

SECTION 14

GENERAL PURPOSE LABWARE

INDEX

Lab tools and consumables	page 218
Heating and distillation	page 226
Tools Kit - Vacuum filtration - Stirring and centrifugation	page 227
Electrical power sources	page 228



LAB TOOLS AND CONSUMABLES



V44



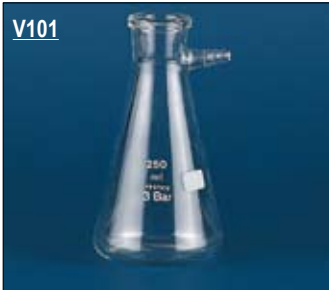
V31



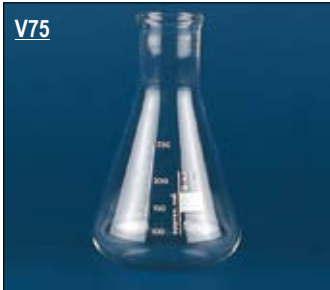
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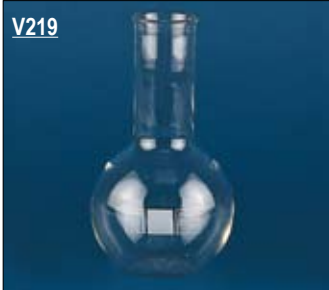
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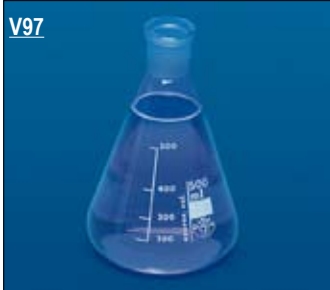
V101



V75



V219



V97



V911



V233



V279



V432



V288



K147 - K153

GRADUATED BEAKERS

GLASS LOW-FORM BEAKERS

V27	50 ML	V31	400 ML
V28	100 ML	V32	600 ML
V29	150 ML	V34	1000 ML
V30	250 ML	V35	2000 ML

GLASS TALL-FORM BEAKERS

V41	100 ML	V44	400 ML
V42	150 ML	V45	600 ML
V43	250 ML	V47	1000 ML

TPX (TRANSPARENT PLASTIC) GRADUATED BEAKERS

K1541	25 ML	K1545	250 ML
K1542	50 ML	K1546	500 ML
K1543	100 ML	K1548	1000 ML

PP (OPAQUE PLASTIC) GRADUATED BEAKERS

K1801	25 ML	K1805	250 ML
K1802	50 ML	K1806	500 ML
K1803	100 ML	K1808	1000 ML

CONICAL ERLENMEYERS AND FLASKS

GLASS ERLENMEYER FLASK NARROW-NECK

V71	50 ML	V76	300 ML
V72	100 ML	V77	500 ML
V75	250 ML	V79	1000 ML

FILTERING FLASKS

V100	100 ML	V102	500 ML
V101	250 ML	V103	1000 ML

GLASS ERLENMEYER FLASK WITH CONE NS 29/32

V95	250 ML	V97	500 ML
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ROUND-BOTTOM FLASK

ROUND-BOTTOM FLASK WITH FLAT BASE AND NARROW NECK

V217	50 ML	V220	500 ML
V218	100 ML	V221	1000 ML
V219	250 ML		

ROUND-BOTTOM FLASK WITH FLAT BASE AND CONE NS 29/32

V232	250 ML	V233	500 ML
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ROUND-BOTTOM FLASK FOR DISTILLATION

V911	250 ML	V912	500 ML
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CRYSTALIZATORS

GLASS CRYSTALIZATORS THIN SPOUT

V428	Ø 50X40H MM	V432	Ø 95X45H MM
V433	Ø 115X65H MM	V434	Ø 140X80H MM

FUNNELS

GLASS FUNNELS SHORT-STEM

V276	Ø 55 MM	V279	Ø 100 MM
V278	Ø 80 MM	V280	Ø 120 MM
V281	Ø 150 MM		

GLASS FUNNELS LONG-STEM

V283	Ø 45 MM	V284	Ø 55 MM
V286	Ø 80 MM	V287	Ø 100 MM
V288	Ø 120 MM		

PLASTIC FUNNELS SHORT-STEM

K147	Ø 50 mm	K152	Ø 100 mm
K148	Ø 65 mm	K153	Ø 120 mm
K150	Ø 80 mm		

GLASS SEPARATORY FUNNELS WITH CONE NS 29/32

V312	250 ml	V314	1000 ml
V313	500 ml		



DESSICATOR

V356 Drier with knob provided with plate for drying up Ø 200 mm.

