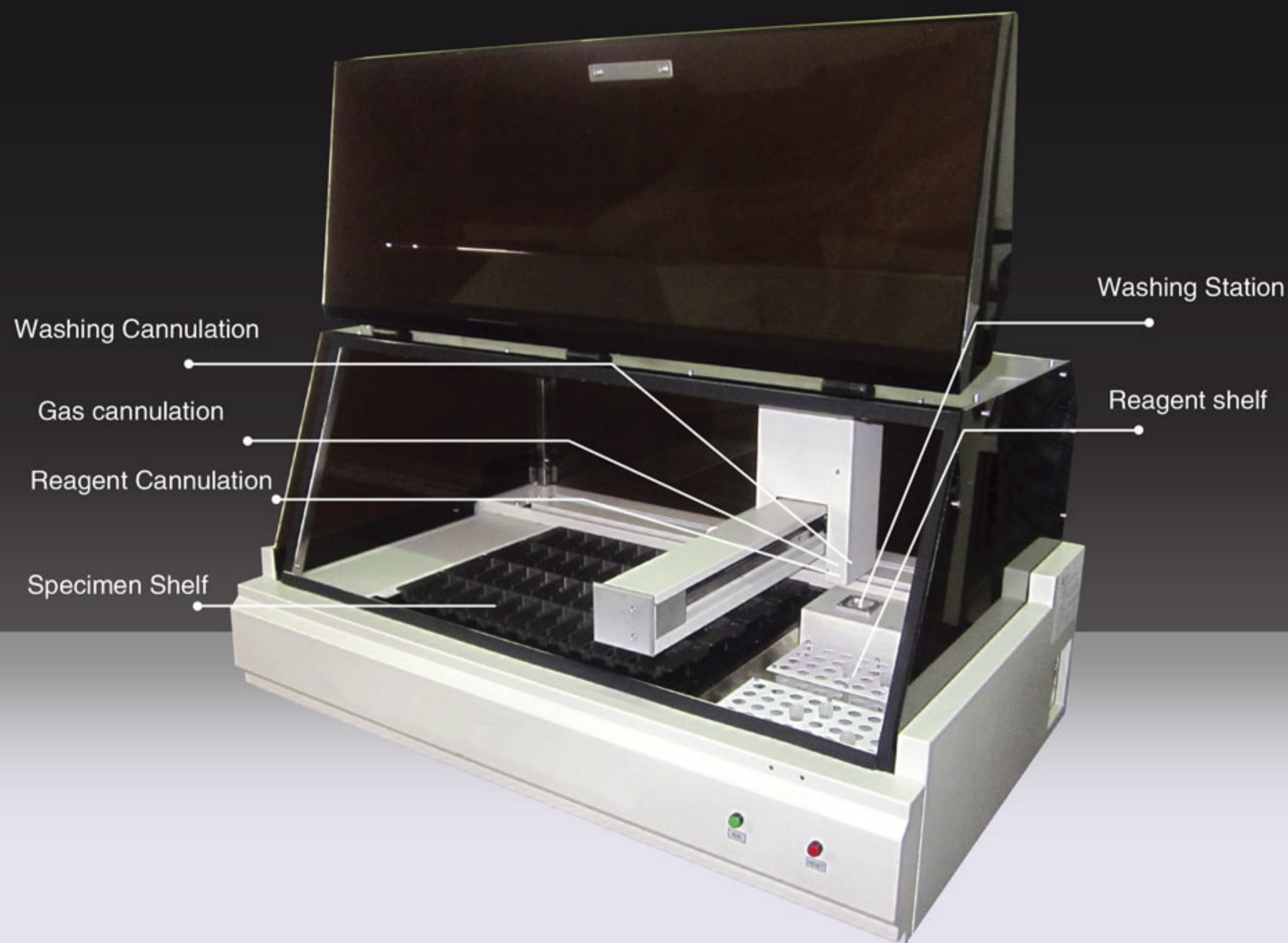


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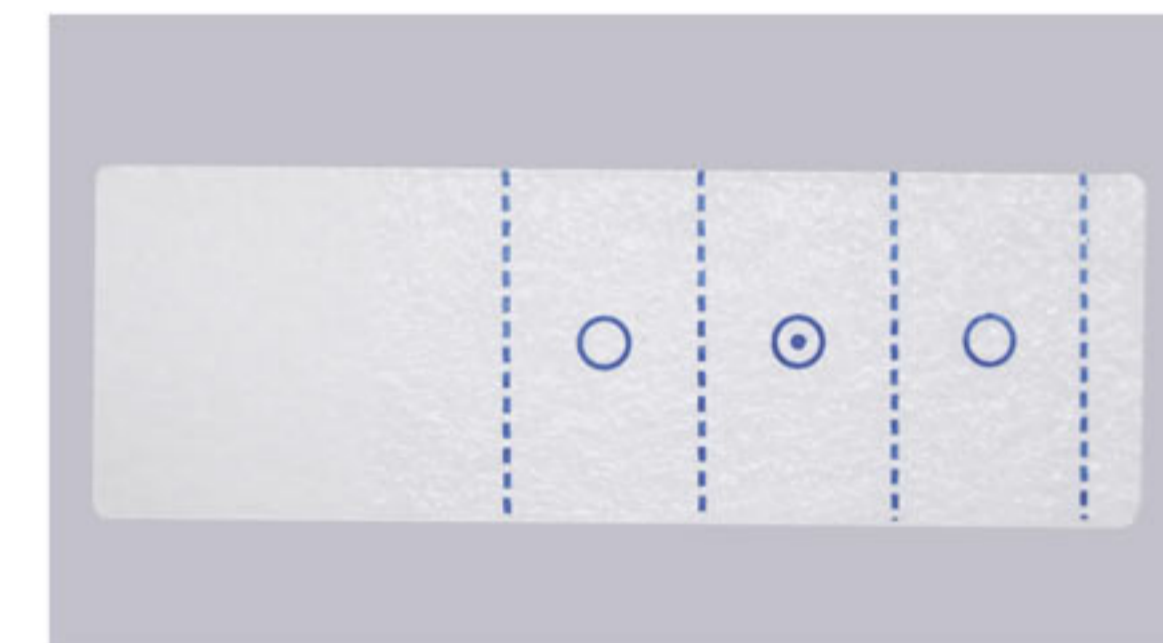
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Tel: +61-3-95518850 Fax: +61-3-95516885 Email: info@amos-scientific.com

