



Inspired Solutions
For Your Laboratory

Contents

Cleaning & Decontamination Reagents	19 - 24	Melting Point Apparatus	65
Consumables	3 - 18	Ovens	66 - 68
Environmental Chambers	114 - 124	Pipettors	69
Lab Equipment		Polarimeters	70
Autoclaves	26	Refractometers	71 - 72
Aspirators	27	Refrigerators & Freezers	73 - 79
Balances	28 - 29	Rotators	80
Baths & Circulators	30 - 37	Shakers	81 - 89
Centrifuges	38 - 40	Spectrophotometers	90
Dessicators	41 - 44	Stirrers & Hotplates	91 - 97
Fume Hoods / Laminar Flow	45 - 49	Vortex Mixers	98
Heating Apparatus	50 - 54	Microscopes	99 - 113
Incubators	55 - 64	Tubing & Medical Gas Hose	125 - 127

Welcome to the latest edition of the Medline Scientific laboratory equipment and supplies catalogue.

Established in 1992 and headquartered in the UK, Medline Scientific are a leading Global supplier of laboratory and scientific equipment. We provide a vast range of laboratory equipment and solutions including many of our own brand products offering our customer's unrivalled price and performance.

Our client base exceeds 1,500 organisations across clinical, university, pharmaceutical, food research and industrial laboratory sectors, as well as major national and international manufacturers of anaesthetic and respiratory care equipment.

With over 20 years experience in the laboratory and scientific equipment sector, we pride ourselves in offering our customers the very best advice in the industry – so whether you're looking for competitively priced brand leading products or quality alternatives, we are confident that we will exceed your expectations every time!

We look forward to the opportunity of providing you with an inspired and cost effective solution for your laboratory in the very near future.

Our products are chosen on the basis of known quality, reliability and value. All instruments are CE and ISO accredited, produced and tested to the most stringent regulations.

Medline operates a Quality System approved to ISO9001:2000
Environmental System Approved to ISO14001:2004

For technical queries, stock availability or to place an order, please contact our sales office and we will be happy to show you how we can deliver your laboratory requirements with great precision and speed.

Tel: +44 (0)1865 400321 **e-mail:** sales@medlinescientific.com
Alternatively, please visit our website at **www.medlinescientific.com**



Consumables



Autoanalyser Cups / Cuvettes
Autoclave Bags and Paper Products
Centrifuge Tubes
Clinical Waste & Sharps Bins
Containers
Dippers
General Labware
Gloves
Microcentrifuge Tubes
Microscope Slides & Cover Slips
Petri Dishes, Loops and Spreaders
Pipettes & Tips
Plastic Bags / Zip-lock Bags
Racks and Storage Boxes
Swabs
Syringes
Test Tubes & Caps
Water Sampling Bottles

Consumables

Medline offers a comprehensive range of disposable and reusable plastic products. The following section details some of the most common products which are available from our central UK stocks.

The complete product range is covered by our separate 300 page catalogue (available upon request). This range is targeted at all laboratory disciplines, from microbiology to research applications.

Material Key

F	Foam	N	Nitrile	PET	Polyethylene Terephthalate	SS	Stainless Steel
G	Glass	P	Paper	PMMA	Polymethyl Methacrylate (Acrylic)	V	Vinyl
HDPE	High Density Polyethylene	PA	Polyacetylene	PP	Polypropylene	VI	Viscose
L	Latex	PE	Polyethylene	PS	Polystyrene	W	Wood



Autoanalyser Cups / Cuvettes		Material	Sterility	Qty
302000	4.0ml Macro cuvette 1cm square	PS	NS	500
302100	1.5ml Semi-micro cuvette square	PS	NS	500
303100	4.0ml UV Macro cuvette 1cm square	PMMA	NS	500
303101	2.5ml UV Semi-micro cuvette	PMMA	NS	500
900023	0.25ml Centrifichem sample cup	PS	NS	1000
900024	0.5ml AA cup	PS	NS	1000
900022	1.5ml AA cup	PS	NS	1000
910022	2.0ml Centrifichem sample cup	PS	NS	1000
910023	4.0ml AA cup	PS	NS	1000
900020	2.5ml Hitachi sample cup	PS	NS	1000



Autoclave Bags and Paper Products		Material	Sterility	Qty
200310R	Autoclave bags - 310mm x 660mm, high temp.	PA	NS	500
200311R	Autoclave bags - 400mm x 700mm, high temp.	PA	NS	300
200312R	Autoclave bags - 600mm x 780mm, high temp.	PA	NS	200
MD66201	Specimen bag with document pouch - 5.5" x 6" x 8.5"	PE	NS	1000
MD66200	Specimen bag with document pouch, printed biohazard - 5.5" x 6" x 8.5"	PE	NS	2000
233039	Yellow clinical waste bags - 30" x 39"	PP	NS	100
191050	Ethylene oxide gas indicator tape - 19mm x 50m	P	NS	1
191051	Dry heat (poupinel) indicator tape - 19mm x 50m	P	NS	1
191052	Autoclave tape - 19mm x 50m	P	NS	1
120001	Post lip paper / slide blotting paper - 89mm x 140mm	P	NS	100
120002	Absorbent bench paper sheets - 50cm x 50cm	P	NS	100
120003	Absorbent benchcoat - 50cm x 50m	P	NS	1
120010	Filter paper - 50cm x 50cm	P	NS	100



Centrifuge Tubes		Material	Sterility	Qty
409920	15ml Graduated with screw cap (50/bag)	PP/PE	S	500
409920R	15ml Graduated with screw cap (Racked)	PP/PE	S	500
429910	15ml Graduated with screw cap	PP/PE	S	500
429920	15ml Graduated with screw cap (Ind. wrapped)	PP/PE	S	500
409922	50ml Graduated with screw cap (25/bag)	PP/PE	S	500
409922R	50ml Graduated with screw cap (Racked)	PP/PE	S	500
429901	50ml Graduated with screw cap (Self standing)	PP/PE	S	500



Clinical Waste & Sharps Bins		Material	Sterility	Qty
233039	Yellow clinical waste bags - 30" x 39"	PE	NS	100
232025	25L Sharpsafe container	PP	NS	10
232802	7L Sharpsafe container	PP	NS	50
244000	4L Sharps container, round	PP	NS	45
240007	7L Sharps container, round	PP	NS	30
240028	25L Sharps container, round	PP	NS	10
240035	35L Waste container, round	PP	NS	1
240065	60L Waste container, round	PP	NS	1
MDH010	1L Sharps container	PP	NS	100
MDH018	1.8L Sharps container	PP	NS	45
MDH030	3L Sharps container	PP	NS	36
MDH050	5L Sharps container	PP	NS	30
MDH100	10L Sharps container	PP	NS	20



Containers - Specimen Containers		Material	Sterility	Qty
129202	7ml Bijou container, no label	PS	S	700
129205	7ml Bijou container, plain label	PS	S	700
129208	7ml Bijou container with boric acid, printed label	PS	S	700
129209	7ml Bijou container, no label	PP	S	700
309201FL	30ml Universal container with flow seal (inner bags of 50), printed label	PS	S	400
309202.4F	30ml Universal container, plain label	PS	S	400
309602.E	30ml Universal container with spoon, printed label	PS	S	400
409202	30ml Universal container, no label	PP	S	400
409201FL	30ml Universal container, printed label	PP	S	400
409202B	30ml Universal container with boric acid, printed label	PS	S	400
409202BP	30ml Universal container with boric acid, printed label	PP	S	400

Consumables



Containers - Specimen Containers		Material	Sterility	Qty
409502	60ml Clear container, plastic cap, no label	PP	S	600
409501	60ml Clear container, plastic cap, printed label	PP	S	600
409511	60ml Dark blue container, screw cap, plain label	PP	S	600
309502	60ml Plastic cap container, no label	PS	S	600
309501	60ml Plastic cap container, printed label	PS	S	600
309502.6	60ml Plastic cap container, plain label	PS	S	600
309501M	60ml Metal cap container, printed label, tray wrapped	PS	S	300
309502M	60ml Metal cap container, no label, tray wrapped	PS	S	300
309601M	100ml Metal cap container, printed label, tray wrapped	PS	S	200
309602M	100ml Metal cap container, no label, tray wrapped	PS	S	200
409711	125ml Dark blue container, screw cap, plain label	PP	S	450
409702	125ml Clear container, screw cap, plain label	PP	S	450
409752	125ml Clear container screw cap with spoon, plain label	PP	S	450
309702M	150ml Metal cap container, no label, tray wrapped	PS	S	120
309701M	150ml Metal cap container, printed label, tray wrapped	PS	S	120
309752	160ml Container with spoon	PS	S	360
409905	200ml Light blue container, screw cap, plain label	PP	S	275
409902	200ml Clear container, screw cap, no label	PP	S	275
309801M	250ml Metal cap container, printed label, tray wrapped	PS	S	50
309802M	250ml Metal cap container, no label, tray wrapped	PS	S	50
309803M	250ml Metal cap container, plain label, tray wrapped	PS	NS	50
309903	200ml Container, no label	PS	NS	300
IMP-200-SD	200ml Container, no label, snap top lid	PP	NS	300

Containers - (24 Hour Urine) and Sweetie Jars		Material	Sterility	Qty
407000	2.5L 24 Hour urine collection, (label optional)	PE	NS	50
407001	2L Graduated container	PE	NS	44
407003	2L Brown graduated container	PE	NS	44
407004	5L 24 Hour urine container, (label optional)	PE	NS	25
407005	2.7L Graduated container, (label optional)	PE	NS	34
407006	2.7L Brown graduated container	PE	NS	34
870004	1.5L Sweetie jar with cap, small	PET	NS	30
87004H	1.5L Sweetie jar with cap & label, small	PET	NS	30
870036	3.6L Sweetie jar with cap, large	PET	NS	16
870036H	3.6L Sweetie jar with cap & label, large	PET	NS	16



Containers - Histology		Material	Sterility	Qty
241010	250ml Snap top bucket and lid	PP	NS	1
241011	500ml Snap top bucket and lid	PP	NS	1
241013	1000ml Snap top bucket and lid	PP	NS	1
222802	2500ml Snap top bucket and lid	PP	NS	1
222804	5000ml Snap top bucket and lid	PP	NS	1
222805	10,000ml Snap top bucket and lid	PP	NS	1
222806	20,000ml Snap top bucket and lid	PP	NS	1
202840	20ml Clear container, yellow security cap	PP/PE	NS	1000
202841	40ml Clear container, yellow security cap	PP/PE	NS	600
202842	60ml Clear container, yellow security cap	PP/PE	NS	500
202843	80ml Clear container, yellow security cap	PP/PE	NS	400
202848	90ml Clear container, yellow security cap	PP/PE	NS	300
202844	100ml Clear container, yellow security cap	PP/PE	NS	300
202845	250ml Clear container, yellow security cap	PP/PE	NS	100
202846	500ml Clear container, yellow security cap	PP/PE	NS	200
202847	1000ml Clear container, yellow security cap	PP/PE	NS	100



Dippers		Material	Sterility	Qty
309277	30ml Clear dipper sampler with handle	PS	S	50
309278	30ml Blue dipper sampler with handle	PS	S	50
409277	30ml Clear dipper sampler with handle	PP	S	50
409278	30ml Blue dipper sampler with handle	PP	S	50
309666	100ml Clear dipper sampler with handle	PS	S	50
309688	100ml Blue dipper sampler with handle	PS	S	50
309866	250ml Clear dipper sampler with handle	PS	S	50
309888	250ml Blue dipper sampler with handle	PS	S	50



General Labware - Scoops and Weigh Boats		Material	Sterility	Qty
1911103	5ml White diamond weigh boat	PS	NS	1000
1911104	30ml White diamond weigh boat	PS	NS	500
1911105	100ml White diamond weigh boat	PS	NS	250
1911103SQ	7ml White square weigh boat	PS	NS	1000
1911104SQ	100ml White square weigh boat	PS	NS	1000
1911105SQ	250ml White square weigh boat	PS	NS	1000
191057	10ml Measuring scoop	PE	NS	12
191058	25ml Measuring scoop	PE	NS	12
191060	100ml Measuring scoop	PE	NS	12

Consumables



General Labware - Special Bottles		Material	Sterility	Qty
202811	30ml Wide mouth screw cap container	PE	NS	100
202810	60ml Wide mouth screw cap container	PE	NS	200
202808	90ml Wide mouth screw cap container	PE	NS	150
202807	200ml Wide mouth screw cap container	PE	NS	150
202803	500ml Wide mouth screw cap container	PE	NS	125
202818	1000ml Wide mouth screw cap container	PE	NS	50
202820	2000ml Wide mouth screw cap container	PE	NS	35

Other sizes available



General Labware - Cylinders and Beakers		Material	Sterility	Qty
408025	25ml Graduated cylinder	PP	NS	1
408050	50ml Graduated cylinder	PP	NS	1
408100	100ml Graduated cylinder	PP	NS	1
408250	250ml Graduated cylinder	PP	NS	1
408500	500ml Graduated cylinder	PP	NS	1
481000	1000ml Graduated cylinder	PP	NS	1
482000	2000ml Graduated cylinder	PP	NS	1
409025	25ml Graduated beaker	PP	NS	1
409050	50ml Graduated beaker	PP	NS	1
409100	100ml Graduated beaker	PP	NS	1
409250	250ml Graduated beaker	PP	NS	1
409500	500ml Graduated beaker	PP	NS	1
491000	1000ml Graduated beaker	PP	NS	1
492000	2000ml Graduated beaker	PP	NS	1
191637	250ml Wash bottle	PE	NS	1
191638	500ml Wash bottle	PE	NS	1



Gloves		Material	Sterility	Qty
102LP	Powder free, small (6-7)	Latex	NS	100
102LM	Powder free, medium (7-8)	Latex	NS	100
102LG	Powder free, large (8-9)	Latex	NS	100
200VP	Lightly powdered, small (6-7)	Vinyl	NS	100
200VM	Lightly powdered, medium (7-8)	Vinyl	NS	100
200VG	Lightly powdered, large (8-9)	Vinyl	NS	100
402NP	Powder free, small (6-7)	Nitrile	NS	100
402NM	Powder free, medium (7-8)	Nitrile	NS	100
402NG	Powder free, large (8-9)	Nitrile	NS	100



Microtubes & Cryovials		Material	Sterility	Qty
409115/4	0.5ml Skirted microtube with cap, RNase & DNase free	PP	S	2500
409115/2	1.5ml Non skirted microtube with cap, RNase & DNase free	PP	S	2500
409115/6	2ml Skirted microtube with cap, RNase & DNase free	PP	S	2500
409115/3	2ml Non skirted microtube with cap, RNase & DNase free	PP	S	2500
409220	2ml Skirted microtube without cap	PP	NS	500
409601	Screw cap with O ring, natural	PP	NS	500
409612	Screw cap with O ring, white	PP	NS	500
409603	Screw cap with O ring, orange	PP	NS	500
409604	Screw cap with O ring, red	PP	NS	500
409605	Screw cap with O ring, blue	PP	NS	500
409606	Screw cap with O ring, green	PP	NS	500
409607	Screw cap with O ring, yellow	PP	NS	500
409608	Screw cap with O ring, black	PP	NS	500
409105.1	1.2ml Cryovial storage to -190 C	PP	S	1000
409106.1	2.0ml Cryovial storage to -190 C	PP	S	1000
409109	5.0ml Cryovial storage to -190 C	PP	S	1000



Microcentrifuge Tubes		Material	Sterility	Qty
900117	0.5ml Microcentrifuge tube	PP	NS	1000
4092.1N	0.5ml Microcentrifuge RNase & DNase free	PP	NS	1000
408002	1.2ml Microcentrifuge (strips of 8)	PP	NS	120
4092.2N	1.5ml Microcentrifuge clear	PP	NS	500
200400P	1.5ml Microcentrifuge 'flat top'	PP	NS	500
4092.5N	1.5ml Microcentrifuge 'twist lock'	PP	NS	5000
200401	1.5ml Microcentrifuge, yellow	PP	NS	5000
200407	1.5ml Microcentrifuge, green	PP	NS	5000
4092.6N	2.0ml Microcentrifuge	PP	NS	5000
4092.7N	2.0ml Microcentrifuge 'flat-cap'	PP	NS	500



Microscope Slides and Cover Slips - Standard Slides		Material	Sterility	Qty
A1000010	White Superfrost slides	G	NS	1000
A1000013	Blue Superfrost slides	G	NS	1000
A1000018	White Starfrost adhesive slides	G	NS	1000
D100001	Plain slide cut edge	G	NS	50
D100002	Plain slide ground edge	G	NS	50
D100003	Twin frosted slide ground edge	G	NS	50
D100004	Twin frosted slide ground edge	G	NS	50

Consumables

When it comes to creating tissue slides, laboratory personnel will find the perfect combination of exceptional surface quality and optical clarity in our innovative and specialised slides. The advanced surface technology on our speciality slides, provides an optimal environment needed for tissue adhesion – and ultimately, successful diagnostic capability for a wide range of pathologies. Our dedication to quality and technology helps to provide reliable results within laboratories as they process and deliver multiple slides.

Quality - Superior and robust

- High quality extra plane float glass.
- Pre-cleaned slides with superior flatness and no artefacts.
- Automated production for increased reproducibility and reliability.
- High precision manufacturing under a Quality Management System certified to ISO 9001:2008 and ISO 13485:2003.

Reliability - Exceptional performance

- Uniform coating with strong staining results.
- Minimal failure rates with best in class performance.
- Validated on multiple tissue sample types.
- Special packaging to minimise exposure to moisture and dust.

Flexibility - Multiple applications

- Core Histology, special and advanced staining applications in Pathology.
- Cytology and Haematology based processes.
- Trusted performance across all uses.

Compatibility - Automation amenable

- Compatible with all major histology equipment including slide printers, coverslippers and stainers.
- Integrate well within existing histology workflow and processes.
- Provide better process control.

Improved patient care - Better diagnosis

- Superior optical clarity for accurate diagnosis.
- Increased process reproducibility for consistent result interpretation.
- Preserve integrity of all stains and can be archived long-term.



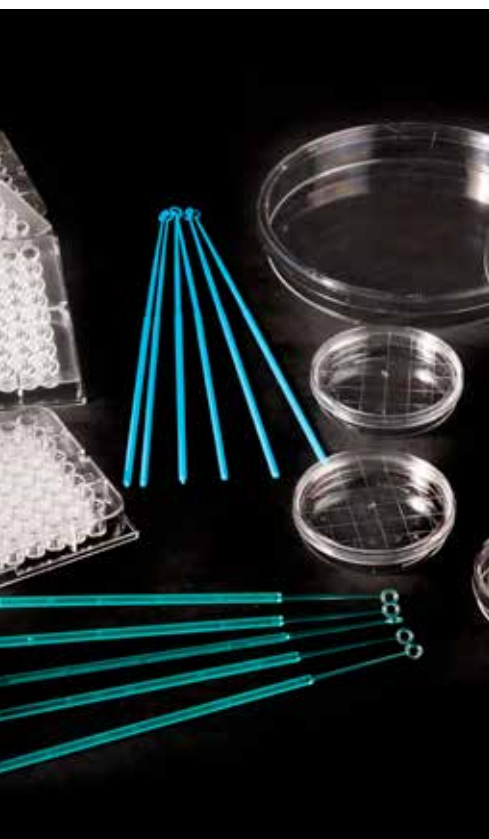
Microscope Slides and Cover Slips - Speciality Slides		Material	Sterility	Qty
TJ471022100	Premium slides plain edge double frosted	G	NS	50
TJ471022201	Premium slides plain edge white	G	NS	50
TJ471041100	Premium slides ground edge 45° double frosted	G	NS	50
TJ471041201	Premium slides ground edge 45° white	G	NS	50
TJ471041204	Premium slides ground edge 45° blue	G	NS	50
TJ471041203	Premium slides ground edge 45° pink	G	NS	50
TJ471041202	Premium slides ground edge 45° yellow	G	NS	50
TJ471041205	Premium slides ground edge 45° green	G	NS	50
TJ471042221	Premium slides adhesive ground edge 90° white	G	NS	72
TJ471042222	Premium slides adhesive ground edge 90° yellow	G	NS	72
TJ471042223	Premium slides adhesive ground edge 90° pink	G	NS	72
TJ471042225	Premium slides adhesive ground edge 90° green	G	NS	72
TJ471042224	Premium slides adhesive ground edge 90° blue	G	NS	72
TJ471042241	Premium slides advanced adhesive ground edge 90° white	G	NS	72
TJ471042241T	Premium slides advanced adhesive ground edge 90° thermal	G	NS	72
TJ471042242	Premium slides advanced adhesive ground edge 90° yellow	G	NS	72
TJ471042243	Premium slides advanced adhesive ground edge 90° pink	G	NS	72
TJ471042245	Premium slides advanced adhesive ground edge 90° green	G	NS	72
TJ471042244	Premium slides advanced adhesive ground edge 90° blue	G	NS	72
TJ471042100	Premium slides ground edge 90° double frost	G	NS	50
TJ471042201	Premium slides ground edge 90° white	G	NS	50
TJ471042201C	Premium slides ground edge 90° white, clipped	G	NS	50
TJ471042204	Premium slides ground edge 90° blue	G	NS	50
TJ471042203	Premium slides ground edge 90° pink	G	NS	50
TJ471042202	Premium slides ground edge 90° yellow	G	NS	50
TJ471042205	Premium slides ground edge 90° green	G	NS	50



Microscope Slides and Cover Slips - Coverslips		Material	Sterility	Qty
TJ471110500	Circular coverslips - diameter 5mm	G	NS	1000
TJ471110600	Circular coverslips - diameter 6mm	G	NS	1000
TJ471110700	Circular coverslips - diameter 7mm	G	NS	1000
TJ471110800	Circular coverslips - diameter 8mm	G	NS	1000
TJ471110900	Circular coverslips - diameter 9mm	G	NS	1000
TJ471111000	Circular coverslips - diameter 10mm	G	NS	1000
TJ471111100	Circular coverslips - diameter 11mm	G	NS	1000
TJ471111200	Circular coverslips - diameter 12mm	G	NS	1000
TJ471111300	Circular coverslips - diameter 13mm	G	NS	1000
TJ471111400	Circular coverslips - diameter 14mm	G	NS	1000
TJ471111500	Circular coverslips - diameter 15mm	G	NS	1000
TJ471111600	Circular coverslips - diameter 16mm	G	NS	1000
TJ471111700	Circular coverslips - diameter 17mm	G	NS	1000
TJ471111800	Circular coverslips - diameter 18mm	G	NS	1000
TJ471111900	Circular coverslips - diameter 19mm	G	NS	1000
TJ471112000	Circular coverslips - diameter 20mm	G	NS	1000
TJ471112500	Circular coverslips - diameter 25mm	G	NS	1000
TJ471113000	Circular coverslips - diameter 30mm	G	NS	1000
TJ471114000	Circular coverslips - diameter 40mm	G	NS	1000
TJ471115000	Circular coverslips - diameter 50mm	G	NS	1000
D101818	Rectangular coverslips - 18mm x 18mm	G	NS	10 x 200
D102020	Rectangular coverslips - 20mm x 20mm	G	NS	10 x 200
D102222	Rectangular coverslips - 22mm x 22mm	G	NS	10 x 200
D102232	Rectangular coverslips - 22mm x 32mm	G	NS	10 x 100
D102240	Rectangular coverslips - 22mm x 40mm	G	NS	10 x 100
D102424	Rectangular coverslips - 24mm x 24mm	G	NS	10 x 200
D102450	Rectangular coverslips - 24mm x 50mm	G	NS	10 x 100
D102432	Rectangular coverslips - 24mm x 32mm	G	NS	10 x 100
D102436	Rectangular coverslips - 24mm x 36mm	G	NS	10 x 100
D102440	Rectangular coverslips - 24mm x 40mm	G	NS	10 x 100
D102460	Rectangular coverslips - 24mm x 60mm	G	NS	10 x 100
TJ471112440M	Auto - specialised non-stick 24mm x 40mm*	G	NS	10 x 100
TJ471112450M	Auto - specialised non-stick 24mm x 50mm*	G	NS	10 x 100
TJ471112455M	Auto - specialised non-stick 24mm x 55mm*	G	NS	10 x 100
TJ471112460M	Auto - specialised non-stick 24mm x 60mm*	G	NS	10 x 100

*Specifically for use with coverslippers

Consumables



Petri Dishes, Loops and Spreaders		Material	Sterility	Qty
200200.5	90mm triple vent petri dish	PS	S	600
200201.5	55mm triple vent petri dish	PS	S	1400
200205	Contact plate 65 x 16mm	PS	S	720
200204	120mm x 120mm square, vented petri dish	PS	S	240
200214	140mm Triple vent petri dish	PS	S	120
302710	1ul Smart loop, packs of 20	PS	S	1000
302713	10ul Smart loop, packs of 20	PS	S	1000
302715	5ul Smart loop, packs of 20	PS	S	1000
302723R	1ul Loop, packs of 20	PS	S	1000
302724R	10ul Loop, packs of 20	PS	S	1000
200500	L Shaped spreaders, packs of 5	PS	S	500
MLSP25	Blue spreaders, packs of 25	PP	S	1000
900010SP	'U' Well microtitre plate	PS	NS	100
900011SP	'F' Well microtitre plate	PS	NS	100
900012SP	'V' Well microtitre plate	PS	NS	100
900015SP	Lid for microtitre plates	PS	NS	100



Pipettes - Plastic Pasteur Pipettes		Material	Sterility	Qty
200000	4.5ml Pasteur pipette	PE	NS	400
200003	1ml Pasteur pipette, graduated	PE	NS	500
200004	1ml Pasteur pipette, individually wrapped, peel-pack	PE	S	500
200006	3ml Pasteur pipette, graduated	PE	NS	500
200007	3ml Pasteur pipette, individually wrapped, peel-pack	PE	S	500
200032R	1ml Pasteur pipette, graduated - pack of 20	PE	S	500
200034	1ml Pasteur pipette, graduated, individually wrapped	PE	S	500
200037	3ml Pasteur pipette, graduated, individually wrapped	PE	S	500
200050	5ml Pasteur pipette, graduated	PE	NS	250
200060	7ml Pasteur pipette, jumbo	PE	NS	100
200062R	3ml Pasteur pipette, graduated - pack of 20	PE	S	500
210002	3ml Fine tip, Pasteur pipette	PE	NS	500
210003	1ml Micro fine tip, Pasteur pipette	PE	NS	400
210004	3ml Micro tip, Pasteur pipette	PE	NS	250
210006	2ml Pasteur pipette	PE	NS	400
210022	3ml Fine tip, Pasteur pipette, individually wrapped	PE	S	500
210023	1ml Micro tip Pasteur pipette	PE	NS	500
210024	3ml Pasteur pipette, peel-pack	PE	S	500



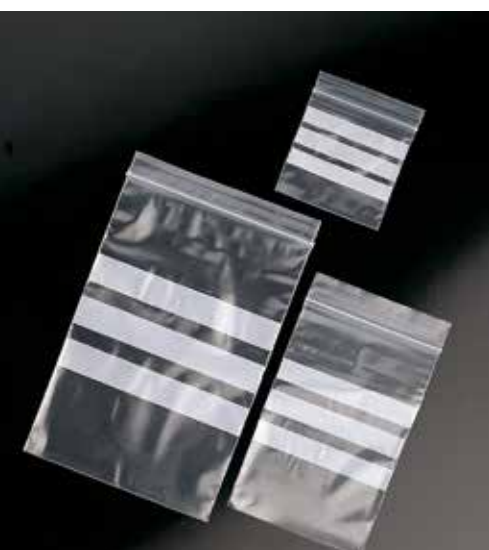
Pipettes - Serological Pipettes		Material	Sterility	Qty
900031R	1ml Tapered end, bulk wrapped in 25's	PS	S	1000
900030R	1ml Tapered end, individually wrapped	PS	S	1000
900131	1ml Open end, bulk wrapped in 25's	PS	S	4000
900033R	2ml Tapered end, bulk wrapped in 25's	PS	S	800
900032R	2ml Tapered end, individually wrapped	PS	S	500
900038R	5ml Tapered end, bulk wrapped in 25's	PS	S	500
900034R	5ml Tapered end, individually wrapped	PS	S	300
900037R	10ml Tapered end, bulk wrapped in 25's	PS	S	350
900036R	10ml Tapered end, individually wrapped	PS	S	200
900137	10ml Open end, bulk wrapped in 25's	PS	S	100
900041R	25ml Tapered end, individually wrapped	PS	S	200



Pipette Tips		Material	Sterility	Qty
200024	0.1 - 10µl White micro crystal tip - Gilson type	PP	NS	1000
301-11	0.5 - 10µl White micro crystal tip - Eppendorf type	PP	NS	1000
BT10	10µl S ³ Filter tip, racked	PP	S	10 x 96
BT10XL	10µl S ³ Extended length filter tip, racked	PP	S	10 x 96
BT20	20µl S ³ Filter tip, racked	PP	S	10 x 96
327-36	2 - 30µl Natural universal tip - bevelled Gilson type	PP	NS	1000
200009	5 - 200µl Yellow pipette tip - Eppendorf type	PP	NS	1000
200009R	5 - 200µl Yellow pipette tip - Eppendorf type, racked	PP	S	10 x 96
200016	5 - 200µl Yellow pipette tip - Gilson type	PP	NS	1000
199620	5 - 200µl Yellow pipette tip - Gilson, racked	PP	S	10 x 96
200026	1 - 200ul Extended length tip - Universal type	PP	NS	1000
200019	5 - 200µl White slim pipette tip - Oxford type	PP	NS	1000
BT200	200µl S ³ Filter tip, racked	PP	S	10 x 96
200021	5 - 500µl Natural pipette tip - Beckman type	PP	NS	1000
200080.1	100 - 1000µl Blue pipette tip - Gilson type	PP	NS	1000
200020	200 - 1000µl Blue slim-line tip - Oxford type	PP	NS	1000
200012	100 - 1000µl Blue pipette tip - Universal type	PP	NS	1000
200029	100 - 1000µl Natural universal tip - Eppendorf type	PP	NS	1000
BT1000.96	1000µl S ³ Filter tip, racked	PP	S	8 x 96
BT1250	1000 - 1250µl S ³ Filter tip, racked	PP	S	8 x 96
831-312	5000µl White macro pipette tip	PP	NS	250
200075	1000 - 5000µl Natural pipette tip - Eppendorf type	PP	NS	250
200028	1000 - 5000µl Natural pipette tip - Finnipipette type	PP	NS	250
200015	2 - 10ml Macrotip - Gilson type	PP	NS	100



Consumables



Plastic Bags / Zip-lock Bags		Material	Sterility	Qty
M5555	55mm x 55mm	PE	NS	2000
M6080	60mm x 80mm	PE	NS	2000
M70100	70mm x 100mm	PE	NS	2000
M80120	80mm x 120mm	PE	NS	2000
M100150	100mm x 150mm	PE	NS	2000
M110110	110mm x 110mm	PE	NS	2000
M120180	120mm x 180mm	PE	NS	2000
M150220	150mm x 220mm	PE	NS	2000
M200300	200mm x 300mm	PE	NS	2000
M250330	250mm x 330mm	PE	NS	2000
M300400	300mm x 400mm	PE	NS	2000



Racks and Storage Boxes		Material	Sterility	Qty
901407	Single use rack for 16mm tubes	PS	NS	25
901410	Single use rack for 13mm tubes	PS	NS	25
19564	Universal test tube rack for 90 x 12mm test tubes	PP	NS	5
19567	Universal test tube rack for 40 x 25mm tubes	PP	NS	5
19568	Universal test tube rack for 24 x 30mm tubes	PP	NS	5
W-011	Squared holed test tube rack with grip for 13mm tubes	PP	NS	1
W-012	Squared holed test tube rack with grip for 16mm tubes	PP	NS	1
W-013	Squared holed test tube rack with grip for 20mm tubes	PP	NS	1
G-050	Cryo-storage box for 50 x 1.5ml microtubes	PS	NS	1
G-100	Cryo-storage box for 100 x 1.5ml microtubes	PS	NS	1
M-600	Cardboard cryobox for 12mm tubes	C	NS	1
M-500	Cryobox, 50 wells	PP	NS	1
M-510	Cryobox, 100 wells	PP	NS	1
M-450	Microtube rack for 50 x 0.5ml tubes	PP	NS	5
M-410	Microtube rack for 50 x 1.5ml / 2.0ml tubes	PP	NS	5
19973	Pipette rack for 50 serological pipettes	PP	NS	1
F-210	Stainless steel rack for 50 x 12mm tubes	SS	NS	1
B-210	Stainless steel rack for 50 x 14mm tubes	SS	NS	1
A-210	Stainless steel rack for 50 x 18mm tubes	SS	NS	1
D-230	Stainless steel rack for 48 x 23mm tubes / containers	SS	NS	1
C-211	Stainless steel rack for 50 x 28mm containers	SS	NS	1
L-240	Stainless steel rack for 24 x 38mm containers	SS	NS	1
I-240	Stainless steel rack for 24 x 47mm containers	SS	NS	1
N-240	Stainless steel rack for 24 x 58mm containers	SS	NS	1
M-300	Plastic tray for blood collection tubes (including racks)	PP	NS	1

Swab Information

Looking at the new demands of the market and endeavouring to make microbiology departments and analysis laboratories' jobs easier, Deltalab has developed a new range of swabs for collecting and transporting microbiological samples in liquid medium as well as a new line of enrichment media.

Advantages:

- Compatible with the new inoculation automation and sample streaking equipment.
- Compatible with molecular diagnostic techniques.
- Facilitates the collection, transport and subsequent treatment of microbiological samples.
- Greater reliability for sample recovery: high capacity for the absorption and elution of the sample.
- Greater feasibility of the sample as it is totally suspended in the medium.
- Allows different homogeneous inocula to be obtained from the same sample.
- It adapts to any working protocol.
- Minimises any possible cross-contamination: less handling and maximum watertightness.
- More comfort for the user: conical base which facilitates stirring and greater stability of the tube with skirt base.
- More comfort for the patient, due to the softer swab covering.
- Standardises the receipt of samples at the microbiology labs.
- Facilitates manual streaking.
- Allows direct extension on the glass slide as the medium does not contain agar.
- Ensures proper sample transport and storage both at room temperatures (20°C - 25°C) and at refrigeration temperatures (4°C - 8°C).