FLASKS AND BOTTLES FOR REAGENTS

GRADUATED BOTTLES WITH SCREW PLUG ISO 4796

V930	100 ml	V932	500 ml
V931	250 ml	V933	1000 ml

PLASTIC BOTTLES WITH NARROW NECK

K319	100 ml	K324	500 ml
K323	250 ml	K325	1000 ml

PLASTIC BOTTLES RECTANGULAR-SHAPE

K609	50 ml	K612	500 ml
K610	100 ml	K613	1000 ml
K611	250 ml		

BIG BOTTLES WITH NARROW NECK

K1646	10 lt
K1662	10 lt with tap



BASINS

ACID-PROOF PLASTIC BASINS

K280	200x150x50h mm
K282	320x260x70h mm
K284	450x330x95h mm
K288	550x430x190h mm



TEST-TUBES

GLASS TEST-TUBES (100 PIECES PACK)

V607	Ø 10x100h mm	V614	Ø 18x180h mm
V610	Ø 12x100h mm	V615	Ø 21x180h mm
V613	Ø 16x150h mm	V947	Ø 25x200h mm

PLASTIC TEST-TUBES (10 PIECES PACK)

K302	7 ml
K303	16 ml
K305	31 ml
K308	110 ml



TEST-TUBE HOLDERS

SM1106 12 positions: 6 positions for test-tubes with diameter up to 16 mm and 6 positions for drying.
NA432 50 positions for test-tubes (diameter up to 16 mm).
NA434 18 positions for test-tubes (diameter up to 20 mm)

GRADUATED CYLINDERS

GLASS GRADUATED CYLINDERS, TALL-FORM

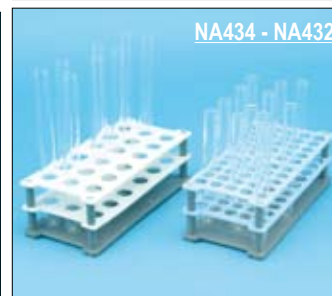
V106	10 ml	V110	250 ml
V107	25 ml	V111	500 ml
V108	50 ml	V112	1000 ml
V109	100 ml	V113	2000 ml

PLASTIC GRADUATED CYLINDERS, TALL-FORM

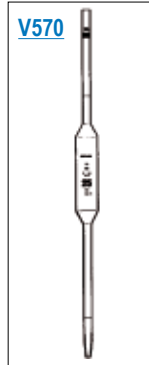
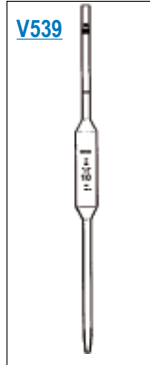
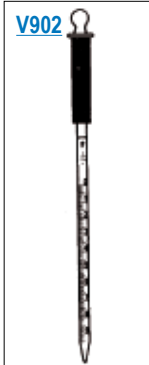
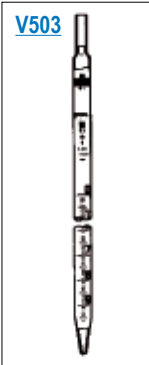
K1077	25 ml	K1080	250 ml
K1078	50 ml	K1081	500 ml
K1079	100 ml	K1082	1000 ml

PLASTIC GRADUATED CYLINDERS, TALL-FORM

V115	25 ml	V118	250 ml
V116	50 ml	V119	500 ml
V117	100 ml	V120	1000 ml



LAB TOOLS AND CONSUMABLES



GRADUATED BURETTES AND CLAMPS FOR BURETTES

MOHR GRADUATED GLASS BURETTES

- V155 10 ml, div. 1/20
- V156 25 ml, div. 1/10
- V158 50 ml, div. 1/10

CLIPS FOR BURETTES TO BE MOUNTED ON THE BAR

- F400 2 positions, metal.
- K140 2 positions, plastic.