**AIHS 620**  
**IMMUNOHISTOCHEMISTRY STAINER**



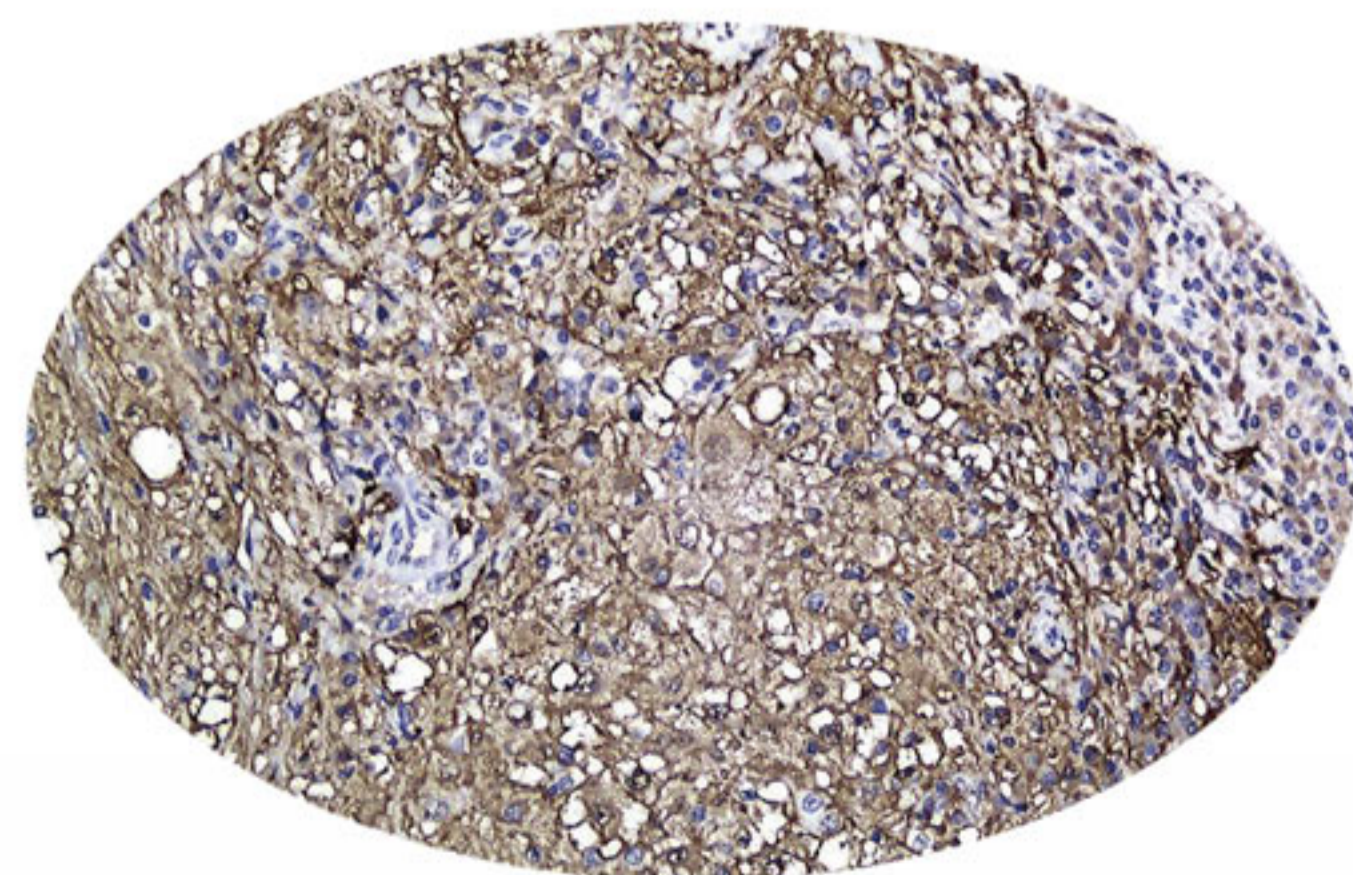
The clean-out opening of the drop-tube can make both the interior and exterior wall of the drop-tube cleaned and avoid the cross pollution.

Slice loading frame with convenient pin insertion. Keep the slice smooth and stable.



64 kinds of reagent location frame. The reagent bottle can be taken out and place the antibody in the refrigerator after its usage.

The subarea location of the slice assures that the minimum reagent quantity exerts its maximum effect. 1-3 tissue can be dyed once at the same time.



The standardization of the test method of Immunostainer is becoming more and more important with the wide use of the Immunostainer technology in the modern pathologic diagnosis because it has a bearing on the prognosis and treatment of the patient.

AIHS620 Immunohistochemistry Stainer adopts European advanced technology with intelligent program interface which is easy to understand and operate, thus providing a scientific and reliable platform for the standardization of the test method of Immunostainer.

- Open the system, suitable for reagents of different company
- Suitable for various kinds of specimen: paraffin, refrigerated and punctured microtome sections, cell smear and marrow microtome section
- Precise micro dropping rates of reagent adjustable to the minimum of 50ul, thus saving expensive reagent.
- Different dropping rates of antibody can be set for different tissue section.
- Excellent overall sealing keeps the inside environment wet.
- Contents are under the protection of secret code.
- The dropper point surface is Teflon treated and can be thoroughly cleaned to avoid cross contamination.
- Movable scavenging gentle air blows off the liquid residue on the tissue sections.