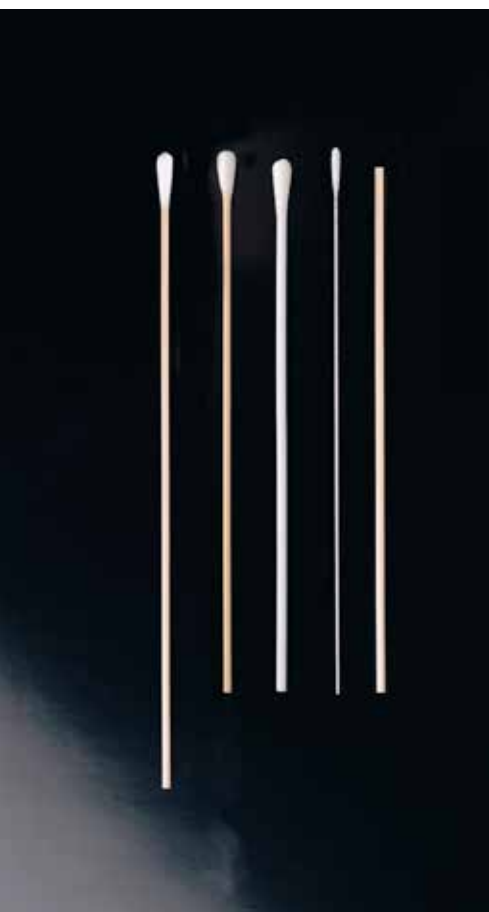
The different M40 studies performed confirms the efficacy of Amies charcoal swabs in the recovery of the following microorganisms:

- ✓ **Pseudomonas aeruginosa**
- ✓ **Staphylococcus aureus (MRSA)**
- ✓ **Clostridium sporogenes**
- ✓ **Propionibacterium acnes**
- ✓ **Prevotella melaninogenica**
- ✓ **Peptostreptococcus anaerobius**

- ✓ **Fusobacterium nucleatum**
- ✓ **Bacteroides fragilis**
- ✓ **Streptococcus pyogenes**
- ✓ **Streptococcus pneumoniae**
- ✓ **Haemophilus influenzae**
- ✓ **Neisseria gonorrhoeae**



Consumables



Swabs - Plain		Sterility	Qty
300205	Wooden applicator sticks	NS	1000
300230	Plain swab, wooden shaft, cotton tip	NS	10000
300232	Plain swab, extra large wooden shaft (200mm), cotton tip	NS	8000
300270	Plain Swab, polystyrene shaft, cotton tip	NS	4000
300200	Plain swab, wooden shaft, cotton tip - ind. wrapped, peel pack	S	1000
310200	Plain swab, wooden shaft, cotton tip - ind. wrapped, flow pack	S	1000
300201	Plain Swab, polystyrene shaft, cotton tip - individually wrapped	S	1000
300202	Plain swab, polystyrene shaft, viscose tip - ind. wrapped, peel pack	S	1000
310202	Plain swab, polystyrene shaft, viscose tip - ind. wrapped, flow pack	S	1000
300230S	Plain Swab, wooden shaft, cotton tip	S	1000
300210	Plain swab, wooden shaft, cotton tip (2 units per pack)	S	1000
300250	Plain Swab in round tube, wooden shaft, cotton tip	S	500
300261	Plain Swab in round tube, polystyrene shaft, cotton tip	S	500
300252	Plain Swab in round tube, polystyrene shaft, viscose tip	S	500
300263	Plain Swab in round tube, polystyrene shaft, polyester tip	S	500
300254	Plain Swab in round tube, twisted aluminium shaft, viscose tip	S	500
300265	Plain Swab in round tube, polystyrene shaft, flocked polyester tip	S	500



Swabs - Media		Sterility	Qty
300287	Amies transport swab, plain media, polystyrene shaft, viscose tip	S	100
300285	Amies transport swab, charcoal media, polystyrene shaft, viscose tip	S	100
300281/1	Amies transport swab, charcoal media, aluminium shaft, viscose tip	S	100
300297	Viral transport swab, polystyrene shaft, polyester tip	S	100
300299	Chlamydia swab, polystyrene shaft, polyester tip	S	100
300284	Liquid Amies transport swab, plain media, polystyrene shaft, viscose tip	S	600
300295	Stuart transport swab, plain media, polystyrene shaft, viscose tip	S	600
300280.2	Cary Blair transport swab, plain media, polystyrene shaft, viscose tip	S	600



Swabs - Environmental		Sterility	Qty
88010-PF	Enviromax foam tip sampling swab	S	25
25-88010PFB	Enviromax foam tip sampling swab sterile	S	25
25-88050PF	Enviromax pre moistened samplig swab sterile	S	25
200399	5ml Neutralising buffer swab	S	600
25-83010	ESK 10ml Neutralising buffer swab	S	300



Syringes		Material	Sterility	Qty
BS-01T	1ml Terumo Leur slip syringe	PP	S	100
BS-02S	2.5ml Terumo Leur slip syringe	PP	S	100
BS-05S	5ml Terumo Leur slip syringe	PP	S	100
BS-10ES	10ml Terumo Leur slip syringe	PP	S	100
BS-20ES	20ml Terumo Leur slip syringe	PP	S	50
BS-50ES	50ml Terumo Leur slip syringe	PP	S	25



Test Tubes & Caps		Material	Sterility	Qty
300500	11 x 55mm - Round bottom	PS	NS	4000
300300	11 x 70mm - Round bottom	PS	NS	3000
300800	12 x 75mm - Round bottom, graduated	PS	NS	4000
300800.1	12 x 75mm - Round bottom	PS	NS	4000
300400	12 x 88mm - Round bottom, graduated	PS	NS	4000
300700	13 x 75mm - Round bottom	PS	NS	4000
301700	13 x 100mm - Round bottom	PS	NS	3000
300900	16 x 95mm - Round bottom, graduated	PS	NS	2500
300705	16 x 100mm - Round bottom	PS	NS	2500
300100	16 x 150mm - Round bottom	PS	NS	1000
400500	11 x 55mm - Round bottom	PP	NS	4000
400800	12 x 75mm - Round bottom, graduated	PP	NS	4000
400700	13 x 75mm - Round bottom	PP	NS	4000
400400	12 x 88mm - Round bottom, graduated	PP	NS	4000
401700	13 x 100mm - Round bottom	PP	NS	3000
400900	16 x 95mm - Round bottom, graduated	PP	NS	2500
400705	16 x 100mm - Round bottom	PP	NS	2500
401100	15 x 50mm - Flat bottom, graduated	PP	NS	5000
301200	12ml Conical base, graduated	PS	NS	2500
301201	12ml Conical base	PS	NS	2500
401200	12ml Conical base, graduated	PP	NS	2500
401201	12ml Conical base	PP	NS	2500
901075	10 x 75mm - Round bottom	G	NS	1000
901275	12 x 75mm - Round bottom	G	NS	1000
913100	13 x 100mm - Round bottom	G	NS	1000
916100	16 x 100mm - Round bottom	G	NS	1000
916150	16 x 150mm - Round bottom	G	NS	1000
918150	18 x 150mm - Round bottom	G	NS	500



Consumables



Test Tubes - Caps		Material	Sterility	Qty
305302	Cap to fit 11mm diameter tube	PP	NS	2000
300302	Cap to fit 11mm diameter tube, flat base	PP	NS	1000
305802	Cap to fit 12mm diameter tube	PE	NS	2000
307102	Cap to fit 13mm diameter tube, flange plug	PE	NS	2000
307202	Cap to fit 16mm diameter tube, flange plug	PE	NS	2500
305002	Cap to fit 16mm diameter tube, internal chamber	PE	NS	2500
308102	Cap to fit 16mm diameter tube, ribbed	PE	NS	2500
307006	Cap to fit 17ml (16 x 150mm) tube, ribbed	PE	NS	1000
305502	Cap to fit 16mm conical tubes, flange plug	PE	NS	2500
308202	Cap to fit 16mm conical tubes, ribbed	PE	NS	2500
6010	Easy topper to fit 12mm diameter tube, clear	PE	NS	1000
6565	Easy topper to fit 12mm diameter tube, green	PE	NS	1000
6560	Easy topper to fit 12mm diameter tube, purple	PE	NS	1000
6010R	Re-cap to fit 13mm tube	PE	NS	1000
MED131INS	13mm Hanging vacutainer insert flat bottom	PE	NS	1000
308502	Re-cap to fit 12-13mm diameter tube, clear	PE	NS	1000
308506	Re-cap to fit 12-13mm diameter tube, red	PE	NS	1000
308602	Re-cap to fit 15.2-16mm diameter tube, clear	PE	NS	1000
308606	Re-cap to fit 15.2-16mm diameter tube, red	PE	NS	1000
617402	Culture tube cap to fit 16mm diameter glass tubes	PP	NS	1000



Water Sampling Bottles		Material	Sterility	Qty
282320	500ml Sodium thiosulphate sample bottle	PE	S	24
282321	1000ml Sodium thiosulphate sample bottle	PE	S	20
282323	500ml Sodium thiosulphate sample bottle	PE	S	111
282323.BU	500ml Sodium thiosulphate sample bottle - individually wrapped	PE	S	111
282324	1000ml Sodium thiosulphate sample bottle	PE	S	68
282324.BU	1000ml Sodium thiosulphate sample bottle - individually wrapped	PE	S	68
282330	500ml Sample bottle	PE	S	24
282331	1000ml Sample bottle	PE	S	20
282333	500ml Sample bottle	PE	S	111
282334	1000ml Sample bottle	PE	S	68
282340	500ml Wide mouth container thiosulphate sample bottle	PET	S	44
282341	1000ml Wide mouth container thiosulphate sample bottle	PET	S	48
282350	500ml Wide mouth container	PET	S	44
282351	1000ml Wide mouth container	PET	S	48

Cleaning

**Cleaning and Decontamination Reagents
Hygienic Hand Wash & Disinfectants**



Cleaning Reagents

Cleaning and Decontamination Reagents

The RBS range provides a wide selection of cleaning and disinfecting agents for glassware and equipment covering every application within the laboratory, industrial and medical fields.

Efficiency at low concentration

RBS detergents present favourable benefits/costs ratio due to the low working concentration that allows the generation of high volume of cleaning solution.

Compatible with most materials

At the recommended use concentrations, RBS detergents show excellent compatibility with most materials including stainless steel, chromed steel, plastic, rubber, porcelain, and ceramic.

Developed with biodegradable ingredients

RBS products have been designed taking into account recent environmental directives and regulations, thanks notably to the use of biodegradable surfactants. Customers who opt or support the use of phosphate-free products will find in our range, the suitable products that meet their needs.

Free rinse

RBS products rinse away easily and completely without leaving any traces or films that may interfere with further analysis.

Easy and safe to use

Thanks to their high emulsifying, wetting and detergency power, RBS detergents allow the removal of hard to clean residues. They constitute excellent alternative to hazardous acid mixtures and solvents and allow safe working conditions for both user and cleaned items.

- Manual soaking
- Ultrasonic cleaning
- Labware washers
- Surface cleaning
- Glassware Efficiency at low concentration

RBS Uklean

Multi-purpose concentrated alkaline liquid cleaning agent

For manual cleaning, soaking and ultrasonic cleaning systems.



Uses	RBS Uklean is convenient for cleaning and degreasing of parts and equipment made of stainless steel, glass and plastic in mechanical industry, pharmaceutical. It efficiently removes organic residues, oils, ointment and fatty deposits.	
Description	Dilute 20 ml of RBS Uklean per litre of water at 40-70°C. Soak the parts and equipment to be cleaned. Let act, rinse profusely with water and dry. In case of stubborn residues, increase the concentration or the temperature of the cleaning solution. The mechanical action of manual brushing or the use of an ultrasonic bath improves the efficiency of the product and reduces the cleaning time.	
Use Concentration	(Normal cleaning): 1% v/v (manual cleaning) • 0.3 to 0.5% v/v (ultrasonic bath)	
Supply Options	Product code: RBSUKLEAN	5L Bottle
	Product code: RBSUKLEAN-DRUM	20L Drum

RBS 50

Non foaming liquid alkaline detergent

Used for cleaning glassware and laboratory equipment made of stainless steel, plastic, porcelain, quartz and ceramic. In industry, it is recommended for cleaning parts and surfaces made of glass, stainless steel, production equipment, etc. Contains chlorine.



Uses	Multi-purpose non foaming alkaline cleaning agent. For manual use, soaking, ultrasonic baths and washing machines.	
Description	RBS 50 is used in laboratories for removing organic and mineral residues, proteins, chemical solutions, distillation residues, fats, oils, cell cultures. It allows efficient cleaning of glassware and equipment made of plastic, porcelain, ceramic, rubber, quartz, stainless steel. In industry, it is used as a technical product for high performance cleaning of metal parts, optical lenses, glass, electronic components, RBS 50 complies with EN 1040, EN 1276, EN 1275 and NF T 72-190 (spectrum 4) standards under certain conditions and concentrations.	
Use Concentration	(Normal cleaning): 1% v/v (manual cleaning) • 0.3 to 0.5% v/v (ultrasonic bath)	
Supply Options	Product code: RBS50	5L Bottle
	Product code: RBS50-DRUM	20L Drum

RBS Foglyam MD

Solution for cleaning and disinfecting non-invasive medical devices before sterilisation

Cleaning and disinfecting solution for floors, surfaces and medical devices.



Uses	Concentrated, lightly foaming and perfumed disinfectant – cleaning agent, for non-invasive medical devices (equipment, bedframes, trolleys for instruments). Manual use.	
Description	Its specific formulation combining aldehydes and quaternary ammonium compounds provides a wide bactericidal spectrum. This high antibacterial activity prevents spreading of germs and assures safety in high risk areas. RBS FOGLYAM MD efficiently removes blood and its residues, proteins and cell deposits, fats, and oils. It is recommended for the daily cleaning and disinfecting of non-invasive medical devices (equipment, bedframes, trolley for instruments) made of stainless steel, glass, plastic, porcelain. Likely to constitute sources of nosocomial infections. The perfume of RBS FOGLYAM MD leaves a pleasant fresh smell after treatment. Without rinsing, the product remains active for several days. RBS FOGLYAM MD meets the requirements of the European directive regarding medical devices and is CE 1639 certified.	
Use Concentration	1% v/v (normal use).	
Supply Options	Product code: RBSSR80NP	5L Bottle
	Product code: RBSSR80NP-DRUM	20L Drum

RBS T 230

Liquid neutral detergent

Neutral foaming detergent for soft cleaning by immersion or ultrasonic baths for glassware and sensitive laboratory equipment.



Uses	Multi-purpose neutral cleaning agent for sensitive materials, for soaking and ultrasonic baths.	
Description	Thanks to its high content in active ingredients and its neutral pH, RBS T 230 is the ideal product for cleaning sensitive glassware and materials to bases or acids. It presents excellent compatibility with the most of materials. At the recommended working concentration, RBS T 230 is neither corrosive, irritating, nor toxic for both the cleaned items and the user.	
Use Concentration	4 to 6% v/v in water	
Supply Options	Product code: RBST230	5L Bottle
	Product code: RBST230-DRUM	20L Drum

RBS T 305

Descaler and oxides remover

Strong acidic detergent for manual cleaning, degreasing and de-scaling of surfaces and laboratory equipment.



Uses	Cleaning, de-scaling and metal oxides removal, manual use.	
Description	Thanks to the combination of acid elements and powerful surfactants, RBS T 305 offers a strong degreasing and de-scaling power that makes it particularly efficient for the removal of insoluble inorganic residues, metal oxides and calcareous deposits on glassware, equipment and surfaces made of stainless steel, plastic and ceramic. RBS T 305 is also recommended for cleaning of animal cages and rooms in laboratories and veterinary institutions.	
Use Concentration	20 to 50 ml of RBS T 305 per litre of water	
Supply Options	Product code: RBST305	5L Bottle
	Product code: RBST305-DRUM	20L Drum

Cleaning Reagents

RBS 25

Multi-purpose concentrated foaming alkaline liquid cleaning agent

For manual cleaning, soaking and ultrasonic cleaning in laboratories and industry.



Uses	Thanks to its high emulsifying and wetting power, RBS 25 ensures excellent penetration activity in the cleaning of baths. In laboratories, it is used for cleaning glassware and equipment made of stainless steel, plastic, porcelain, quartz, and ceramic.	
Description	RBS 25 can be used for manual cleaning, in ultrasonic baths and soaking. In order to avoid calcareous precipitation, the soaking process should not exceed 3 hours. If a contact time of more than 3 hours is required, it is advised to work with demineralised water. Dilute 20 ml of RBS 25 per litre of water (preferably at 50°C). In case of soaking, immerse completely the soiled items to ensure an optimal contact with the cleaning solution. Rinse immediately with tap water, or better, with demineralised water. RBS 25 is easily and totally eliminated without leaving any traces or invisible film. Remark: the use of an ultrasonic bath and/or an increase of the temperature of the cleaning solution may be of help in case of stubborn soils.	
Use Concentration	20 to 50 ml of RBS 25 per litre of water	
Supply Options	Product code: RBS25	5L Bottle
	Product code: RBS25-DRUM	20L Drum

RBS A 375

Neutraliser and acid rinse for use in automatic washing machines

Suitable for prewash and rinsing cycles.



Uses	For use in pre-wash and rinsing cycles in automatic washing machines.	
Description	RBS A 375 is used in the first rinsing cycle after the alkaline washing with either RBS A 155 (liquid), RBS 50 pF (liquid) or RBS SOLID pF (powder). RBS A 375 allows the neutralisation and the removal of residual traces of carbonates, hydroxides and calcareous elements on the cleaned items and on the internal components of the washing machine. RBS A 375 can also be used during the pre-wash cycle when glassware and material to be cleaned are soiled with mineral residues. It does not contain surfactants or phosphorus that may interfere with certain types of analysis (e.g. water and phosphates) or pollutes the environment.	
Use Concentration	0.2 to 0.5% v/v depending on the type of machine and the soils to be removed.	
Supply Options	Product code: RBSA375	5L Bottle
	Product code: RBSA375-DRUM	20L Drum

RBS A 155

Non foaming alkaline cleaning agent

Power General Purpose Cleaner - Phosphate Free.



Uses	Non-foaming cleaning and decontaminating agent for glassware and laboratory equipment. For use in washing machines.	
Description	Thanks to its high content in active alkaline elements and its non-foaming property, RBS A 155 perfectly suits the efficient cleaning of laboratory glassware and equipment. It can be used for surfaces made of stainless steel, glass, plastic and allows total removal of soils such as fats, oils, chemical solutions, blood and distillation residues. RBS A 155 is chlorine and phosphates-free.	
Use Concentration	0.3 to 2% v/v (normal cleaning)	
Supply Options	Product code: RBSA155	5L Bottle
	Product code: RBSA155-DRUM	20L Drum

RBS A 285 Solid pF

Alkaline powder detergent

Non foaming Alkaline powdered detergent for cleaning and degreasing in labware washers to clean glassware and equipment made of stainless steel, plastic, porcelain, etc.



Uses	RBS A 285 SOLID pF has been especially developed for the mechanical cleaning and degreasing of glassware and laboratory equipment. Its composition makes it particularly efficient in difficult conditions even at low concentrations. It perfectly removes organic and mineral residues, greases, oils, chemical solutions, distillation residues.	
Description	Efficient from 1 g per litre of water according to the type of machine, the selected program and the tenacity of the soils. For optimal results, proceed with an acid pre-wash with RBS A 375 to eliminate alkaline residues and other mineral salts. Also use this product in the rinsing cycle to remove residual traces of the alkaline washing cycle. RBS A 285 SOLID pF does not contain phosphates that would interfere with certain types of analysis (e.g. water and phosphates) or that would pollute the environment.	
Use Concentration	1 to 3 g per litre of water according to the type of machine and the tenacity of the soils to remove.	
Supply Options	Product code: RBSSOLID	5Kg Bucket

RBS B 200 MD

Alkaline powder detergent and cleaning agent with controlled foam for laboratories and industry

Ready-to-use cleaning and disinfecting solution in spray form for surfaces, floors, benches and furniture. It ensures the removal of blood residues, chemical solutions, and fatty deposits.



Uses	Ready-to-use lightly foaming and perfumed disinfectant – cleaning solution for non-invasive medical devices (equipment, bedframes, trolleys for instruments). Manual use (spray).	
Description	RBS B 200 A MD is easy and practical to use due to its spray. Its specific formulation combining aldehydes and quaternary ammonium compounds provides a wide bactericidal spectrum. This high antibacterial activity prevents spreading of germs and assures safety in high risk areas. RBS B 200 A MD efficiently removes blood and its residues, proteins and cells deposits, fats and oils. It is recommended for the daily cleaning and disinfecting of non-invasive medical devices made of stainless steel, glass, plastic, porcelain. Likely to constitute sources of nosocomial infections. The perfume of RBS B 200 A MD leaves a pleasant fresh smell after treatment. Without rinsing, the product remains active for several days. RBS B 200 A MD meets the requirements of the European directive regarding medical devices and is CE 1639 certified.	
Use Concentration	Ready-to-use solution	
Supply Options	Product code: RBS200	1L Spray Bottle

Accessory Available

Dispenser for 5L container - Product code: RBS-DISP5LT

Cleaning Reagents

Hygienic Hand Wash & Disinfectants

RBS HDS 15

Bactericidal liquid hand soap with perfume

Recommended for mild hygienic hand washing and decontamination



Uses	Bactericidal liquid soap for hygienic hand washing	
Description	Guarantees daily perfect hand hygiene by means of cleansing and decontamination. Helps to prevent propagation of contagious germs. Light Green Tea scent. Bactericidal activity according to EN 1040 and EN 1499. Authorised as biocidal product. Authorisation number : NOTIF 444.	
Use Concentration	Ready-to-use solution	
Supply Options	Product code: RBSHDS15-750ML	750ml Bottle + Dispenser
	Product code: RBSHDS15-5LIT	5L Bottle

RBS HDS Gel

Hydro-alcoholic gel

Helps to prevent propagation of contagious germs.



Uses	Suitable for hand disinfection in laboratories, hospitals and collectivises.	
Description	Provides perfect hygiene for hands and allows for frequent use. Fast decontaminating action which helps to prevent the propagation of contagious germs. Ideal for application after a hand washing. RBS HDS GEL - hydro-alcoholic disinfecting gel is: Bactericidal according to the European standards EN 1040 (Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella enterica, Listeria monocytogenes, Escherichia coli) and EN 1500. Fungicidal according to the European EN 1275 (Candida albicans). Virucidal, active against Influenza A H1N1 virus according to EN 14476. Authorised as biocidal product. Authorisation number : NOTIF 75.	
Use Concentration	Ready-to-use solution	
Supply Options	Product code: RBSHDSGEL	750ml Bottle + Dispenser

RBS HDS Lotion

Hydro-alcoholic lotion for hygienic hand disinfection

Decontaminating lotion based on alcohol for hand disinfection.



Uses	Provides perfect hand hygiene with a fast decontaminating action, and helps to prevent the propagation of contagious germs.	
Description	Provides perfect hygiene for hands and allows frequent use. Fast decontaminating action. Helps to prevent the propagation of contagious germs. Ideal for application after a hand washing. Perfume free hypo-allergenic formula. RBS HDS LOTION - hydro-alcoholic disinfecting lotion is: Bactericidal according to the European standards EN 1040 (Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella enterica, Listeria monocytogenes, Escherichia coli) and EN 1500. Fungicidal according to the European EN 1275 (Candida albicans). Authorised as biocidal product. Authorisation number : NOTIF 74	
Use Concentration	Ready-to-use solution	
Supply Options	Product code: RBSHDSLOTION	750ml Bottle + Dispenser

Accessory Available

Wall bracket for 750 ml bottle - Product code: RBSHDSE154

Lab Equipment



Autoclaves
Aspirators
Balances
Baths & Circulators
Centrifuges
Desiccators
Fume Hoods
Heating Apparatus
Incubators
Melting Point Apparatus
Ovens
Pipettors
Polarimeters
Refractometers
Refrigerators and Freezers
Rotators
Shakers
Spectrophotometers
Stirrers and Hotplates
Vortex Mixers

Laboratory Equipment

Autoclaves

Standard Autoclaves

Tabletop autoclaves for the modern laboratory, the pharmaceutical and food industry as well as for special applications. Innovations for safe, accurate, reproducible and validation for sterilisation in research and industry within the dental, medical, cosmetic, laboratory, veterinary and tattoo fields. Our autoclaves are produced under the most rigorous system of quality control certifications in accordance to ISO13485 and TUV CE0197.

All models are fully automatic with LCD display, independent steam generator, temperature and pressure monitoring systems. Every unit comes equipped with a unique high precision control system and automatic alarm for water level, door locking and cycle errors, plus a built in printer.



Product code	MDB8C	MDB18C	MDB23C
Volume (L)	8	18	23
Chamber size (mm)	170 x 320	247 x 350	247 x 450
Power (W)	1500	2200	
Printer	Optional		
Double door locking	Yes		
No. of trays (max)	2	4	
Dimensions (mm) W X D X H	414 x 365 x 570	480 x 455 x 600	480 x 455 x 700
Weight (Kg)	34.50	51	58

Advanced Steam Sterilisers

These are typical B-class small steam sterilisers, capable of sterilising and drying medical devices which prove difficult by normal means, including hollow loads such as tubes or endoscopes, and porous loads such as sponges or textiles. These sterilisers satisfy the sterility assurance level (SAL=10⁻⁶, EN 556) demanded from the international standards, and this sterilising power has been fully verified by passing the Hollow Load A test (Helix test) specified in European Standards (EN 13060, EN867-5) within 3.5min at 134°C.

The sterilising chamber is equipped with a jacket surrounding the circular chamber wall for generating saturated steam, and has the following advantages:

- The jacket maintains chamber strong structurally.
- The vapour condensation is protected and the best sterilising performance can be achieved by minimising the deviation of chamber temperature.
- The required sterilising time is reduced remarkably.



Product code	HS-2321VL	HS-3041VL
Volume (L)	21.5	40.5
Chamber size (mm)	225 x 425 x 225	300 x 450 x 300
Pressure	Max. Working Pressure: 2.40bar, min. Working Pressure: -1.00bar	
Reservoir	W238 x D117 x H233 mm, Vol: 4.2l (full water level)	
Operating temperature	121.0°C to 135.0°C	
Sterilising agent	Saturated vapour of max. 2.10bar pressure	
Air removal	Vacuum / Gravity	
Vacuum system	Vacuum Pump	
Display	Graphic LCD (LED back-light), Resolution: 160 x 128 dots	
Printer	Direct Thermal Printing, Printing Paper Roll: W58 x Ø40 mm	
No. of trays (max)	2	
Dimensions (mm) W x D x H	515 x 754 x 405	614 x 804 x 489
Weight (Kg)	64	91

Aspirators

Electrical Aspirator Pump

Portable dual-channel, water-jet aspirator pumps. By creating a vacuum by means of the 'Venturi' effect, the VE-11 aspirator pump is suitable for rotary vacuum evaporation, decompression distillation, vacuum drying, and vacuum filtering. A Built-in circulating pump and water tank make the unit portable.

The circulating pump continuously pumps water quietly across a set of aspirators and is therefore clean and efficient, the built-in check valve prevents backflow of water into the aspirator pump.



Model		VE-11
Product code		71015
Bath volume (L)		9.5
Maximum Vacuum (Mpa)		0.0998
Free air capacity (L p/m)		18 (x2)
Material	Bath	Polypropylene
	Aspirator	Nickel-coated Brass (2 pcs)
Dimensions	Internal (w x L, D)	298 x 210, 227
	External (w x L x D)	330 x 265 x 390
Weight (Kg)		5.7

Rotary Vacuum Pumps

- Rotary vacuum pump equipped with direct connect oil seal prevents air reflux, essentially used with vacuum ovens to achieve a higher level of vacuum pressure.
- Oil mist trap, an optional feature, prevents oil in-flow.



Model	W2V10	CCMD4
Product code	BEH73205K	MED-141C
Pumping Speed (L / min)	100	140
Ultimate Vacuum (m / bar)	5 x 10 ⁻³	
Motor Power (W)	400	370
Motor Speed (rpm)	1750	2880
Oil Capacity (ml)	500	450
Recommended Oil (L)	1.1	
Inlet / Outlet Port (DN)	25KF	8mm Hose Tail
Oil Mist Eliminator	Optional	Fitted
Dimensions (W x L x H) mm	150 x 392 x 250	178 x 375 x 330
Weight (Kg)	23	12

Laboratory Equipment

Balances

Analytical balances and microbalances are accurate and precise instruments used to measure masses. They require a draft-free location on a solid bench that is free of vibrations. Some modern balances have built-in calibration masses and temperature monitoring to maintain accuracy. Ideal for use in laboratories, some can be used for pipette calibration, small animal weighing and density determination.

Our range of laboratory weighing scales and balances cover all the requirements of the modern laboratory. Whether in a pharmaceutical industry, quality control laboratory, a university, college or a school; you will find the right balance here.



Precision Balance - JTB Series

- High precision load cell.
- Aluminium alloy die cast base.
- Stainless steel pan.
- Super bright LCD display with backlight.
- AC/DC Power supply.
- Full capacity subtraction.
- Overload protection.
- Glass shield supplied as standard.
- RS232 Interface.
- Below balance hanger.
- Check weighing.
- Stabilisation time 1.5 seconds.

Product code	MD8103	MD8104
Capacity (g)	0 to 100	0 to 200
Readability (g)	0.001	
Repeatability (g)	±0.001	
Linearity (g)	±0.001	
Corner error (g)	±0.001	
Pan size (mm)	ø125	
Weighing units	g, ct, oz, lb, ozt	
Dimensions W x D x H (mm)	190 x 287 x 267	
Weight (Kg)	4	

Precision Balance - TDA Series



- Auto calibration, check weighing, parts counting.
- High precision load cell.
- Full plastic housing, stainless steel pan.
- Super bright LCD display.
- Full capacity subtraction, overload protection.
- Below balance hanger.
- Stabilisation time 1.5 seconds typically.
- Power supply, 9V DC/Dry battery.

Product code	TD3002M	TD6002M	TD10002M	TD20002M	TD30002M
Capacity (g)	0 to 310	0 to 610	0 to 1000	0 to 2000	0 to 3000
Readability (g)	0.01				
Pan size (mm)	ø133				
Weighing units	g, ct, oz				
Dimensions W x D x H (mm)	265 x 200 x 80				
Weight (Kg)	1.3				

Product code	TD10001M	TD12001M	TD20001M	TD30001M	TD50001M
Capacity (g)	0 to 1000	0 to 1200	0 to 2100	0 to 3100	0 to 5100
Readability (g)	0.1				
Pan size (mm)	ø133		155 x 143		
Weighing units	g, ct, oz				
Dimensions W x D x H (mm)	265 x 200 x 80				
Weight (Kg)	1.3				

Precision Balance - TDB Series



- High precision load cell.
- Aluminium alloy die cast base and mains.
- Stainless steel pan.
- Super bright LCD display.
- RS232 Interface.
- Below balance hanger supplied as standard.
- Full capacity subtraction, overload protection.
- Check weighing, parts counting.
- Stabilisation time 1.5 seconds.

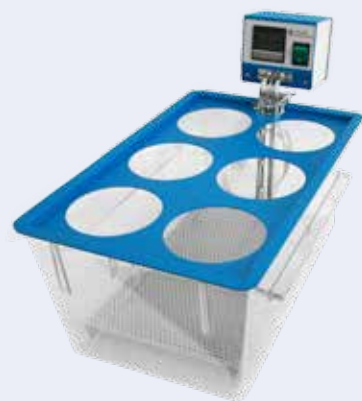
Product code	TD10001M	TD12001M	TD20001M	TD30001M	TD50001M
Capacity (g)	0 to 1000	0 to 1200	0 to 2100	0 to 3100	0 to 5100
Readability (g)	0.1				
Pan size (mm)	ø133		155 x 143		
Weighing units	g, ct, oz				
Dimensions W x D x H (mm)	265 x 200 x 80				
Weight (Kg)	1.3				

Laboratory Equipment

Baths & Circulators

Water Bath - MDB Series

Economical water baths for optimal temperature control. A wide range of water baths ideal for both your need and budget. Manufactured from Polycarbonate with a safety thermostat.



Model		MDBS-3	MDBS-7	MDBS-14	MDBS-30
Product code		41113	41117	41114	41130
Bath volume (L)		3	7	14	30
Temperature	Range (°C)	Amb. +5 to 100			
	Accuracy (°C)	± 0.3 (at 37°C)			
Bath opening / Depth w x L, D (mm)		100 x 17, 100	160 x 300, 110	210 x 350, 160	320 x 510, 180
Dimensions w x D x H (mm)		150 x 310 x 240	220 x 440 x 240	280 x 500 x 300	380 x 660 x 240
Weight (Kg)		2	3.5	6.5	11.2

BW / BS / VB / CW3 / RW3 Models

Outstanding temperature control water baths for diverse applications.

Microprocessor PID controller guarantees precise temperature control. In addition, the built-in digital timer and programming functions are ideal for critical research, quality control, and regulatory tests.

Safety Features

- Built-in power cut off circuit with audible and visual alarms.
- Automatic power cut off to the heater and controller before the unit shuts down in case of overheating.
- Two separate fuses.
- Time setting functions for both Automated Run and Off. (Except for BW-B and BW-H models)
- Integrated time setting function for Delayed ON/OFF.
- Automated and manual run functions available.
- Protection against low fluid level and dry running. (Except for BW-B and BW-H models):
- Intermittent alert sounds along with a visual alarm on the control panel.
- Automatic shut down of the heater following the alarms to protect users and samples.

User-friendly Control Features

- Advanced electronic and program controls. (Except for BW-B models)
- Microprocessor PID temperature control with easy-to-use calibration and auto tuning features.
- Preset 3 most commonly used temperature settings provided.
- Simple conversion between Celsius and Fahrenheit.
- Intuitive control display based on HMI (Human Machine Interface) design concept. (Except for BW-B and BW-H models)
- Similar key arrangements for entire product range.
- Splash-proof and easy-to-clean keypad and bright LED displays.
- A quick lock button preventing accidental resetting of parameters.

Constructional Features

- High-quality 304 grade stainless steel interior bath and dirt-repellent powder coating for all external surfaces.
- Corrosion-resistant stainless steel construction of all wetted parts allowing other bath fluids as well as water.
- Corrosion-resistant, seamless, leak-proof, round-cornered, and easy-to-clean stainless steel reservoir.

Lab Tracer - Control software

- Software and connecting cable included on units with RS-232 interface.
- Display of temperature values and effective space heating/ cooling capacity on PC.
- Programming and recording of time parameter and individual temperature profile.



Water Bath - BW Series

An economic range of water baths covering most applications, with a temperature range from ambient +5°C to 100°C.

- PID temperature controller.
- Over temperature limiter with alarm indication.
- Digital LED temperature display.

(Analogue controlled units also available.)

Model		BW-05H	BW-10H	BW-20H
Product code		AAH45115K	AAH45125K	AAH45135K
Bath volume (L)		3.5	11.5	20
Temperature	Range (°C)	Amb. +5 to 100		
	Accuracy (°C)	± 0.1		
Bath opening / Depth w x L, D (mm)		240 x 136, 150	300 x 240, 200	498 x 300, 200
Dimensions w x D x H (mm)		307 x 216 x 266	364 x 316 x 318	564 x 372 x 318
Weight (Kg)		6.5	10	18.5

Water Bath - BW Dual Series

A range of dual tank water baths with specifications as per BWH single chamber baths.

- 2 separate individually controlled baths.
- PID temperature controller.
- Over temperature limiter with alarm indication.
- Digital LED temperature display.



Model		BW-0505H	BW-0510H	BW-1010H	BW-1020H
Product code		AAH47115K	AAH47125K	AAH47135K	AAH47145K
Bath volume (L)		3.5 & 3.5	3.5 & 11.5	11.5 & 11.5	11.5 & 20
Temperature	Range (°C)	Amb. +5 to 100			
	Accuracy (°C)	± 0.1			
Bath opening / Depth w x L, D (mm)		240 x 136, 150 & 240 x 136, 150	240 x 136, 150 & 300 x 240, 200	300 x 240, 200 & 300 x 240, 200	300 x 240, 200 & 498 x 300, 200
Dimensions w x D x H (mm)		590 x 200 x 265	544 x 300 x 318	706 x 300 x 318	844 x 356 x 318
Weight (Kg)		9.7	12.4	14	17.6

Laboratory Equipment

Water Bath - BS Series

Reciprocal shaking & heating baths provide precise and constant temperature controls provide ideal sample incubation conditions suitable for DNA, tissue, or cell culture applications.

A range of shaking water baths covering most applications, with a temperature range from ambient +5°C to 100°C, supplied with hinged gabled cover.



- Microprocessor PID controller / auto timing / calibration.
- Digital timer (1 min - 99hrs 59 mins).
- Splash proof keypad.

Model		BS-06	BS-11	BS-21	BS-31
Product code		44062	44112	44212	44312
Bath volume (L)		17	25	37	55
Temperature	Range (°C)	Amb. +5 to 100			
	Accuracy (°C)	± 0.2			
Shaking system	Motion / Speed range (rpm)	Reciprocating / 20 to 180			
	Stroke length	25, 30, 35 (Preset at 30)			
Bath opening / Depth w x L, D (mm)		109 x 243, 235	229 x 243, 235	389 x 243, 235	670 x 350, 235
Dimensions w x D x H (mm)		430 x 440 x 355	550 x 440 x 355	710 x 440 x 355	860 x 490 x 355
Weight (Kg)		26	30	35	42

Viscosity Baths - VB Series

High precision heating baths for kinematic viscosity measurement with microprocessor PID controls and digital LED display.

All units supplied with double tempered safety glass windows, baffle plate screen and stainless steel cooling coil.

- RS-232 interface and Lab Tracer software.



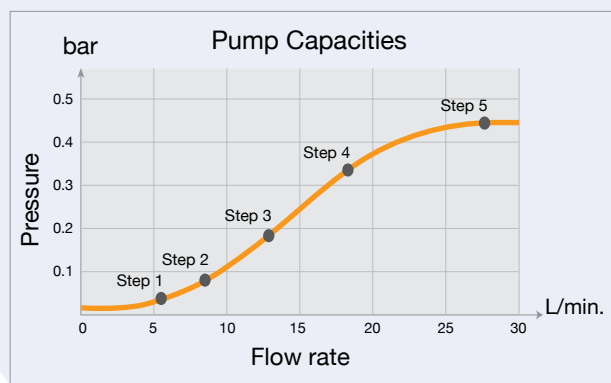
Model		VB-25G	VB-40G
Product code		43302	43402
Bath volume (L)		25	40
Temperature	Range (°C)	Amb. +5 to 150	
	Accuracy (°C)	±0.05	±0.1
Bath opening / Depth w x L, D (mm)		145 x 265, 368	295 x 265, 368
Cover lids / Hole for thermometer (mm)		5ea / 51.0 or 1ea / 12.6	8ea / 51.0 or 1ea / 12.6
Dimensions w x D x H (mm)		492 x 374 x 547	642 x 374 x 547
Weight (Kg)		28	37

Heating Bath Circulators - CW3 Series

Highly intuitive user interface is insured by equipping the new smart programmable controller. One-touch operating button, easy icons, well-organised menus make any complicated programming steps easy.

Performance

- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning / Automatic run.
- Accurate, stable, and efficient temperature management by using a powerful variable-speed pump. (1 to 3 steps of pump for internal circulation and 4 to 5 steps for external circulation).
- Powerful pump pressure and flow rate throughout the whole temperature range.



Convenience

- Bright VFD display with quick adjustable dial knob. (0.1°C resolution).
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient memory function of up to three frequently set temperature.
- Corrosion-resistant, leak-proof, round-cornered, and easy-to-clean stainless steel bath with front access drain valve.
- RS-232 interface for external control and data collection.
- Side handles enable convenient handling and transport.

Safety

- Isolated design of agitator, heater and sensor by a baffle plate minimising the turbulence in the bath fluid and also to protect users and samples against direct contact.
- Complete safety protection system with warning alarms.
 - Low fluid level and dry-running, over-temperature, over-current.
- Keypad lock function prevents accidental changes during operation.



Model		CW3-05	CW3-10	CW3-20	CW3-30
Product code		AAH52341K	AAH52351K	AAH52361K	AAH52371K
Bath volume (L)		5	10	20	30
Temperature	Range (°C)	Amb. +5 to 150			
	Accuracy (°C)	± 0.05			± 0.08
Pump	Pressure (PSI)	5.9			
	Flow rate (l/min)	28			
Dimensions W x D x H (mm)		228 x 395 x 424	289 x 450 x 444	368 x 510 x 464	378 x 560 x 494
Weight (Kg)		12.5	15	17.5	19.5

Laboratory Equipment

Refrigerating & Heating Bath Circulator - RW3 Series

Performance

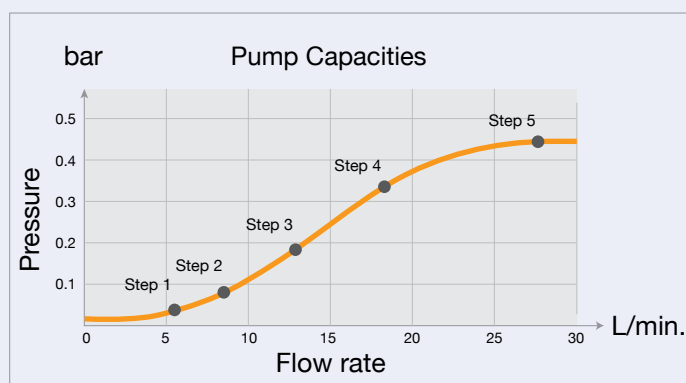
- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning / Automatic run.
- Suitable for both internal and external bath environments due to reduced turbulence by using five-speed adjustable pump and built-in cooling coil.
(1 to 3 steps of the pump for internal circulation and 4 to 5 steps for external circulation)

Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Digital input and output control function for interlocking external devices.
- RS-232 interface for external control and data collection.
- Corrosion-resistant, leak-proof, round-cornered, and easy-to-clean stainless steel bath with front access drain valve.
- Detachable condenser air-filter for easy maintenance of refrigerating efficiency.
- Usage of CFC-free refrigerant (R-507, R-404A) and a double service valve for leakage prevention.
- Quick-release front grill for easy cleaning of the condenser.
- Built-in casters and side handles for easy transport and installation.