PIPETTES AND ACCESSORIES

GLASS PIPETTES GRADUATED TO THE TOP

- V498 1 ml, div. 1/100
- V499 1 ml, div. 1/10
- V500 2 ml, div. 1/50
- V501 2 ml, div. 1/10
- V502 5 ml, div. 1/20
- V503 5 ml, div. 1/10
- V504 10 ml, div. 1/10
- V507 25 ml, div. 1/10

GRADUATED PLASTIC PIPETTE

- K313 10 ml, div. 1/10

GRADUATED GLASS PIPETTES WITH SYRINGE

- V900 1 ml, div. 1/100
- V902 5 ml, div. 1/10
- V903 10 ml, div. 1/10
- V904 25 ml, div. 1/10

GLASS CALIBRATED PIPETTES

- V538 5 ml, one line
- V539 10 ml, one line
- V565 5 ml, two lines
- V566 10 ml, two lines
- V570 25 ml, two lines

DISPENSERS FOR PIPETTES

Through these dispensers, you can load the pipette until filling and then dose the specific quantity of solution desired

- AF01 from 0 to 2 ml
- AF02 from 0 to 10 ml
- AF03 from 0 to 25 ml

K200 **Vacuum pipette with 3 valves**

Made of rubber, suitable for every kind of pipette.

VL194 **Pipettes holder with circular base**

K996 **Universal basin for pipettes**

PVC, for every kind of pipette.

K592 **Cylinder pipette holder**

To protect pipettes against powder

Micropipettes and pipettes with variable volume

Instruments that allow precise and safe dosages, using plastic tips or glass Pasteur pipettes that are suitable for any situation in which user's safety and dosing accuracy are requested.

- SX821.2 From 50 to 200 µl.
- SX831 From 0,5 to 5 ml.

DISPOSABLE TIPS

- OR70 50 disposable tips pack for micropipettes cod. SX821.2
- OR71 50 disposable tips pack for pipettes cod. SX831
- V800 Pasteur pipettes 250 pieces pack.
- V800.1 Latex dropper for Pasteur pipette 10 pieces pack.

DROPPER

- 2024 Pencil dropper with bulb.
- V341 Ranvier glass dropper 100 ml.
- K389 Ranvier plastic dropper 100 ml.

GRADUATED PLASTIC GOBLET

K1422	100 ml	K1424	500 ml
K1423	250 ml	K1425	1000 ml

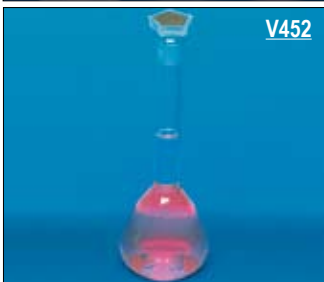
K1423-K1425-K1422



GLASS CALIBRATED VOLUMETRIC FLASKS WITH STOPPER

V448	10 ml	V454	250 ml
V450	25 ml	V455	500 ml
V451	50 ml	V456	1000 ml
V452	100 ml	V457	2000 ml
V453	200 ml		

V452



K180-K182



PLASTIC WASH BOTTLES

K180	100 ml	K183	500 ml
K182	250 ml	K185	1000 ml

WATCH GLASSES WITH CUT BORDER

V672	Ø 60 mm	V676	Ø 100 mm
V673	Ø 70 mm	V677	Ø 110 mm
V674	Ø 80 mm		

V674



GLASS RODS AND TUBES

V142 Glass rod for agitation Ø 6x200 mm

LINEAR GLASS TUBES

V960 Ø 2x6x200 mm capillary
V961 Ø 5x7x200 mm
V962 Ø 5x7x300 mm

"U" TUBES

V963 Ø 8x70 mm simple
V964 Ø 12x100 mm simple
V965 Ø 20x150 mm simple
V967 Ø 18x180 mm tubular
V968 Ø 18x180 mm tubular with taps