## CytoSmart 30 Autocyto Prep–Staining System

### Product Technique Features

- Fully automatic operation from slide making to staining, artificial errors can be avoided.
- Uses high precision pressure sensor when obtaining specimen to ensure the cells amount for diagnose use.
- Individual slide staining technique is adopted to precisely control stain amount. Also, the individual staining reduces the possibility of cross contamination.
- This product has fully automatic control with user friendly operation interface. No additional computers and programs are needed. When operating the system, pre–set the slides number. The whole process will run automatically.
- Has the reminding function for adding stains
- Air springs are applied on the flipping lids. Turing lids would not interrupt operator' s movements.
- Automatic senses the flipping lids status. For safety matters, the products will stop moving in both vertical and horizontal directions when the lids are open.
- Double trails structure to ensure steady movement horizontally.
- Support batch slides making and staining. 1–30 units of specimen and be processed once.
- The dispense fluid recycling system ensures to minimize the contamination in the laboratory.
- Helps to enhance the reusability of one specimen—4 slides can be made out of one specimen.

### Parameters

- Maximum slides making and staining amount: 30 slides
- Processing speed: 120–150 slides/day
- Slides capacity: 30 slides
- Membrane cup: capacity: 30 cups
- Sample preservering vial: capacity: 30
- Three Stain bottles, 65ml each, contains hematoxylin, ammonium hydroxide and EA50+orange, uses 100ul for each individual slide staining.
- Cleaning solution: 95%, 100% alcohol and PBS Powdered
- Capacity of one load of stain: 200 slides
- Dimension ( WxDxH ) : 1205mm\*835mm\*705mm
- Power Voltage: 100V~120V/200V~240V 50/60Hz
- Power Rating: ≤150W
- Weight: 161kg

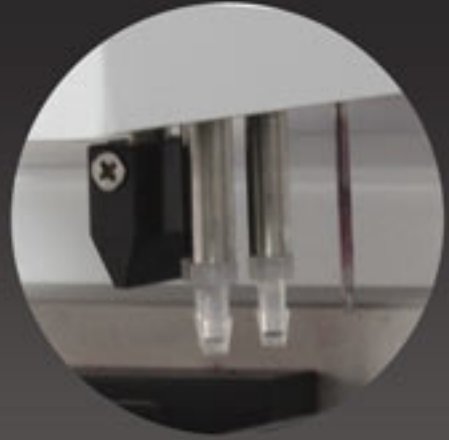
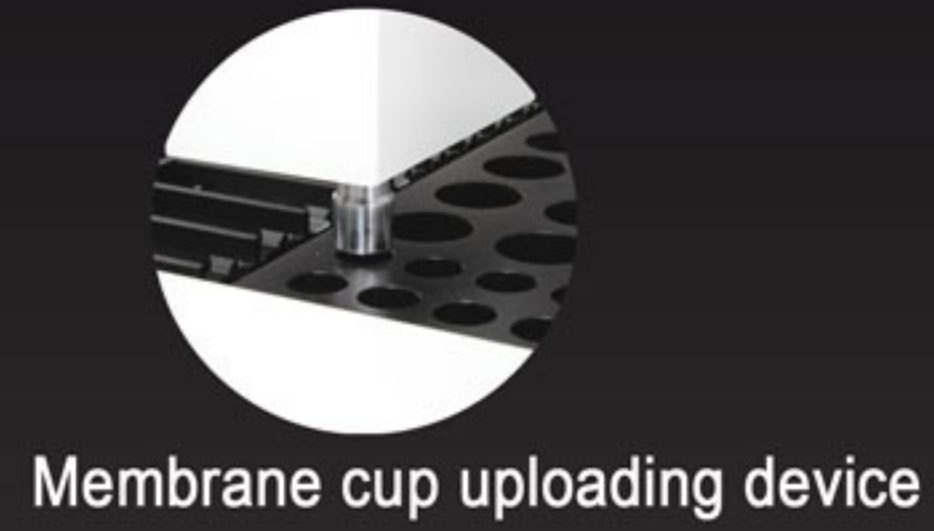
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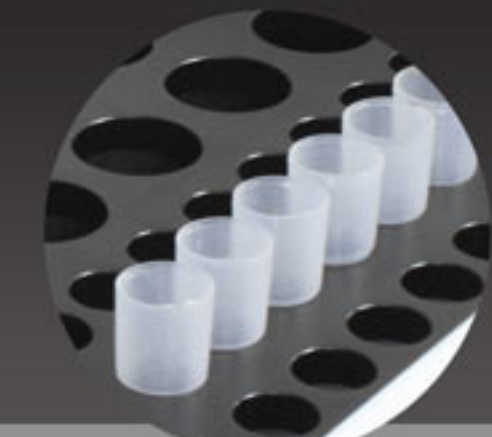