Safety

- Isolated design of agitator, heater and sensor by a baffle plate, minimising the turbulence in the bath fluid and also to protect users and samples against direct contact.
- Complete safety protection system with warning alarms.
- Low fluid level and dry-running, over-temperature, over-current.
- Keypad lock function prevents accidental changes during operation.
- Splash-proof keypad.



Model		RW3-0525P	RW3-1025P	RW3-2025P	RW3-3025P
Product code		AAH57642K	AAH57652K	AAH57662K	AAH57672K
Bath volume (L)		5	10	20	30
Temperature	Range (°C)	-25 to 150			
	Accuracy (°C)	± 0.05			
Cooling Capacity	at -20°C	30	50	260	390
	at 0°C	230	250	410	570
	at +20°C	320	380	560	680
Pump	Pressure (PSI)	5.9			
	Flow rate (l/min)	28			
Dimensions W x D x H (mm)		302 x 438 x 690	360 x 490 x 780	380 x 560 x 825	440 x 620 x 895
Weight (Kg)		37	44	60	70

Baths and Bath Circulators - Accessories and Options



Spring wire racks



Cooling circulators



Half-shelf adjuster



Viscometer tube holders

Spring Wire Racks

Ideal for holding a wide variety of tubes, flasks, and other glassware. All components are made of stainless steel. (for all models)

Product code	Suitable For
AAA45502	BW-10H / BW-10B
AAA45503	BW-20H / BW-20B
AAA51522	CW3-20G / RW3-2025P, 2040P
AAA51523	CW3-30G / RW3-3025P, 3040P

Half Shelf Adjusters

Stainless steel perforated sample tray shelves with adjustable height support prevent leaks and guard against rust and contamination. (Only for BW-H and BW-B models)

Product code	Suitable For
AAA45511	BW-05H / BW-05B
AAA45512	BW-10H / BW-10B
AAA45513	BW-20H / BW-20B

Viscometer Heating Baths - Accessories and Options

Viscometer Tube Holders

Secially designed to hold a two-opening viscometer glass tube and made of Bakelite, known for its high thermal endurance. (Only for VB models).

Product code	Suitable For
AAA43501	VB-25G (max. 5 holders)
	VB-40G (max. 8 holders)

Cooling Circulators

The temperature range of viscometer heating baths can be lowered up to +10°C when used with an optional cooling circulator. (Only for VB models)

Product code	Description	Insert Capacity of Racks
AAH57652K	RW3-1025P (230V, 50Hz)	VB-25G
AAH57662K	RW3-2025P (230V, 50Hz)	VB-40G

Laboratory Equipment

Baths and Bath Circulators - Accessories and Options



Transparent gable covers



Stainless steel flat covers



Open ring covers



Test tube racks

Transparent Polypropylene Gable Covers

Designed to protect samples from contamination due to direct dripping of the bath liquid. (Only for BW-H and BW-B models)

Stainless Steel Flat Covers

Made of stainless steel to prevent corrosion and rust. (Only for BW-H and BW-B models)

Product code	Suitable For
AAA45531	BW-05H / BW-05B
AAA45532	BW-10H / BW-10B
AAA45533	BW-20H / BW-20B

Product code	Suitable For
AAA45531	BW-05H / BW-05B
AAA45532	BW-10H / BW-10B
AAA45533	BW-20H / BW-20B

Open-ring covers

Beakers or Erlenmeyer flasks can be placed directly onto the perforated stainless steel half-shelf adjuster or water tank boom. By adjusting the ring size for each glassware, liquid loss due to evaporation is minimised.

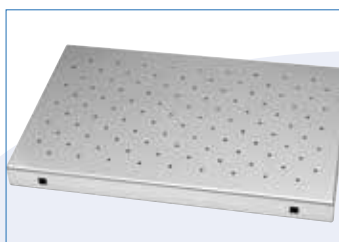
Product code	Description	Suitable For
AAA45521	With 2 openings - Ø80mm	BW-05H / BW-05B
AAA45524	With 1 opening - Ø110mm	
AAA45522	With 4 openings - Ø80mm	BW-10H / BW-10B
AAA45525	With 2 openings - Ø110mm	
AAA45526	With 1 opening - Ø185mm	BW-20H / BW-20B
AAA45523	With 8 openings - Ø80mm	
AAA45527	With 6 openings - Ø110mm	
AAA45528	With 2 openings - Ø185mm	

Test Tube Racks

Beakers or Erlenmeyer flasks can be placed directly onto the perforated stainless steel half-shelf adjuster or water tank boom. By adjusting the ring size for each glassware, liquid loss due to evaporation is minimised.

Product code	Description	Insert Capacity of Racks	
AAA44581	for 86 Test Tubes - Ø8mm	CW3-20G, CW3-30G RW3-2025P, RW3-2040P RW3-3025P, RW3-3040P	
AAA44582	for 86 Test Tubes - Ø10mm		
AAA44583	for 58 Test Tubes - Ø12mm		
AAA44585	for 32 Test Tubes - Ø16mm		
AAA44586	for 19 Test Tubes - Ø25mm	2EA	3EA
AAA41531	for 50 Test Tubes - Ø8mm	BW-05H BW-05B	RW-1025P RW-1040P CW3-10G
AAA41532	for 50 Test Tubes - Ø10mm		
AAA41533	for 33 Test Tubes - Ø12mm		
AAA41535	for 16 Test Tubes - Ø16mm		
AAA41539	for 10 Test Tubes - Ø25mm	1EA	
AAA45551	for 176 Test Tubes - Ø8mm	BW-10H BW-10B	BW-20H BW-20B
AAA45552	for 176 Test Tubes - Ø10mm		
AAA45554	for 84 Test Tubes - Ø12mm		
AAA45556	for 68 Test Tubes - Ø16mm		
AAA45561	for 33 Test Tubes - Ø25mm	1EA	2EA

Shaking / Heating Baths - Accessories and Options



Universal platforms



Flask clamps



Dedicated platforms



Test tube racks

Universal Platforms and Flask Clamps

The universal platforms provide flexibility for mixing different size test tubes and glassware on a single platform. Various clamps or racks can be interchanged or added easily using mounting holes on the platform. (Only for BS models)

Model			BS-06	BS-11	BS-21	BS-31
Universal Platform	Product code		AAA44521	AAA44522	AAA44523	AAA44524
Flask Clamps		Erlenmeyer Flask Size	Max. mountable flask clamps			
	23550	For 50ml	9	12	20	32
	23551	For 100ml	3	9	15	24
	23552	For 250ml	2	4	8	12
	23556	For 300ml	2	4	8	12
	23553	For 500ml	2	4	6	12
	23554	For 1L	1	2	4	6
	23555	For 2L	1	2	2	3
	23557	For 2.8L	1	2	1	2

Test Tube Racks

Highly durable stainless steel test tube racks feature adjustable angle and test tube height support without requiring any base plate. You can easily mount and release test tube racks.

Product code	Description	Capacity of Racks			
		BS-06	BS-11	BS-21	BS-31
AAA44581	For 86 test tubes - Ø8mm	1EA	2EA	3EA	4EA
AAA44582	For 86 test tubes - Ø10mm				
AAA44583	For 58 test tubes - Ø12mm				
AAA44585	For 32 test tubes - Ø16mm				
AAA44586	For 19 test tubes - Ø25mm				

Laboratory Equipment

Centrifuges

The Medline range of centrifuges brings a new level of performance and reliability to the laboratory. The range offers suitable centrifugation for all applications including tissue/cell culture, molecular biology, clinical applications as well as proteomics and genomics.



Ultra Micro Centrifuge

- Ideal for microfiltration and quick spin-downs.
- Easy-to-use with dual start/stop function.
- Fixed speed operation.
- Quiet running.
- Rotor change without tools.
- Accelerates and brakes in seconds.
- cTUVus FCC MCA certified.
- Includes rotors.

Model	MD1008U	MD1008	MD1008E
Max. Speed (rpm)	10000	7000	5000
Max. RCF (xg)	5460	2680	1360
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		
Noise level (dB)	≤45		
Dimensions D x W x H (mm)	160 x 170 x 122		
Weight (Kg)	0.5kg		



High Speed Micro Centrifuge

High speed micro-centrifuges are widely used in physical and chemistry analysis, biochemistry, cellular and molecular biology, clinical labs and blood donation centers, ideal for high-end research applications.

- Automatic lid-lock release.
- Concise display and sound-alert.
- CE, cTUVus and FCC certificates 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 of centrifugal process.
- Dual door interlock design for safety (MD3024 & MD3024R).
- Gentle braking at low speed with efficient separation.
- Timer starts when target speed is reached, to achieve the accuracy of separation time.
- User-friendly large LCD display shows real-time information.
- Both rpm and G-force can be set and displayed.
- The parameters can be modified after the set speed is reached.

Rotor Features

Rotors are manufactured from military, industrial-grade aluminum alloy with high mechanical strength for precise running and safety (excludes MD2012 plus rotor)

Fully autoclavable

High strength aluminum alloy rotors are fully autoclavable, withstanding steam sterilising at 121°C for 20 minutes.

Bio-safe

Aspired to be the top-of-the-line model, MD3024 & MD3024R rotors are designed to prevent sample leakage. Each and every rotor is hermetically sealed by three rubber seals.

Explosion-proof

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

Model	MD3024	MD3024R
Max. Speed (rpm)	200-15000	
Max. RCF (xg)	21380	
Speed Accuracy (rpm)	±20	
Temperature Range (°C)	-	-20 to 40
Rotor Capacity	5mLx18, 0.2mL/0.5mL/1.5mL/ 2mLx24, 0.5mLx36, PCR8x4	
Run Time	30sec-99min / Continuous	
Motor	Brushless DC motor	
Safety Devices	Dual door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis	
Acceleration/Braking time (Sec)	25s ↑ 25s ↓	
Dimensions W x D x H (mm)	280x364x266mm	338x580x324mm
Weight (Kg)	12	30

Bench Top Centrifuge

The bench top centrifuge is the most common and versatile type of centrifuge. It has a variety of uses, from routine specimen preparation to research, and is referred to by some manufacturers as universal due to the extensive range of uses and rotors. The low profile compact design means it's easy to reach into the centrifuge whilst still taking up minimal bench space.



Product code	MC-4000	MC-5000	MC-7000
Type	Low Speed		
Max. speed (rpm)	4000	5000	6000
Max. RCF (g)	2690	4745	5080
Max. capacity	4 x 50ml	4 x 250ml	4 x 500ml
Timer (min.)	0-99 min		
Motor	Brushless		
Noise (dB)	≤ 55		
Dimensions L x W x H (mm)	480 x 400 x 300	440 x 550 x 330	440 x 550 x 330
Weight (Kg)	22	35	45

Rotors and Adapters

Product code	Item	Description	Max. Speed (rpm)	Max. RCF (g)	Suitable For
MC16RT-A	Angle Rotor	12 x 10 ml	4000	2095	MC-4000
MCRT-12	Swing Bucket Rotor	12 x 10 ml		2600	
MCRT-15		8 x 15 ml		2690	
MCRT-13		4 x 50 ml		2420	
MCRT-1	Swing Bucket Rotor	4 x 100 ml	5000	4605	MC-5000
MCRT-2		4 x 50 ml		4745	
MCRT-3		8 x 50 ml		3040	
MCRT-4		32 x 15 ml		3000	
MCRT-5		32 x 10 ml	4000	2910	
MCRT-6		32 x 5 ml		2810	
MCRT-7		32 x 2 ml		2910	
MCRT-8		48 x 5 ml		2910	
MCRT-9		72 x 5 ml		2810	
MCRT-10		72 x 2 ml		2990	
MCRT-11		4 x 250 ml		2990	
MCRT-19A	Angle Rotor	12 x 15 ml	6000	5080	MC-7000
MCRT-18A		24 x 10 ml		3670	
MCRT-17	Swing Bucket Rotor	96 x 5 ml	4000	3405	
MCRT-16		96 x 2 ml		3100	
MCRT-18		4 x 12 x 10 ml		3000	
MCRT-19		24 x 15 ml		3040	
MCRT-20		4 x 2 x 50 ml		2950	
MCRT-21		4 x 2 x 100 ml		3520	
MCRT-22		4 x 500 ml			

Laboratory Equipment



Product code		MC-16000	MC-16000R	MC-20000
Type		High Speed	Refrigerated	High Speed
Max. speed (rpm)		16000		20000
Max. RCF (g)		17800		27800
Max. capacity		12 x 10ml	4 x 100ml	
Timer (min.)		0-99 min		
Motor		Brushless DC		
Noise (dB)		≤ 55		
Temperature	Range (°C)	-	-20 to 40	-
	Accuracy (°C)	-	± 2	-
Dimensions L x W x H (mm)		330 x 390 x 320	620 x 500 x 350	330 x 390 x 320
Weight (Kg)		26	70	26

Rotors and Adapters

Product code	Item	Description	Max. Speed (rpm)	Max. RCF (g)	Suitable For
MC16RT-1C	Capillary Rotor	24 Capillaries	12000	14800	MC-16000
MC16RT-1	Angle Rotor	12 x 0.5 ml	16000	17800	
MC16RT-2		12 x 1.5ml			
MC16RT-2A		24 x 1.5 ml	13000	15710	
MC16RT-3		10 x 5 ml	16000	17800	
MC16RT-4		12 x 10 ml	12000	12740	
MCRR-10	Angle Rotor	48 x 0.5 ml	13000	13910	MC-16000R
MCRR-1		12 x 1.5 ml	16000	17800	
MCRR-5		24 x 1.5 ml	13000	15710	
MCRR-2		10 x 5 ml	14000	13200	
MCRR-3		12 x 10 ml	13000	12740	
MCRR-6		4 x 50 ml	12000	13900	
MCRR-4		6 x 50 ml		13280	
MCRR-7		4 x 100 ml	10000	10975	
MCRR-8	Swing Bucket Rotor	4 x 10 ml	6000	4495	MC-20000
MCRR-9		2 x 2 x 48 (microplate)	4000	1505	
MCRR-11	Swing Bucket Rotor	48 x 0.5 ml	16000	21900	
MCRR-12		24 x 1.5 ml		20380	
MCRR-13		24 x 2.2 ml		23800	
MCRR-14		10 x 5 ml		17780	
MCRR-15		12 x 10 ml	15000	19910	
MCRR-16		6 x 50 ml	13000	18550	
MCRR-17		4 x 100 ml	10000	13280	



Desiccators

A wide selection of vacuum desiccators, including new UV-blocking models, with outstanding vacuum capability to suit your specific requirements.

Cubic Models

Integrally moulded cubic box design enabling outstanding vacuum capability with virtually no leakage and exceptional durability.



Features

- High quality silicone gasket ensures greaseless airtight seal for the clean and cost effective test environment.
- Highly transparent, shatterproof, non-corrosive, and easy to clean polycarbonate construction.
- Maximised utilisation of internal space using maximum three to five shelves (depending on product sizes).
- Stackable space-saving design allowing efficient use of cramped lab space.
- Easy humidity level checking with the hygrometer attached to the front door.
- Minimising damages or discolouration of light-sensitive samples. (Only for U models).

Model		SDC-30 / 30U*	SDC-45 / 45U*
Product code	Without UV Block Effect	AAAD5011	AAAD5021
	With UV Block Effect (U)	AAAD5111	AAAD5121
Internal Volume (L)		35	50
Max. Load (Kg) per Shelf or Drawer		5	
Number of Shelves (included / max.)		1 / 3	2 / 5
Number of drawers (included / max.)		1 / 3	1 / 5
Material	Body	Polycarbonate	
	Perforated Sample Tray		
	Perforated Sample Drawer		
	Drying Agent Tray / Locker	Polypropylene / Stainless Steel	
	Seal	Silicone Rubber	
Dimensions W x D x H (mm)	Internal	322 x 367 x 302	322 x 367 x 422
	External	360 x 410 x 326	360 x 410 x 447
Weight (Kg)		4.9	6.2

* U models are translucent (amber coloured) with ultraviolet block effect.

Laboratory Equipment

Cubic-Vacuum Models

Integrally moulded cubic box design enabling outstanding vacuum capability with virtually no leakage and exceptional durability.



Features

- Maximum vacuum of 1 Torr (1.33×10^{-4} Mpa) for 72 hours.
- Greaseless, airtight vacuum seal using high-quality silicone gasket.
- Highly transparent, shatter-proof, non-corrosive and easy-to-clean polycarbonate (PC) construction.
- Convenient three-way stopcock providing consistent and uniform vacuum draw, vacuum release or shut-off.
- Maximised utilisation of internal space using a maximum four to six shelves depending on product size.
- Stackable design allowing efficient usage of cramped lab space.
- Easy vacuum level checking, using the vacuum gauge attached to the front door.
- Minimised damage or discolouration of light-sensitive samples when using UV-blocking models.
- Four built-in ports allowing easy attachment of various accessories.

Model		VDC-11 / 11U*	VDC-21 / 21U *	VDC-31 / 31U *	VDC-41 / 41U *
Product code	Without UV Block Effect	AAAD4001	AAAD4021	AAAD4011	AAAD4031
	With UV Block Effect (U)	AAAD4101	AAAD4121	AAAD4111	AAAD4131
Internal volume (L)		11	23	35	45
Gauge range (Mpa)		0 to - 0.1 (Analogue)			
Nozzle (mm Ø)		9.5			
Max. permissible vacuum (bodies)		1.33×10^{-4} Mpa (Analogue)			
Max. load (Kg for shelf)		3	5		
Number of shelves (included / max.)		2 / 4		3 / 5	3 / 6
Material	Body	Polycarbonate			
	Perforated sample tray				
	Drying agent tray / Locker	Polypropylene			
	Vacuum seal	Silicone Rubber			
Dimensions W x D x H (mm)	Internal	248 x 254 x 238	346 x 365 x 246	355 x 375 x 345	355 x 374 x 445
	External	322 x 285 x 271	420 x 392 x 281	420 x 397 x 381	420 x 397 x 491
Weight (Kg)		4.2	8.2	10.8	12.2

* U models are translucent (amber coloured) vacuum dessicators with ultraviolet block effect.

Round & Cylindrical Vacuum Models

Our round design offers light weight yet high tensile strength. A high-quality silicone O-ring and is specially designed 'Locking Clip' providing outstanding vacuum capability with virtually no leakage.



Features

- Maximum vacuum of 1 Torr (1.33×10^{-4} Mpa) for more than 72 hours.
- High-quality silicone gasket ensures a greaseless, airtight seal for a clean test environment.
- Highly transparent, shatterproof, non-corrosive, and easy to clean polycarbonate construction.
- Three-way stopcock provides great convenience for consistent and uniform vacuum draw, vacuum release or gas exchange.
- A flange lock holds the top and the bottom together during non-vacuum conditions.
- Various models available with respect to capacity and UV blocking effect.
- Minimised damage or discolouration of light-sensitive samples (Only for U/UG models).
- A vacuum gauge is attachable at the centre of the lid for easy vacuum level checking (Only for G/UG models).
- The top and bottom of cylindrical vacuum desiccators and round vacuum desiccators are compatible with each other for diverse use.
- Newly designed cylindrical desiccators are ideal for storing tall equipment, gas substitution, general drying and preserving.

Model		VDR-20 / 20G*	VDR-25 / 25G*	VDR-30 / 30G*	VDP-25 / 25G*	VDP-30 / 30G*
Product code	Clear body	AAAD2011	AAAD2111	AAAD2211	AAAD3011	AAAD3021
	Clear body with vacuum gauge (G)	AAAD2021	AAAD2121	AAAD2221	AAAD3111	AAAD3121
Internal volume (L)		6	10	20	16	25
Gauge range (Mpa)		0 to -0.1				
Nozzle (mm)		9.5				
Max. permissible vacuum		1.33×10^{-4} Mpa (Analogue)				
Material	Lid / Bottom	Polycarbonate				
	Body / Base for VDP					
	Perforated sample tray	Polypropylene				
	Drying agent tray / Locker					
	Vacuum seal	Silicone rubber				
Dimensions w x h (mm)		Ø242 x 279	Ø308 x 325	Ø385 x 399	Ø308 x 374	Ø385 x 384
Weight (Kg)		1.5	2.5	4.2	2.7	4.0

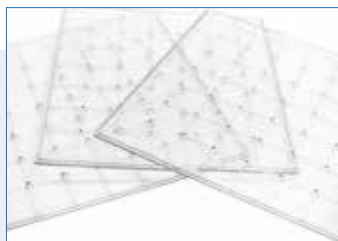
* G models are supplied with a vacuum gauge as standard
Amber coloured vacuum dessicators with ultraviolet block effect available on request.

Laboratory Equipment

Desiccators - Accessories and Options



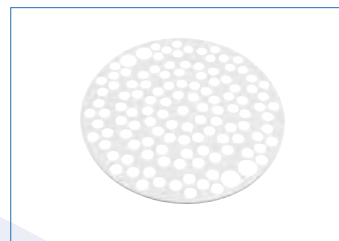
Drying agent tray



Perforated sample tray



Drying agent tray



Perforated sample tray

For Cubic Vacuum Desiccators

Product code	Accessories	VDC-11 / 11U	VDC-21 / 21U	VDC-31 / 31U	VC-41 / 41U
VDC0035	Perforated Sample Tray	●	-	-	-
VDC0003		-	●	●	●
VDC0037	Drying Agent Tray	●	-	-	-
VDC0005		-	●	●	●
VDC0032	Vacuum Seal	●	-	-	-
VDC0033		-	●	-	-
VDC0015		-	-	●	-
VDC0034		-	-	-	●
AAAD4501	Stopcock	●	●	●	●
EDA4301	Vacuum Gauge	●	●	●	●

For Round & Cylindrical Vacuum Desiccators

Product code	Accessories	VDR-20 / 20G VDR-20U / 20UG	VDR-25 / 25G VDR-25U / 25UG	VDR-30 / 30G VDR-30U / 30UG	VDP-25 / 25G VDP-25U / 25UG	VDP-30 / 30G VDP-30U / 30UG
AAAD1501	Drying Agent Tray	●	-	-	-	-
AAAD1502		-	●	-	●	-
AAAD1503		-	-	●	-	●
AAAD1511	Perforated Sample Tray	●	-	-	-	-
AAAD1512		-	●	-	-	-
AAAD1513		-	-	●	-	-
AAAD3511		-	-	-	●	-
AAAD3512		-	-	-	-	●
VDR0001	Vacuum Seal	●	-	-	-	-
VDR0002		-	●	-	●	-
VDR0003		-	-	●	-	●
VDR0015	Flange Locker	●	-	-	-	-
VDR0016		-	●	-	●	-
VDR0017		-	-	●	-	●
AAAD1521	Stopcock	●	●	●	-	-
AAAD3501		-	-	-	●	●
EDA4302	Vacuum Gauge	●	●	●	●	●

Fume Hoods / Laminar Flow



Clean Benches

Asbestos handling, electronics inspection/repair, general forensics, non-toxic iv solution preparation, plant tissue culture maintenance, qa/qc testing, sterile media preparation, syringe filling, tissue fixation/staining preparation, etc.

Fume Hoods

Chemical sampling, chemical preparation, cosmetic production to photochemical, numerous vapor-generating laboratory processes, powder extraction, slide preparation, touch up painting, weighing toxic powders, welding fumes, etc.

PCR Workstations

Medical device assembly, PCR, staining with volatile, sterile media preparation, tissue fixation/staining preparation etc.

UV Sterilisation Cabinets

General Sterilisation in daily use.

Clean Benches

Features

- 2 separated over-current fuses for user safety.
- Toggle switch provided can be set to either position (UV, off, and fluorescent).
- Automated UV lamp switches off when window is opened accidentally.
- Tempered glass sliding sash window.
- Permanent magnehelic differential pressure gauge displays across the HEPA filter to check the air changes. (optional)
- This product uses a 99.99% efficient HEPA filter.
- Optimum PWM (pulse width modulation) control performance.
- Dirt-repellent surface.
- Light and blower switches are within easy reach of the user.
- Excellent chemical resistance work surface with various organic solvents.
- User-friendly Control Features.

Ductless Fume Hoods

Features

- Front windows part can be seeing though made by transparent front viewing window manufactured from acrylic.
- Lower stand mounted fixable casters easy for moving & fixing. (optional)
- Control panel: consist of fluorescent lamp, Fan Start/Stop, Blower speed controller, alarm, menu and etc.
- Over-current circuit CP (Circuit Protector) for user safety.
- A built in anemometer provides input air velocity data in real time.

PCR Workstations UV Sterilisation Cabinets

Features

- Built-in over-current circuit protector for user safety.
- Intelligent multifunctional digital controller (PW-models).
- A fitted prefilter extends the life of the filters. (PW-models)
- This product uses a high quality 99.99% efficient supply HEPA filter.
- Powerful, uniformly distributed, UV-C. (average 8,000 hours)
- Excellent chemical resistance work surface.
- Automated UV lamp switch off.

Laboratory Equipment

Clean Benches - Analogue Control

Vertical type laminar flow clean bench

ISO 14644-1 Class 4 air. (formerly Class 10 per Federal Standard 209E) High efficiency HEPA filter, for particles from 0.3 microns. Nominal downflow velocity of 0.3m/s. (60fpm). Ergonomic 5 degree slope at front for maximum user comfort.



Pictured with stand (optional)

Model		BC-01B	BC-11B	BC-21B
Product code		AAHA6012K	AAHA6022K	AAHA6032K
Air flow type		Vertical		
Air volume (Minimum / Maximum)		274 to 914 cmh / 119 to 399 cfm		
Laminar airflow velocity (m/s)		0.3		
Air cleanliness within working area		ISO 14644-1 Class 4, US Federal Standard 209E Class 10		
Filters	HEPA filter	Typical efficiency of 99.99% at 0.3µm US MIL - STD -282; Micro glass fibre Media, Particle board, AL separator, Neoprene gaskets		
	Pre filter	Polyester fibres with an efficiency of 85% (A-F-I TEST); AL frame, Polyester fibre media		
Noise level (dB)		< 67 (at initial blower speed)		
Materials	Main body	Stainless steel (grade 304) & Steel powder coating		
	Work surface	Stainless steel (grade 304)		
	Windows (Front / Side)	Colourless and transparent UV absorbing 5mm tempered glass		
Illumination	Intensity (lux)	>1000		
	FL lamp	30W x 2ea electronically ballasted FL Lamp		
	UV lamp	30W electronically ballasted UV Lamp		
Dimensions W x D x H (mm)	Internal	970 x 540 x 570	1270 x 540 x 570	1870 x 540 x 570
	External	1040 x 630 x 1060	1340 x 630 x 1060	1940 x 630 x 1060
Weight (Kg)		110	127	163

Clean Benches - Digital Control

Model		BC-01H	BC-11H	BC-21H
Product code		AAHA5012K	AAHA5022K	AAHA5032K
Air flow type		Vertical		
Air volume (Minimum / Maximum)		274 to 914 cmh / 119 to 399 cfm		
Laminar airflow velocity (m/s)		0.3		
Air cleanliness within working area		ISO 14644-1 Class 4, US Federal Standard 209E Class 10		
Filters	HEPA filter	Typical efficiency of 99.99% at 0.3µm US MIL - STD -282; Micro glass fibre Media, Particle board, AL separator, Neoprene gaskets		
	Pre filter	Polyester fibres with an efficiency of 85% (A-F-I TEST); AL frame, Polyester fibre media		
Noise level (dB)		< 67 (at initial blower speed)		
Materials	Main body	Stainless steel (grade 304) & Steel powder coating		
	Work surface	Stainless steel (grade 304)		
	Windows (Front / Side)	Colourless and transparent UV absorbing 5mm tempered glass		
Illumination	Intensity (lux)	>1000		
	FL lamp	30W x 2ea electronically ballasted FL Lamp		
	UV lamp	30W electronically ballasted UV Lamp		
Dimensions W x D x H (mm)	Internal	970 x 540 x 570	1270 x 540 x 570	1870 x 540 x 570
	External	1040 x 630 x 1060	1340 x 630 x 1060	1940 x 630 x 1060
Weight (Kg)		110	127	163



Pictured with stand (optional)

Clean Benches - Accessories and Options

Product code	Description	BC-01H/B	BC-11H/B	BC-21H/B
AAAB1601	HEPA Filter	●	-	-
AAAB1602		-	●	-
AAAB1603		-	-	●
AAAB1611	Pre-Filter	●	-	-
AAAB1612		-	●	-
AAAB1613		-	-	●

Product code	Description	BC-01H/B	BC-11H/B	BC-21H/B
AAAB1621	Stand with casters	●	-	-
AAAB1622		-	●	-
AAAB1623		-	-	●
AAAB1631	UV Lamp (230v)	●	-	-
AAAB1633		-	●	-
AAAB1635		-	-	●
AAAB1561	Gas cock	●	●	●
AAAB1571	Differential pressure gauge (Only for BC-B)	●	●	●

Bench Top Fume Hoods

Ideal for use in limited laboratory spaces.

- Compact design for easy moving and space saving.
- Transparent polycarbonate front door for observation.
- The door opens to five positions for comfort and convenience.
- One-piece moulded design for leak-tight and exceptional durability.
- Chemical resistance and spark-less polyethylene.
- An exhaust motor is required. The unit can be connected to an in-house laboratory exhaust system. Either 150mm (6") dia flexible duct can be used.
- Rounded inner corners for continuous air flow and easy cleaning.



Model		PMH-720
Product code		AAAB5011
Permissible air velocity (m/s)		0.3 to 1
Permissible Environmental Condition		Temperature 2° to 60°C Maximum relative humidity 80% Maximum altitude up to 2,000m
Material	Main Body	Polyethylene
	Window	Polycarbonate
Dimensions (mm)	External w x d x h	720 x 450 x 560
	Entrance w x d	560 x 300
	Duct Hole o.d	150
Weight (Kg)		7

Laboratory Equipment

Ductless Fume Hoods and Accessories

Providing safe and energy saving workspaces, free from toxic vapours and fumes without the need of costly ducting.



Pictured with stand (optional)

Model		DLH-01G	DLH-11G
Product code		AAHB2002K	AAHB2012K
Fume hood type		Ductless	
Permissible environmental condition °C		Temperature 5° to 40° Maximum relative humidity 80% Altitude up to 2,000m	
Controller		Microprocessor control	
Face velocity		Initial set point: 0.4m/s, 80fpm	
Air flow meter		Swing vane type	
Main filter		Chemical Filter (optional 6 different filters)	
Pre filter		Washable high efficiency nylon filter	
Materials	Main body	2.0mm steel (epoxy powder-coated)	
	Work surface	Optional 6 different work surfaces	
	Window (Front / Side)	Acrylic 8mm / Acrylic 6mm	
Fluorescent light intensity		> 600lux	
Sound emission		55dB (at normal operation)	
Dimensions W x D x H (mm)	Internal	880 x 640 x 800	1180 x 640 x 800
	External	900 x 660 x 1250	1200 x 660 x 1250
Weight (Kg)		100	118

Filters

Product code	Description	Application	DLH-01G	DLH-11G
EDA9191	Activated Carbon Filter	All common laboratory chemicals, especially VOC, Organic, Benzene, Toluene, etc	●	-
EDA9192			-	●
EDA9199	Acid Filter	An acidic solvent; Acetic acid, etc	●	-
EDA9200			-	●
EDA9201	Halogen Compounds Filter	Halogen compounds like Chlorine, Fluorine, Iodine, Bromine, Astatine, etc	●	-
EDA9202			-	●
EDA9203	Formaldehyde Filter	Formaldehyde applications	●	-
EDA9204			-	●
EDA9205	Ammonia / Amines Filter	Ammonia / Amines by chemisorptions	●	-
EDA9206			-	●
EDA9193	HEPA Filter	Biohazardous aerosols and other visible and non-visible particles (filtration efficiency: 99.99% at 0.3 microns)	●	-
EDA9194			-	●
EDA9196	Pre filter	-	●	-
EDA9198			-	●

Work Surfaces & Stands

Product code	Description	DLH-01G	DLH-11G
AAAB2501	Work Surface (SUS #304)	●	-
AAAB2502		-	●
AAAB2503	Work Surface (SUS #316)	●	-
AAAB2504		-	●
AAAB2505	Work Surface (Ceramide)	●	-
AAAB2506		-	●
AAAB2507	Work Surface (Polypropylene)	●	-
AAAB2508		-	●
AAAB2509	Work Surface (Bakelite)	●	-
AAAB2510		-	●
AAAB2511	Work Surface (PVC)	●	-
AAAB2512		-	●
AAAB2521	Stand with Casters	●	-
AAAB2522		-	●

Gas Detector & Gas Detecting Tubes

Product code	Description	DLH-01G	DLH-11G
EDA9191	Gas Detector (KITAGAWA AP-20)	●	●
EDA9192		●	●
EDA9199	Gas Detecting Tube (Benzene, GASTEC-121SP (0.5-10ppm))	●	●
EDA9200		●	●
EDA9201	Gas Detecting tube (Toluene, GASTEC-122L (1-100ppm))	●	●
EDA9202		●	●
EDA9203	Gas Detecting tube (Acetic acid, GASTEC-81L (0.125-25ppm))	●	●
EDA9204		●	●
EDA9205	Gas Detecting tube (Chloroform, GASTEC-137 (4-400ppm))	●	●
EDA9206		●	●
EDA9193	Gas Detecting tube (Formaldehyde, GASTEC-91LL (0.05-1ppm))	●	●
EDA9194		●	●
EDA9196	Gas Detecting tube (Ammonia, GASTEC-3L (0.5-60ppm))	●	●
EDA9198		●	●

UV Sterilisation Cabinets

A high quality UV lamp with a timer control feature is ideal for sterilising instruments before carrying out sensitive or PCR experiments.



Model			UVC-01	UVC-11	UVC-21
Product code			AAHB4002K	AAHB4012K	AAHB4022K
Illumination	Intensity	Fl Lamp (Lux)	>800	>900	>1000
		UV Density (μW / cm²)	150	385	450
	Capacity	Fl Lamp	8W x 1	15W x 1	20W x 1
		UV Lamp	8W x 1	15W x 1	20W x 1
Material		Work surface	Stainless steel (grade 304)		
		Window (Front, Back / Side)	Acrylic 5 mm (clear)		
Dimensions W x D x H (mm)		Internal	433 x 500 x 468	583 x 500 x 468	880 x 500 x 468
		External	450 x 509 x 610	600 x 509 x 610	900 x 509 x 610
Weight (Kg)			15	18	20

PCR Workstations

Specially designed to minimise sample contamination during PCR applications by combining ISO Class 4 clean air environment.



Model			PW-01	PW-11	PW-21
Product code			AAHB3002K	AAHB3012K	AAHB3022K
Air flow type			Vertical		
Max. air volume (cmh)			557	697	929
min. air volume (cmh)			167	209	279
Laminar airflow velocity (m/s)			0.3		
Filter	Air cleanliness		ISO 14644-1 Class 4		
	HEPA Filter		Typical efficiency of 99.99% at 0.3 μm US MIL -STD -282; Micro glass fibre Media, Particle board, AL separator, Neoprene gaskets		
	Pre filter		Polyester fibres with an efficiency of 85% (A.F.I. TEST); AL frame, Polyester fibre media		
Noise level (dB)			< 60 (at initial blower speed)		
Material	Work surface		Acrylic 10mm (clear)		
	Window (Front, Side / Back)		Acrylic 8mm / 10mm (clear)		
Illumination	Intensity	FL lamp (lux)	>1000		
		165 UV Density (μW/cm2)	165	185	330
	Capacity	FL Lamp	15W x 1	20W x 1	30W x 1
		UV Lamp	15W x 1	20W x 1	30W x 1
Dimensions W X D X H (mm)		Internal	700 x 585 x 602	880 x 585 x 602	1180 x 585 x 602
		External	720 x 605 x 964	900 x 605 x 964	1200 x 605 x 964
Weight (Kg)			57	65	78

Laboratory Equipment

Heating Apparatus

Dry block heating systems combine superb temperature control and uniformity with high quality design and great versatility.

- Accurate, reproducible, rapid and safe dry bath heating of your samples - by virtue of advanced temperature control combined with high quality, precision-engineered blocks which maintain excellent thermal contact.
- Choice of models with interchangeable blocks or with fixed microtube blocks.
- Versatile range of interchangeable heating blocks to fit any sample tube or plate from our standard range of blocks, or custom-made to suit your application.

Mini Dry Bath Incubators



Product code	MD 110401005	MD 110401006
Temperature range (°C)	Amb. +5 to 100	
Timer range (min)	0 ~ 99 h 59	
Temperature control accuracy (°C)	±0.5	
Display	LED	
Display accuracy	±0.5	
Heating time (40°C - 100°C)	≤15 min	
Heating lid	No	Yes
Dimensions W x D x H (mm)	164 x 116 x 98	
Weight (Kg)	0.8	0.9

Heating Blocks

The PID controller has a built-in temperature limit setting feature and precise settings for complete accuracy. There is an automatic power cutoff. Our heating blocks offer two types of timer modes:

- Timer 1: Timer activation starts only after reaching the set temperature.
- Timer 2: Timer activation starts right after the timer setting.

The bodies are manufactured from highly chemical resistant polypropylene making them also very easy to clean and maintain. Optimal heat transfer is enabled via the tight coupling design of the main body and the corrosion resistant blocks. A transparent lid allows for easy sample monitoring coupled with even heat distribution.