## CytoSmart 30 AUTOCYTO PREP–STAINING SYSTEM

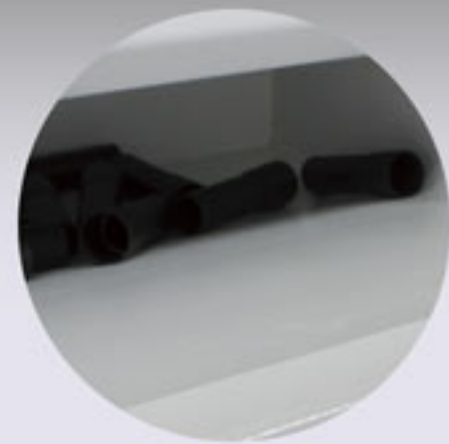




Staining bottle



Cup shelf



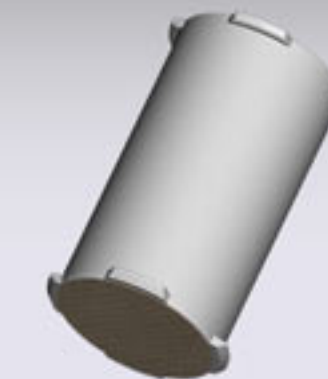
Waste Plate



Slide Shelf



Sample Preserving vial

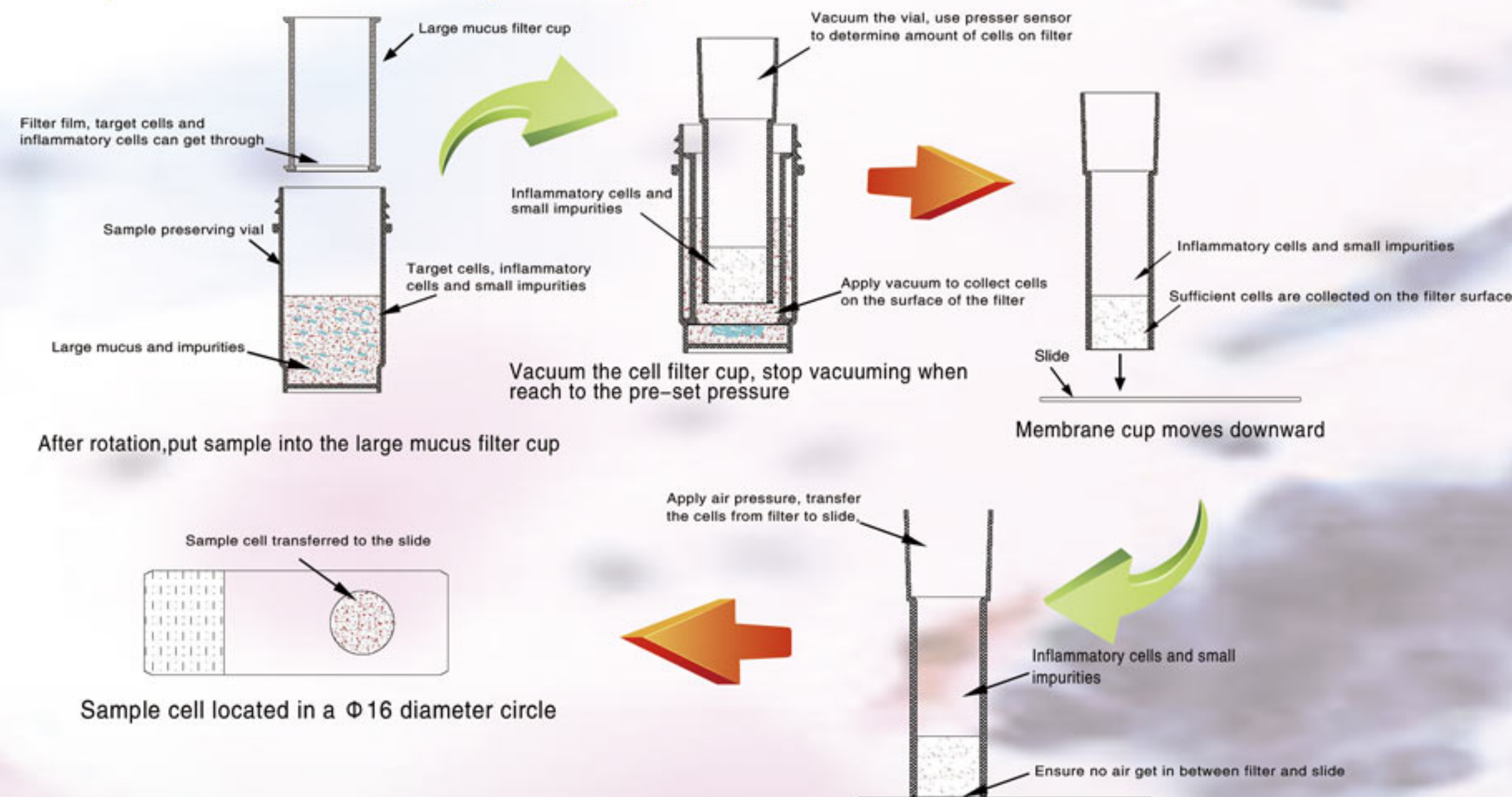


Filter Cup



Membrane Cup

### CytoSmart 30 Sample Preparation Process

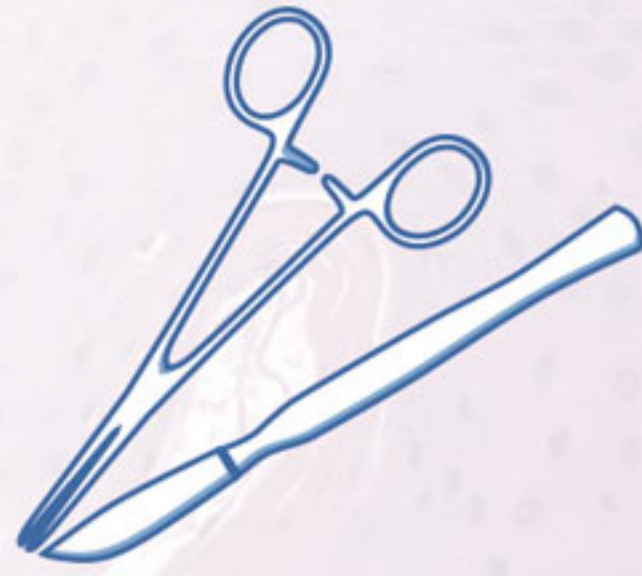


### Comparison of the preparation methods

Preparation Methods	Technique Principles	Pros and Cons		
		Automatic level	Slides Outcome	Staining Methods
Centrifuge	Denser impurity can be separated, but the smaller cells and impurity may stay on the slides.	Centrifuge is processed automatically. But separate staining machine is needed.	High possibility of cells overlaps; impurity may cause obscureness.	Uses dipping staining, may cause cross contamination.
TCT	Only apply to cells in certain diameter ranges. Specimen is dispersed and filtered. Only a representative sample will be left on the slide.	Slides are made manually while separate staining machine is also needed.	Low possibility of cells overlaps; large size impurity cannot be avoided, only apply to certain types of specimen.	Uses dipping staining, may cause cross contamination.
LCT	Repeat centrifuge for several times to settle out the particles in liquid so impurity can be removed.	Repeating centrifuge can only be done manually while staining is automatically accomplished.	Cells overlaps are avoided. Produces high quality slides.	Use individual slide staining, no cross contamination.
CytoSmart 30	By using film filters methods, target cells, smaller cells and impurity are dispersed and go through film filters with different thickness. Only target cells will stay on film and be left on the slides.	Fully Automatic	No cells overlaps, no large sized impurity, only exist small amount of inflammatory cells. Produces high quality slides.	Use individual slide staining, no cross contamination.