Model		CCB-350	CHB-350S	CHB-350T
Product code		AAHJ5015K	AAHJ1015K	AAHJ1115K
Control system		Feedback control PID		
Display		VFD(0.1(°C) resolution)		
Temperature	Range (°C)	Amb. -20 to 95	Amb. +5 to 130	
	Fluctuation	±0.06 (°C at 37°)	±0.1 (at 80°C)	
	Variation	±0.15 (°C at 37°)	±0.2 (at 80°C)	
Dimensions W x D x H (mm)	Internal	99 x 77.5 x 36	154 x 99 x 37	
	External	249 x 325 x 168	276 x 334 x 120	276 x 334 x 250
Weight (Kg)		5.0	5.1	5.5

Heating Blocks - Accessories and Options



Microplate trays



Tube blocks



Centrifuge tube blocks



Microtube blocks

Product code	Description	Max. Mountable Tube	Max Mountable Capacity of Blocks			
			CHB-350S	CHB-350T	CCB-350	MD Series
CHB0030	96-well Tube block (micro-tube)	96	1	1	-	-
CHB0029	0.5 ml Tube block (micro-tube)	48	2	2	1	-
CHB0028	1.5/2.0 ml Tube block (micro-tube)	48	1	1	-	-
CHB0031	15 ml Tube block (centrifuge tube)	15	2	2	1	-
CHB0032	50 ml Tube block (centrifuge tube)	6	2	2	1	-
CHB0033			2	2	1	-
CHB0034	Ø10 Tube block	35	2	2	1	-
CHB0035	Ø12 Tube block	24	2	2	1	-
CHB0036	Ø13 Tube block	24	2	2	1	-
CHB0037	Ø15 Tube block	20	2	2	1	-
CHB0038	Ø16 Tube block	16	2	2	1	-
CHB0039	Ø18 Tube block	12	2	2	1	-
CHB0040	Ø20 Tube block	12	2	2	1	-
MD1102A	96x0.2ml tray	96	-	-	-	1
MD1102B	54x0.5ml tray	54	-	-	-	1
MD1102C	35x1.5ml tray	35	-	-	-	1
MD1102D	15 x 0.5ml and 20 x 1.5ml tray	15 / 20	-	-	-	1
MD1102E	24 x 12mm tube tray	24	-	-	-	1
MD1102G	12x 15ml centrifuge tray	12	-	-	-	1
MD1102H	6 x 50ml Falcon tube tray	6	-	-	-	1
MD1102I	103x67x30 Water bath tray	1	-	-	-	1
MD1102J	96 well Microplate tray	1	-	-	-	1

Laboratory Equipment

Heating/Stirring Mantles

Controlled Mantles

The E-series are energy-regulated, all purpose heating mantles. The time proportional double pole system allows stable control of the heating element, reducing the risk of overheating liquids. The dial controller allows accurate temperature settings. Retort rod holder integrated into base of unit to accommodate our range of accessories.



Product code	E-1005N	E-101N	E-102N	E-103N	E-104N
Volume (ml)	50	100	250	500	1000

Product code	E-105N	E-106N	E-107N	E-108N	E-109N
Volume (ml)	2000	3000	5000	10,000	20,000

Heating Stirrer Mantles

The ES-series rota-mantles feature an integral magnetic stirrer, which is independently controlled. The stirrer speed may be varied from 100 to 1000rpm and the temperature is regulated by an infinity bimetallic thermostat. Retort rod holder integrated into base of unit to accommodate our range of accessories.



Product code	ES-3005N	ES-301N	ES-302N	ES-303N	ES-304N
Volume (ml)	50	100	250	500	1000

Product code	ES-305N	ES-306N	ES-307N	ES-308N	ES-309N
Volume (ml)	2000	3000	5000	10,000	20,000

Digital Mantles

The DM-series features an integral digital temperature controller linked to a sensor probe, which is inserted directly into the flask. The temperature is shown clearly on an LED display and the desired temperature is controlled by a simple push button potentiometer. Retort rod holder integrated into base of unit to accommodate our range of accessories.



Product code	DM-6005	DM-601	DM-602	DM-603	DM-604
Volume (ml)	50	100	250	500	1000

Product code	DM-605	DM-606	DM-607	DM-608	DM-609
Volume (ml)	2000	3000	5000	10000	20000

Extraction Mantles

Designed for use in distillation, extraction. Each of the three and six place mantles has individual temperature regulation. The support rods and scaffolding are included. The body is made of steel with a chemical resistant coating and the cover with high grade stainless steel.



Product code	EAM-9201-03	EAM-9202-03	EAM-9203-03	EAM-9204-03	EAM-9205-03
Volume (ml)	100ml	250ml	500ml	1000ml	2000ml
Positions	3				

Product code	EAM-9201-06	EAM-9202-06	EAM-9203-06	EAM-9204-06	EAM-9205-06
Volume (ml)	100ml	250ml	500ml	1000ml	2000ml
Positions	6				

Electric Burners

BECELEC 2

The Becelec 2 – Electric Burner offers a unique safe replacement option to conventional gas Bunsen burners. The high power heater combined with a reflective internal stainless steel bowl produces a concentrated stream of heat comparable with that of existing gas-powered Bunsen burners. Supplied with reflective internal stainless steel bowl, wire safety guard, retort stand and clamps.



Product code	BEC2UKSET	BEC2EXSET
Temp range (°C)	37 to 720	
Diameter of heating area (mm)	Ø130	
Power	500 Watt	
Safety indicator	LED	
Plug type	3 pin UK	2 pin EU
Dimensions W x D x H (cm)	31 x 20 x 11	
Weight (Kg)	1.7	

Becelec Burner - Accessories and Options



Flame gel (option) / SS plate (inc.)



Retort rod and clamp holder (inc.)



Wire safety guard (inc.)

Medline Microincinerator

New safety regulations have meant that Microincinerators are increasingly replacing the traditional Bunsen burners that have long been fundamental to microbiology laboratories. Accordingly, CDC and WHO, recommend these in laboratories instead of Bunsen burners. When using in biosafety cabinets, contrary to bunsen burners, the filter system is not damaged and the cabinet air flow is not affected. During operation the exterior surface temperature of the device does not exceed 30°C, allowing handling without heat protective gloves.

- Suitable for slide fixation, sterilisation of loops and culture tubes.
- Energy and environmentally-friendly design ensures minimum power consumption.
- Operational angle adjustment of chamber - 270°.



Product code	BACTIPRO-500
Energy consumption	0.150 kw/h
Quartz glass tube dimensions	Ø 18 mm, length: 100 mm
Sterilisation temperature	850°C to 1100°C
Time to reach sterilisation temperature	7-9 minutes
Sterilisation duration	2-4 seconds
Dimensions W x D x H (mm)	200 x 300 x 265
Weight (Kg)	4.2

Laboratory Equipment

Chamber Furnaces

Furnaces can be used in quality control tests, ashing, heat treatment, preheating, melting, metallurgical research and sample production. Our products have been produced for heavy duty conditions.

Features:

- Chamber walls made up of insulating fire bricks against mechanical abrasion and thermal aging and deformation.
- Half buried heaters in two sides and on top (housed in quartz tubes).
- Tight door closing mechanism.
- Homogeneous temperature gradient in the chamber thanks to similar heat loss in every direction.
- Optimal insulation thickness to reduce the temperature of the outer surface.
- Contactless outer shell for low surface temperature.
- Ergonomic PID control unit placement.
- Standard chimney with fan.
- Adjustable foot screw.
- Lift-up door and sideward door options are an opportunity for different spatial use of applications.



Product code	MD1305	MD1310	MD1320	MD1340	MD1360
Volume (L)	5	10	20	40	60
Continuous working temperature (°C)	1250				
Temperature Max. (°C)	1300				
Chamber dimensions (mm)	150 x 150 x 230	200 x 180 x 300	250 x 200 x 400	300 x 300 x 450	400 x 300 x 500
Power (W)	2250	3600	4500	9000	13500
I max. (A)	11	17	21	3 x 8	3 x 12
Dimensions W x D x H (mm)	400 x 590 x 550	500 x 620 x 550	500 x 640 x 720	550 x 740 x 770	650 x 740 x 820
Weight (Kg)	42	54	80	100	120

* Above models listed with sideward door option

Product code	MDU1005	MDU1100	MDU1200	MDU1400	MDU1600
Volume (L)	5	10	20	40	60
Continuous working temperature (°C)	1075				
Temperature Max. (°C)	1100				
Chamber dimensions (mm)	150 x 150 x 230	200 x 180 x 300	250 x 200 x 400	300 x 300 x 450	400 x 300 x 500
Power (W)	2000	2800	4000	9000	13500
I max. (A)	10	13	19	3 x 8	3 x 12
Dimensions W x D x H (mm)	400 x 590 x 550	500 x 620 x 550	500 x 640 x 720	550 x 740 x 770	650 x 740 x 820
Weight (Kg)	42	54	80	100	120

* Above models listed with lift-up door option

Incubators

General applications for below incubators include; antibody testing, clinical science, haematological testing, microbiological determinations, microorganism, organism germs for life science, organism pharmacy, tissue culturing.

Safety Features

- Open door alert.
- Audible and visible alarms.
- Automatic power cut off from the heater and the fan.
- Protection against overheating by automatic power cut off from the heater controller before shutting down the unit.
- Two separate fuses to protect against over current.



Optimum Control Features

- Microprocessor PID control.
- Simple calibration and auto-tuning functions.
- Built-in digital timer with Delayed ON/OFF function.
- Timer range: 1 min ~ 99 hr 59 min.
- Operation mode selection after power interruption: either Automatic Run or Manual Run.
- Convenient preset function for 3 the most commonly used temperature settings.
- Easy conversion between Celsius and Fahrenheit.
- Self-diagnostic function identifying errors.
- Intuitive control panel design based on HMI (Human Machine Interface) system:
- Bright LED display as well as splashproof and easy-to-clean keypads.
- Quick-lock button prevents accidental parameter changes. (for IB, IL, and ILP models only)

Constructional Features

- High-quality 304 grade stainless steel internal chamber and dirt-repellent external surface with powder coating.
- Perfectly sealed door gasket minimising heat loss and fully insulated chambers.

Economy Models

Affordable yet exceptionally reliable incubators featuring film type heaters. Thanks to the film type heaters attached to the inner chamber's external walls, IB-E series incubators are free from noise, vibration, and mechanical troubles.

- Microprocessor PID controller.
- Digital timer (1 min - 99hrs 59 mins).
- Intuitive control panel with LED display.

Model		IB-01E	IB-11E	IB-21E
Product code		26015	26025	26035
Chamber volume (L)		65	150	205
Temperature	Range (°C)	Amb. +3 to 60		
	Fluctuation at 37°C (±°C)	±0.2	±0.3	±0.1
	Variation at 37°C (±°C)	±0.6	±0.8	±1.1
Dimensions W x D x H (mm)	Internal	423 x 355 x 445	500 x 515 x 585	623 x 515 x 630
	External	533 x 475 x 725	595 x 630 x 865	740 x 630 x 910
Weight (Kg)		33	47	57

Laboratory Equipment



Natural Convection Incubators - General Models

Specially designed for uniform temperature distribution and minimal sample contamination caused by external air intrusion.

- Calibration and auto-tuning functions.
- RS-232 interface and Lab Tracer software.

Model		IB-05G	IB-15G	IB-25G
Product code		21162	21172	21182
Chamber volume (L)		60	102	151
Temperature	Range (°C)	Amb. +5 to 70		
	Fluctuation at 37°C	±0.1		±0.2
	Variation at 37°C	±0.6	±0.2	±0.6
Dimensions W x D x H (mm)	Internal	400 x 360 x 420	480 x 410 x 520	610 x 460 x 540
	External	595 x 555 x 745	675 x 605 x 855	805 x 655 x 885
Weight (Kg)		45	55	62

Low Temp. Incubators - Air-Jacketed Models

Specially designed for optimal temperature control as well as minimal sample contamination caused by external air intrusion.

- RS-232 interface and Lab Tracer software.



Model		IL-11A	IL-21A
Product code		22062	22072
Chamber volume (L)		162	254
Refrigerator (Hp)		1/6 HBP	1/4 HBP
Temperature	Range (°C)	+4 to 60	
	Fluctuation at 25°C	±0.2	
	Variation at 25°C	±0.5	
Dimensions W x D x H (mm)	Internal	600 x 540 x 500	500 x 540 x 940
	External	770 x 772 x 1060	670 x 760 x 1680
Weight (Kg)		108	145

Low Temp. Incubators - Compact Models

Compact, stackable, energy-efficient and exceptionally reliable low temperature incubators using Peltier technology.

- RS-232 interface and Lab Tracer software.



Model		ILP-02	ILP-12
Product code		24032	24042
Chamber volume (L)		14	48
Temperature	Range (°C)	10 to 40	
	Fluctuation at 25°C	±0.1	
	Variation at 25°C	±0.5	±0.4
Dimensions W x D x H (mm)	Internal	315 x 200 x 230	334 x 334 x 430
	External	430 x 495 x 400	430 x 665 x 620
Weight (Kg)		27.5	49

Low Temp. Incubators - Forced Convection Models

Superb low temperature incubation performance using a noiseless HBP compressor cooling system which reduces water evaporation within the chambers.



- Microprocessor PID controller.
- Adjustable 3-step fan speed with defrosting time and period control.
- Digital timer (1 min - 99hrs 59mins).
- RS-232 interface and Lab Tracer software.

Model		IL-11	IL-21
Product code		22042	22052
Chamber volume (L)		150	244
Refrigerator (Hp)		1/8 HBP	1/6 HBP
Temperature	Range (°C)	0 to 60	
	Fluctuation at 25°C	±0.1	
	Variation at 25°C	±0.5	±0.4
Dimensions W x D x H (mm)	Internal	600 x 500 x 500	500 x 520 x 940
	External	735 x 742 x 1010	635 x 740 x 1630
Weight (Kg)		100	135

CO₂ Incubators

Polished stainless steel chamber, rounded corners for easy cleaning, and the space between the shelves in the chamber is adjustable. Door temperature controller effectively prevents condensation on the glass door.



Product code		MD080	MD150	MD240
Chamber volume (L)		80	155	240
Heating method		Air-jacketed, PID Control		
Temp. range (°C)		Amb. +5 to 55		
Amb. temperature (°C)		Amb. +5 to 30		
Temp. stability (°C)		±0.1		
CO ₂ Range		0 to 20%		
CO ₂ Control resolution		±0.1% (IR sensor)		
CO ₂ Recovery		Door open 30s, recovery to 5% ≤3min		
Temp. recovery		Door open 30s, recovery to 37°C ≤8min		
Power consumption (W)		500	750	950
Humidity method		Natural evaporation >95%		
Shelves		2	3	3
Dimensions W x D x H (mm)	Internal	400 x 450 x 500	480 x 530 x 610	600 x 630 x 670
	External	590 x 687 x 790	670 x 767 x 880	788 x 837 x 940
Weight (Kg)		65	80	105

Laboratory Equipment

Incubator Shakers - Benchtop

Performance

- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- Wide speed range even with heavy workload.
- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform and powerful shaking motion.
- Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shocks.
- Smooth acceleration and deceleration controls, prevents chemical spills from flasks or test tubes.
- High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- Air-tight silicone door seal to provide excellent temperature uniformity.



Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)
- Wide sample monitoring and convenient sample loading.
- Convenient sample monitoring without affecting inside environment thanks to the three side transparent acrylic lid with bright LED lamps.
- Gas sprung lid supports providing smooth motion, soft opening and closing.
- Repetitive tasks can be easily performed as the platform stops in the same position as it starts, making it beneficial for automated dosing or sampling processes.
- Corrosion resistance stainless steel interior.
- Built-in RS-232 port and USB port for external control and data logging.

Safety

- Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- Over-current protection, Stalled platform check.
- Mechanical over-temperature protection device.
- Environment-friendly CFC-free refrigerant. (for IST-3075R / 4075R)

Model		IST-3075	IST-3075R	IST-4075	IST-4075R
Product code		AAH23422K	AAH23522K	AAH23622K	AAH23722K
Volume (L)		53		83	
Temperature	Range (°C)	Amb. +5 to 80	+15 to 80	Amb. +5 to 80	+15 to 80
	Fluctuation at 37°C	±0.1			
	Variation at 37°C	±0.5			
	Refrigerator (Hp)	-	1 / 6 HBP	-	1 / 6 HBP
Shaking system	Motion type	Orbital			
	Amplitude size (mm / dia.)	19.1			
	Speed range (rpm)	20 to 500			
	Accuracy	±1% of set speed (≥100rpm) / ±1 (≤100rpm)			
	Timer	1 min. to 999 hr 59 min.			
	Max. load (Kg)	10 at 500 rpm 15 at 400 rpm		14 at 500 rpm 21 at 400 rpm	
Dimensions W x D x H (mm)	Platform W x D	350 x 350		450 x 450	
	Internal	410 x 410 x 320		510 x 510 x 320	
	External	440 x 785 x 510		540 x 890 x 510	
Weight (Kg)		65	73	81	90

Incubator Shakers - Floor Standing

Performance

- Orbital shaking motion in choice of amplitudes.
- Microprocessor PID control.
- Three point temperature calibration / automatic tuning.
- Equipped with DD (Direct Drive) brushless motor and triple cam system support heavy load, quiet, maintenance free operation and deliver high torque at high speeds and smooth rotation.
- Wide speed range even with heavy workloads.
- Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shocks.
- Smooth acceleration and deceleration controls, prevents chemical spills from flasks or test tubes.
- High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- Air-tight silicone door seal with lockable door for safe storage of samples.



Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)
- Easy sample monitoring and convenient sample loading.
- Clear observation of samples without affecting inner chamber's environment thanks to the transparent top viewing window with bright LED lamps.
- Repetitive tasks can be easily performed as the platform stops in the same position as it starts, making it beneficial for automated dosing or sampling processes.
- Corrosion resistance stainless steel interior.
- Easy-access drain system with a quick disconnect valve.
- Built-in RS-232 port and USB port for external control and data collection.
- Sturdy foot caster, beneficial for easy mobility during installation or relocation.

Safety

- Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- Over-current protection.
- Triple independent temperature monitor system.
 - Temperature deviation alarm (High/Low)
 - Electronic temperature limiter (High/Low)
 - Mechanical over-temperature limiter (High)
- Environment-friendly CFC-free refrigerant. (for ISF-7100R / 7200R)

Model		ISF-7100	ISF-7100R	ISF-7200	ISF-7200R
Product code		AAH23342K	AAH23542K	AAH23442K	AAH23642K
Volume (L)		270			
Temperature	Range (°C)	Amb. +5 to 80	+4 to 80	Amb. +5 to 80	+4 to 80
	Fluctuation at 37°C	±0.1			
	Variation at 37°C	±0.5			
	Refrigerator (Hp)	-	1/6Hp	-	1/6Hp
Shaking system	Motion type	Orbital			
	Amplitude size (mm, dia.)	25.4		50.8	
	Speed range (rpm)	30 to 500		30 to 300	
	Accuracy	±1% of set speed (≥100rpm) / ±1 (≤100rpm)			
	Timer	1 min. to 999 hr 59 min.			
	Max. load (Kg)	15 at 500 rpm 25 at 400 rpm 35 at 300 rpm		20 at 300 rpm 35 at 200 rpm	
Dimensions W × D × H (mm)	Platform w × d	755 × 520			
	Internal	894 × 634 × 480			
	External	1128 × 854 × 1035			
Weight (Kg)		277	287	277	287

Laboratory Equipment

Incubator Shakers - Chamber Type

Performance

- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- Wide speed range even with heavy workload.
- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shocks.
- Smooth acceleration and deceleration controls, prevents chemical spills from flasks or test tubes.
- High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- Air-tight silicone door seal to provide excellent temperature uniformity.



Convenience

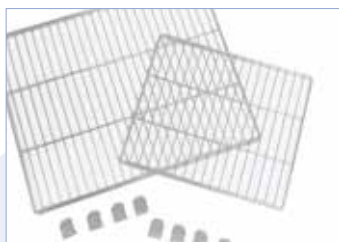
- Intuitive touch screen LCD controller with easy icons and logical menus.
- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)
- Wide sample monitoring.
 - Clear observation of samples without affecting inner chamber's environment thanks to the transparent viewing window with bright LED lamps.
- Repetitive tasks can be easily performed as the platform stops in the same position as it starts, making it beneficial for automated dosing or sampling processes.
- Two adjustable-height shelves provided allow static incubation or refrigeration, which increase storage capacity.
- Built-in electrical outlet with a safety cover inside the chamber.
- Corrosion resistance stainless steel Internal.
- Easy-access drain system with a quick disconnect valve.
- Built-in RS-232 port and USB port.
- Retractable foot caster.
- Chambers are stackable.

Safety

- Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- Over-current protection, Stalled platform check.
- Triple independent temperature monitor system.
 - Temperature deviation alarm (High/Low)
 - Electronic temperature limiter (High/Low)
 - Mechanical over-temperature limiter (High)
- Environment-friendly CFC-free refrigerant. (for ISS-3075R / 4075R)

Model		ISS-3075	ISS-3075R	ISS-4075	ISS-4075R
Product code		AAH23432K	AAH23532K	AAH23632K	AAH23732K
Volume (L)		80		150	
Temperature	Range (°C)	Amb. +5 to 80	+4 to 80	Amb. +5 to 80	+4 to 80
	Fluctuation at 37°C in flask	±0.1			
	Variation at 37°C in flask	±0.5			
	Refrigerator (Hp)	-	1/6Hp	-	1/6Hp
Shaking system	Motion type	Orbital			
	Amplitude size (mm)	19.1			
	Speed range (rpm)	20 to 500 (stackable : 20 to 250)			
	Accuracy	±1% of set speed (≥100rpm) / ≤1 (<100rpm)			
	Timer	1 min. to 999 hr 59 min.			
	Max. Load (Kg)	10 at 500 rpm 15 at 400 rpm 15 at 250 rpm (stacked)		10 at 500 rpm 21 at 400 rpm 21 at 250 rpm (stacked)	
Dimensions W x D x H (mm)	Platform w x d	350 x 350		450 x 450	
	Internal	440 x 440 x 418		540 x 540 x 518	
	External	578 x 815 x 854		678 x 895 x 934	
Shelves (Standard / Max)		2 / 8		2 / 11	
Weight (Kg)		153	160	183	190

Incubators - Accessories and Options



Wire shelves



Perforated shelves



Microplate holder



Stacking kits

Wire shelves

Stainless steel and electro-polished shelves are readily removed without using tools for easy cleaning.

Product code	Included	Maximum	W×L (mm)	Suitable for
EDA8136	2	7	366 × 316	IB-05G
EDA8135	2	11	446 × 366	IB-15G
EDA8137	2	11	576 × 419	IB-25G
EDA8136	2	10	366 × 316	IB-01E
EDA8220	2	13	466 × 490	IB-11E
EDA8219	2	14	566 × 466	IB-21E
EDA8136	4	14	366 × 316	IB-02G-2C
	8	28		IB-02G-4C
	2	11		IL-11/11A
EDA8219	4	22	566 × 466	IL-11-2C
	8	44		IL-11-4C
	3	25		IL-21/21A
EDA8220	1	5	466 × 490	ILP-02
EDA8223	2	10	195 × 310	ILP-12
EDA8221	2	8	305 × 299	ISS-3075/R
EDA8235	2	11	416 × 406	ISS-4075/R
EDA8233	2		516 × 506	

Perforated shelves

Stainless steel shelves are readily removed without using tools for easy cleaning.

Product code	Maximum	W×L (mm)	Suitable for
AAA12531	7	366 × 316	IB-05G
AAA12532	11	446 × 366	IB-15G
AAA12535	11	576 × 419	IB-25G
AAA12531	10	366 × 316	IB-01E
AAA22522	13	466 × 490	IB-11E
AAA22521	14	566 × 466	IB-21E
AAA12531	14	366 × 316	IB-02G-2C
	28		IB-02G-4C
	11		IL-11/11A
AAA22521	22	566 × 466	IL-11-2C
	44		IL-11-4C
	25		IL-21/21A
AAA22522	5	466 × 490	ILP-02
AAA24501	10	195 × 310	ILP-12
AAA24502		305 × 299	

Stacking kits

Stackable up to 2 units using exclusive stacking kits for space saving.

Product code	Description	Suitable for
AAA21521	Stacking kits for stackable chambers	IB-05G
AAA21522	Stacking kits for stackable chambers	IB-15G
AAA21523	Stacking kits for stackable chambers	IB-25G
AAA26501	Stacking kits for stackable chambers	IB-01E
AAA26502	Stacking kits for stackable chambers	IB-11E
AAA26503	Stacking kits for stackable chambers	IB-21E

Laboratory Equipment

Incubator Shakers - Accessories and Options



Flask clamps



Universal platforms



Funnel clamps



Dedicated platforms

Universal platforms / Flask clamps / Funnel clamps

Universal platforms provide flexibility for mixing assortments of test tubes and glassware of varying sizes on a single platform. Various clamps for Erlenmeyer flasks and separatory funnels are available.

Model			IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Product code	Universal platform		AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA23501-V3	AAA23502-V3
23550	Flask clamps (Stainless steel)	for 50 mL	36	49	88	36	49
23551		for 100 mL	24	39	68	24	39
23552		for 250 mL	14	20	39	14	24
23556		for 300 mL	14	20	39	14	24
23553		for 500 mL	9	16	28	9	16
23554		for 1L	6	9	18	6	9
23555		for 2L	4	5	11	4	6
23557		for 2.8L	2	4	8	2	5
23558		for 4L	-	-	6	-	4
23559		for 6L	-	-	5	-	2
AAA30570	Flask clamps (plastic)	for 50 mL	36	49	88	36	49
AAA30571		for 100 ~ 125 mL	19	29	48	19	29
AAA30572		for 200 mL	13	21	35	13	21
AAA30573		for 250 mL	13	19	35	13	19
AAA30574		for 300 mL	12	19	35	12	19
AAA30575		for 500 mL	9	12	24	9	12
AAA30576		for 1L	4	9	12	5	9
AAA30577		for 2L	2	4	8	4	5
23562	Funnel clamps	for 250 mL	4	6	15	4	6
23563		for 500 mL	2	4	10	3	4
23564		for 1L	-	3	7	-	3
23565		for 2L	-	-	5	-	-

Above accessories need to be mounted on a universal platform which is sold separately.

Dedicated platforms

When using a single flask size only, the dedicated platforms with pre-installed clamps provide maximum capacity. 250mL and 500mL clamps are standard but other sizes are available.

Description	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Universal platform & 250mL flask clamps	AAA23611-V1	AAA23623-V1	AAA23634	AAA23611-V1	AAA23623-V1
No. of flask clamps	14	20	39	14	20
Universal platform & 500mL flask clamps	AAA23612-V1	AAA23622-V1	AAA23635	AAA23612-V1	AAA23622-V1
No. of flask clamps	9	16	28	9	16

Incubator Shakers - Accessories and Options



Test tube racks



Plastic flask clamps



Rubber mats



Retractable foot caster

Test tube racks

Easy to release and mount racks made of durable stainless steel with adjustable angle and tube height support. Test tube racks are used with an optional universal platform.

Product code	Description	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
-	Test tube size	Maximum capacity of mountable racks				
23581	for 86 test tubes - Ø8mm	2	4	7	2	4
23582	for 86 test tubes - Ø10mm					
23583	for 58 test tubes - Ø12mm					
23584	for 58 test tubes - Ø14mm					
23585	for 32 test tubes - Ø17mm					
23586	for 19 test tubes - Ø25mm					
23587	for 10 test tubes - Ø30mm					
23594	for 10 test tubes - Ø35mm					
23593	for 4 test tubes - Ø50mm					

Microplate holders

Available in three styles: tower type, flat type (small and large), and single type. Tower type holder is for 10 standard or deep well plates. Large flat holder is for 4 standard or deep well plates. Small flat holder is for 3 standard or deep well plates. Single type holder is for 1 standard or deep well plate. (standard well plates' height: 14.7mm).

Product code	Description	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
-	Microplate holder type	Maximum mountable microplate holders				
23654	Single	8	15	25	8	15
23651	Tower	5	8	21	6	10
23652	Flat A (large)	-	2	4	-	2
23653	Flat B (small)	2	2	6	2	3

Rubber mats

Designed for low-speed applications, non-skid rubber mats allow quick addition or removal of flasks, plates or tubes.

Model	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Product code	AAA23531	AAA23532	AAA23534	AAA31531	AAA31532

Laboratory Equipment

Incubator Shakers - Accessories and Options



Spring wire racks



Universal attachments



Lab sticker



Microplate holders

Spring wire racks

Ideal for holding a wide variety of tubes, flasks, and other glassware. All components are made of stainless steel.

Model	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Product code	AAA23521-V1	AAA23522-V2	AAA23514	AAA31521-V1	AAA31522-V1

Universal attachments (utility carriers)

Several adjustable clamping bars for quickly securing a variety of glassware or tubes on non-skid rubber mats. Suitable for flat-bottomed flasks of various sizes.

Model	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Product code	AAA23511-V1	AAA23512-V1	AAA23505	AAA23511-V1	AAA23512-V1

Lab sticker

An alternative method for securing vessels to a universal platform. Ideal for containers such as bottles and dishes that cannot be held on the universal platform with conventional flask clamps. For safe operation, a gradual increase / decrease in speed is recommended.

Product code	Description (WxDxH) (mm)
AAA30551	200 x 200 x 5

Retractable foot caster

Highly beneficial for easy mobility during installation or relocation.

Product code	Description (WxDxH) (mm)	Suitable for
AAA23801	700 x 733 x 145	ISS-3075 / 3075R
AAA23802	800 x 813 x 225	ISS-4075 / 4075R

Stacking kits

Stackable up to 2 units using exclusive stacking kits for space saving.

Product code	Description	Suitable for
AAA23811	Stacking kit for stackable chambers	ISS-3075 / 3075R
AAA23812	Stacking kit for stackable chambers	ISS-4075 / 4075R

Melting Point Apparatus

These instruments are designed for fast and accurate measurement of melting points. A membrane keypad allows easy setting of the desired start temperature and heating ramp rates. The user friendly LCD display advises both the temperature and the specific stage of operation.

When measurements of melt are being made, the temperatures may be stored in the instrument's memory, by simply pressing the storage buttons. Once the heating cycle is completed, an integral air pump quickly cools the heating block so that the next series of tests can be commenced promptly.



Digital Series

- Photoelectric test.
- LCD display.
- RS-232 interface.
- Real time melting curve.

Product code	MD 300C
Measurement range: room temperature (°C)	Amb to +300
Minimum digital display (°C)	0.1
Size of the capillary (mm)	Ø1.4 (outside) Ø1.0 (inside) Length: 80
Loading height of the sample (mm)	3
Linear heating-up rate	5°C/min
Accuracy	<200°C: ±0.5°C 200-300°C: ±0.8°C
Dimensions W x D x H (mm)	510 x 380 x 360
Weight (Kg)	11



Advanced Series

Use PID & PWM to control the temperature

- Automatically records the melting curve.
- 3 samples can be measured at the same time and calculate the average value of initial and final melting points automatically.
- Touch screen.
- USB and RS-232 interface.

Product code	MD 400C
Measurement range: room temperature (°C)	Amb to +400
Minimum digital display (°C)	0.1
Size of the capillary (mm)	Ø1.4 (outside) Ø1.0 (inside) Length: 80
Loading height of the sample (mm)	3
Linear heating-up rate	0.1°C to 20°C/min
Accuracy	<200°C: ±0.5°C >200°C: ±0.8°C
Dimensions W x D x H (mm)	440 x 490 x 320
Weight (Kg)	11.5

Laboratory Equipment

Ovens

General applications for below ovens include;

Natural Convection Ovens

Annealing, drying of plant tissue, drug metabolism, fine chemical precipitation, general heating/ drying, serum protein analysis, and sterilisation.

Forced Convection Ovens

General aging and curing, agricultural genetic, digestion of proteins and starches, general heating/drying, stability and qc/batch testing, and sterilisation.

Vacuum Ovens

Agricultural genetic, annealing, desiccating, out-gassing solids and liquids, vacuum embedding, volatile resins and polymers testing.

Safety Features

- Self-protecting cut-off function and visual signals.
- Over temperature safety function: shuts off the power that is being supplied to the heater and then the controller sequentially.
- 2 separate over-current fuses.
- Timer mode useful for delaying the start of a test or for stopping a test that has been running for a certain time.
- Integrated time setting: Delay ON/OFF. (from 1 min 99hr 59 min)
- Power interruption setting: After a power interruption select automatic run or manual run.
- Door-open warning alarm (excludes OV models).
- Intermittent audible tone and visual LED warning alarms.
- After 5 minutes of the door being open the heater and fan will stop.



Optimum Control Features

- Professional electronic and program control:
- Microprocessor PID temperature control with simple calibration and autotuning feature.
- Conveniently preset settings for the 3 most commonly used temperatures.
- Switch from Celsius to Fahrenheit. (C° or °F)
- HMI (Human Machine Interface) control display network system.
- User-friendly controls, splash proof / easy to clean keypad and clear LED display.
- Quick keypad lock key prevents accidental resetting of testing parameters.

Constructional Features

- High quality #304 grade stainless steel inner chamber and dirt repellent powder coated exterior surface. (Except for OV models)
- Gasket minimises heat loss and tightly seals the chamber door.
- Fully insulated oven chamber prevents heat from escaping to the exterior surface.
- Adjustable electropolished stainless steel shelving provides uniform air flow around samples.

Natural Convection Oven - Economy Models

Economical multi-function ovens with gentle air-flow circulation.

Model		ON-01E	ON-11E	ON-21E
Product code		15015	15025	15035
Chamber volume (L)		52	100	150
Temperature	Range (°C)	Amb. +15 to 220		
	Fluctuation at 100°C	±0.3	±0.4	±0.5
	Variation at 100°C	±6.5	±4.1	±7.3
Shelves	No. of wire shelves (std / max)	2 / 9	2 / 13	2 / 14
Dimensions W x D x H (mm)	Internal	375 x 370 x 370	455 x 430 x 510	585 x 460 x 555
	External	530 x 535 x 737	610 x 595 x 877	740 x 625 x 922
Weight (Kg)		34	46	59



Forced Convection Ovens - Economy Models

Fast drying ovens with vertical air-flow circulation.

Model		OF-01E	OF-11E	OF-21E
Product code		14012	14022	14032
Chamber volume (L)		52	100	150
Temperature	Range (°C)	Amb. +10 to 220		
	Fluctuation at 100°C	±0.4		
	Variation at 100°C	±3.3		±2.3
Shelves	No. of wire shelves (std / max)	2 / 9	2 / 13	2 / 14
Dimensions W x D x H (mm)	Internal	375 x 370 x 370	455 x 430 x 510	585 x 460 x 555
	External	530 x 535 x 737	610 x 595 x 877	740 x 625 x 922
Weight (Kg)		36	47	59

Forced Convection Oven - General Models

Specially designed for large volume and fast drying application. Offering rapid heating performance as well as uniform temperature distribution, these heavy-duty ovens are ideal for obtaining quick test results.

Model		OF3-30H	OF3-45H	OF3-75H
Product code		AAH193113K	AAH193213K	AAH193313K
Chamber volume (L)		314	450	760
Temperature	Range (°C)	Amb. +10 to 300		
	Fluctuation at 100°C	±0.2		
	Variation at 100°C	±0.8		±1.6
Shelves	No. of wire shelves (std / max)	2 / 16	3 / 25	3 / 34
Dimensions W x D x H (mm)	Internal	645 x 750 x 650	645 x 750 x 930	745 x 850 x 1200
	External	850 x 1100 x 1235	850 x 1100 x 1525	950 x 1200 x 1785
Weight (Kg)		200	240	300

Vacuum Oven

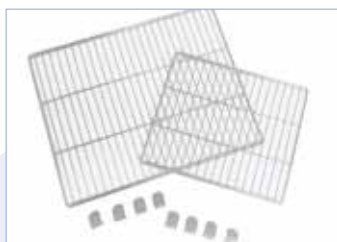
With a wide temperature range for various test applications for separating solvents from solutions or drying solvents with high boiling points.



Model		OV-11	OV-12
Product code		13115	13125
Chamber volume (L)		28	65
Vacuum range (MPa)		0 to 0.1	
Temperature	Range (°C)	Amb. +5 to 250	
	Fluctuation at 100°C	±0.1	±0.3
	Variation at 100°C	±3.7	
Shelves	No. of shelves	2	3
Dimensions W x D x H (mm)	Internal	302 x 305 x 302	402 x 405 x 402
	External	680 x 453 x 495	780 x 557 x 595
Weight (Kg)		63	103

Laboratory Equipment

Ovens - Accessories and Options



Wire shelves



Perforated shelves



Vacuum pumps



Cold trap baths

Natural / Forced Convection Ovens

Wire shelves

Stainless steel and electro-polished shelf system is removed easily without using tools for easy cleaning.

Product code	W×L (mm)	Suitable for
EDA8136	366 × 316	OF-01E, ON-01E
EDA8135	446 × 366	OF-11E, ON-11E
EDA8137	576 × 419	OF-21E, ON-21E
RTD1196	708 × 608	OF3-30H/OF3-45H
RTD1197		OF3-75H

Perforated shelves

Stainless steel shelf system is removed easily without using tools for easy cleaning.

Product code	W×L (mm)	Suitable for
AAA12531	366 × 316	OF-01E, ON-01E
AAA12532	446 × 366	OF-11E, ON-11E
AAA12535	576 × 419	OF-21E, ON-21E
AAA18501	708 × 608	OF3-30H/OF3-45H
AAA18502		OF3-75H

Recorders

Digital recorders for efficient temperature mapping.

Product code	Description	Suitable for
AAA8T500	Recorder (6 point)	OF3-30/P/H/HP OF3-45/P/H/HP OF3-75/P/H/HP
AAAE1503	Recorder (thermal line type)	

Vacuum Ovens

Safety covers

In case of the glass is destroyed, the netted steel frame and polycarbonate sheet cover prevent user from glass splinters.

Product code	Description	Suitable for
AAA13603	Safety cover	OV-11
AAA13604	Safety cover	OV-12

Vacuum pumps

Rotary vacuum pumps with directly connected oil seal prevent air reflux and provide high vacuum pressure for vacuum ovens.

Product code	Description
MED-141C	Medline economy pump
BEH73205K	W2V10 pump
BEA700351	Oil mist trap (PC) for W2V10
BEA700355	Oil mist trap (metal) for W2V10
BEA700353	Vacuum pump oil (1L)
BEA700354	Vacuum pump oil (20L)

Gaskets

Replacement and optional door seals.

Product code	Description	Suitable for
FAA5146	Silicone gasket	OV-11
FAA5187	Viton (fluorine rubber) gasket	
FAA5147	Silicone gasket	OV-12
FAA5188	Viton (fluorine rubber) gasket	

Cold trap baths

CTB-10 cold trap baths equipped with two U-type glass traps prevent a vacuum pump from vapors or contamination.

Product code	Description
AAH62012K	4.8L cold trap bath
FCA1110	U-type glass trap (1ea)

Pipettors

Comfortable and low effort pipetting reduces the risk of repetitive strain injuries. Setting the volume is easy and absolute precise using the push button. Two step plunger operation allows the use of the “reverse pipetting technique”.

This also facilitates last drop dispensing by soft plunger movements. Each pipette is individually tested and twice calibrated conforming to EN ISO 8655 and DIN 12650 standards. Micropipettes can be autoclaved.



Analogue SC Variable Volume



Product code	Vol. range μl	Increments μl	Test Volume μl
MD8100009	0.1 - 2.5	0.05	0.25 / 1.25 / 2.5
MD8101009	0.5 - 10	0.1	1 / 5 / 10
MD8102009	2 - 20	0.5	2 / 10 / 20
MD8104009	10 - 100	1	10 / 50 / 100
MD8105009	20 - 200	1	20 / 100 / 200
MD8105019	50 - 200	1	50 / 100 / 200
MD8106009	100 - 1000	5	100 / 500 / 1000
MD8106209	200 - 1000	5	200 / 500 / 1000
MD8106109	500 - 5000	50	500 / 2500 / 5000
MD8108009	2000 - 10000	100	2500 / 5000 / 10000

Racks

Product code	Description	Unit
MD8130009	Rack for 4 micropipettes	1
MD8131009	Rack for 6 micropipettes	1

Digital SC Variable Volume

Electronic pipettes which are ergonomic, user friendly and reliable for laboratory applications. It is an excellent example of combining all these aspects in one product, a valued instrument for professionals who strive for high quality results.

Features

- A digital control pipette with motor drive.
- A wide range of pipetting modes for selection.
- Li-ion battery enables longer operation time from each charge.
- High quality motor with built in error control providing outstanding accuracy and reliability.
- Adjustable speeds for aspiration and dispensing.
- Two methods of charging - through stand or direct charge.



Product code	Vol. range μl	Increments μl	Test Volume μl
MD8010009	0.5 - 10	0.01	0.5 / 10
MD8010009	5 - 50	0.1	5 / 50
MD8012009	30 - 300	1	30 / 30
MD8013009	100 - 1000	5	100 / 1000

Laboratory Equipment

Polarimeters



Polaris - Analogue

The Polaris is a high quality, low cost instrument capable of measuring the rotation of optically active samples and matches the performance of many digital instruments in the market today. The variable half waveplate effect is used to obtain a balance between the two halves of a circle when viewed through the eyepiece. The reading is then taken from the scale.

The Polaris accepts sample tubes of lengths up to 220mm and is used for measuring concentrations and optical rotations in the food, sugar, flavouring, fragrance, pharmaceutical and chemical industries.

Product code	9100.0000
Measuring range	360° with 180°left/right rotation
Light source	Monochromatic light source of 589nm
Accuracy	Double vernier scale: accuracy 0.05
Light source	LED
Dimensions W x D x H (mm)	600 x 200 x 400
Weight (Kg)	8

Polaris - Digital

The digital and automatic polarimeters include a self test for rotating the angle and sugar degree as one complete operation based upon the mean average. All results are clearly displayed on the unique LCD display.

Automatic models have a peltier controlled chamber to control the temperature of the sample and can measure dark coloured samples. Supplied with USB and RS232 interfaces.



Product code	9100.5000	9100.6000	9100.7000
Type	Digital	Automatic	
Measuring range	-45° to +45° -120° to +120°	-45° to +45° -120° to +120°	-89° to +89°
Measuring time	1° /s		
Minimum reading	0.001°		
Accuracy	±0.01°		
Repeatability	≤0.002° / ≤0.02°	>1% ≤0.002°	1% 0.002°
Resolution	0.005° / 0.001°		
Minimum sample transmittance	1 %		
Light source	Sodium lamp 589 nm	LED	
Dimensions W x D x H (mm)	600 x 320 x 220	850 x 470 x 380	
Weight (Kg)	30	32	37

Refractometers

Ceti Refractometers offer precision, versatility and excellent value. Our range begins with the analogue pocket models, expanding to digital and benchtops systems, incorporating fully automated measuring and processing models.

Hand Held - Analogue

The Digit series comprises 25 lightweight hand-held refractometers for measuring the Brix or refractive index value of specific products. 8145 models feature automatic temperature compensation (ATC). Suitable for general applications to industry specific: examples include the control of sugar or alcohol levels in food and beverages and spot testing of petrochemicals.



Model	DIGIT-012 Clinical		DIGIT-050 Battery		DIGIT-090 Sugar	
Product code	8100.0120M	Precision	8100.0500M	Precision	8100.0900M	Precision
Scale	Refractive index 1.3330 to 1.3600	0.0005	Ethylene glycol from -50°C to 0°C	5°C	0-42% Brix	0.2%
	Protein 0 to 12 g/dl	0.2	Specific gravity 1.15 to 1.30 sg	0.01	42-71% Brix	0.2%
	Specific gravity 1.000 to 1.050	0.002	Battery fluid from -50°C to 0°C	5°C	71-90% Brix	0.2%

Model	DIGIT-5890 Honey		DIGIT-5890 ATC Honey		DIGIT-015 Sugar/oil	
Product code	8100.5890M	Precision	8145.5890M	Precision	8100.0150M	Precision
Scale	58-90% Brix	0.5%	58-90% Brix	0.5%	0-15% Brix	0.2%
	12-27% Water	1%	12-27% Water	1%	Refractive index 1.3330 to 1.3560	0.0005 nD
	38-43% Baumé	0.5%	38-43% Baumé	0.5%		

Model	DIGIT-30~140 Oechsle scale		DIGIT-100 ATC Salinity		DIGIT-025 ATC Alcohol	
Product code	8100.3014	Precision	8145.0100M	Precision	8145.0250M	Precision
Scale	0-32% Brix	0.20%	0-100‰ Salinity	1‰	0-25% Alcohol/Volume	0.2%
	30-140 Oechsle	0.10%	Gravity 1.000 to 1.070 sg	0.001		

Model	DIGIT-025 Alcohol		DIGIT-032 Sugar		DIGIT-080 Sugar	
Product code	8100.0250M	Precision	8100.0320M	Precision	8100.0800M	Precision
Scale	0-25% Alcohol (Volume)	0.2%	0-32% Brix	0.2%	0-80% Brix	0.5%

Model	DIGIT-2862 Sugar		DIGIT-010 ATC Sugar		DIGIT-032 ATC Sugar	
Product code	8100.2862	Precision	8145.0001	Precision	8145.0320M	Precision
Scale	28-62% Brix	0.2%	0-10% Brix	0.1%	0-32% Brix	0.2%

Hand Held - Digital

The SR-95 digital refractometer has a triple range scale coupled with an RS232 interface. Other additions include automatic temperature compensation, Centigrade and Fahrenheit measurements, a stainless steel sample plate and instantaneous digital results.

Model	SR-95			
Product code	8950.000M			
Description	Type	Range	Resolution	Accuracy
Scale	Brix	0-95%	0.1%	+/- 0.1%
	Refractive Index	1.3330-1.5318	0.0001	+/- 0.00015
	Salinity	0-30%	0.1%	+/- 0.1%



Laboratory Equipment

Benchtop - Analogue

The Convex is highly versatile, allowing measurements of a wide range of substances to be taken. Both upper and lower prisms have their own light entry ports, which can be closed, thereby making it possible to take readings from both reflected and transmitted light.



Model	Convex
Product code	8200.0000M
Scale	Refractive index nD: 1.3000-1.7200 Sugar 0-95% Brix
Precision	0,0005 nD 0,25% Brix
Eyepiece	30x telescope, focusable
Temperature range (°C)	0-200 (Digital thermometer)
Dimensions W x D x H (mm)	280 x 190 x 380
Weight (Kg)	4,5

The Prisma refractometer is equipped with an integral LED illuminator for its external scale unit, allowing readings to be easily taken whilst taking notes. A user friendly colour compensation knob eliminates any colour shift. In addition to transparent solutions, the PRISMA is equipped to measure the RI of solids, powders, pastes and plastic films. Both the upper and lower prisms are of the highest quality and include connecting nozzles for a thermostatic water bath.



Model	Prisma
Product code	8300.0000M
Scale	Refractive index nD: 1.3000-1.7200 Sugar 0-95% Brix
Precision	0,0005 nD 0,25% Brix
Eyepiece	22x telescope, focusable
Temperature range (°C)	0-200 (Digital thermometer)
Dimensions W x D x H (mm)	360 x 240 x 400
Weight (Kg)	7

Benchtop - Digital

The Quartz is a semi-automated Abbe refractometer. Its fast, digital read-out offers a speedier throughput, which is particularly useful in manufacturing centres and on production lines. Presentation of a sample produces an almost instantaneous, accurate readout of the RI, %Brix value and %Brix temperature on the LCD display. An RS232 PC/Printer interface is supplied.



Model	Quartz
Product code	8400.0000M
Scale	1.3000 to 1.7000 0 to 95% Brix (Bx) 0 to 90% Brix temp. compensated (BxTC)
Precision	0.0001 nD / 0.00020 nD 0.1% Brix/0.1% Brix
Eyepiece	Focusable
Temperature range (°C)	15 to 50
Dimensions W x D x H (mm)	470 x 370 x 240
Weight (Kg)	12

The Difrax is a fully automated digital Abbe refractometer. The touch sensitive screen has functions of temperature display, automatic correction and saving of date. A digital USB interface is supplied as standard.



Model	Difrax
Product code	8500.0000M
Scale	Refractive index nD: 1.3000-1.7000 Brix(BX-TC): 0-100% Brix(Bx): 0-95%
Measuring accuracy	Refractive index nD: ±0.0002 Dissolved solids Brix: ±0.1%
Measuring resolution	Refractive index nD: 0.00001 Dissolved solids Brix: 0.01%
Temperature range (°C)	0 to 50
Dimensions W x D x H (mm)	329 x 214 x 150
Weight (Kg)	3.7

Refrigerators and Freezers

General applications for laboratory and medical cooling including;

Chemical, reagents, culture storage. Temperature sensitive material, enzyme storage, pre-freezing. Valuable blood and blood plasma storage in life science. Sensitive pharmaceutical products and vaccine storage in clinics, hospitals, and retail pharmacies.

Performance

- Reliable cooling storage of laboratory and medical samples.
 - Designed and tested in accordance with the international standard DIN 58345 / DIN 58375.
 - Satisfied the strict requirements of the International medical standards (ISO13485 / DIN 58371).
- Optimised temperature control system for high temperature stability.
 - Automatic defrost and intelligent dual refrigeration system minimises temperature change.
- Shock absorbing door construction.
- Fully insulated chamber ensures minimal chamber temperature fluctuation.

Convenience

- Intuitive and easy operation by means of the VFD display with touch-sensitive buttons.
- Choice of solid or glass door options.
- Precise and easy output of storage documentation.

Safety

- High and low temperature limits alert.
- Automatic power cut-off system against overheating.
- Built-in door lock for safe sample storage.
- Keypad lock button prevents inadvertent parameter changes.
- Advanced safety system to meet strict requirements of the medical cooling devices.
- Safe door open system to minimise heat loss and protect stored samples.
- Eco-friendly refrigerant protects the global environment.



Laboratory Refrigerators - General Purpose

With advanced safety features, the cold storage system provides a stable refrigerated environment for life science, pharmaceutical, biotechnology, clinical, and industrial laboratories.

Model		CLG-150	CLG-300	CLG-650	CLG-850	CLG-1400
Product code	Solid Door	AAHE1002K	AAHE1012K	AAHE1022K	AAHE1032K	AAHE1042K
	Glass Door	AAHE1102K	AAHE1112K	AAHE1122K	AAHE1132K	AAHE1142K
Chamber volume (L)		156	319	603	805	1327
Display		VFD and touch-screen				
Temperature range (°C)		2 to 10				
Refrigerator (Hp)		1/8	1/6	1/4	1/6 x 2ea	1/4 x 2ea
Door type		Heated glass or Solid				
Lighting		-	18W Fluorescent lamp	32W Fluorescent lamp		
Insulation material		60mm, Polyurethane foam				
Dimensions W x D x H (mm)	Internal	550 x 580 x 490	550 x 580 x 1000	650 x 675 x 1450	750 x 775 x 1450	1425 x 675 x 1450
	External	683 x 791 x 870	670 x 719 x 1515	770 x 815 x 1965	870 x 915 x 1965	1545 x 815 x 1965
Weight (Kg)		100	130	210	260	350

Laboratory Equipment

Laboratory Refrigerators - Slimline Series

With advanced safety features, the cold storage system provides a stable refrigerated environment for life science, pharmaceutical, biotechnology, clinical, and industrial laboratories.

Performance

- Reliable cooling storage of laboratory and medical samples.
- Automatic defrost cycle and melt water evaporation in heated tray.
- Shock absorbing door construction.
- Fully insulated chamber ensures minimal chamber temperature fluctuation.
- Microprocessor control with digital display / controller.
- Adjustable temperature set points.
- Date, time, alarm buzzer.
- Infrared data transmission.
- Dry contact for remote alarm.
- Convenient after sales servicing.

Convenience

- Intuitive and easy operation by means of the VFD display with touch-sensitive buttons.
- Choice of solid or glass door options.
- Precise and easy output of storage documentation.
- Stainless steel Internal and exterior on all cabinets.
- Chamber with rounded corners for easy cleaning
- Slimline design allows access through standard doors because of minimal dimensions.
- Standard fitted with heavy duty double-roll casters for easy transportation (lockable).
- Easy to mount stainless steel adjustable feet also come standard inside every cabinet.
- Flexible storage: you can mix drawers, grids and shelves in one cabinet without any internal modifications.

Safety

- High and low temperature limit alert.
- Automatic power cut-off system against overheating.
- Built-in door lock for safe sample storage.
- Keypad lock button prevents inadvertent parameter changes.
- Advanced safety system to meet strict requirements of the medical cooling devices.
- Safe door open system to minimise heat loss and protect stored samples.
- Eco-friendly refrigerant protects the global environment.
- Door open alarm.
- Unique traceability of alarms with storage history of last 20 alarm events.
- Light on/off (in case of glass door).
- Auto fan switch off when door opens.



Model		MDR SERIES		
Product code	Solid door	MDR130	MDR700	MDR1400
	Glass door	MDR130G	MDR700G	MDR1400G
Chamber volume (L)		130	670	1325
No. of doors		1		2
Display		Digital		
Temperature	Range (°C)	+1 to +8		
	Accuracy (°C)	± 0.5		
	Stability (°C)	± 2		
Insulation material		50mm non-CFC, foamed polyurethane	60mm non-CFC, foamed polyurethane	
Shelves	No. of shelves (std / max)	2 / 5	3 / 16	6 / 32
Dimensions W x D x H (mm)	Internal	540 x 415 x 460	590 x 675 x 1470	1300 x 675 x 1470
	External	630 x 567 x 850	710 x 845 x 1998	1420 x 845 x 1998
Weight (Kg)		55	145	245

Refrigerator / Freezer

Refrigerators and freezers for the research and laboratory sectors, with precise electronic controls and degree-accurate temperature settings, offering outstanding temperature stability. The comprehensive functions and features ensure that sensitive substances, chemicals, and other research materials can be optimally stored. Designed for a long service life and are energy efficient. Both chambers have their own independent cooling system, controller and power.

Performance

- Microprocessor control with digital display / controller.
- Volt-free contact for forwarding alarms to an external remote warning system with a Comfort electronic controller.
- Integrated data memory logs the last three temperature alarms and power failures, together with the time, date and duration of the alarm.
- Self-closing doors prevent cold loss and contribute to the temperature stability of the appliances.
- Dynamic cooling system in conjunction with the precision comfort electronic controller ensures maximum temperature stability (ISO 60068-3).
- 1-point calibration for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature.

Convenience

- Intuitive and easy operation by means of the VFD display with touch-sensitive buttons.
- Commercial-grade moulded polystyrol inner liner is exceptionally easy to clean and enables optimum hygiene.
- Sturdy, plastic-coated adjustable shelves have a loading capacity of up to 45 Kg.
- Access port for integration of an optional / independent temperature sensor.
- The drawers can easily be removed by the handles recessed in the sides. The drawers have a transparent front providing a clear view of the products stored inside.
- Access port (diameter 10 mm) on the rear which allows the temperature sensor to be positioned in the interior.

Safety

- Automatic power cut-off system against overheating.
- Built-in door lock for safe sample storage.
- The electronic controller is flush-mounted and equipped with a membrane keyboard for perfect hygiene.
- Visual and audible alarm systems alert the user to undesired temperature deviations or when the door is open.
- Fitted with an additional safety thermostat to prevent temperatures below +2°C and to protect sensitive products in the event of a fault.
- Keypad lock button prevents inadvertent parameter changes.
- Eco-friendly refrigerant protects the global environment.



Product code			MDRF300
Chamber volume (L)			254 (fridge) / 107 (freezer)
No. of doors			2
Display			Digital
Temperature	Range (°C)	Upper	+3 to +16
		Lower	-9 to - 30
	Accuracy (°C)		± 0.1
	Stability (°C)		± 2
Chart recorder			Optional
Insulation material			70mm CFC free, foamed polyurethane
No. of shelves / drawers			5 (fridge) / 2 (freezer)
Dimensions W x D x H (mm)	Internal		440 x 435 x 1105 (fridge) / 431 x 435 x 597 (freezer)
	External		600 x 615 x 2000
Weight (Kg)			85

Laboratory Equipment

Laboratory Freezers - General Purpose

Protect laboratory materials and choose from three different freezer lines that fit your experimental needs. Equipped with a manual defrost function for storage of sensitive samples and specimens.

Performance

- Excellent freezing control down to minimum -50°C (model dependent).
- Fully insulated chamber ensuring minimal chamber's temperature fluctuation.
- High thermal efficiency evaporation system, made of low corrosive materials.
- Dual defrost systems.

Safety

- High/low temperature protection, Over current protection.
- Open door alarm and automatic fan stop interlocked with door opening for minimisation of heat loss.
- Keypad lock function.
- Built in door lock with a key.

Convenience

- Intuitive and easy-to-operate control panel with VFD and touch-sensitive buttons.
- Air-tight door seal and lockable door latch enhances tightness to door closure.
- High-quality 304 grade stainless steel interior.
- Efficient internal space use with height adjustable wire shelves.
- Dedicated stand with casters and stacking kits available.
- Three types of recorders available.



Model		FHG-150	FHG-300	FHG-650
Product code		AAHE2102K	AAHE2112K	AAHE2122K
Chamber volume (L)		154	303	647
No. of doors		1		
Display		VFD and touch-screen		
Temperature range (°C)		0 to -15		
Door Type		Solid		
Insulation material		70mm, Polyurethane foam		
Shelves	No. of shelves (std / max)	2 / 6	3 / 11	3 / 17
Dimensions W x D x H (mm)	Internal	550 x 570 x 490	550 x 550 x 1000	700 x 675 x 1370
	External	763 x 815 x 1055	765 x 760 x 1650	915 x 885 x 2020
Weight (Kg)		120	150	230

Model		FCG-150	FCG-300	FCG-650
Product code		AAHE2302K	AAHE2312K	AAHE2322K
Chamber volume (L)		154	303	647
No. of doors		1		
Display		VFD and touch-screen		
Temperature range (°C)		-25 to -35		
Door Type		Solid		
Insulation material		70mm, Polyurethane foam		
Shelves	No. of shelves (std / max)	2 / 6	3 / 11	3 / 17
Dimensions W x D x H (mm)	Internal	550 x 570 x 490	550 x 550 x 1000	700 x 675 x 1370
	External	763 x 815 x 1055	765 x 760 x 1650	915 x 885 x 2020
Weight (Kg)		123	155	238

Laboratory Freezers - Slimline Series

With advanced safety features, the -22°C storage system provides a stable environment for life science, pharmaceutical, biotechnology, clinical, blood banking and industrial laboratories.

Performance

- Reliable cooling storage of laboratory and medical samples.
- Automatic defrost cycle and melt water evaporation in heated tray.
- Shock absorbing door construction.
- Fully insulated chamber ensures minimal chamber temperature fluctuation.
- Microprocessor control with digital display / controller.
- Adjustable temperature set points.
- Date, time, alarm buzzer.
- Infrared data transmission.
- Dry contact for remote alarm.

Convenience

- Intuitive and easy operation by means of the VFD display with touch-sensitive buttons.
- Choice of solid or glass door options.
- Precise and easy output of storage documentation.
- Stainless steel interior and exterior on all cabinets.
- Chamber with rounded corners for easy cleaning.
- Slimline design allows access through standard doors because of minimal dimensions.
- Standard fitted with heavy duty double-roll casters for easy transportation (lockable).
- Easy to mount stainless steel adjustable feet also come standard inside every cabinet.
- Flexible storage: you can mix drawers, grids and shelves in one cabinet without any internal modifications.

Safety

- High and low temperature limit alert.
- Automatic power cut-off system against overheating.
- Built-in door lock for safe sample storage.
- Keypad lock button prevents inadvertent parameter changes.
- Advanced safety system to meet strict requirements of the medical cooling devices.
- Safe door open system to minimise heat loss and protect stored samples.
- Eco-friendly refrigerant protects the global environment.
- Door open alarm.
- Unique traceability of alarms with storage history of last 20 alarm events.
- Light on/off (in case of glass door).
- Auto switch off fan when door opens.



Model		MDF SERIES		
Product code	Solid Door	MDF130	MDF700	MDF1400
	Glass Door	MDF130G	MDF700G	MDF1400G
Chamber volume (L)		130	670	1325
No. of doors		1		2
Display		Digital		
Temperature	Range (°C)	-18 to - 22		
	Accuracy (°C)	± 0.5		
	Stability (°C)	± 2		
Insulation material		60mm non-CFC, foamed polyurethane		
Shelves	No. of shelves (std / max)	2 / 5	3 / 16	6 / 32
Dimensions W x D x H (mm)	Internal	540 x 415 x 460	590 x 675 x 1470	1300 x 675 x 1470
	External	630 x 567 x 850	710 x 845 x 2018	1400 x 1420 x 2018
Weight (Kg)		66	145	240

Laboratory Equipment

Ultra Low Temperature Freezers

Completely automated production from start to end and extensive quality control on all products before they leave the factory ensures high quality storage for your samples by -86°. Our ULT freezers only use the highest quality compressors in combination with unique WhisperFreeze® technology. This combination ensures smooth running compressors with the lowest power consumption and noise level in the market.

By utilising innovative HDPE shelving systems, they are harder, stronger and are highly corrosion resistant. Air circulation holes enable increases in the temperature uniformity between the compartments.

Benefits of HDPE shelves include:

- Corrosion resistant.
- Scratch tolerant.
- Chemically resistant.
- Non toxic making it environmentally safe.
- Superior temperature uniformity.
- Lightweight.
- Freeze resistant (down to -120°C).
- Shelf flatness guaranteed even at heavy loads.

The units have an eye level control panel with the following specifications:

- Multi-position key switch: on, off and set.
- Bright, easy to read, digital display.
- Readout in 1 and 0.1 °C increments.
- Key protected menu.
- Adjustable temperature set point.
- Audible and visual high / low temperature alarm.
- Power outage alarm with battery backup.
- Voltage indication and stabilisation booster.
- Clean filter alarm.
- Door alarm (also for CO backup System).
- Remote alarm (NO/NC/COM).

- RS232 / RS485 port (free software to download).
- Service friendly plug & play detachable cable housing.
- ROHS compliant.



Product code		DF8503	DF8517	DF8520	DF8524
Chamber Volume (L)		94	484	605	730
No. of inner doors		-	4		
Shelves		1	3		
Display		Digital			
Temperature	Range (°C)	-40 to -86			
	Uniformity (°C)	± 3			
Microprocessor		Adjustable set-point, high alarm, low alarm, door alarm, voltage alarm, power failure alarm, clean filter alarm (audible, visual and remote alarm)			
Noise level according to NEN-EN-ISO 11202		49 dB(A)			50 dB(A)
Refrigeration		Hydrocarbon natural refrigerants (CFC/ HFC free) safety compliant EN60335-2-24			
Cabinet material		Stainless steel interior	Epoxy coated steel interior		
Insulation material		130mm non-CFC, foamed in place polyurethane			
Power consumption (kWh / 24 hrs)		8.98	12.0	12.24	14.16
Dimensions W x D x H (mm)	Internal	600x 440 x 355	600 x 630 x 1280	750 x 630 x 1280	750 x 760 x 1280
	External	720 x 620 x 780	920 x 1050 x 1979	1070 x 1050 x 1979	1070 x 1180 x 1979
Weight (Kg)		99	380	410	450

Ultra Low Temperature Freezers - Duo-Safe

The Duo-Safe cooling system is a new design and provides the highest reliability and security for your samples. Two individually controlled compressors provide an exceptionally stable -86°C environment. The compressors work together in the machine, and in case of an unexpected failure of one of the compressors the other circuit will automatically take over and maintain a stable temperature of -80°C, constantly protecting your samples until service can be arranged.

The new state of the art touch-screen panel provides all the information you need from your ULT freezer, such as: temperature graphs, event history, installed rack information and more. The Duo-Safe freezer comes with an easy to use rack information system, which allows you to check where your samples are without opening the freezer, just simply input a name for your rack in to the control panel. Also included is the app for your mobile device (iOS and Android) which allows you to control and check your freezer from any distance/location.



Product code		DF8517DS	DF8520DS	DF8524DS
Chamber Volume (L)		484	605	730
No. of inner doors		4		
Shelves		3		
Display		Touch screen		
Temperature range (°C)		-40 to -86		
Uniformity (°C)		± 3		
Microprocessor		Adjustable set-point, high alarm, low alarm, door alarm, voltage alarm, power failure alarm, clean filter alarm (audible, visual and remote alarm)		
Noise level according to NEN-EN-ISO 11202 (dB)		49		50
Refrigeration		Hydrocarbon natural refrigerants (CFC/ HFC free) safety compliant EN60335-2-24		
Cabinet material		Epoxy coated steel interior		
Insulation material		130mm non-CFC, foamed in place polyurethane		
Power consumption (kWh / 24hrs)		0.42 to 10.08	0.5 to 12.0	
Dimensions W x D x H (mm)	Internal	600 x 630 x 1280	750 x 630 x 1280	750 x 760 x 1280
	External	920 x 1050 x 1979	1070 x 1050 x 1979	1070 x 1180 x 1979
Weight (Kg)		380	410	450

ULT Freezers - Accessories and Options

Inventory racks

Product code	Rack Type	Box Size (mm) / Qty	Suitable For
CR0062	Side opening	50 / 12	All chest freezers
CR0063		75 / 8	
UR0068		50 / 20	
UR0069		75 / 12	DF8517 / DF8520
UR0070		50 / 25	DF8524
UR0071		75 / 15	
UR1068	Sliding shelves	50 / 20	DF8517 / DF8520
UR1069		75 / 12	DF8524
UR1070		50 / 25	
UR1071		75 / 15	

Chart recorders / miscellaneous

Product code	Description
CH0067	6 inch chart recorder, circular, 7 day
CP0067	Recorder paper for CH0067 (package with 52 pieces)
IP0067	Red pens for CH0067 (package with 6 pieces)
LCU070	CO ₂ back-up system for upright freezers
LCC070	CO ₂ back-up system for chest freezers
LCU071	LN ₂ back-up system for upright freezers
LCC071	LN ₂ back-up system for chest freezers
SS8517	Sliding shelves option for model DF series
IFS200	RS232/485 hardware package to connect to software
1004C	Large door handle with integrated lock

Cryo boxes

Product code	Description
POP02	Polypropylene 2 inch box with 9 x 9 grid divider
POP03	Polypropylene 3 inch box with 9 x 9 grid divider
PP0060	Cardboard storage 2 inch box (excl. dividers)
PP0061	Cardboard storage 3 inch box (excl. dividers)

Cardboard box dividers

Product code	Description
PP1049	Storage box divider 7 x 7, 16mm, 49 cell
PP1064	Storage box divider 8 x 8, 14mm, 64 cell
PP1081	Storage box divider 9 x 9, 13mm, 81 cell
PP1100	Storage box divider 10 x 10, 12mm, 100 cell

Laboratory Equipment

Rotators

Effective mixing of biological samples in a variety of vials. Ideal for immune precipitations, prevention of blood coagulation, latex diagnostics etc.

Performance

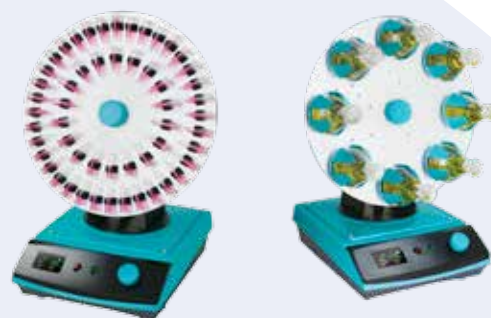
- Microprocessor PID control.
- Adjustable speed range from 2 to 70 rpm.
- Fully adjustable tilt angle up to 90°. - Horizontal for minimal mixing and vertical for full end-over-end mixing.
- Digital speed control providing gentle rotating even at low speed.
- Low-profile design with rubber feet for minimal vibration and noise.

Convenience

- Simple fixture of accessories equipped to disk for quick installation and removal.
- Various selection of optional tubes and flask clamp holder disks to accommodate most applications.
- Available to rotate a maximum 108 test tubes simultaneously with the use of two tube holders with the optional dual holder accessory.
- Vivid and colourful vacuum fluorescent display (VFD) with touch-sensitive keypad.
- One-touch timer range: 1 min. to 99 hr. 59 min.
- Compact and lightweight design allows for use in cold rooms or incubators.

Safety

- Stepping motor with self-protection function for advanced durability.
- Self-diagnostic function identifying errors.
- Polypropylene construction is highly chemical-resistant and easy- to clean.
- Over-current protection.



Model		CRT-350
Product code		AAH3E115K
Shaking system	Motion type	Orbital
	Speed range (rpm)	2 to 70
	Tilt angle	0 to 90°
	Max. load (Kg)	4
Material	Disk (optional)	Aluminium
	Body	Polypropylene
Dimensions W x D x H (mm)	Exterior with disk (optional)	320 x 325 x 463
Weight with disk (optional) (Kg)		7.5

Rotator - Accessories and Options

Erlenmeyer flask clamp holders

Description	Max. mountable tube		Product code
Disk for flask clamp	N/A		AAA3E511
Flask clamp (stainless steel)	50ml	13	23550
	100ml	8	23551
	300ml	6	23556
Flask clamp (plastic)	50ml	13	AAA30570
	100ml to 125ml	8	AAA30571
	300ml	6	AAA30574

Tube holder fixture for double stacking

Description	Product code
Post	AAA3E521

Tube holder set with disk

Description	Max. mountable tube	Product code
1.5ml (Ø10mm / Ø0.39")	60	AAA3E501
5ml (Ø12mm / Ø0.47")	18	AAA3E502
15ml (Ø16.5mm / Ø0.65")	18	AAA3E503
50ml (Ø29mm / Ø1.14")	12	AAA3E504

Shakers

General applications for shakers include; general mixing, drug analysis, ELISA, enzyme immunoassays, staining and destaining, protein synthesis, and molecular biology applications.

Performance

- Dual-action shaking motion: Orbital / Reciprocal.
- Microprocessor PID control / Shaking speed calibration.
- Shaking motion in various amplitude.
- Wide speed range even with heavy workload.
 - Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Best effort run function intelligently manages its rpm to keep shaking even whilst workload exceeds its capacity.
- Low-profile design minimises vibration or sliding.

Convenience

- User friendly control panel.
 - Unique VFD-bright, clear, easy to read.
 - Durable membrane touch switch and control knob.
- Easy-set digital timer. (1 min. to 999 hr. 59 min.)
- Repetitive tasks can be easily performed as the platform stops in the same position as it starts, making it beneficial for automated dosing or sampling processes.
- Speed is set and displayed in increments of 1 rpm.
- Speed increment interval can be set from 1, 5, or 10 rpm.
- RS-232 port and USB port for external control and data collection.

Safety

- Automatic run after power interruption.
- Shaking speed deviation alarm.
- Over-current protection, Stalled platform check.
- Self-protecting cut-off function.
- Over-current fuses for user safety.
- To prevent spillages from flasks and tubes the shaker gently starts up and gently stops.



Dual Action Models

Two types of shaking motions (orbital or reciprocating), with numerous amplitude settings. The compact and interchangeable platform design accommodates various types and sizes of vessels (flasks up to 6L) and suitable for use in chambers.

Model		OS-2000	OS-3000
Product code		AAH3D1115K	AAH3D1215K
Shaking system	Motion type	Orbital or Reciprocating	
	Amplitude size (mm)	12.7 / 19.1 (standard)	19.1 (standard) / 25.4
	Speed range (rpm)	20 to 500	
	Accuracy	± 1% of set speed	
	Timer	1 min to 999 hr. 59 min	
Max. load (Kg)		10 at 500 rpm (orbital motion) 8.5 at 500 rpm (reciprocating motion)	
Dimensions (mm)	Platform W x D	320 x 260	350 x 350
	External W x D x H	354 x 388 x 146	409 x 508 x 141
Weight (Kg)		22	28

Laboratory Equipment

Orbital Models

Powerful driving system with a durable body structure increases shaking capacity. Suitable for larger or heavier workloads requiring accurate and reproducible results.

Performance

- Shaking speed calibration enables matching the displayed rpm to the reference point.
- Microprocessor PID control / Shaking speed calibration.
- Shaking motion in various amplitude.
- Wide speed range even with heavy workload.
- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Best effort run function intelligently manages its rpm to keep shaking even whilst workload exceeds its capacity.
- Low-profile design minimises vibration or sliding.

Convenience

- User friendly control panel.
 - Unique VFD-bright, clear, easy to read.
 - Durable membrane touch switch and control knob.
- Easy-set digital timer. (1 min. to 999 hr. 59 min.)
- Repetitive tasks can be easily performed as the platform stops in the same position as it starts, making it beneficial for automated dosing or sampling processes.
- Speed is set and displayed in increments of 1 rpm.
- Speed increment interval can be set from 1, 5, or 10 rpm.
- RS-232 port and USB port for external control and data collection.
- Variety of accessories are available to meet application demands.

Safety

- Automatic run after power interruption.
- Shaking speed deviation alarm.
- Over-current protection.
- Self-protecting cut-off function.
- Over-current fuses for user safety.
- To prevent spillages from flasks and tubes the shaker gently starts up and gently stops.



Model		OS-4000		OS-7100	OS-7200
Product code		AAH3D1315K	AAH3D1316K	AAH3D1415K	AAH3D1515K
Shaking system	Motion type	Orbital			
	Amplitude size (mm)	19.1 (standard)	25.4 (adjustable)	25.4	50.8
	Speed range (rpm)	20 to 500	20 to 450	30 to 500	30 to 300
	Accuracy	± 1% of set speed			
	Timer	1 min to 999 hr. 59 min			
Max. load (Kg)		14 at 500 rpm 21 at 400 rpm	10 at 450 rpm 21 at 300 rpm	10 at 500 rpm 25 at 400 rpm	23 at 300 rpm 35 at 200 rpm
Dimensions (mm)	Platform W x D	450 x 450		755 x 520	
	External W x D x H	510 x 632 x 156		755 x 627 x 151	
Weight (Kg)		43		117	

Advanced Orbital Models

Innovative triple-cam shaking mechanism with offering reliable performance across a wide speed range. Specially designed to carry out heavy-duty and trouble-free operations continuously.

Performance

- Microprocessor PID control / Shaking speed calibration.
- Shaking motion in various amplitude.
- Wide speed range even with heavy workload.
 - Ideal DD(Direct Drive) Brushless Motor and triple cam system support heavy load, quiet, maintenance free operation and deliver high torque at high speeds and smooth rotation.
- Best effort run function intelligently manages its rpm to keep shaking even whilst workload exceeds its capacity.
- Streamlined profile design minimises vibration or sliding.

Convenience

- User friendly control panel.
 - Unique VFD-bright, clear, easy to read.
 - Durable membrane touch switch and control knob.
- Easy-set digital timer. (1 min. to 999 hr. 59 min.)
- Repetitive tasks can be easily performed as the platform stops in the same position as it starts, making it beneficial for automated dosing or sampling processes.
- Speed is set and displayed in increments of 1 rpm.
- Speed increment interval can be set from 1, 5, or 10 rpm.
- RS-232 port and USB port for external control and data collection.
- Variety of accessories are available to meet application demands.

Safety

- Automatic run after power interruption.
- Shaking speed deviation alarm.
- Over-current protection, Stalled platform check.
- Self-protecting cut-off function.
- Over-current fuses for user safety.
- To prevent spillages from flasks and tubes the shaker gently starts up and gently stops.