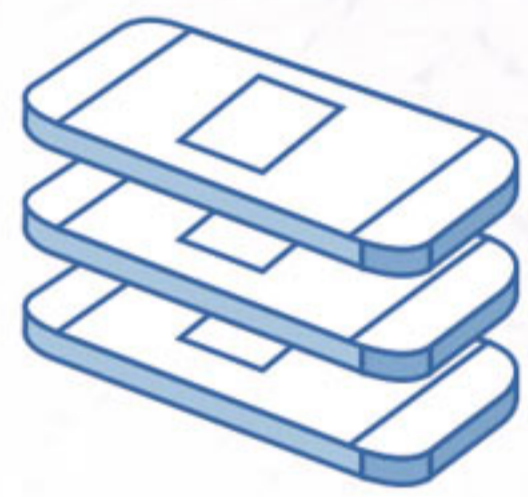
# DIGITAL PATHOLOGY SOLUTIONS



Surgery



Sharing and Networks



Section Production



Data Management

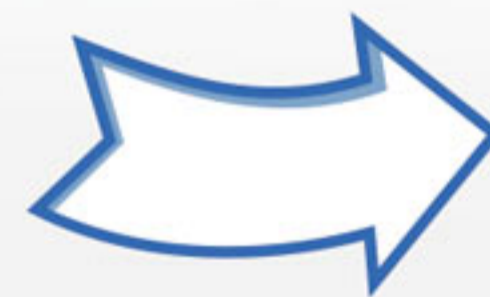


## SCAN

Slice Scanning



View



System processes

## Proscanner APro 5 Digital Slide Scanner

PROSCANNER APRO SERIES DIGITAL SLIDE SCANNER SUPPLY THE RAPID HIGH RESOLUTION SCANNING TRADITIONAL GLASS SLICED INTO DIGITAL CHIPS. THE SCANNING DEVICE HAS AN EXCELLENT QUALITY, CONVENIENT OPERABILITY AND GOOD SYSTEM INTEGRATION.

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## Targets



Clinical



Research



Education

## Advantage:

### ○ Scanning control and viewer software:

- Image Quality: Seamless image
- Image adjustment: Images can be the contrast, brightness, and Gamma Correction for analysis
- Image display: Zoom in or zoom out, move the location, and supports auto-play mode
- Image annotation and measurement functions: Add any comment on the image by software
- MultiChart preview and contrast
- Automatic identification Scan Area, and automatic setting focus.
- Scan Preview: Review the scan slide number and scanning region during the scanning process

### ○ Image viewer management software:

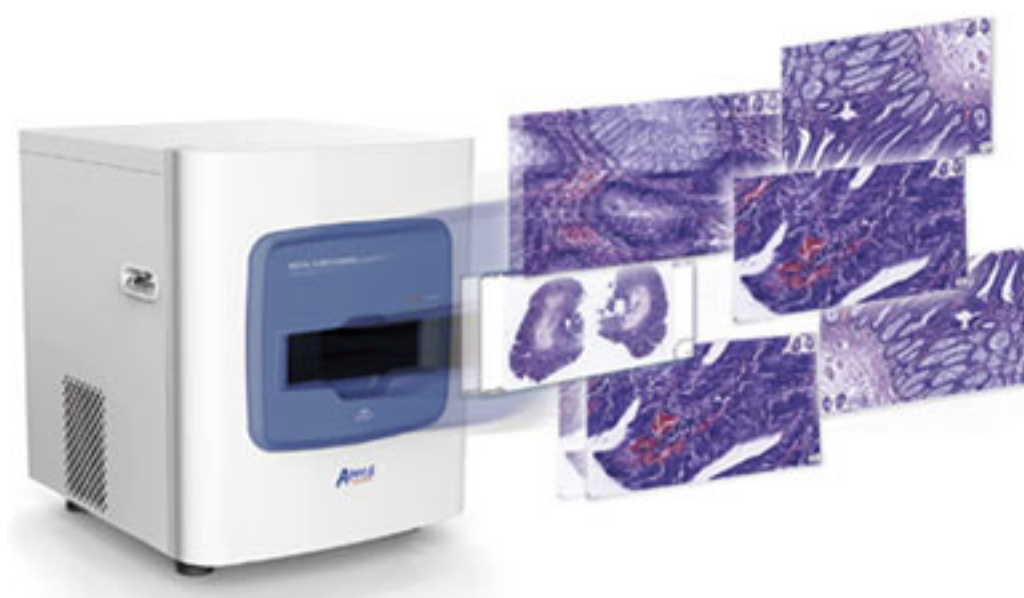
- Support local reviewer, IE browser ,iPhone, iPad and other mobile devices
- Freedom Zoom, translation
- Various annotations (graphics, text)
- Automatic measuring length, area, etc. and Ruler and grid display
- Image brightness and contrast adjustment

### ○ Remote consultation software:

- Voice, video, handwriting input and other real-time communication
- Electronic whiteboard (tagging, etc.)
- Remote diagnostic reports
- Strict user management
- Diagnostic process tracking

## Features

### High quality:



- High-precision and Perfect panoramic digital slide images.
- Nanoscale positioning accuracy of the stage ensure no loss of trace details.
- Adopt professional 3CCD line camera,3color with the color channels independently, to ensure more accurate color and image resolution.
- Automatic Scanning.
- Display scanning progress and information

### Good system integration:



- Associated with the Pathology Management System, Digital Slide, Cases of clinical findings and Gross examination as a whole viewing digital images is more convenient.
- Viewing Electronic Medical Records(EMR) while viewing panoramic digital slide images.
- With Remote consultation software to achieve remote real-time consultation.