Model			SKC-6075	SKC-6200	SKC-7075	SKC-7200
Product code			AAH30105K	AAH30125K	AAH30205K	AAH30225K
Shaking system	Motion type		Orbital			
	Amplitude size (mm)		19	50	19	50
	Speed range (rpm)		30 to 500			
	Accuracy		± 1			
	Timer		1 min to 999 hr. 59 min			
Max. load (Kg)			28 at 310 rpm	28 at 200 rpm	28 at 310 rpm	28 at 200 rpm
Dimensions (mm)	Platform W X D	Small	580 x 520		755 x 520	
		Large	660 x 520		885 x 520	
	External W X D X H		583 x 618 x 122		755 x 662 x 122	
Weight (Kg)			65		75	

Laboratory Equipment

Mini Models

Compact and lightweight design for easy mobility and for use in areas with limited space. Suitable for low rpm sensitive applications, including, hybridisation, immunocytochemistry, gel staining/destaining, and other bioscience applications.

Performance

- Microprocessor PID control.
- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.

Safety

- Self-diagnostic function identifying errors.
- Its polypropylene main body is highly chemical-resistant and easy-to-clean.
- Over-current protection.

Convenience

- Vivid and colourful vacuum fluorescent display (VFD) with touch-sensitive keypad.
- One-touch timer for time-dependent shaking operation. (1 min. to 99 hr. 59 min.)
- Compact and lightweight design allow for use in cold rooms or incubators.
- Variety of accessories are available to meet application demands.

Model		CMS-350
Product code		AAH3B1115K
Shaking system	Motion type	Orbital
	Speed range (rpm)	50 to 300
	Accuracy at 100 (rpm)	± 5
	Timer	1min. to 99hrs. 59min.
	Max. Load (Kg)	5.2
Dimensions (mm)	Platform W x D	250 x 250
	External W x D x H	249 x 325 x 109
Weight (Kg)		8



Microplate Models

Fitted with 4 microplates and wider speed range to accommodate various sample testing. Optimally designed to shake four microplates simultaneously, this microplate shaker is ideal for applications that demand precise and repeatable mixing such as immunoassays.

Model		CPS-350
Product code		AAH3C1115K
Shaking system	Motion type	Orbital
	Speed range (rpm)	150 to 1200
	Accuracy at 500 (rpm)	± 15
	Timer	1min. to 99hrs. 59min.
	Max. Load (Kg)	4
Dimensions (mm)	Tray W x D	269 x 185
	External W x D x H	269 x 325 x 128
Weight (Kg)		7.7



Rocking Models

Adjustable tilt angle and precise digital speed control providing desired rocking motion. Removable tray and digital timer can be applied to variety purposes. Ideal for ELISA, enzyme immunoassays, protein synthesis, hybridisation staining or destaining gels, pharmaceutical profiling, and among other laboratory applications.

Performance

- Microprocessor PID control.
- Digital speed control providing gentle to vigorous motion.
- Easy to adjust tilt angle.
- Smooth, quiet, uniform, and yet powerful shaking motion.

Convenience

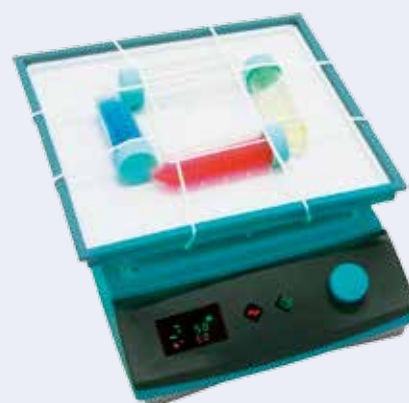
- Vivid and colourful vacuum fluorescent display (VFD) with touch-sensitive keypad.
- One-touch timer for time-dependent shaking operation. (1 min. to 99 hr. 59 min.)
- Compact and lightweight design allow for use in cold rooms or incubators.

- Three types of removable tray for easy transport of well-plates, test tubes, etc.
- Variety of accessories are available to meet application demands.

Safety

- Self-diagnostic function identifying errors.
- Its polypropylene main body is highly chemical-resistant and easy-to-clean.
- Over-current protection.

Model		CRS-350
Product code		AAH391115K
Shaking system	Motion type	Rocking
	Speed range (rpm)	5 to 100
	Accuracy at 100 rpm	± 5
	Tilt angle	7 to 13°
	Max. load (Kg)	5
Dimensions (mm)	Tray W x D	276 x 276
	External W x D x H	249 x 325 x 138
Weight (Kg)		3.7



Waving models

Enhanced conveniences for tilt adjustment, removable tray, and digital control. Removable tray and digital timer can be applied to variety purposes. Ideal for ELISA, enzyme immunoassays, protein synthesis, hybridisation staining or destaining gels, pharmaceutical profiling, and among other laboratory applications.

Model		CWS-350
Product code		AAH381115K
Shaking system	Motion type	Waving
	Speed range (rpm)	8 to 100
	Accuracy at 100 rpm	± 5
	Tilt angle	0 to 13°
	Max. load (Kg)	5
Dimensions (mm)	Tray W x D	276 x 276
	External W x D x H	249 x 325 x 138
Weight (Kg)		3.7



Laboratory Equipment

Heating Models

Useful for a variety of molecular biology applications. Interval mix function in program mode can be properly set according to user's experimental conditions.

Performance

- Microprocessor PID control ensuring consistent shaking motion and precision accuracy.
- Wide speed range from 150 to 1500 rpm (block dependent).
- Automatic temperature calibration.

Convenience

- Bright VFD display with responsive touch buttons.
- Memory function of programs allowing relevant parameters (such as temp., rpm, time) of each program step to be stored.
 - Up to 10 programs allowed for memory storage.
 - Up to 10 steps allowed for each program.
 - Interval mix function. (continuous switching between shaking and phasing)
- Advanced dual wait on/off timer modes.
- Optimal heat transfer is achieved by the tight coupling design of the main body and the corrosion-resistant anodised aluminium blocks.

Safety

- Self-diagnostic function identifying errors.
- Polypropylene construction is highly chemical-resistant and easy-to-clean.
- Low-profile design with rubber feet for minimal vibration and noise.
- Over-current protection.



Model		CBS-350	
Product code		AAHJ4015K	
Control		PID feedback control	
Display		VFD (0.1°C resolution)	
Temperature	Range (°C)	Amb. +5 to 100	
	Fluctuation at 80°C	±0.5	
	Variation at 80°C	±0.15	
	Heating power (W)	360	
Safety	Over temp.	Heating plate	
		PCB	
	Over current	Current limit protection	
Shaking system	Motion type	Orbital	
	Speed range (rpm)	96-well tube block	150 to 1500
		0.5ml tube block	150 to 1000
		1.5ml tube block	150 to 1000
		15ml tube block	150 to 900
		Ø12 tube block	150 to 850
		Ø13 tube block	150 to 850
		50ml tube block	150 to 800
	Orbit size (mm)	2	
Dimensions W x D x H (mm)		249 x 325 x 120	
Weight (Kg)		8.3	

Platform Shakers - Accessories and Options



Flask clamps



Test tube racks



Spring wire racks



Universal platforms

Model			OS-2000	OS-3000	OS-4000	OS-7100 OS-7200	CMS-350					
Product code	Universal platform		AAA3A501-V2	AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA3B501					
-	Flask clamps (Stainless steel)	Erlenmeyer flask size	Maximum mountable flask clamps									
23550		50 ml	20	36	49	88	16					
23551		100 ml	16	28	39	68	9					
23552		250 ml	8	14	24	39	9					
23556		300 ml	8	14	24	39	9					
23553		500 ml	6	10	16	28	5					
23554		1L	3	6	9	18	4					
23555		2L	-	4	6	11	1					
23557		2.8L	-	3	5	8	-					
23558		4L	-	1	4	6	-					
23559		6L	-	1	3	5	-					
AAA30570		Flask clamps (plastic)	50 ml	20	36	49	88	16				
AAA30571	100 ~ 125 ml		12	19	29	48	9					
AAA30572	200 ml		8	13	21	35	9					
AAA30573	250 ml		8	13	19	35	9					
AAA30574	300 ml		6	12	19	35	9					
AAA30575	500 ml		6	9	12	24	5					
AAA30576	1L		3	5	9	12	4					
AAA30577	2L		-	4	5	8	1					
-	Funnel clamps	Separating funnel size	Maximum mountable funnel clamps									
23562		250 ml	4	4	6	15	3					
23563		500 ml	3	3	4	10	2					
23564		1L	3	3	3	7	2					
23565		2L	-	2	2	5	-					
-	Test tube racks	Test tube size	Maximum mountable capacity of racks									
23581		86 test tubes, ø8mm	2	2	4	7	2					
23582		86 test tubes, ø10mm										
23583		58 test tubes, ø12mm										
23584		58 test tubes, ø14mm										
23585		32 test tubes, Ø17mm										
23586		19 test tubes, Ø25mm										
23587		10 test tubes, Ø30mm										
23594		10 test tubes, Ø35mm										
23593		4 test tubes, Ø50mm										
-		Microplate holders							Maximum mountable microplate holders			
23654	Single							6	8	15	25	6
23651	Tower		4	6	10	21	6					
23652	Flat A (large)		-	-	2	4	-					
23653	Flat B (small)		1	2	3	6	-					

Laboratory Equipment

Platform Shakers - Accessories and Options



Separating funnel clamps



Universal attachments



Flask clamps



Universal platforms

Model			SKC - 6000 models		SKC - 7000 models	
			Small	Large	Small	Large
Product code	Universal platform	Single	AAA30501	AAA30503	AAA30502	AAA30504
		Dual	-	-	AAA30541	AAA30542
-	Flask Clamps (stainless steel)	Erlenmeyer flask size	Max. mountable flask clamps			
23550		50 ml	84	96	108 / 216 (dual layer)	126 / 252 (dual layer)
23551		100 ml	54	66	72 / 144 (dual Layer)	84 / 168 (dual layer)
23552		250 ml	33	39	42 / 84 (dual layer)	51 / 102 (dual layer)
23556		300 ml	28	32	36	40
23553		500 ml	20	24	27	30
23554		1L	14	16	18	20
23555		2L	8	11	12	13
23557		2.8L	6	7	9	11
23558		4L	4	6	8	9
		6L	3	4	6	7
-	Flask clamps (plastic)	Erlenmeyer flask size	Max. mountable flask clamps			
AAA30570		50 ml	56	64	72	80
AAA30571		100 ~ 125 ml	42	48	54	60
AAA30572		200 ml	25	39	30	32
AAA30573		250 ml	25	30	30	32
AAA30574		300 ml	25	30	30	32
AAA30575		500 ml	20	20	24	28
AAA30576		1L	10	12	12	15
AAA30577		2L	6	6	6	9
-	Funnel clamps	Separating funnel size	Max. mountable funnel clamps			
23562		250 ml	14	16	18	20
23563		500 ml	9	10	11	14
23564		1L	7	8	9	12
23565		2L	5	6	7	8
-	Test tube racks	Test tube size	Mountable capacity of racks			
23581		86 test tubes, ø8mm	8	9	9	12
23582		86 test tubes, ø10mm				
23583		58 test tubes, ø12mm				
23584		58 test tubes, ø14mm				
23585		32 test tubes, ø16mm				
23586		19 test tubes, ø25mm				
23594		10 test tubes, ø35mm				
-	Microplate holders	Holder type				
23654		Single	20	23	25	28
23651		Tower	16	19	22	25
23652		Flat A (large)	3	4	4	5
23653		Flat B (small)	4	5	6	7

Description	SKC - 6000 models		SKC - 7000 models	
	Small	Large	Small	Large
Spring wire rack	AAA30521	AAA30522	AAA30523	AAA30524
Universal attachment	AAA30511	AAA30512	AAA30513	AAA30514
Rubber mat	AAA30531	AAA30532	AAA30533	AAA30534

Description	SKC - 6000 models		SKC - 7000 models	
	Small	Large	Small	Large
Lab Sticker	AAA30551			
Weight increaser	AAA30562		AAA30561	

Platform Shakers - Accessories and Options



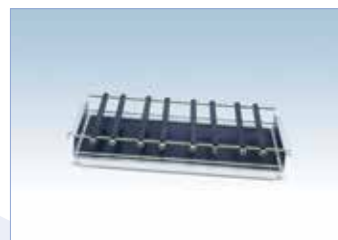
Rubber mats



Dual stacking trays



Lab sticker



Universal attachments

Model		OS-3000	OS-4000	OS-7100 / OS-7200
Dedicated platform	Universal platform +250ml flask clamps	AAA23611-V1	AAA23621-V1	AAA23634
	No. of flask clamps	14	24	39
	Universal platform +500ml flask clamps	AAA23613-V1	AAA23622-V1	AAA23635
	No. of flask clamps	10	16	28

Model		OS-2000	OS-3000	OS-4000	OS-7100 / OS-7200	CMS-350
Spring wire racks		AAA3A521	AAA31521-V1	AAA31522-V1	AAA23514	AAA3B511
Rubber mat		AAA3A531-V1	AAA31531	AAA31532	AAA23534	AAA38501
Universal attachments		AAA3A511-V1	AAA23511-V1	AAA23512-V1	AAA23505	AAA3B521
Lab sticker		AAA30551				
Dimpled mat		AAA3A532	-	-	-	AAA38502
Microplate tray	Dual stacking	AAA3A541	-	-	-	AAA3B531
	Large tray	AAA3A542	-	-	-	AAA3B532
Stage racks	4 stage rack	-	AAA31541-V1	AAA31542-V1	AAA31702-V1	-
	3 stage rack	-	-	-	AAA31703-V1	-

Rocking / Waving / Mini Shakers - Accessories and Options

Product code	Description	Component
AAA38501	Rubber mat	Tray, Sticky pad
AAA38502	Dimpled mat	Tray, Silicone pad
AAA38503	Universal harness	Tray, Sticky pad, Rubber strap

Microplate Shakers - Accessories and Options

Product code	Description	Max. mountable tube
AAAJ2311	1.5ml Micro-tube rack with cap	80 (5 x16)
CPS0011	15ml Conical tube rack	30 (3 x10)
CPS0012	50ml Conical tube rack	12 (2 x 6)

Heating Shaker - Accessories and Options

Product code	Description	Max. mountable tube
AAAJ4504	96-well Tube block with cover	0.2ml x 96 holes (micro tube)
AAAJ4501	0.5ml Tube block with cover	0.5ml x 48 holes (micro tube)
AAAJ4502	1.5ml Tube block with cover	1.5ml x 24 holes (micro tube)
AAAJ4505	15ml Tube block with cover	15ml x 15 holes (centrifuge tube)
AAAJ4503	50ml Tube block with cover	50ml x 6 holes (centrifuge tube)
AAAJ4506	Ø12 Tube block with cover	Ø12 x 24 holes
AAAJ4507	Ø13 Tube block with cover	Ø13 x 24 holes

Laboratory Equipment

Spectrophotometers

All units come complete with microprocessor control offering fully automated functions including auto self test. RS232 analogue output and optional software is available. The instruments feature a large sample compartment that will accept 5mm to 100mm path length rectangular cuvettes.

These units are ideal for the many tests performed in environmental protection, water, biochemistry, clinical, food, beverage and industrial laboratories. All units have modes for absorbance, %T and concentration measurements. Calibration is performed against a 'blank' (Abs and %T) and a standard or factor for concentration. Wavelength selection is made electronically via a finely geared stepper motor.

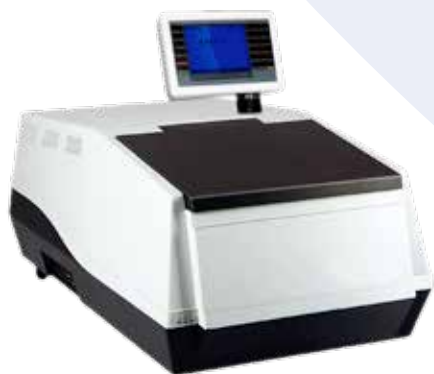
- High performance scanning.
- Single and multi-wavelength operation.
- Kinetics, transmittance and absorbance analysis.
- Clear easy to read display.
- Advanced optical system ensures very low stray light.
- Superior quality optical components ensure accurate and reliable analytical data.
- Deuterium and tungsten lamps are used as the light sources.

Single Beam



Model	MD-1105	MD-2100	MD-2000UV	MD-2100UV
Range	Visible		UV-Visible	
Optical performance	Single beam			
Grating system (l/mm)	1200			
Spectral width (nm)	6	4	5	4
Wavelength (nm)	340-1000	320-1000	200-1000	190-1000
Accuracy (nm)	± 2	± 1	± 2	± 1
Repeatability (nm)	≤ 1	≤ 0.5	≤ 1	≤ 0.5
Mode	Transmittance, absorbance, concentration			
Display	3.5 LCD	2 line 20 character LCD		
Sample compartment L x W (mm)	100 x 50			
Dimensions L x H x W (mm)	415 x 315 x 155		475 x 420 x 180	
Weight (Kg)	7	10	11	12

Double Beam



Model	MD-1900	MD-1901	MD-1920
Range	UV-Visible		
Optical performance	Double beam		
Grating system (l/mm)	1800		
Spectral width (nm)	0.5, 1, 2, 4	1	0.5, 1, 2, 4
Wavelength (nm)	190-1100		
Accuracy (nm)	± 0.5		
Repeatability (nm)	≤ 0.1		
Mode	Transmittance, absorbance, concentration		
Display	USB connection, display on PC screen		6.4" touchscreen
Sample compartment L x w (mm)	225 x 114		
Dimensions L x H x W (mm)	475 x 420 x 180		
Weight (Kg)	14		

Stirrers and Hotplates

General applications for below Hotplates and Stirrers include;

Hotplates

Acid and base digestions, trace metal analysis, sample drying, general reagent heating, heating TLC plates, evaporation.

Hotplate Stirrers

Various heating and mixing applications that require accuracy, stability, and repeatability.

Magnetic Stirrers

Crystallisation, solvent evaporation, chemical reactions, titration, distillation, media dissolution, food processing.

Overhead Stirrers

Chemical and petrochemical applications, beverage production, dairy production, food processing, sugar and candy production.

Analogue Models

Medline series of hotplates, stirrers and hotplate stirrers offer a large heating area of 180 x 180mm with safe controlled heating up to 400°C.



Product code	MS-100	MS-200	MS-300
Description	Hot plate	Stirrer	Hot plate stirrer
Case construction	Ceramic coated steel (chemical resistant)		
Stage area (mm)	180 x 180		
Temperature range (°C)	Amb. to 400	–	Amb. to 400
Speed range (rpm)	–	100 to 1500	
Retort rod (12.5mm Ø)	400mm / 760mm (optional)		
Dimensions W x D x H (mm)	410 x 210 x 150		
Weight (Kg)	4		5

Hotplates

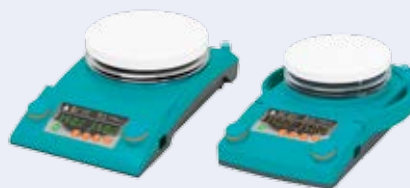
Superior temperature control with various safety functions with a ceramic coated aluminium top plate.

Performance & Convenience

- Microprocessor PID temperature control.
- Auto-tuning and temperature calibration functions.
- Multi-functional temperature control modes.
- Integrated design of the heater and the top plate provides exceptional heat transfer rate and quick heat up capability.
- Precise temperature is set by digital LED display.
- Advanced dual wait on/off timer modes.
- Separate operation RUN/STOP button.
- Support rod allows for diverse flexibility in configuring other test equipment and accessories. (optional)

Safety

- Built in thermal shut off and current limit protection.
- High and low temperature limiter.
- Hot top warning indicator for preventing accidental injuries.
- Keypad lock function.
- Transparent safety shield. (optional)



Model		T-14S	T-17S	T-18Q
Product code		AAH35015K	AAH35025K	AAH35035K
Heating	Temperature range (°C)	Amb. to 350		
	Heating power (W)	600	800	
Safety	Hot top indicator (°C)	Warning lamp (50)		
Timer		2 type, 1min. to 99 hr. 59 min.		
Max load (Kg)		25		
Top plate	Shape	Round type		Square type
	Dimensions Ø or W x D (mm)	140	170	180x180
Dimensions W x D x H (mm)		161 x 290 x 100	191 x 330 x 101	209 x 326 x 102
Weight (Kg)		2.2	2.9	3.8

Laboratory Equipment

Hotplate Stirrers - Basic

Easy to control with simple dial knobs for general laboratory heating and stirring applications.

Performance & Convenience

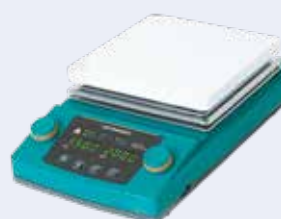
- Microprocessor PID temperature control.
- Ceramic coated aluminium top plate.
- Feedback control allows constant stirring speed.
- Auto-tuning and temperature calibration functions.
- Multi-functional temperature control modes.
- Optimum heating level is adjustable from 0 to 100%.
- Integrated design of the heater and the top plate provides exceptional heat transfer rate and quick heat up capability.
- Fast and precise stirring operations are enabled by BLDC motor and special magnet with extremely strong magnetic coupling power.
- Smooth-start mechanism provides virtually no decoupling of stirring bars even with viscous media.
- Precise temperature is set by digital display and optimum heating level is adjustable.
- Advanced dual wait on/off timer modes.
- Separate operation RUN/STOP button.
- Provided temperature probe detects the actual temperature of media in real time. (PT100, max. 250°C, SN-8-4 connector sensor)

Safety

- Hot top warning Indicator, built in thermal shut off, current limit protection.
- High and low temperature limit setting for user convenience and safety.
- Built-in thermal shut-off and current limit protection.



Model		TM-14SB	TM-17SB	TM-18Q
Product code		AAH34215K	AAH34225K	AAH34235K
Heating	Temperature range (°C)	Amb. to 350		
	Control	Scale		
	Heating power (W)	600	800	
Stirring	Speed range (rpm)	50 to 2,000		
	Capacity (L)	20		
	Magnetic bar, Max. (ØxL, mm)	8 x 40		
Max load (Kg)		25		
Top plate	Shape	Round type		Square type
	Dimensions Ø or w x d (mm)	140	170	180x180
Dimensions w x d x h (mm)		161 x 290 x 100	191 x 330 x 101	209 x 326 x 102
Weight (Kg)		2.8	3.5	3.8



Hotplate Stirrers - Advanced

Digital heating and stirring control with high advanced features such as auto-tuning and various control modes.

Model		TS-14S	TS-17S	TS-18Q
Product code		AAH34415K	AAH34425K	AAH34435K
Heating	Temperature range (°C)	Amb. to 350		
	Control	Feedback control with PID		
	Display	LED digital (0.1°C resolution)		
	Heating power (W)	600	800	800
Stirring	Speed range (rpm)	30 to 2,000		
	Capacity (L)	20		
	Magnetic bar, Max. (ØxL, mm)	8 x 40		
Timer		2 type, 1min. to 99 hr. 59 min.		
Max load (Kg)		25		
Top plate	Shape	Round type		Square type
	Dimensions Ø or w x d (mm)	140	170	180 x 180
Dimensions w x d x h (mm)		161 x 290 x 100	191 x 330 x 101	209 x 326 x 102
Weight (Kg)		2.8	3.5	3.8

Hotplate Stirrers - Multi Position

Performance & Convenience

- Ideal for the multiple sample testing under the same condition.
- User-friendly operation and time setting modes allowing various ways of multi-position stirring to meet users' demands: single point, multiple point, whole row, whole column, etc.
- Fast and precise stirring operations are enabled by BLDC motor and special magnet with extremely strong magnetic coupling power.
- Smooth-start mechanism provides virtually no decoupling of stir bars even with viscous media.
- Instant halt of the stirring operation.
- Easy-to-read VFD and intuitive control panel.
- Bright and vivid LED stirring position indicating lamps and heating operation lamp for stable operations.
- High heat transfer aluminium top-plate.

Safety

- Unit is safely designed to protect internal components from accidental spills.
- Non-slip silicon plate mat is attached on the top plate to prevent unintended slips.
- Built in thermal shut off and current limit protection.



Model		MS-33MH	MS-53MH
Product code		AAHK34015K	AAHK34025K
Heating	Temperature range (°C)	Amb. to 120	
	Control	Scale	
	Heating power (W)	600	1000
Stirring	Speed range (rpm)	30 to 2,000	
	Stirring position	9	15
	Stirring point distance w x d (mm)	117 x 90	
	Timer	1min. to 99 hr. 59 min.	
	Magnetic bar, Max. (ØxL, mm)	8x30	
Max load (Kg)		30	
Top plate	Dimensions w x d (mm)	385 x 328	385 x 493
Body	Dimensions w x d x h (mm)	395 x 450 x 104	395 x 614 x 104
Weight (Kg)		10	15

Magnetic Stirrers - Analogue

Performance & Convenience

- Ergonomic design, lightweight, easy to operate and low profile.
- Spark-less, silent and durable BLDC motor.
- Wide top plate.
- Two non-slip silicon plate covers (white & black).
- Non-slip rubber feet.
- Strong magnetic coupling to ensure constant stirring.

Safety

- Designed to protect internal components from accidental spills.
- Built-in thermal shut down and current limit protection.
- Protection class IP42 (DIN EN 60529).



Model	MS-12B	MS-17B	MS-22B
Product code	AAH330115BK	AAH330215BK	AAH330315BK
Speed control	Electronic speed control		
Stirring capacity (L, H ₂ O)	2	4	5
Speed range (rpm)	150 to 2,500		
Speed display	None		
Magnetic bar, Max. (ØxL) (mm)	8 x 30	8 x 40	10 x 50
Load, max (Kg)	15	20	25
Top plate (Ø, mm)	120	170	220
Body shape	Round		
Dimensions w x d x h (mm)	130 x 133 x 65	180 x 186 x 65	230 x 235 x 65
Weight (Kg)	0.6	0.9	1.1

Laboratory Equipment

Magnetic Stirrers - Digital

Performance & Convenience

- Ergonomic design, lightweight, easy to operate and low profile.
- Spark-less, silent and durable BLDC motor.
- Wide top plate.
- Two non-slip silicon plate covers (white & black).
- Non-slip rubber feet.
- Strong magnetic coupling to ensure constant stirring.
- Digital PID feedback control for reproducible stirring results.
- Convenient program control.
- Gradual start-up to protect users against splashing of samples.
- Bright and vivid VFD and responsive touch buttons.
- Easy-settable digital timer (1 min. to 99hr. 59min.)
- M10 threaded hole to hold a support rod.
- Standard colour - blue.

Safety

Designed to protect internal components from accidental spills.
Built-in thermal shut down and current limit protection.
Protection class IP42 (DIN EN 60529).



Model	MS-17G	MS-22G
Product code	AAH331215BK	AAH331315BK
Speed control	Feedback control with PID	
Stirring capacity (L)	4	5
Speed range (rpm)	30 to 2,000	
Speed display	VFD	
Magnetic bar, Max. (ØxL) (mm)	8 x 40	10 x 50
Max load (Kg)	20	25
Top plate (Ø, mm)	170	220
Dimensions W x D x H (mm)	210 x 280 x 72	260 x 355 x 72
Weight (Kg)	1.35	1.75

Magnetic Stirrers - Multi Position

Performance & Convenience

- Ergonomic design, lightweight, easy to operate and low profile.
- Spark-less, silent and durable BLDC motor.
- Wide top plate.
- Two non-slip silicon plate covers (white & black).
- Non-slip rubber feet.
- Strong magnetic coupling to ensure constant stirring.
- Digital PID feedback control for every single point, separately.
- User-friendly operation and time setting modes allowing various ways of multi-position stirring to meet users' demands: single point, multiple point, whole row, whole column, etc.
- Easy-to-read VFD and intuitive control panel.
- Bright and vivid LED position indicating lamps.
- Non-slip see-through silicon plate mat. (optional)
- Chemical-resistant #304 grade stainless steel top-plate.

Safety

- Designed to protect internal components from accidental spills.
- Built-in thermal shut down and current limit protection.
- Protection class IP21 (DIN EN 60529)



Model	MS-23M	MS-32M	MS-33M	MS-51M	MS-52M	MS-53M
Product code	AAH332115K	AAH332215K	AAH332315K	AAH332415K	AAH332515K	AAH332615K
Speed control	Feedback control with PID					
Stirring	Position	6	9	5	10	15
	Speed range (rpm)	30 to 2,000				
Stirring point distance (W x D) (mm)	117 x 170	117 x 90	90	117 x 90		
Timer	1 min. to 99 hr. 59 min.					
Speed display	VFD					
Max load (Kg)	30					
Dimensions W x D x H (mm)	377 x 434 x 81	254 x 434 x 81	377 x 434 x 81	130 x 591 x 75	251 x 591 x 75	378 x 591 x 75
Weight (Kg)	6	5	7	4	8	11

Overhead Stirrers - Analogue / Digital

Performance & Convenience

- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, and yet powerful stirring.
- Powerful torque capable of handling high viscosity tasks.
- Maintenance of constant motor speed by PID feedback control system even under conditions of changing viscosity.
- Best effort function intelligently manages its stirring speed to keep stirring even workload is out of its capacity (digital).
- Prevention of accidental spills or splashes thanks to micro-processor controlled smooth start and stop functions.
- Illuminated digital display panel with sensitive touch buttons.
 - Set/present rpm, power ratio (%) and run time are visible together on one screen.
- Stirring directions are selectable depending on each impeller's shape (digital).
- Built-in USB port for external control and data collection (digital).
 - Software and USB cable are provided as standard.
- Compact and slim head design for diverse flexibility in configuring other test equipment and accessories. (optional)

Safety

- Sturdy aluminium main body efficiently absorbing and emitting the heat generated by the motor.
- Safety features against overload and overheating for continuous operation.
- Keypad lock function prevents accidental changes (digital).
- Protection class IP30 (DIN EN 60529).



Model		MSA-0420
Product code		AAH373325K
Speed control / type		PID feedback control / analogue
Speed range (rpm)		80 to 2,000
Chuck range (mm, Ø)		3 to 10
Stirring capacity, Max. (L, H ₂ O)		20
Stirring direction		Clockwise
Max viscosity (cP)		5,000 (~2,000rpm) / 10,000 (~1,200rpm) / 30,000 (~300rpm) / 50,000 (~200rpm)
Max torque (N·cm)		19
Motor rating input / output (W)		70 / 40
Material	Body / Cover / Motor	Powder coated aluminium / Polypropylene / BLDC
Dimensions W x D x H (mm)		75 x 215 x 150
Weight (Kg)		2.8

Model		MSD-0420
Product code		AAH373325K
Speed control / type		PID feedback control / digital
Speed range (rpm)		80 to 2,000
Chuck range (mm,)		3 to 10
Stirring capacity, Max. (L, H ₂ O)		20
Stirring direction		Clockwise / Counter-clockwise
Max viscosity (cP)		5,000 (~2,000rpm) / 10,000 (~1,200rpm) / 30,000 (~300rpm) / 50,000 (~200rpm)
Max torque (N·cm)		19
Motor rating input / output (W)		70 / 40
Material	Body / Cover / Motor	Powder coated aluminium / Polypropylene / BLDC
Dimensions W x D x H (mm)		75 x 215 x 150
Weight (Kg)		2.8

Laboratory Equipment

Overhead Stirrers - Advanced

Ideal for performing professional stirring tasks requiring high functionality, safety, and longevity. Touch screen LCD controller and external controller (optional) add to its flexibility.

Performance

- Years of vibration-free and silent operation.
 - Equipped with a maintenance-free BLDC motor to generate smooth, quiet, and yet powerful stirring.
- Powerful torque capable of handling high viscosity tasks.
- Maintenance of constant motor speed by PID feedback control system even under conditions of changing viscosity.
- Best effort function intelligently manages its stirring speed to keep stirring even workload is out of its capacity.
- Prevention of accidental spills or splashes thanks to micro-processor controlled smooth start and stop functions.

Convenience

- Touch type LCD controller.
 - Essential information is displayed and intuitively controlled.
 - Set/present rpm and run time view, simple timer set. (max. 99 hr. 59 min.)
 - Varying motor torque is indicated on display in real time.
 - Motor temperature condition is indicated on display by three different colours to protect motor.
 - Stirring directions are selectable depending on each impeller's shape.
- Built-in USB port for external control and data collection.
 - Useful for PC control and data management task.
 - Software and USB cable are provided as standard.
- Practical external controller.
 - Intuitive and easy control with colour touch LCD.
 - It enables convenient and safe external control without opening the sash of the fume hood or safety cabinet.
- Compact and slim head design for diverse flexibility in configuring other test equipment and accessories. (optional)

Safety

- Sturdy aluminium main body efficiently absorbing and emitting the heat generated by the motor.
- Safety features against overloading and overheating for continuous operation.
- Separated adapter from the main body minimises the risks of electrical hazards to the users.
- Screen lock function prevents accidental changes during operation.
- Protection class IP30 (DIN EN 60529).



Model		MSH-0512	MSH-0520
Product code		AAH371415K	AAH371515K
Speed control / type		PID feedback control / digital	
Speed range (rpm)		50 to 1,200	50 to 2,000
Chuck range (mm, Ø)		3 to 10	
Stirring capacity, Max. (L, H ₂ O)		100	60
Stirring direction		Clockwise / Counter-clockwise	
Max viscosity (cP)		5,000 (~1,200rpm) 10,000 (~1,200rpm) 30,000 (~1,200rpm) 50,000 (~700rpm)	5,000 (~2,000rpm) 10,000 (~1,600rpm) 30,000 (~600rpm) 50,000 (~300rpm)
Max torque (N-cm)		41.6	20.8
Motor rating input / output (W)		71	
Material	Body / Cover / Motor	Powder coated aluminium / Polypropylene / BLDC	
Dimensions W x D x H (mm)		80 x 185 x 235	
Weight (Kg)		3.1	

Overhead Stirrers - Accessories and Options



Stands / support rods



Stainless steel impellers



External controller



PTFE impellers

Stands / Support rods

Product code	Description
AAA37501	Dial stand (w x d x h, 400x400x700mm)
AAA37502	Basic stand 1 (w x d x h, 400 x 400 x 700mm)
AAA37503	Basic stand 2 (w x d x h, 300 x 400 x 700mm)
AAA37504	Basic stand 3 (w x d x h, 250 x 350 x 700mm)
MSS0051	Support Rod, M14 (Ø15 x 500mm)
MSS0052	Support Rod, M14 (Ø18 x 500mm)
MSS0053	Support Rod, M14 (Ø20 x 500mm)

External controller for MSH

Product code	Description
AAA37591	External controller (3m cable) (w x d x h, 60 x 16 x 120mm)

Impellers

Propeller impellers

Standard grade stainless steel with Teflon shaft produces an-axial flow stir between the bottom and top levels of a sample with local shearing force. Used at medium or high speeds for mixing normal range level viscosity samples.

Turbine impellers

A radial flowing stir from the top and bottom levels of a sample with a powerful, high shearing turbulent force. Used ideally for the gassing of liquids and mixing medium to high range level viscosity samples.

Half-moon impellers / Centrifugal impellers

Tiltable moon-shaped and blade shaft produces a normal axial flow percentage mixing of samples. Used with round bottom shaped containers, medium mixing speed, and samples ranging from low to medium viscosity levels.

Anchor impellers / Paddle impellers

An anchored shaft that produces a strong tangential flow with a high shearing percentage force on samples with medium to high viscosity level with speed setting in the low to medium range.

Stainless steel impellers

Product code	Blade (Ø, mm)	Shaft (Ø, mm)	Length (mm)
3-bladed propeller			
AAA37521	50	8	400
AAA37522	70		
AAA37523	100		
4-bladed propeller			
AAA37531	50	8	400
AAA37532	70		
AAA37533	100		
Turbine			
AAA37561	40	8	500
AAA37562	70		
Dissolver			
BEA0570031	55	8	350
BEA0570032	75		

Product code	Blade (w x h, mm)	Shaft (Ø,mm)	Length (mm)
Half-moon			
AAA37541	65 x 20	8	300
AAA37542	90 x 25		500
Centrifugal			
AAA37551	50 x 15	8	500
AAA37552	80 x 15		
Anchor			
AAA37571	45 x 45	8	300
AAA37572	60 x 60		500
Paddle A			
AAA37581	70 x 70	8	500

Product code	Blade (w x h, mm)	Shaft (Ø,mm)	Length (mm)
Half-moon			
BEA0570091	60 x 18	8	500
Centrifugal			
BEA0570101	76 x 17	8	500
Anchor			
BEA0570111	80 x 50	8	500
BEA0570121	80 x 40		500
Paddle			
BEA0570141	70	8	500
Paddle A			
BEA0570151	78 x 80	8	500

PTFE Coated Impellers

Product code	Blade (Ø, mm)	Shaft (Ø,mm)	Length (mm)
4-bladed propeller			
BEA0570081	50	8	500
BEA0570082	70		
Turbine			
BEA0570131	70	8	500

Laboratory Equipment

Vortex Mixers

N-Series

Ideally sized for personal use, the Medline VX-3000 vortex mixer is compact, with a low profile and small footprint, to sit in almost any location, yet there is no compromise on performance. The strong, reliable and silent motor produces regulated and reproducible agitation throughout the speed range utilising either touch activation or continuous modes. LED display for optimum control and reading of time and speed. Rubber feet on the base minimise any vibration and movement.

Product code	VX-3000MD
Shaking motion	Orbital
Orbital diameter (mm)	6
Speed range (rpm)	0 to 3000
Operating mode	Touch, continuous
Dimensions W x D x H (mm)	107 x 146 x 166
Weight (Kg)	3



Vortex Mixers - Accessories and Options

Product code	Description
VX-3000FP	Flask accessory
VX-3000MP	Microtitre plate accessory
VX-3000MT	Microtube accessory
VX-3000TT	Test Tube accessory

VM-Series

Low profile design and highly touch sensitive sensor reduce wrist stresses when pushing and holding experiment tools resulting in less fatigue and less unpleasant feeling.

Features

- Well-balanced design and optimised safety features.
- Low-profile with small footprint ideal for use on lab benches and within fume hoods or clean benches.
- Unique “any-point” top plate enables one touch operation, real-time and dynamic mixing modes even with gentle pressure.
- Selective mixing modes with variable speed control knob.
- Built-in LED lamps in case of VM-96A for easy recognition of the mixing mode selected.
- Sparkless BLDC motor adopted for safety, quick acceleration, and low maintenance.
- Built-in safety features against overload and over current.
- Chemically resistant polypropylene moulded exterior.