## Technical Specifications

NO	Specification	APro 5
1	Slide Range	26mm*76mm
2	Slide Capacity	1pc-5pcs
3	Scanning Mode	Line scan
4	Objective Lens	20× (NA 0.75)
5	Scanning Magnification	20x/40x
6	Scanning Resolution	≤0.50μm/pixel(20×) / ≤0.25μm/pixel(40×)
7	Scanning Speeds (15 mm × 15 mm):	≤45 seconds at 20× / ≤120 seconds at 40×
8	Focus Mode	Auto Focus / Manual Setting
9	Barcode Reading	1D / 2D
10	Image Compression	JPED
11	Weight	50kgs
12	Size(W*H*D)	469*555*556mm



► **Test Items:**

Category	Test Item	Specimen Type	Sample Volume	Reaction Time	Measuring Range
Diabetes	HbA1c	WB	5μL	15min	3.0-14.0%
Inflammation	CRP	S/P/WB	5μL	3min	0.5-200μg/mL
	PCT	S/P/WB	100μL	10min	0.1-50ng/mL
	SAA	S/P/WB	5μL	15min	2.0-300μg/mL
Cardiac	CK-MB	S/P/WB	100μL	10min	2.0-80ng/mL
	cTnl	S/P/WB	100μL	10min	0.05-40ng/mL
	Myo	S/P/WB	100μL	10min	20-500ng/mL
	NT-proBNP	S/P/WB	100μL	15min	50-25000pg/mL
	D-Dimer	P/WB	100μL	10min	0.1-10μg/mL
	H-FABP	S/P/WB	100μL	15min	1-120ng/mL
Hormone	T3	S/P/WB	100μL	15min	0.5-10nmol/L
	T4	S/P/WB	100μL	10min	10-350nmol/L
	TSH	S/P/WB	100μL	15min	0.1-60μIU/mL
	25-OH-VD	S/P	100μL	10min	5-70ng/mL
	β-HCG	S/P/WB	50μL	15min	2-20000mIU/mL
	LH	S/P/WB	100μL	15min	5-200mIU/mL
	FSH	S/P/WB	100μL	10min	1-150mIU/mL
	GH	S/P/WB	100μL	10min	0.05-100ng/mL
	PRL	S/P/WB	100μL	10min	1-100ng/mL
	AMH	S/P/WB	100μL	10min	0.1-50ng/mL
Gastric Function	PGI	S/P/WB	100μL	10min	10-60ng/mL
	PGII	S/P/WB	100μL	10min	5-100ng/mL
	G-17	S/P/WB	100μL	10min	5-300ng/mL
Renal Function	NGAL	S/P/WB/Urine	100μL	10min	50-5000ng/mL
	mAlb	Urine	100μL	5min	10-200mg/L
	β2-MG	S/P/WB	10μL	10min	0.5-20mg/L
	Cys-C	S/P/WB	10μL	5min	0.5-10ng/L
Tumor	PSA	S/P/WB	100μL	10min	0.1-100ng/mL

# LS-1100

## Dry Fluorescence Immunoassay Analyzer (Portable)



Quantitative

Rapid

Sensitive

Reliable

Accurate, Anytime and Anywhere

New items are available soon!

**Lansion Biotechnology Co., Ltd.**

Add: No.2 Qiande Road, Jiangning District, Nanjing, China

E-mail: biz@lansionbio.com

Web: en.lansionbio.com

Tel: +86-25-5857 7600

Fax: +86-25-5875 8600



Lansion Biotechnology Co., Ltd.

# LS-1100 Dry Fluorescence Immunoassay Analyzer (Portable)

## ► Analyzer Introduction:

LS-1100 uses the advanced method of Time-resolved Fluorescence Immunoassay (TRFIA), for the in-vitro quantitative detection of bio-markers for Diabetes Mellitus, Inflammation, Cardiovascular Diseases, Hormone, Gastric Diseases, Renal Diseases, Tumor, etc.

Application: Laboratory, ER, Cardiology, ICU, Respiratory, Pediatrics, etc.

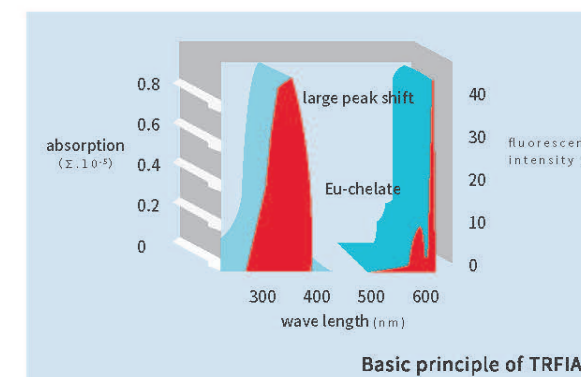
## ► Features:



“ **Quantitative, Rapid and High Sensitive  
Reliable Result (QC system, QR code calibration)** ”