Model	VM-96A	VM-96T
Product code	AAH360215K	AAH361215BK
Shaking motion	Orbital	
Orbit diameter (mm)	4	
Speed range (rpm)	0 to 3000	
Operating mode	Touch / Continuous / High-continuous	Touch / Continuous
Max. load (Kg)	0.5	
Dimensions W x D x H (mm)	154 x 210 x 84	148 x 159 x 77
Weight (Kg)	3	2.6

VM Vortex Mixers - Accessories and Options



Product code	Description
VMS0058	Platform (standard)
VMS0011	Platform (pop-off)
VMS0008	Microplate tray
AAA36520	Tube holder with tray (up to Φ50mm)
AAA36521	Tube holder with tray (Φ10mm x 16ea)
AAA36522	Tube holder with tray (Φ12mm x 9ea)
AAA36523	Tube holder with tray (Φ15mm x 9ea)
AAA36524	Tube holder with tray (Φ20mm x 5ea)
AAA36525	Tube holder with tray (Φ25mm x 4ea)
AAA36526	Tube holder with tray (Φ8mm x 18ea & Φ10mm x 28ea)

Microscopes

Educational Microscopes

Laboratory Microscopes

Stereo Microscopes

Inverted Microscopes

Industrial Microscopes

Image Capture & Analysis Solutions



Microscopes

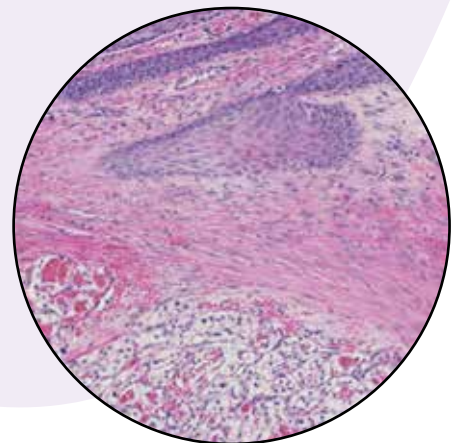
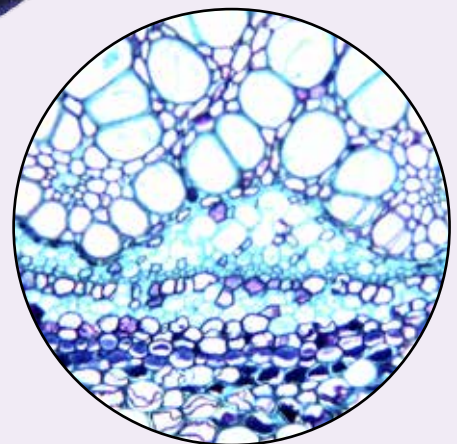
The CETI® Microscope range offers an extensive choice of affordable microscopes to suit all budgets. From basic educational needs to the more specialised requirements of the research and clinical scientist, we have the perfect solution.

Our range includes monocular, binocular or trinocular configurations to suit most typical applications and requirements. These use brightfield, phase contrast, darkfield, polarisation, DIC or fluorescent light techniques and are supplied with optics ranging from Achromatic to infinity corrected Planachromatic objectives, depending on the model.

All CETI microscopes are manufactured to the highest specification demanded by the relevant application.

Each microscope has its own unique product code, with 10x eyepieces, objectives, a dust cover and power lead as standard and an extensive range of accessories available to complement each model. This ensures that the ordering process is simplified and a complete working unit is delivered, easily unpacked and rapidly set up for operation upon arrival. The units are shipped in robust Styrofoam packaging in a sturdy cardboard outer case.

All the units are supplied with DIN* (*Deutsche Industrie Normen – an internationally recognised industry standard for microscope objectives) antifungal optics. They are manufactured to ISO 9002 standards and are fully CE compliant.



Education Microscopes



Focus II

A modern school and college student microscope with a built-in carrying handle.

Product code	1100.4000M	1100.4400M	1100.4440M
Optical head	Monocular		
Nosepiece	Triple		Quadruple
Eyepiece	10x/18mm wide-field with pointer, mounted student proof		
Objectives	4x, 10x, 40x Achromatic		4x, 10x, 40x, 100x Achromatic
Condenser	Brightfield Abbe – NA 1.25		
Stage	Size 120 x 120mm with built in mechanical stage		
Focusing	Coaxial coarse and fine		
Illumination (Variable)	Halogen 20W	LED	Halogen 20W



Comet

A modern school and college student microscope with a built-in carrying handle. This is an excellent and robust microscope, ideal for teaching purposes and is also extensively used in remote, field based laboratories.

Product code	1130.0001	1130.0005	1130.0007	1130.0011
Optical head	Minocular	Binocular		Trinocular
Nosepiece	Quadruple			
Eyepiece	10x/18mm wide-field			
Objectives	4x, 10x, 40x 100x Achromatic			
Condenser	Brightfield Abbe – NA 1.25			
Stage	Size 140 x 140mm with built in mechanical stage			
Focusing	Coaxial coarse and fine			
Illumination (Variable)	LED		LED (rechargeable)	LED



Akropol

The Akropol is designed to introduce polarisation techniques, whilst allowing for the measurement of the degree of rotation that the sample induces.

Product code	1111.2441	1111.2442	1111.2443	1111.2444	1111.2445
Optical head	Monocular		Binocular		Trinocular
Eyepiece	High eye point 10x/16mm wide-field				
Objectives	4x, 10x, 40x, 60x Achromatic	4x, 10x, 40x, 100x Achromatic		4x, 10x, 40x, 60x Achromatic	4x, 10x, 40x, 100x Achromatic
Condenser	Brightfield Abbe – NA 1.25				
Stage	Round centrable and rotating stage 360°				
Focusing	Coaxial coarse and fine				
Illumination (Variable)	Halogen 20W				

Microscopes

Laboratory Microscopes



Max II Monocular

The Max II series is perfect for pre and post-graduate teaching laboratories. Ideally suited to routine, bench-top microscopy work for general purpose slide examinations. They are designed and manufactured to the latest demanding specifications and provide a thoughtfully designed ergonomic solution, with a quadruple nose piece and a 360° rotatable head, whilst being compact enough to allow for storage and handling between different locations within a teaching environment.

Product code	1201.4000M	1201.4060M
Optical head	Monocular, inclined at 45°	
Eyepiece	10x/18mm wide-field	
Objectives	4x, 10x, 40x, 100x Achromatic	4x, 10x, 40x, 60x Achromatic
Condenser	Brightfield Abbe – NA 1.25 – precentred	
Stage	Size 140 x 140mm, built-in mechanical stage	
Focusing	Coaxial course and fine	
Illumination (Variable)	Halogen 20W	



Max II Binocular

The binocular version of the Max series with a choice of objectives types and LED illumination if preferred.

Product code	1202.4030M	1202.4000M	1202.4060M	1202.3000M	1202.3500M	1202.3700M
Optical head	Binocular, inclined at 30°	Binocular, inclined at 45°				
Eyepiece	10x/18mm wide-field					
Objectives	4x, 10x, 40x, 100x		4x, 10x, 40x, 60x	4x, 10x, 40x, 100x		
	Achromatic				Planachro- matic	Plan. ∞
Condenser	Brightfield Abbe – NA 1.25 - precentred					
Stage	Size 140 x 140mm, built-in mechanical stage					
Focusing	Coaxial course and fine					
Illumination (Variable)	Halogen 20W			LED	Halogen 20W	



Max II Trinocular

The trinocular variant of the Max II microscope that allows for the attachment of a digital camera for recording and capturing images, connected via a C mount fitting.

Product code	1202.5000M	1202.5500M
Optical head	Trinocular, inclined at 30°	
Eyepiece	10x/18mm wide-field	
Objectives	4x, 10x, 40x, 100x Achromatic	4x, 10x, 40x, 100x Planachromatic
Condenser	Brightfield Abbe – NA 1.25 – precentred	
Stage	Size 140 x 140mm, built-in mechanical stage	
Focusing	Coaxial course and fine	
Illumination (Variable)	Halogen 20W	



Digi Max II

A dedicated digital-camera microscope using a digital USB camera and advanced software to allow for image capture and analysis.

Product code	1202.8000M	1202.9000M
Optical head	Trinocular, inclined at 30°	Binocular, inclined at 30°
Eyepiece	10x/18mm wide-field	
Objectives	4x, 10x, 40x, 100x Achromatic	
Condenser	Brightfield Abbe – NA 1.25 – precentred	
Stage	Size 140 x 140mm, built-in mechanical stage	
Focusing	Coaxial course and fine	
Illumination (Variable)	Halogen 20W	
Camera	Si-3000	Integral 3 Mpx with 8" LCD screen



Magnum Binocular

The entry level Magnum has Semi Planachromatic objectives with a quintuple nose piece. Ideal for routine use in general QC conditions and for routine examinations of slide mounted samples.

Product code	2621.0000M	2622.0000M	2638.0000M	2653.0000M
Optical head	Binocular, inclined at 30°			
Eyepiece	10x / 20mm wide field			
Objectives	4x, 10x, 40x, 100x Semi Planachromatic	4x, 10x, 40x, 100x Planachromatic	10x, 20x, 40x, 100x Phase contrast	4x, 10x, 40x, 60x Polarisation
Condenser	Brightfield Abbe – NA 0.90 – NA1.25 oil		Phase contrast 5 position turret	Brightfield Abbe NA 0.90 – NA1.25 oil
Stage	Size 210 x 140mm with built-in mechanical stage and slide clip			180mm circular, rotatable 360°
Focusing	Coaxial coarse and fine			
Illumination (Variable)	Halogen 30W (Köhler)			



Magnum Trinocular

The binocular version of the Max series with a choice of objectives types and LED illumination if preferred.

Product code	2721.0000M	2722.0000M	2738.0000M	2753.0000M
Optical head	Trinocular, inclined at 30°			
Eyepiece	10x / 20mm wide field			
Objectives	4x, 10x, 40x, 100x Semi Planachromatic	4x, 10x, 40x, 100x Planachromatic	10x, 20x, 40x, 100x Phase contrast	4x, 10x, 40x, 60x Polarisation
Condenser	Brightfield Abbe – NA 0.90 – NA1.25 oil		Phase contrast 5 position turret	Brightfield Abbe NA 0.90 – NA1.25 oil
Stage	Size 210 x 140mm with built-in mechanical stage and slide clip			180mm circular, rotatable 360°
Focusing	Coaxial coarse and fine			
Illumination (Variable)	Halogen 30W (Köhler)			



Magnum B LED

The Magnum LED is a rechargeable microscope that utilises an LED light source equivalent to a 20W halogen bulb. The unit is ideal where power supplies are intermittent or where a portable field microscope is required. The battery life is approximately 6 hours.

Product code	2621.7000M	2721.7000M
Optical head	Binocular, inclined at 30°	Trinocular, inclined at 30°
Eyepiece	10x / 20mm wide field	
Objectives	4x, 10x, 40x, 100x Semi Planachromatic	
Condenser	Brightfield Abbe – NA 0.90 – NA1.25 oil	
Stage	Size 210 x 140mm with built-in mechanical stage and slide clip	
Focusing	Coaxial coarse and fine	
Illumination (Variable)	LED (Köhler)	



Magnum Infinity

The ultimate Magnum microscope for brightfield viewing with infinity corrected optics to allow for the switching of objectives without the need to re-focus each time a different objective is selected.

Product code	2629.0000M	2729.0000M
Optical head	Binocular, inclined at 30°	Trinocular, inclined at 30°
Eyepiece	10x / 20mm wide field	
Objectives	4x, 10x, 40x, 100x Planachromatic Infinity Corrected	
Condenser	Brightfield Abbe – NA 0.90 – NA1.25 oil	
Stage	Size 210 x 140mm with built-in mechanical stage and slide clip	
Focusing	Coaxial coarse and fine	
Illumination (Variable)	Halogen 30W (Köhler)	

Microscopes



Magnum Fluorescence

Designed for both brightfield and fluorescent examination of samples. The unit comes with a turret based fluorecence system with four built in filter blocks as standard and a 5th brightfield viewing position.

Product code		2747.2000M	2777.0000M
Optical head		Trinocular, inclined at 30°	
Eyepiece		10x / 20mm wide field	
Objectives		4x, 10x, 40x, 100x Planachromatic Infinity Corrected	
Condenser		Brightfield Abbe – NA 0.90 – NA1.25 oil	
Stage		Size 210 x 140mm with built-in mechanical stage and slide clip	
Focusing		Coaxial coarse and fine	
Illumination (Variable)	Transmitted	Halogen 30W (Köhler)	
	Reflected	HBO 100W	LED
Fluorescent filters		Blue / Green / Ultraviolet / Violet	



Triton II

The Triton II series represents the pinnacle of compound microscopy in the CETI range and is ideal for clinical applications with its variety of lighting options.

Product code	3100.5000M	3100.5050M	3100.5150M
Optical head	Trinocular, fixed at 30°	Trinocular, variable 0-45°	
Eyepiece	10x/22mm wide-field (pair)		
Objectives	4x, 10x, 40x, 100x E-plan Planachromatic Infinity Corrected		
Condenser	Swing-out condensing lens – Brightfield NA 1.25		
Stage	Size 185 x 142mm with built-in mechanical stage and slide clip		
Focusing	Coaxial coarse and fine		
Köhler Illumination (Variable)	Halogen 50W		Halogen 100W

Triton II Fluorescence

A dedicated fluorescent module enables identification of both Brightfield and Fluorescent applications. The camera port is now mounted on the left hand side to accommodate the HBO or LED refelected light source.

Product code		3100.7000M	3100.8000M
Optical head		Trinocular, variable 0-45°	
Eyepiece		10x/22mm wide-field (pair)	
Objectives		20x, 40x, 100x E-plan Planachromatic Infinity Corrected	
Condenser		Swing-out condensing lens – Brightfield NA 1.25	
Stage		Size 185 x 142mm with built-in mechanical stage and slide clip	
Focusing		Coaxial coarse and fine	
Köhler Illumination (Variable)	Transmitted	Halogen 100W	
	Reflected	HBO 100W	LED
Fluorescent filters		Blue / Green	



Triton II Multi-Observation

The master head is ergonomic and includes a laser pointer, allowing for the selection of designated samples for viewing within the teaching heads.

Product code		3100.9050M	3100.9100M	3100.9200M	3100.9500M
Optical head		Trinocular Ergonomic 0-45°			
Additlional number of optical heads*		1	2	3	4
Eyepiece		10x/22mm wide-field (pair)			
Objectives		4x, 10x, 40x, 100x E-plan Planachromatic Infinity Corrected			
Condenser		Swing-out condensing lens – Brightfield NA 1.25			
Stage		Size 185 x 142mm with built-in mechanical stage and slide clip			
Focusing		Coaxial coarse and fine			
Köhler Illumination (Variable)		Halogen 100W			

* Fixed at 30°



Stereo Microscopes

Star

The Star is a stereo microscope which is designed for both educational and professional use. It is particularly well suited to viewing specimens at low magnifications.



Product code	1800.1000M
Optical head	Binocular, inclined at 45°
Eyepieces	10x/20mm wide-field
Magnification	20x and 40x
Focusing	Fixed. Rack and pinion system with safety stop
Stage	Frosted and black / white contrast plates. 2 stage clips
Illumination (Variable)	Episcopic: 3W LED Diascopic: 3W LED

Steddy

The Steddy stereoscopic zoom microscope features dual LED illumination, a single, sturdy column focusing unit. The diamond shaped base allows the hands to be rested on the base of the unit providing the necessary support for delicate operation or manipulation of the sample during examination.



Product code	7500.0000M	7600.000M	7500.9000M
Optical head	Trinocular, Inclined at 45° with photo port		Binocular, with integrated 3Mpx digital USB camera
Eyepieces	10x/22mm super wide-field		
Magnification	6.5x to 45x		
Focusing	Zoom system. Rack and pinion system with safety stop		
Stage	Diamond shaped	Broad base design	Diamond shaped
	Supplied with frosted and black/white contrast plates, 2 stage clips		
Illumination (Variable)	Episcopic: 2W LED with directional condensing lens Diascopic: 5W LED		

Varizoom

The Varizoom is a stereoscopic zoom microscope with parallel infinity optics and an optical zoom system. Three zoom ranges are available with a binocular configuration as standard and an optional trinocular beam splitter module to allow for camera attachments.



Product code	7700.0006	7700.0008	7700.0000M	7700.1008
Optical head	Binocular, inclined at 20°			Trinocular, inclined at 20° with integrated 2Mpx digital camera and 8.4" TFT touch screen monitor.
Eyepieces	10x/22mm super wide-field			
Magnification	8x to 48x	8x to 64x	8x to 80x	8x to 64x
Focusing	Zoom system. Rack and pinion system with safety stop			
Stage	Broad base design, supplied with frosted and black/white contrast plates, 2 stage clips			
Illumination (Variable)	Episcopic: 5W LED with directional condensing lens Diascopic: 5W LED			

Varizoom LED Fluorescence

Fluorescent stereo microscope achieves fluorescence observation of living cells and is widely used in biology, industrial inspection, forensics, etc. It is also an essential tool for fluorescence inspection of security printing and an ideal instrument for mineral research.



Product code	7700.8000M
Optical head	Binocular head 20° inclined
Eyepiece	10x/22mm super wide-field
Magnification	8x to 64x
Focusing	Zoom system. Rack and pinion system with safety stop
Stage	Broad base design, supplied with frosted and black/white contrast plates, 2 stage clips
Illumination (Variable) Fluorescence	Episcopic: 5W LED with directional condensing lens. Diascopic: 5W LED 100W Ultra high voltage spherical mercury lamp
Fluorescent filters	GFP and GFP-L

Microscopes

Inverted Microscopes

Inverso TC-100

The Inverso TC100 is ideal for the typical working laboratory and is built to a high quality specification. It is robust enough to withstand the rigours of constant daily use and is ideal for multiple usage as there is no manual adjustment required. With a quintuple position nosepiece fitted as standard it is ideally suited for multiple observation techniques and / or magnifications.



Product code	3660.5000LED
Optical head	Trinocular, inclined at 45° (Siedentopf)
Eyepieces	10x / 22mm wide-field
Objectives	4x, 40x Planachromatic LWD / 10x, 20x, 40x, Phase contrast
Condenser	N.A.0.3 (removable) - working distance: 72mm
Stage	Size 160x250mm with additional mechanical stage (2 interchangeable stage plates) Stage extending board
Focusing	Coaxial course and fine
Illumination (Variable)	LED (Halogen optional)

Inverso TC-100 Fluorescence

With an additional external fluorescent light source and power supply (HBO 100W). This microscope is supplied complete with two sliding filter holders, one containing the blue and green filter blocks.



Product code		3660.8000M
Optical head		Trinocular, inclined at 45° (Siedentopf)
Eyepieces		10x / 22mm wide-field
Objectives		4x, 40x Planachromatic LWD / 10x, 20x, 40x, Phase contrast
Condenser		N.A.0.3 (removable) - working distance: 72mm
Stage		Size 160 x 250mm with additional mechanical stage (2 interchangeable stage plates) Stage extending board
Focusing		Coaxial course and fine
Illumination (Variable)	Transmitted	Halogen 30W
	Reflected	Mercury - HBO 100W
Fluorescent filters		Blue / Green

Versus II TC-100

The Versus II is a multifunctional inverted microscope. It has been specially developed to produce exceptionally high quality, high contrast phase contrast and brightfield images of your specimens. The controls are ergonomically positioned and the large stage, with its range of standard accessories, allows you to observe almost all classes of specimens on the microscope. This microscope is suitable for the observation of cells, tissues, clear liquid tissue.



Product code	3660.4000M
Optical head	Trinocular, inclined at 45° (Siedentopf)
Eyepieces	10x / 22mm wide-field, centering telescope
Objectives	10x Planachromatic LWD / 10x, 20x, 40x, Phase contrast
Condenser	N.A.0.3 (removable) - working distance: 70mm
Stage	Size 300x170mm with additional mechanical stage (2 interchangeable stage plates and culture dish holder)
Focusing	Coaxial course and fine
Illumination (Variable)	LED (Halogen optional)

Industrial Microscopes

Magtex

Using both transmitted and reflected light illumination enables the examination of both translucent and opaque materials. It is ideally suited for biological, geological and engineering applications.



Product code		2763.0000M	2783.0000M
Optical head		Trinocular, inclined at 30° (Siedentopf)	
Eyepieces		10x/18mm wide-field.	
Objectives		5x, 10x, 20x, 50x Planachromatic (CCS Optics)	4x, 10x 40x, 60x Planachromatic tension free and parcentered.
Condenser		Brightfield Abbe - NA 1.25	
Stage		Size 210x140mm with built-in mechanical stage	180mm round polarisation stage. Centrabale and rotating 360°
Focusing		Coaxial coarse and fine	
Illumination (Variable)	Transmitted	Halogen 30W (Köhler)	
	Reflected		

Tritex

The Tritex II is fully equipped to allow for the evaluation of samples in materials science. The microscope is supplied with both transmitted and reflected light sources and has in addition darkfield objectives which allow for the examination of highly reflective samples.



Product code		3100.6000M	3100.9000M
Optical head		Trinocular, inclined at 30° (Siedentopf)	
Eyepieces		10x/22mm wide-field pair	
Objectives		5x, 40x, 50x, 100x Infinity Corrected 10x, 20x, Infinite Planachromatic (BF/DF)	40x, 100x Infinity Corrected 5x, 10x, 20x, 50x, 100x Planachromatic (BF/DF) 20x, 100x DIC
Condenser		Aspherical (Incident light)	
		Swing-out condensing lens – NA 0.90 / NA 1.25 with aspherical condenser	
Stage		Size 186x138mm with built-in graduated non-porous double layer mechanical stage	
Focusing		Coaxial coarse and fine	
Illumination (Variable)	Transmitted	Halogen 100W (Köhler)	
	Reflected		

Metex

High performance infinity corrected optical system with exceptional stability and intense illumination, this inverted microscope with DIC observation ensures full detailed examinations.



Product code		3660.6000M
Optical head		Binocular, inclined at 30° (Siedentopf)
Eyepieces		10x / 22mm wide-field and 10x / 20mm (with cross hair scale)
Objectives		5x, 10x, 20x, 50x, 100x Planachromatic LWD (BF / DF)
Condenser		N.A.0.3 (removable) - working distance: 70mm
Stage		Size 226x178mm double layer mechanical stage (3 interchangeable stage plates)
Focusing		Coaxial coarse and fine
Illumination (Variable)		Halogen 50W (Köhler)

Microscopes

Medline Imaging Systems

There are a wide range of camera systems available which complement our extensive microscope range. Images can either be simply captured or additional detailed analysis can be performed, depending on the operation required.

MiPlatform

MiPlatform is a smartphone adapter which combines the comfort of microscope navigation and smartphone camera lens, thereby, enabling scientists and clinicians study quality images quickly and ergonomically. It maintains microscope-like navigation to fully utilise the advantages of microscopic slides in both clinical and training settings.

QUALITY - Image Quality

- Maintains quality* image acquisition of photomicrographs.
- Images comparable with standard captured images.
- Maintains microscopelike navigation to fully utilise the advantages of microscopic slides.
- Seamless integration of any smartphone within the existing laboratory workflow.

USER-FRIENDLY - Ease of use

- No requirement for optical alignment.
- Straight-forward installation.
- Requires limited adjustment each time the phone is attached and/or removed.
- Stable imagery with the platform securely mounted on the eyepiece.

FLEXIBILITY - Wide Compatibility

- Compatible with any Smartphone.
- Smartphone can be used with a protective case.
- Acquired image is the same as seen through the ocular lens.
- Images can be postprocessed on mobile or desktop applications.
- Valid in both clinical and training settings.

ERGONOMICAL - Improved Posture

- No awkward work posture.
- Reduced eyestrain and physical stress.
- Improve work efficiency.

EDUCATION - Acquire & Share

- Share information from the microscopic slide for consultation, training and documentation.
- Novel solution for capturing digital images for educational purposes.



The components are robust and easy to assemble for use.

- Mounting collar
- Platform
- Thumbscrews
- Adjustable grips



Product code: 9554.0007

*Image quality depends on microscope and smartphone camera

Digital USB Cameras

These are supplied with eyepiece adaptors* to fit into an eyepiece tube once they are removed. The adaptors can be used with different diameter eyepieces. Simple software then allows for image capture.



Product code	9554.1200M	9554.1300M	9554.3000M	9554.5000M	9554.9000M
Sensor size	1/3"	1/2"	1/2.2"	1/2.5"	1/2.3"
Pixel size	8 μm x 8 μm	3.2 μm x 3.2 μm	2.2 μm x 2.2 μm	1.75 μm x 1.75 μm	1.75 μm x 1.75 μm
Sensitivity (v/lux -sec)	1.8	1.5	1.2	1.3	1.4
Max resolution (Hardware)	1280 x 1024 1.3M pixels	2048 x 1536 3M pixels	2592 x 1944 5M pixels	3264 x 2448 8M pixels	3488 x 2616 9M pixels
Exposure	ERS (Electronic Rolling Snap)				
White balance	Automatic / Advanced Manual				
Auto-exposure	Automatic / Advanced Manual				
Image output	USB 2.0				
Programmable control	Image size, exposure time, brightness, gain, gamma correction, colour, contrast, saturation				
Accessories included	2 adaptors (23.2 to 30, 23.2 to 30.50, one each) TS-M1 stage micrometer available at extra cost				
Output data	RGB24, Direct Show and Twain interface				
Software	Driver: support Direct Show and Twain Image software: MiniSee				

High Performance CMOS Cameras

Digital Clarity™ sensor technology ensures delivery of high quality, crystal clear images at all times. This breakthrough in CMOS imaging technology can achieve CCD performance based on signal to noise ratio and low light sensitivity. This has major advantages when scanning slides under a compound microscope, as it allows the user to view the image more clearly whilst moving the slide, thus reducing errors and improving productivity.

- Complete with USB cable and image analysis software.
- Tripod fixing 'C' mount thread.
- Optical black level calibration.
- Progressive scan.

Model	Si-3000	
Product code	9556.3000M	
Image sensor	Aptina MT9T001 1/2”	
Resolution	2048 x 1536	1024 x 768
FPS-USB 2.0	12	27
FPS-USB 3.0		
Dynamic range (db)	61	
Gain (db)	23.5	
WB	AWB-One Touch/Manual	
Gamma	1 ~ 2.20	
Shutter	Electronic rolling	

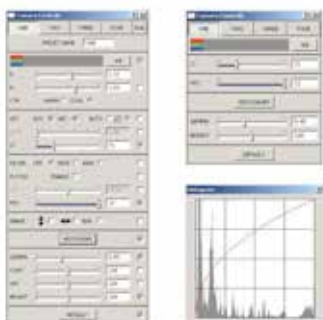
The all new Si-5000 Extended dynamic range 5 Megapixel colour camera has been designed to meet the demanding needs of professionals in the field of scientific imaging and microscopy. The digital image is processed in 10 bit to expand the dynamic range and increase the signal to noise performance. The advanced camera control panel offers simplicity and the benefit of storing 4 separate program parameters or user modes.

Model	Si-5000	
Product code	9556.5000M	
Image sensor	Aptina MT9P001 1/2.5"	
Resolution	2592 x 1944	1280 x 960
FPS-USB 2.0	6	15
FPS-USB 3.0	15	33
Dynamic range (db)	70	
Gain (db)	18	
WB	AWB-One Touch/Manual	
Gamma	1 ~ 2.20	
Shutter	Electronic rolling	

Software Features

User friendly icon driven software toolbar menu enables comprehensive image capture and manipulation.

- Banding filter 50 - 60 Hz.
- FF Flat field correction.
- Gamma 0.10 - 1.0 auto compensation.
- Histogram real time / gamma.
- Image control mirror / flip.
- Frame buffer off / history by frame.
- Default optimised factory settings
- Save multiple formats
- Copy to clipboard
- Annotation.
- Text label.
- Reticule overlay.
- Draw / measure.
- Adjust camera parameters.
- Auto luminance.
- Zoom and pan.
- Dual resolution.
- Time lapse.
- Record live and / or static images.
- Colour / mono mode.



Microscopes

HDMI Cameras

HDMI Microscope Camera with a 1080P scientific grade digital camera that has ultra superior colour reproduction and super fast frame speed. The camera can be connected to a LCD monitor or HDTV via a HDMI cable and operated independently without connecting to PC. The image/video capture and operation can be controlled by a mouse, so no shaking when you take images and videos. It also can be connected to a PC via USB2.0 cable and operates with the software. With a fast frame speed and short responding time features, this camera can be used in many areas like microscopy imaging, machine vision and similar image processing fields. Ideal for fluorescence applications.

- Built-in Mouse Control Camera.
- Record Image and Video to SD Card.
- High Frame Rate of 30fps.
- HDMI Fluorescent Imaging Capability.
- Comprehensive camera software functions.

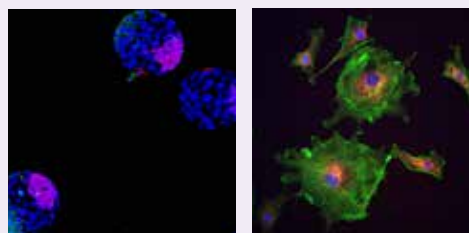


Product code	9554.5500M
Image Sensor	CMOS, Sony IMX236
Chip size	1/2.7"
Video resolution	1920 × 1080
Captured image resolution	3264 × 1836 on SD card to LCD monitor, 1920 × 1080 and 3264 × 1836 with software to PC
Frame rate	1920 × 1080 30fps via USB2.0 1920 × 1080 60fps via HDMI
Data record	High speed SD Card (8G)
Video Record	1080p 30fps in SD Card 1080p 30fps in PC
Exposure time	0.001 sec ~ 10.0 sec
White balance	Auto
Settings	Gain, Gamma, Saturation, Contrast
Built-in software	Cloud 1.0 version
PC software	ISCapture
Output model 1	USB2.0
Output model 2	HDMI

Infinity Digital Microscopy Cameras

Produce crystal clear, vibrant images with INFINITY microscopy cameras. Our user friendly cameras range in resolution from 1.4 to 32 megapixel and feature CMOS, CCD, High Definition (HD), low light CCD, large format, research-grade and pixel shifting technologies. As one of the most respected digital camera manufacturers in the scientific market, suitable for life science, clinical and industrial applications. Providing high quality, scientific-grade cameras complete with feature rich software packages at the best price-to-performance ratio in the market.

- CCD Cameras for low light conditions and quantitative analysis.
- Ultra-sensitive Sony CCD 1.4, 2.8 and 6.1 megapixel sensor-based cameras.
- Thermoelectric cooled and uncooled camera models.
- Fast frame rates.
- Research-grade camera with extremely high dynamic range.
- Both models available in either colour or monochrome formats.
- 3rd Party Software Integration.
- Intuitive Software Package.
- Research-Grade Cameras.
- Centralized Research Development & Manufacturing.



Product code	9557.6028	9557.6345
Megapixels	2.8	1.4
Resolution	1936 x 1456	1932 x 1040
Sensor	2/3" CCD	2/3" Cooled CCD
C-Mount Coupler	0.67 x	
Pixel Pitch (µm)	4.54	6.45
Frame Rate (fps)	53	15
Bit Depth	8 / 14	8 / 12
Read Noise	6.2e-	8e-
Binning/Sub Sampling	Y / Y	
Interface	USB 3.0	USB 2.0

Tablet Cameras - Android

Digi-Pad Microscope Tablet Camera

The Digi-Pad combines a 5 mpx Digital Microscope Camera with a 9.7 inch LCD touch screen Tablet

The Medline Scientific Digi-Pad 5 megapixel microscope camera tablet developed specifically for Microscopy applications. With a 9.7 inch 1024 x 768 IPS solution. Equipped with special software that supports preview, photographs, video measurement capabilities, annotations and saving. It has a C-mount connector which can be connected to any CETI Microscope with an adaptor.

- 9.7 inch colour LCD high definition screen with true colour reproduction.
- Built in special microscopy software, the machine runs smoothly to give a perfect user experience.
- Operating software Android 4.2 RAM 2GB Display Crystal display, RK3066 dual-core 1.5Hz CPU.
- Touch screen operation, can be used as a small computer
- Keyboard and mouse can also be used to operate.
- Includes Wifi and Bluetooth wireless networking for easy file exchange.



Product code	9556.5600M
CPU	RK3066 Dual-core 1.5Hz
Display	9.7 inch (1024x768) Colour LCD touch
Storage	External SD Memory Card - up to 32GB
	ROM 2GB
	RAM 1GB DDR3
Camera	15fps at 1024x768
	1 / 2.5 (4:3) 5 megapixel CMOS
Network	Wifi
	Bluetooth
Input / Output	HDMI Output
	On/Off button
	DC5V Power
	SD Memory card slot
	USB/Mini-USB (OTG) supports USB keyboard and mouse
Battery	6000MAH
Operating System	Android 4.2
Software	Built in microscopy software

Microscopes

Tablet Cameras - Windows

The tablet is developed specifically for microscopy applications, with 10.1-inch 1280 X 800 IPS LCD screen, Intel Bay Trail T-CRZ3735G (Quad Core) 1.83GHZ 646Mhz, support extern SD memory card, installed with windows 8.1 system. Built-in microscopy software, the machine runs smoothly, the user experience is good, helping users to reduce eye fatigue, simplifying operations, improving efficiency, and an excellent tool for learning or research applications.

- 10.1 inch Colour LCD Screen, True colour.
- Build-in windows 8.1 Smart operating system.
- Touch panel, also can be operated by USB keyboard and mouse.
- Multiple interfaces, USB, SD Memory Card, HDMI Output can project the screen to TV or projector screen.
- Support WI-FI and Bluetooth.
- Build-in microscopy software for capture/record images and measurement. Measure data can be export to Excel file.
- Battery with 6000 Ma capacity.



Product code	9556.5500M
CPU	Intel Bay Trail T-CRZ3735G(Quad Core) 1.83GHZ 646Mhz
Display	10.1 inch (1280*800 IPS) Colour LCD touch
Storage	RAM 1GB
	16GB/32GB Internal memory
	Micro SD card 1GB up to 32GB External memory
Camera	5MP
Network	Wifi
	Bluetooth
Input / Output	HDMI Output
	On/Off button
	DC5V Power
	SD Memory card slot
	USB/Mini-USB (OTG) supports USB keyboard and mouse
Battery	TF card port
Operating system	6000MAH
Software	Win 8.1
	Built in microscopy software

Microscopes - Accessories and Options



Camera adapters



Cold light sources



Transport cases



Lenses and filters

All microscopes have the option to add additional magnification objectives, auxillary lenses, filters and eyepieces to suit your specific needs.

Product code	Description
Cleaning	
2480.2075	Cleaning set: lens cleaning tissues (20 pcs) + solution (75ml) + brush
Heating Stages	
2460.2002	Heating stage for compound microscopes - 150x130cm Amb to 50° C including controller
3441.0004	Heating stage for inverted microscopes - 150x130cm Amb to 50° C including controller
Additional Light Sources (Stereo models only)	
7063.1555	Cold light source 150W including double swan neck arm
7502.0930M	LED 8 W ring illuminator. For stereo microscopes incl transformer
7062.5001	LED 9W ring illuminator with separate power supply and light intensity control (Suitable for Varizoom)
Camera Adapters with C-mount	
2757.2050M	For Magnum / Magtex & Reflex
3157.2050M	For Triton II / Metex and Tritex models
1202.4888	For Max II models
3657.2050M	For Inverso TC-100 / Versus II
7357.1111	For Steddy
7700.2345	For Varizoom
9554.9999	Eye piece adapter for 1.3Mpx or 3Mpx camera
Micrometers	
1202.4007	Eye-piece micrometer 10x/18mm with cross line scale 0-18mm : 0.1mm (single) for Max II
2613.1003	Eyepiece micrometer single 10x/20mm with cross line scale 0-10mm : 0,1mm for Magnum / Magtex & Reflex
3153.2003	Eyepiece micrometer single 10x/20mm with cross line scale 0-10mm : 0,1mm for Triton II / Metex and Tritex
6313.1008	Eyepiece micrometer single 10x/18mm with cross line scale 0-10mm : 0,1mm for TC-100 / Versus II
7700.0124	Eyepiece micrometer single 10x/20mm with cross line scale 0-10mm : 0,1mm for Varizoom
2249.1001	Object micrometer with scale 1mm : 0,01mm used with micrometer eyepiece (universal)
Carry Cases	
1202.1401	Aluminium case for Max II
2647.4804	Aluminium case for Magnum
1800.1468	Aluminium case for Star
7500.6245	Aluminium case for Steddy
7700.8492	Aluminium case for Varizoom
Dedicated Image Analysis Solutions	
9600.1011	i-Solution lite
9600.1012	i-Solution
9600.1013	Auto Plus
9600.1013	i-Capture Premium

Environmental Chambers

Tabletop Temperature Chambers
Tabletop Temperature & Humidity Chambers
Floor Standing Temperature & Humidity Chambers
Pharmaceutical Stability Test Chambers
Plant Growth Chambers



Tabletop Temperature Chambers

Safety Features

- Self-protecting cut-off function.
- Over temperature, electrical leakage or over voltage automatically cuts the power from the unit, in an orderly fashion, starting with the heating element then the controller unit.
- Time setting function for automated RUN / OFF.
- Enable automatic start and shut off of a unit at any specific time.
- A timer can be set for a month and data can be recorded in time, day, or weekly intervals.
- Door-open warning alarm.
- Intermittent toned alarm audible alarm and visual alarms.
- Heating element, fan, and platform automatically stops when the door is opened to minimise heat loss and to ensure user safety.
- Built-in door lock with key.

Optimum Control Features

- Microprocessor PID control / Auto-tuning / Calibration.
- CPU logic control system.
- Optimum control of temperature with economical controls that reduces power consumption.
- Touch screen type display.
- Air-tight door closure.
- Tempered glass window with wire heater and lighting.
- 5.7-inch Colour LCD display with interactive input system. (Floor Standing models only)
- Temperature / timer settings, and operation condition.
- Temperature and other operating parameters can be recorded using a chart recorder. (Optional)
- Easily visible set value: set point (SP) / pre-set value (PV) are also added on the colourful LCD controller.

Performance

- Use of HFC refrigerant prevents damage to the ozone layer.
- Complies with the Montreal protocol on substances that deplete the Ozone layer control measures.
- Testing for electric and electronic component, sensors.
- Testing of semiconductors, PCB's, LCD's & LED's.
- Pharmaceutical tests.
- Mechanical, military, aircraft engineering.
- Automobile, transport, automobile supply industries.
- Chemical, petrochemical industries.
- Construction materials, plastic, textile industries.
- Testing moulds, liquor, cigars, paintings.
- Testing metals related to industries such as plating.

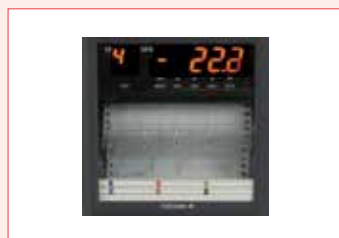


Model		TC-ME-025	TC-ME-065	TC-ME-100
Product code		AAH86012K	AAH86022K	AAH86032K
Chamber volume (L)		25	65	100
Temperature	Range (°C)	- 20 to 120		
	Fluctuation at 100°C	±0.4	±0.3	±0.3
	Variation at 100°C	±2	±1.9	±1.8
Time (min.)	Heating	55 (-15°C to 120°C)		
	Cooling	60 (20°C to -15°C)		
No. of wire shelves (standard / max)		2 / 7	2 / 10	
Max load per shelf (Kg)		25		
Cable Port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)		
Dimensions W x D x H (mm)	Internal	348 x 220 x 353	398 x 330 x 498	498 x 390 x 538
	External	552 x 878 x 919	602 x 1048 x 1056	760 x 1108 x 1096
Weight (Kg)		85	115	135

Environmental Chambers



Model		TC-KE-025	TC-KE-065	TC-KE-100
Product code		AAH86112K	AAH86122K	AAH86132K
Chamber volume (L)		25	65	100
Temperature	Range (°C)	- 40 to 150		
	Fluctuation at 50°C	±0.5		
	Variation at 50°C	±1.0		
Time (min.)	Heating	60 (-35°C to 100°C)		
	Cooling	70 (25°C to -35°C)		
No. of wire shelves (standard / max)		2 / 7	2 / 10	
Max load per shelf (Kg)		25		
Cable Port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)		
Dimensions W X D X H (mm)	Internal	348 × 220 × 353	398 × 330 × 498	498 × 390 × 538
	External	552 x 878 x 919	602 x 1048 x 1056	760 x 1108 x 1096
Weight (Kg)		120	150	160



Recorders



Perforated shelves



Stands



Cable ports

Tabletop Chambers - Accessories and Options

● Optional

Product code	Description	TC-KE			TC-ME		
		25L	65L	100L	25L	65L	100L
AAA8T504	Portable recorder (6 points)	●	●	●	●	●	●
AAA8T506	Portable recorder (digital, 6 channels)	●	●	●	●	●	●
AAA8T540	Interface converter (RS - 485 to 232) included a cable (5m)	●	●	●	●	●	●
AAA8T542	Interface cable (5m)	●	●	●	●	●	●
AAA80550	Warning signal lamp	●	●	●	●	●	●
RTD679	Wire shelf (195mm x 310mm)	●	-	-	●	-	-
RTD680	Wire shelf (280mm x 360mm)	-	●	-	-	●	-
RTD681	Wire shelf (330mm x 460mm)	-	-	●	-	-	●
AAA80602-6	Perforated shelf (195mm x 310mm)	●	-	-	●	-	-
AAA80602-7	Perforated shelf (280mm x 360mm)	-	●	-	-	●	-
AAA80602-8	Perforated shelf (330mm x 460mm)	-	-	●	-	-	●
AAA8T612	Cable port (Ø 50mm / 2.0")	-	-	-	●	●	●
AAA8T613	Cable port (Ø 80mm / 3.2")	-	-	-	●	●	●
AAA8T610	Cable port (Ø 50mm / 2.0")	●	●	●	-	-	-
AAA8T611	Cable port (Ø 80mm / 3.2")	●	●	●	-	-	-
AAA80631	Stand for TC-KE/ME-025	●	-	-	●	-	-
AAA80632	Stand for TC-KE/ME-065	-	●	-	-	●	-
AAA80633	Stand for TC-KE/ME-100	-	-	●	-	-	●
AAA80634	Two step stand for TC-KE/ME-025	●	-	-	●	-	-
AAA80635	Two step stand for TC-KE/ME-065	-	●	-	-	●	-
CFA1910	Temperature sensor (RTD type)	●	●	●	●	●	●

Tabletop Temperature and Humidity Chambers

Safety Features

- Self-protecting cut-off function.
- Over temperature, electrical leakage or over voltage automatically cuts the power from the unit, in an orderly fashion, starting with the heating element then the controller unit.
- Time setting function for automated RUN / OFF.
- Enable automatic start and shut off of a unit at any specific time.
- A timer can be set for a month and data can be recorded in time, day, or weekly intervals.
- Door-open warning alarm.
- Intermittent toned alarm audible alarm and visual alarms.
- Heating element, fan, and platform automatically stops when the door is opened to minimise heat loss and to ensure user safety.
- Built-in door lock with key.

Optimum Control Features

- Microprocessor PID control / Auto-tuning / Calibration.
- CPU logic control system.
- Optimum control of temperature and humidity guaranteeing reliable test results.
- Touch screen type display.
- Air-tight door closure.
- Direct water system.
- Tempered glass window with wire heater and lighting.
- 5.7-inch Colour LCD display with interactive input system. (Floor Standing models only)
- Temperature / timer settings, and operation condition.
- Temperature and other operating parameters can be recorded using a chart recorder. (Optional)
- Easily visible set value: set point (SP) / pre-set value (PV) are also added on the colourful LCD controller.

Performance

- Use of HFC refrigerant prevents damage to the ozone layer.
- Complies with the montreal protocol on substances that deplete the Ozone layer control measures.
- Testing for electric and electronic component, sensors.
- Testing of semiconductors, PCB's, LCD's & LED's.
- Pharmaceutical tests.
- Mechanica, military, aircraft engineering.
- Automobile, transport, automobile supply industries.
- Chemical / Petrochemical industries.
- Construction materials, plastic, textile industries.
- Testing moulds, liquor, cigars, paintings.
- Testing metals related to industries such as plating.



Model		TH-PE-025	TH-PE-065	TH-PE-100
Product code		AAH82212K	AAH82222K	AAH82232K
Chamber volume (L)		25	65	100
Temperature (°C)	Range (°C)	0 to 120 (without humidity) 50 to 90 (with humidity)		
	Fluctuation at 25°C / 60%RH	±0.2	±0.3	±0.2
	Variation at 25°C / 60%RH	±0.3		
Time (min.)	Heating without humidity	40 (0°C to 120°C)		
	Cooling without humidity	30 (20°C to 0°C)		
Humidity (%RH)	Range	30 to 95		
	Fluctuation at 60%RH / 55°C	±1.6	±0.4	±0.5
	Variation at 60%RH / 55°C	±3.0		
Water tank	Capacity (L)	7.5	10	14.5
	Water quality	pH 6.2 to 7.2		
No. of wire shelves (standard / max)		2 / 7	2 / 10	
Max load per shelf (Kg)		25		
Cable Port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)		
Dimensions W x D x H (mm)	Internal	348 x 220 x 353	398 x 330 x 498	498 x 390 x 538
	External	552 x 878 x 919	602 x 1048 x 1056	760 x 1108 x 1096
Weight (Kg)		85	115	135

Environmental Chambers



Model		TH-ME-025	TH-ME-065	TH-ME-100
Product code		AAH82112K	AAH82122K	AAH82132K
Chamber volume (L)		25	65	100
Temperature	Range	-20 to 150 (without humidity) 15 to 90 (with humidity)		
	Fluctuation at 25°C / 60%RH	±0.3	±0.2	
	Variation at 25°C / 60%RH	±0.6	±0.2	
Time (min.)	Heating without humidity	60 (-20°C to 120°C)	67 (-20°C to 120°C)	73 (-20°C to 120°C)
	Cooling without humidity	174 (120°C to -20°C)	144 (120°C to -20°C)	153 (120°C to -20°C)
Humidity (%RH)	Range	20 to 95		
	Fluctuation at 60%RH / 55°C	±2.0	±2.7	
	Variation at 60%RH / 55°C	±0.6	±1.1	±1.2
Water tank	Capacity (L)	7.5	10	14.5
	Water quality	pH 6.2 to 7.2		
No. of wire shelves (standard / max)		2 / 7	2 / 10	
Max load per shelf (Kg)		25		
Cable Port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)		
Dimensions W x D x H (mm)	Internal	348 x 220 x 353	398 x 330 x 498	498 x 390 x 538
	External	552 x 878 x 919	602 x 1048 x 1056	760 x 1108 x 1096
Weight (Kg)		85	115	135



LCD controller



Viewing window

Model		TH-KE-025	TH-KE-065	TH-KE-100
Product code		AAH82412K	AAH82422K	AAH82432K
Chamber volume (L)		25	65	100
Temperature	Range	-40 to 150 (without humidity) 15 to 90 (with humidity)		
	Fluctuation at 50°C / 60%RH	±0.4		±0.3
	Variation at 50°C / 60%RH	±0.3	±0.4	
Time (min.)	Heating without humidity	60 (-40°C to 100°C)		
	Cooling without humidity	65 (20°C to -40°C)	92 (20°C to -40°C)	90 (20°C to -40°C)
Humidity (%RH)	Range (%RH)	20 to 95		
	Fluctuation (±%RH) at 60%RH / 50°C	±4.1	±2.8	±1.8
	Variation (±%RH) at 60%RH / 50°C	±0.9	±1.0	±1.2
Water tank	Capacity (L)	7.5	10	14.5
	Water quality	pH 6.2 to 7.2		
No. of wire shelves (standard / max)		2 / 7	2 / 10	
Max load per shelf (Kg)		25		
Cable port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)		
Dimensions W x D x H (mm)	Internal	348 x 220 x 353	398 x 330 x 498	498 x 390 x 538
	External	552 x 878 x 919	602 x 1048 x 1056	760 x 1108 x 1096
Weight (Kg)		120	150	160

Floor Standing Temperature and Humidity Chambers

Safety Features

- Self-protecting cut-off function.
- Over temperature, electrical leakage or over voltage automatically cuts the power from the unit, in an orderly fashion, starting with the heating element then the controller unit.
- Time setting function for automated RUN / OFF.
- Enable automatic start and shut off of a unit at any specific time.
- A timer can be set for a month and data can be recorded in time, day, or weekly intervals.
- Door-open warning alarm.
- Multi-functional alarm system
- Heating element, fan, and platform automatically stops when the door is opened to minimise heat loss and to ensure user safety.
- Built-in door lock with key.

Optimum Control Features

- Microprocessor PID control / Auto-tuning / Calibration.
- CPU logic control system.
- Optimum control of temperature and humidity guaranteeing reliable test results.
- Touch screen type display.
- Air-tight door closure.
- Direct water system.
- Tempered glass window with wire heater and lighting.
- 5.7-inch Colour LCD display with interactive input system. (Floor Standing models only)
- Temperature / timer settings, and operation condition.
- Temperature and other operating parameters can be recorded using a chart recorder. (Optional)
- Easily visible set value: set point (SP) / pre-set value (PV) are also added on the colourful LCD controller.



Model		TH-TG-180	TH-TG-300	TH-TG-408	TH-TG-800	TH-TG-1000	TH-TG-1500
Product code		AAHC2002K	AAHC2012K	AAHC2022K	AAHC2032K	AAHC2042K	AAHC2052K
Chamber volume (L)		180	314	419	770	997	1540
Controller		PID Control (LCD Type)					
Temperature (°C)	Range without humidity	-5 to 100					
	Range with humidity	10 to 90			20 to 90		
	Fluctuation at 40°C / 60%RH	±0.3					
	Variation at 40°C / 60%RH	±0.5					
Time (min.)	Heating without humidity	50 (-5°C to 100°C)			55 (-5°C to 100°C)		
	Cooling without humidity	120 (100°C to -5°C)			145 (100°C to -5°C)		
Humidity (%RH)	Range	10 to 95			20 to 95		
	Fluctuation at 60%RH / 40°C	±2.0					
	Variation at 60%RH / 40°C	±3.0					
Water tank	Capacity (L)	15					30
	Water quality	pH 6.2 to 7.2 / Electrical conductivity 20µs /cm to below					
No. of wire shelves (standard / max)		2 / 7	2 / 8		2 / 17		
Max load per shelf (Kg)		20	25		40		
Cable port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)					
Dimensions W x D x H (mm)	Internal	500 x 600 x 600	748 x 600 x 700	748 x 800 x 700	748 x 920 x 1120	748 x 1190 x 1120	1100 x 1000 x 1400
	External	950 x 907 x 1484	1200 x 863 x 1524	1200 x 1063 x 1524	1200 x 1230 x 1973	1200 x 1500 x 1973	1554 x 1876 x 1935
Weight (Kg)		230	250	290	370	420	490

Environmental Chambers

Features

- Corrosion resistance stainless steel chamber and electric polished humidification tank.
- Front loading portable water tank.
- Direct water system provides user great convenience when performing long-term tests. (optional)
- Clear observation of samples.
- Tempered glass door with built in heating wire.
- Energy efficient, long life span LED lighting.
- Wider view, inner glass door is available for monitoring of samples. (optional)
- Cable port for introduction of external probes or wires. 50mm diameter cable port comes standard on the left side of the unit.
- Casters for easy mobility during installation or relocation.
- 5.7 inch colourful interactive touch type LCD controller. Set value and present value are clearly visible together on display. Operating progress visible in graph mode allow for direct data interpretation
- Built-in SD card drive.
- Temperature and other operating parameters recorded with use of selectable recorder. (optional)
- Sufficient programmable control support.
- Computer interface RS-485 communication port enables connection of up to maximum 9 units. Simultaneous monitoring and operating of multiple units is an available feature. (optional)
- Program patterns are simple to set with the use of our software.
- Storage of program information, backup of value settings, recovery, temperature, humidity values.
- RS-232 communication port comes standard.



Portable water container



Colour LCD controller

Model		TH-G-180	TH-G-300	TH-G-408	TH-G-800	TH-G-1000	TH-G-1500
Product code		AAH80012K	AAH80022K	AAH80032K	AAH80042K	AAH80052K	AAH80072K
Chamber volume (L)		189	302	408	800	1000	1540
Controller		Programmable, Touch Screen Controller (5.7" colour monitor)					
Temperature	Range without humidity	-40 to 150					
	Range with humidity	15 to 90					
	Fluctuation at 40°C / 75%RH	±0.3					
	Variation at 40°C / 75%RH	±0.5					
Time (min.)	Heating without humidity	70 (-40°C to 120°C)					90 (-40°C to 120°C)
	Cooling without humidity	75 (20°C to -40°C)			85 (20°C to -40°C)		90 (20°C to -40°C)
Humidity (%RH)	Range	25 to 95					
	Fluctuation at 75%RH / 40°C	±0.4			±1.0		±2.0
	Variation at 75%RH / 40°C	±3.0					
Water tank	Capacity (L)	15 - Cartridge type					
	Water quality	pH 6.2 to 7.2 / Electrical conductivity 20µs /cm to below					
No. of wire shelves (standard / max)		2 / 9	2 / 10		2 / 14		
Max load per shelf (Kg)		20	25		40		
Cable port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)					
Dimensions W x D x H (mm)	Internal	500 x 630 x 600	600 x 630 x 800	600 x 850 x 800	1000 x 800 x 1000	1000 x 1000 x 1000	1100 x 1000 x 1400
	External	1003 x 1139 x 1468	1103 x 1139 x 1668	1103 x 1359 x 1668	1503 x 1319 x 1968	1503 x 1519 x 1968	1603 x 1960 x 1950
Weight (Kg)		320	385	410	620	680	860



Model		TH-I-180	TH-I-300	TH-I-408
Product code		AAH80112K	AAH80122K	AAH80132K
Chamber volume (L)		189	302	408
Controller		Programmable, Touch Screen Controller (5.7" colour monitor)		
Temperature	Range without humidity (°C)	-40 to 150		
	Range with humidity (°C)	15 to 90		
	Fluctuation at 40°C / 75%RH	±0.3		
	Variation at 40°C / 75%RH	±0.5		
Time (min.)	Heating without humidity	70 (-40°C to 120°C)		
	Cooling without humidity	75 (20°C to -40°C)		
Humidity (%RH)	Range	20 to 95		
	Fluctuation at 75%RH / 40°C	±0.4		
	Variation at 75%RH / 40°C	±3.0		
Water tank	Capacity (L)	15 - Cartridge type		
	Water quality	pH 6.2 to 7.2 / Electrical conductivity 20µs /cm to below		
No. of wire shelves (standard / max)		2 / 9	2 / 10	
Max load per shelf (Kg)		20	25	
Cable port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)		
Dimensions W x D x H (mm)	Internal	500 x 630 x 600	600 x 630 x 800	600 x 850 x 800
	External	1003 x 1139 x 1468	1103 x 1139 x 1668	1103 x 1359 x 1668
Weight (Kg)		320	385	410



Model		TH-KH-180	TH-KH-300	TH-KH-408
Product code		AAHC3012K	AAHC3112K	AAHC3212K
Chamber volume (L)		189	302	408
Controller		Programmable, Touch Screen Controller (5.7" colour monitor)		
Temperature	Range without humidity (°C)	-70 to 150		
	Range with humidity (°C)	15 to 90		
	Fluctuation at 40°C / 75%RH	±0.3		
	Variation at 40°C / 75%RH	±0.5		
Time (min.)	Heating without humidity	70 (-70°C to 120°C)		
	Cooling without humidity	80 (20°C to -70°C)		
Humidity (%RH)	Range	25 to 95		
	Fluctuation at 75%RH / 40°C	±0.4		
	Variation at 75%RH / 40°C	±3.0		
Water tank	Capacity (L)	15 - Cartridge type		
	Water quality	pH 6.2 to 7.2 / Electrical conductivity 20µs /cm to below		
No. of wire shelves (standard / max)		2 / 9	2 / 10	
Max load per shelf (Kg)		20	25	
Cable port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)		
Dimensions W x D x H (mm)	Internal	500 x 630 x 600	600 x 630 x 800	600 x 850 x 800
	External	1043 x 1613 x 1558	1143 x 1833 x 1758	1143 x 2053 x 1758
Weight (Kg)		320	385	410

Environmental Chambers

Pharmaceutical Stability Test Chambers

Features

- In the event of a validation the apparatus correctly controls each light and then transfers accurate data and is equipped with light sensors.
- Samples that have to be exposed to the light in which it is completely near the UV energy of less than 200W-hr/m² is provided to compare directly with the results from overall intensity of less than 1.20 million lux-hr, drug substances and reagents.
- Total fluorescent lamp and UV lamp indicator and operating time indicator.

Safety

- Leakage breaker for power supply.
- Over current protection.
- Overheat protection.
- Switch-off after alarm for over heating.
- Door open alarm.
- Water empty.
- Vice type door locking mechanism. (optional)
- Alarm for completed Photostability Test.



Model		TH-ICH-300	TH-ICH-800
Product code		AAHC1002K	AAHC1012K
Chamber Volume (L)		300	760
Controller		PID Control (LCD Type)	
Temperature	Range without humidity (°C)	-5 to 85 (without light) 0 to 85 (with light)	
	Range with humidity (°C)	+15 to 85 (with light)	
	Fluctuation at 40°C / 60%RH	±0.3	
	Variation at 40°C / 60%RH	±0.5	±0.7
Time (min.)	Heating	25 (20°C to 85°C)	30 (20°C to 85°C)
	Cooling	35 (20°C to -5°C)	40 (20°C to -5°C)
Humidity (%RH)	Range	20 to 85	
	Fluctuation at 60%RH / 40°C	±3.0	
	Variation at 60%RH / 40°C	±5.0	
Light source	Cool White (lux)	6,000	6,500
	Ultraviolet-A (W/m ²)	4.5	5
Water tank	Capacity (L)	15	
	Water quality	pH6.2 to 7.2, Electrical conductivity 20µs/ cm to below	
No. of wire shelves (standard / max)		2 / 8	2 / 17
Max load per shelf (Kg)		25	40
Cable port (standard / max)		1 (Ø 50mm) / 2 (Ø 50mm or Ø 80mm)	
Dimensions W x D x H (mm)	Internal	750 x 650 x 650	750 x 880 x 1160
	External	1130 x 985 x 1520	1220 x 1215 x 1965
Weight (Kg)		290	410



Digital recorders



Cable ports



Portable recorders



Perforated shelves

Tabletop Chambers - Accessories and Options

■ Standard ● Optional

Description	Models		
	TH-KE	TH-ME	TH-PE
Portable recorder (6 points)	●	●	●
Portable recorder (digital, 6 channels)	●	●	●
Interface converter RS-485C - 232C included a cable (5m / 16.4ft)	●	●	●
Interface cable (5m / 16.4ft)	●	●	●
Warning signal lamp	●	●	●
Viewing window	■	■	■
Wire shelf	■	■	■
Perforated shelf	●	●	●
Cable port (Ø 50mm / 2.0")	■	■	■
Cable port (Ø 80mm / 3.2")	●	●	●
Stand	●	●	●
Two step stand	●	●	●
Temperature sensor (RTD type)	■	■	■
Humidity sensor	■	■	■
Water purifier	●	●	●
Direct water system	●	●	●

* 80mm cable access hole is NOT available for 25L chamber.

Floor Standing Chambers - Accessories and Options

Description	Models					
	TH-G	TH-I	TH-KH	TH-TG	TH-ICH	TH-CR
Recorder (6 points)	●	●	●	●	●	●
Recorder (digital, 6 channels)	●	●	●	●	●	●
Interface converter RS-485C - 232C included a cable (5m)	●	●	●	●	●	●
Interface cable (5m)	●	●	●	●	●	●
Warning signal lamp	●	●	●	●	●	●
Inner glass door	●	●	●	●	●	-
Viewing window	■	■	■	■	-	■
Wire shelf	■	■	■	■	■	■
Perforated shelf	●	●	●	●	●	●
Cable port (Ø 50mm)	■	■	■	■	■	■
Cable port (Ø 80mm)	●	●	●	●	●	●
Temperature sensor (RTD type)	■	■	■	■	■	■
Humidity sensor	■	■	■	■	■	■
Fluorescent lamp (Cool White)	-	-	-	-	■	-
UVA lamp	-	-	-	-	■	-
UV sensor	-	-	-	-	■	-
Illumination Sensor	-	-	-	-	■	-
HEPA filter	-	-	-	-	-	■
ULPA filter	-	-	-	-	-	-
Water cartridge tank (Water Container)	■	■	■	■	-	■
Water purifier	●	●	●	●	●	●
Direct water system	●	●	●	●	●	●

Environmental Chambers

Plant Growth Chambers

Operating Features

- Microprocessor PID control / Auto-tuning / Calibration
- Digital timer: 1 min to 99 hr 59 min
- Over-temperature limit / Door open alarm
- 10 step programmable temperature, humidity, and illumination profiles and repeat the steps up to 999 cycles. (self-testing)
- 300 to 5,000ppm CO₂ control system. (optional)

Safety Features

- Leakage breaker for power supply.
- Over current protection.
- Over heat protection with alarm.
- Door opening alarm.
- Low and empty water level alarm. (TLH models only)

Constructional Features

- High quality #304 grade stainless steel interior and dirt repellent powder coated exterior surface.
- User-friendly door system.
- Wide inner tempered glass door provides a full view of the samples.
- Powerful air circulator for smooth airflow.
- High frequency electronic ballast lamps.
- Easy cleaning of condenser air-filter.
- Casters for easy mobility when installing or moving environmental testing chamber.
- Electronic humidity sensor is fast acting and easy to calibrate.
- Dual type water level sensor.
- Adjustable water tank positions. (Only for GC-300TLH)
- Removable shelving and rounded inner chamber corners for easy cleaning.



Model		GC-300TL	GC-300TLH	GC-1000TLH
Product code		AAHA1012	AAHA1022	AAHA1032
Chamber volume (L)		300		1000
Controller		Micro Processor PID Control		
Temperature	Range (°C)	5 to 50 (Lamp off)		
		10 to 50 (Lamp on)		
		20 to 50 (with humidity)		
	Fluctuation at 25°C	±0.1 (without humidity)		
	Variation at 25°C	±0.8 (without humidity)		
Illumination	Range (Lux)	0 to 20,000		0 to 35,000
	Control (steps)	10		11
Humidity (RH%)	Range	-	40 to 80 at (20 to 35°C) 70 to 90 at (36 to 50°C)	50 to 90 at (20 to 35°C) 60 to 90 at (36 to 50°C)
	Fluctuation at 60% RH	-	±3	
CO ₂ (optional)	Range (ppm)	300 to 5,000		
	Sensor	NDIR CO ₂		
Dimensions W X D X H (mm)	Internal	510 x 540 x 1100		1200 x 800 x 1080
	External	700 x 805 x 1900		1410 x 1070 x 2150
Weight (Kg)		250		550

Plant Growth Chambers - Accessories and Options

Model	Wire shelves			Perforated shelves			Recorder	CO ₂ sensor
	Product code	Dimensions (w x L, mm)	No. of shelves (standard/max.)	Product code	Dimensions (w x L, mm)	No. of shelves (max.)	Product code	Product code
GC-300TL	EDA8220	466 x 490	3 / 14	AAA22522	466 x 490	14	AAAA1501	AAAA1521
GC-300TLH	EDA8220		3 / 14	AAA22522		14	AAAA1501	AAAA1521
GC-1000TLH	EDA8222	580 x 770	6 / 29	AAAA1512	580 x 770	29	AAAA1502	AAAA1521

Tubing and Medical Gas Hose

Rubber Tubing
Reinforced Bunsen Tubing
Silicone Tubing

Medical PU Gas Hose - Purehose
Medical PVC Gas Hose - Primehose



Tubing and Medical Gas Hose

Rubber Tubing

Manufactured from 45° natural rubber, high strength, good resistance to tear, fatigue and abrasion. Has excellent electrical properties but poor resistance to ozone and mineral and petroleum based oils.

- Temperature: -65°C to +70°C.
- Applications: Transferring gases, liquids and diluted acids.



Product code	Description	Coil length (m)
211484	R/Rubber Drain Tube 1.25mm x 0.6mm	20
211485	R/Rubber Drain Tube 1.6mm x 0.7mm	
211486	R/Rubber Drain Tube 1.6mm x 1.2mm	
211487	R/Rubber Drain Tube 2.5mm x 1.0mm	
211488	R/Rubber Drain Tube 3.2mm x 1.0mm	
211489	R/Rubber Drain Tube 4.0mm x 1.2mm	
211491	R/Rubber Drain Tube 5.0mm x 1.4mm	
211492	R/Rubber Drain Tube 6.3mm x 1.7mm	
211493	R/Rubber Drain Tube 6.3mm x 2.5mm	
211494	R/Rubber Drain Tube 8.0mm x 2.0mm	
211495	R/Rubber Drain Tube 8.0mm x 2.8mm	
211496	R/Rubber Drain Tube 9.0mm x 2.3mm	
211497	R/Rubber Drain Tube 10.0mm x 2.5mm	
211498	R/Rubber Drain Tube 11.2mm x 2.8mm	
211499	R/Rubber Drain Tube 12.5mm x 3.2mm	
212502	Neoprene Tube 5.00mm x 1.50mm	10
212503	Neoprene Tube 6.50mm x 1.50mm	
212504	Neoprene Tube 8.00mm x 2.00mm	

Reinforced Bunsen Tubes



Product code	Description	Coil length (m)
215450	Bunsen Tube (R/E) Neo. 450mm	0.45
215600	Bunsen Tube (R/E) Neo. 600mm	0.60
215900	Bunsen Tube (R/E) Neo. 900mm	0.90

Silicone Tubing

Silicone rubber tubing offer platinum cured silicone rubber tubing as standard which has increased tear strength, less bacterial build up and a higher clarity over peroxide silicone rubber tubing. It also has no smell or taste taint or reaction with chlorine and is also less likely to have surface extrusion lines, sometimes visible on peroxide silicone tubing.

Key Features: Excellent resistance to temperature, ozone and weathering. It also has good electrical properties but poor resistance to petroleum based fluids. Manufactured from FDA approved materials.

- Temperature: -40°C to +200°C (+250°C short term).
- Applications: Food, medical and pharmaceutical. Peristaltic pump use.



Product code	Description	Coil length (m)
21300215	Silicone Tube 1.0mm x 1.0mm	15
21300315	Silicone Tube 2.0mm x 0.5mm	
21300415	Silicone Tube 3.00mm x 0.75mm	
21300515	Silicone Tube 3.0mm x 1.0mm	
21300815	Silicone Tube 4.0mm x 1.0mm	
21300915	Silicone Tube 5.0mm x 1.0mm	
21301015	Silicone Tube 5.0mm x 1.5mm	
21301215	Silicone Tube 6.0mm x 2.0mm	
21301715	Silicone Tube 8.0mm x 2.0mm	
21303415	Silicone Tube 8.0mm x 2.5mm	
21301815	Silicone Tube 9.0mm x 2.5mm	
21302115	Silicone Tube 10.0mm x 2.5mm	

Medical Gas Hose

Purehose pf®

Phthalate-free PU ESD medical gas hose

Modern anaesthetic gasses are now virtually inert therefore the risk of explosion has been considerably reduced. This coupled with a growing concern over the potential vaporisation and subsequent inhalation of phthalates has resulted in the development of this new phthalate & PVC free hose, PureHose Pf. If you are looking for a product that fulfils all the current and future requirements for medical gas hoses, PureHose Pf is that product. PureHose Pf is designed to be fully compliant with all the most recent specifications and conforms to BS EN ISO 5359:2008 (2014) + A1:2011. All the materials used are USP VI compliant.

The raw material used is composed of ingredients which meet the current requirements of the FDA for food contact applications when used in accordance with the requirements and limitations of 21 CFR: 175.105; 177.1680 for repeat use applications only; 177.2600. PureHose Pf hose does not contain plasticizer of any form, it does not work harden and will not expose patients to any potentially harmful phthalate vapours. The material is designed to be used in areas that require static dissipation. As such all the mating surfaces are made from ESD material with a surface resistivity of $1.1 \times 10^{11} \Omega/\text{Sq}$ when tested to ASTM D 257. This level is more than sufficient to prevent any risk promoting static build up.

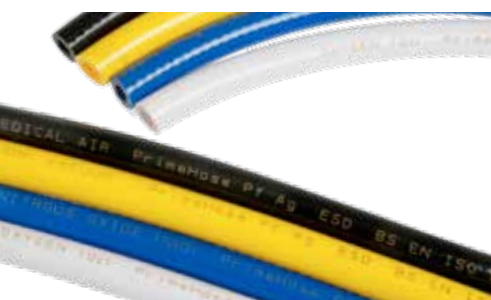


Product code	Description	Colour	Coil Length (m)
108601PF	High pressure ESD PU (Oxygen) 6.7mm Ø	White	30
108602PF	High pressure ESD PU (Air) 6.7mm Ø	Black	
108603PF	High pressure ESD PU (Vacuum) 6.7mm Ø	Yellow	
108604PF	High pressure ESD PU (N ₂ O) 6.7mm Ø	Blue	
108605PF	High pressure ESD PU (O ₂ /N ₂ O) 6.7mm Ø	Blue/white stripe	
108606PF	High pressure ESD PU (CO ₂) 6.7mm Ø	Grey	
108612PF	High pressure ESD PU (Air) 6.7mm Ø	Black/White	
108607PF	High pressure ESD PU (He/O ₂) 6.7mm Ø	Brown/White	
108632PF	High pressure ESD PU (Air) 8.0mm Ø	Black	
108631PF	High pressure ESD PU (Air) 8.0mm Ø	Black/White	
108633PF	High pressure ESD PU (Vacuum) 8.0mm Ø	Yellow	
108643	High pressure ESD PU (AGSS) 12.7mm Ø	Yellow	

Primehose pf®

Phthalate-free PVC ESD medical gas hose - Antimicrobial

Primehose is the latest addition to the Medline range of medical gas hose and has been engineered to provide the market with up to date and technically advanced products for the delivery of medical gases within the demanding, twenty-first century hospital environment. A detailed evaluation and a careful selection of materials have enabled us to entirely dispense with standard ortho-phthalate plasticisers, increasingly a cause for concern in medical circles, and offer a strong but flexible phthalate-free PVC alternative hose and peace of mind for the user. Our PVC grade is based upon a low migration plasticiser and is expected to comply with British Standard 2463 (Freedom from toxicity), which has been extended to measure Zinc content and UV absorption, and also the US Pharmacopoeia biological tests for plastics. Antimicrobial, providing resistance to bacteria such as MRSA, Klebsiella Pneumoniae, in accordance with BS ISO 22196.



Product code	Description	Colour	Coil Length (m)
208601PF	High pressure ESD PVC (Oxygen) 6.7mm Ø	White	30
208602PF	High pressure ESD PVC (Air) 6.7mm Ø	Black	
208603PF	High pressure ESD PVC (Vacuum) 6.7mm Ø	Yellow	
208604PF	High pressure ESD PVC (N ₂ O Nitrous) 6.7mm Ø	Blue	
208605PF	High pressure ESD PVC (O ₂ /N ₂ O) 6.7mm Ø	Blue/White	
208633PF	High pressure ESD PVC (Vacuum) 8.0mm Ø	Yellow	

Index

A

Aspirator Pump	27
Aspirators	27
Autoanalyser cups	4
Autoclave Bags	4
Autoclaves	26
Autoclave Tape	4

B

Balances	28 - 29
Bath	30 - 32
Bath Accessories	35 - 37
Beakers	8
Bunsen Tubes	126
Burners	53
Burner Accessories	53

C

Cameras (Microscope)	108 - 112
Caps	18
Centrifuges	38 - 40
Centrifuge Tubes	5
Chamber Furnaces	54
Circulators	33 - 34
Clean Benches	46
Clean Bench Accessories	47
Cleaning Reagents	20 - 23
Clinical Waste Bins	5
Containers	5 - 7
Cover Slips	11
Cryovials	9
Cuvettes	4
Cylinders	8

D

Decontamination Reagents	20 - 23
Desiccators	41 - 43
Desiccator Accessories	44
Dippers	7
Dry Bath Incubators	50

E

Electric Burners	53
Environmental Chambers	115 - 124
Environmental Swabs	16
Extraction Mantles	52

F

Freezers	76 - 79
Freezer Accessories	79
Fume Hoods	47 - 48
Fume Hood Accessories	48
Fume Hoods - Bench Top	47
Fume Hoods - Ductless	48
Filter Paper	4
Fridge/Freezer	75

G

Gloves	8
--------	---

H

Hand Disinfectant	24
Hand Wash	24
Heating Bath Circulators	33
Heating Blocks	50
Heating Block Accessories	51
Heating Mantles	52
Histology Containers	7
Hotplates	91
Hotplate Stirrers	91 - 93

I

Incubators	55 - 60
Incubator Accessories	61
Incubator Shakers	58 - 60
Incubator Shaker Accessories	62 - 64
Incubators - Low Temperature	56 - 57
Incubators - CO ₂	57

L

Loops	12
-------	----

M

Magnetic Stirrers	93 - 94
Media Swabs	16
Medical Gas Hose	127
Melting Point Apparatus	65
Micro Centrifuges	38
Microcentrifuge Tubes	9
Microincinerator	53
Microscope Slides	9 - 10
Microscopes	101 - 107
Microscopes - Educational	101
Microscopes - Laboratory	102 - 104
Microscopes - Stereo	105

Microscopes - Inverted	106
Microscopes - Industrial	107
Microscopes - Cameras	108 - 112
Microscope Accessories	113
Microtitre Plates	12
Microtubes	9
Mixers	98

O

Ovens	66 - 67
Oven Accessories	68
Overhead Stirrers	95 - 96
Overhead Stirrer Accessories	97

P

Pasteur Pipettes	12
PCR Workstations	49
Petri Dishes	12
Pharmaceutical Test Chambers	122
Pipette Tips	13
Pipettors	69
Plain Swabs	16
Plant Growth Chambers	124
Plastic Bags	14
Polarimeters	70
Post Lip Paper	4

R

Racks	14
Refractometers	71 - 72
Refrigerating & Heating Bath Circulators	34
Refrigerators	73 - 75
Rotators	80
Rotors (centrifuges)	39 - 40
Rubber Tubing	126

S

Scoops	7
Serological Pipettes	13
Shakers	81 - 86
Shaker Accessories	87 - 89
Shakers - Heating	86
Shakers - Microplate	84
Shakers - Rocking / Waving	85
Shaking Water Baths	32
Sharps Bins	5
Silicone Tubes	126
Slides	9 - 11

Special Bottles	8
Specimen Containers	5 - 6
Spectrophotometers	90
Spreaders	12
Steam Sterilisers	26
Stirrer Mantles	52
Stirrers	92 - 96
Storage Boxes	14
Swabs	16
Sweetie Jars	6
Syringes	17

T

Temperature & Humidity Chambers	117 - 121
Temperature & Humidity Chamber Accessories	123
Temperature Chamber Accessories	116
Temperature Chambers	115 - 116
Test Tube Caps	18
Test Tubes	17
Tubing	126

U

Urine Containers (24 Hours)	6
UV Sterilisation Cabinets	49

V

Vacuum Desiccators	42 - 43
Vacuum Oven	67
Vacuum Oven Accessories	68
Vacuum Pump	27
Viscosity Baths	32
Vortex Mixers	98

W

Wash Bottles	8
Water Baths	30 - 32
Water Sampling Bottles	18
Weigh Boats	7

Z

Zip-lock Bags	14
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