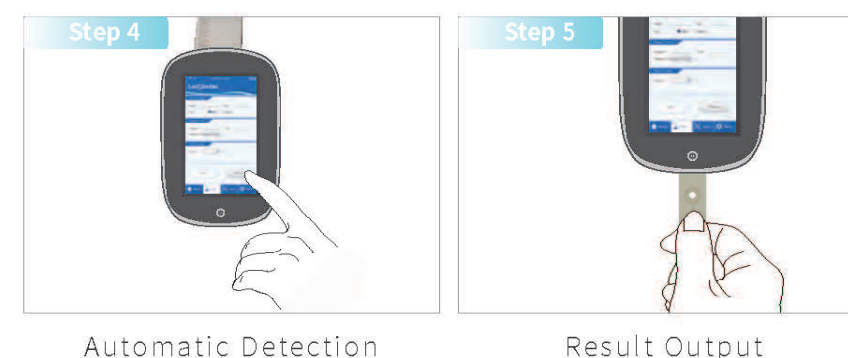
<b>Method</b>	Time-resolved Fluorescence Immunoassay (TRFIA)
<b>Specimen</b>	Serum/Plasma/Whole Blood/Urine
<b>Weight</b>	1.3kg
<b>Dimensions</b>	225mm × 152mm × 105mm (L×W×H)
<b>Screen</b>	7 inch touch screen
<b>Data Storage</b>	≥ 5000
<b>Printer</b>	Built-in thermal printer
<b>Battery</b>	Built-in lithium battery (super standby time)
<b>Communication</b>	RS232(LIS/HIS), RJ45, USB, WIFI, Bluetooth

## ► Time-resolved Fluorescence Immunoassay (TRFIA) Method:



TRFIA is super-sensitive detection technique characterized by specific fluorescence of rare earth ions. It is not only highly sensitive, but also overcomes the instability of enzyme marker and is the best choice for immunological detection. The high fluorescence intensity and long life of labeled ionic chelates are beneficial to eliminate the influence of fluorescent substances in samples and environment on the test results.

## ► Easy Operation:



## NUA Series URINE ANALYZERS

### NUA -50

- Compact design
- Convenient maintenance
- Easy operation
- Measurement Principle: Dual wavelength reflectance photometer and spherical integrator
- Two test modes:  
Normal mode, 60 samples / hour  
Continuous mode, 120 samples / hour
- Memory capacity: 5000 samples
- Low cost, smaller volume, easy to use
- Cold light source, less interference and long life
- Internal thermal printer, external printer and bar code reader applicable
- Standard serial interface Rs232, parallel interface and PC/2 port
- Display: Back light LCD
- Number of parameters: 10&11
- Tested items: pH, Nitrite, Specific gravity, Ascorbic Acid, Blood, Glucose, Bilirubin, Urobilinogen, Ketone, Leucocytes, Protein
- Work condition: Environmental Temperature: 15-30°
- Dimensions: 290x200x100mm, Weight 2 kg



### NUA -500

- Strong, fast and accurate urine analyzer.
- Ideal for extensive sample laboratory (Automatic continuous test 510 samples/ hour)
- Measurement Principle: Dual wavelength reflectance photometry
- Wavelength: 4 LED (470nm, 550nm, 620nm, 720nm)
- Throughput: 510 samples/hour
- Memory capacity: 10000 results
- Easy maintenance design for daily cleaning
- High test speed, ideal for extensive sample laboratory
- LCD back lite display
- Internal calibration for sensitivity of strips
- Cold light source facility with long life and high stability
- Bar code interface, RS 232, USB
- Tested items: up to 14 parameters
- Power supply: 100~240V AC,50/60Hz, 35W~50W
- Dimension: 390mm x 340mm x 290mm

### NUA -30



- Small and compact, accurate urine analyzer.
- Battery operated - suitable for doctor's offices and on field use.
- Measurement Principle: Dual wavelength reflectance method
- Measuring wavelength: 3LED (550, 627,720nm)
- Sample supply: manual dipping
- Reaction time: 60 seconds per test, LCD screen
- Data memory: 100 tests; Output: RS-232C
- Point of Care analysis  
Smart design and multifunction, Easy operation  
Accurate & reliable test results
- Flexible parameter configuration: pH, Nitrite, Protein, Special Gravity, Blood, Glucose, Bilirubin, Urobilinogen, Ketone, Leucocytes, Ascorbic Acid, Calcium, Creatinine, Microalbumin
- Dimensions: 124x81x36mm, Weight 200 g

## NEOCHECK Urine test strips



HIGH QUALITY, EASY READABLE URINE TEST STRIPS FOR FAST QUALITATIVE RESULTS YOU CAN RELY ON!

- Available for manual reading
- Available for use on NUA Urine analyzer series

- NEOCHECK Urine reagent test strips** are used for the rapid determination of Glucose, Protein, pH, Leukocytes, Nitrites, Ketones, Bilirubin, Blood, Urobilinogen, Specific Gravity and Ascorbic Acid (Vitamin C) levels in urine.
- These are the diagnostic reagent strips used by physicians and laboratories (in clinics and hospitals) to initially screen for suspected or existing health conditions.
- Simple to use, NEOCHECK reagent strips provide early indications of developing health problems and identify potential abnormal functions requiring more extensive testing.
- Additionally, routine use is frequently recommended by physicians for monitoring certain existing and chronic health conditions.

- NEOCHECK 1:** Glucose
- NEOCHECK 3:** Protein, Glucose, pH
- NEOCHECK 3A:** Protein, Glucose, pH, Specific Gravity
- NEOCHECK 5:** Ketone, Protein, Glucose, pH, Blood
- NEOCHECK 9:** Ketone, Protein, Glucose, pH, Blood, Urobilinogen, Nitrite, Bilirubin, Specific Gravity
- NEOCHECK 10:** Leukocytes, Ketone, Bilirubin, Protein, pH, Blood, Urobilinogen, Nitrite, Glucose, Specific Gravity
- NEOCHECK 10A:** Leukocytes, Ketone, Bilirubin, Protein, Glucose, pH, Blood, Urobilinogen, Nitrite, Specific Gravity
- NEOCHECK 11:** Leukocytes, Ketone, Bilirubin, Protein, Glucose, pH, Blood, Urobilinogen, Nitrite, Specific Gravity, Ascorbic Acid

Leukocytes 90sec	-(0)	± (15)	+(70)	++(125)	+++ (500)
Ketone 60sec	-	± (0.5)	+(1.5)	++(4.0)	+++ (8.0)
Nitrite 30sec	-	+	(Any pink coloration)		
Urobilinogen 60sec	Normal	+(33)	++(66)	+++ (≥131)	
Bilirubin 60sec	-(0)	+(8.6)	++(33)	+++ (100)	
Glucose 45sec	-(0)	± (0.15)	+(0.3)	++(1.0)	+++ (3.0)
Specific Gravity 60sec	1.005	1.010	1.015	1.020	1.025
Blood 60sec	-(0)	± (10)	+(25)	++(50)	+++ (200)
Blood 30sec	5	6	7	8	9
Calibration Pad	-(0)	± (0.6)	+(1.4)	++(2.8)	+++ (5.6)
Ascorbic Acid 50sec	-(0)	± (0.6)	+(1.4)	++(2.8)	+++ (5.6)

**NEOCHECK 12 Urine Test Strips**  
**NEOCHECK 14 Urine Test Strips**  
with Microalbumine

**NEW**

# Spectrophotometer

## Spectrophotometer

SP-V1000/SP-UV1000/SP-V1100/  
SP-UV1100

The spectrophotometer is an indispensable instrument routinely used in colleges, universities and research institutes for quantitative analysis in fields including biotechnology and quality control of new material developed. V-Series provides high resolution, high performance and excellent stability.



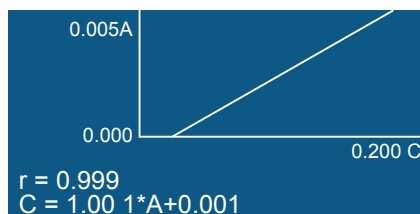
### Features

- **User Friendly Operation and Information Rich LCD Display:** The large 128 x 64 dots, backlit LCD screen with adjustable brightness control displays a large array of data also in graphical format.
- **On-Board Data Storage:** The System can save the test results, up to 200 groups of data and 200 standard curves in the RAM memory.
- Data can be restored after a sudden power failure.
- **Auto setting wavelength:** To set wavelength automatically to calibrate the system through arrow keys to avoid operation errors.
- **Automatic Switching:** Tungsten & Deuterium lamps switching is automatic. Selectable from a wavelength range of 190 to 1100nm.
- **PC control through application software:** The spectrophotometer is fully equipped and capable of executing all functions in stand-alone mode. The optional application software 'Wave Professional' provides computer control for the spectrophotometer (through the built-in USB port), apart from other functions such as spectrum scan, Time scan (kinetics), multiwavelength scanning & Nucleic Acid / Protein measurement. (SP-V1100/SP-UV1100)
- **Large sample compartment:** To accommodate 5–100mm path length cuvettes with optional holders. A variety of optional accessories are available.

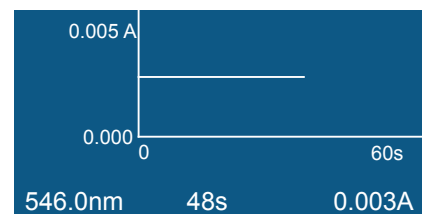
### Basic Mode

546.0nm		0.001A
No.	WL.	Abs.
1	230.0	0.001
2	340.0	0.000
3	450.0	0.002
4	540.0	0.000
5	620.0	0.003

### Quantitative



### Kinetics





Model	SP-V1000	SP-UV1000	SP-V1100	SP-UV1100
Optical System	Single Beam	Single Beam	Single Beam	Single Beam
Light Source	Tungsten lamp	Tungsten lamp & Deuterium lamp	Tungsten lamp	Tungsten lamp & Deuterium lamp
Spectral Bandwidth	4.0nm	4.0nm	2.0nm	2.0nm
Wavelength Range	325-1000nm	200-1000nm	320-1100nm	190-1100nm
Wavelength Accuracy	±2nm	±2nm	±0.5nm	±0.5nm
Wavelength Repeatability	≤1nm	≤1nm	≤0.3nm	≤0.3nm
Photometric Range	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200 %T	-0.3 - 3.0 A, 0 - 200 %T	-0.3 - 3.0 A, 0 - 200%T
Photometric Accuracy	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T
Photometric Repeatability	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T
Stability	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)
Stray Light	≤0.2%T @ 360nm	≤0.2%T @ 220&360nm	≤0.05%T @ 360nm	≤0.05%T @ 220 & 360nm
Sample Compartment	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette
Display	LCD	LCD	LCD	LCD
Output	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)
Power	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W
Dimension(LxWxH)	490x360x210mm	490x360x210mm	490x360x210mm	490x360x210mm
Weight	10kg	12kg	10kg	12kg

# Spectrophotometer | Accessories



**Cat. No.** 18900337  
Micro Cell holder



**Cat. No.** 18900340  
8-position auto cell changer  
(for SP-V1100&SP-UV1100)



**Cat. No.** 18900331  
4-cell holder for 10mm sq. cuvette



**Cat. No.** 18900332  
4-cell holder for 10mm  
to 50mm sq. cuvette



**Cat. No.** 18900333  
4-cell holder for up to  
100mm sq. cuvette



**Cat. No.** 18900338  
Test tube holder(ø8-ø22mm)



**Cat. No.** 18900334  
cylindrical cell holder(ø16mm)



**Cat. No.** 18900339  
solid sample holder  
(ø1.5-3mmø1 position)



**Cat. No.** 18900335  
10mm water-jacketed 1 cell holder  
(for SP-V1100 & SP-UV1100)



**Cat. No.** 18900336  
10mm water-jacketed 4-cell holder  
(for SP-V1100 & SP-UV1100)



Square cuvettes glass/quartz  
1-5mm/10-100mm



**Cat. No.** 18900341  
12V20W halogen lamp



**Cat. No.** 18900342  
Milas deuterium lamp,10V,300mA, 30W  
(for SP-UV1000&SP-UV1100)