"L" TUBES

V969 100x100 mm **V970** 100x200 mm



V964

V967

V968

PETRI DISHES

GLASS PETRI DISHES

V617	Ø 60 mm	V620	Ø 120 mm
V618	Ø 80 mm	V621	Ø 150 mm
V619	Ø 100 mm		

PLASTIC PETRI DISHES

K357 Ø 60 mm (10 pieces pack)
K358 Ø 80 mm (10 pieces pack)
K359 Ø 100 mm (10 pieces pack)

V618



K465



JOINTS FOR RUBBER TUBES

"Y" JOINTS

K465	Ø 6 mm	K468	Ø 12 mm
K466	Ø 8 mm		

V768



V776



LABORATORY PORCELAIN

CRUCIBLE MEDIUM-SHAPE

V764 Ø30x29h mm **V768** Ø 48x52h mm

CAPSULE WITH CIRCULAR BASE

V776 Ø 60x25h mm **V779** Ø 100x39h mm
V777 Ø 70x28h mm

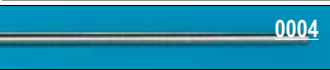
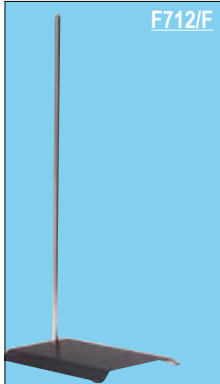
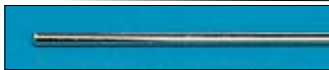
MORTARS WITH PESTLES

V785 Ø 60 mm **V789** Ø 160 mm
V787 Ø 100 mm

V787



LAB TOOLS AND CONSUMABLES



AUXILIARY ITEMS

- K213 Wall strainer**
72 positions with rungs.
- 6011 Glass hacksaw**
Carborundum made, medium-grained.
- Superimposable basket**
Handy basket for transport and storage of laboratory equipment. You can overlap more baskets through a joint device. 4 wheels can be applied for easy moving.
- K87009 355x520 mm basket, 190 mm height.**
K87013 4 wheels pack

RUBBER ITEMS

- RUBBER TUBES**
- 2005** 7x10x500 mm
0089 8x12x1000 mm
0090 7x17x1000 mm
2019 7x10x500 mm transparent
- G1 Rubber gloves**
Pair of acid-resistant rubber gloves
- G2 Latex gloves**
100 pieces pack
- G3 Parafilm**
Cling film to seal. 38 meters long roll, width 10cm.
- 0091 Mixed stopper pack**
20 matched plugs: solid, 1 hole and 2 holes.

CONICAL RUBBER STOPPERS

MEASURE	SIZE	FULL	1 HOLE	2 HOLES	(in mm)
		cod.	cod.	cod.	
1	Ø9xØ6x18h	G4.1	---	---	
1,5	Ø10xØ7x17h	G5.1	---	---	
2	Ø12xØ9x18h	G6.1	---	---	
2,5	Ø13xØ10x18h	G7.1	---	---	
3	Ø14xØ11x18h	G8.1	---	---	
3,5	Ø16xØ12x20h	G9.1	G30.1	---	
4	Ø18xØ13x22h	G10.1	G31.1	G45.1	
4,5	Ø20xØ14x24h	G11.1	G32.1	G46.1	
5	Ø23xØ16x26h	G12.1	G33.1	G47.1	
5,5	Ø26xØ19x28h	G13.1	G34.1	G48.1	
6	Ø30xØ21x30h	G14.1	G35.1	G49.1	
7	Ø32xØ25x34h	G15.1	G36.1	G50.1	
8	Ø37xØ28x38h	G16.1	G37.1	G51.1	
9	Ø42xØ32x42h	G17	G38	---	
10	Ø45xØ34x45h	G18	G39	---	
11	Ø48xØ37x50h	G19	G40	---	

STANDS

Tripod base (fixing of the bars thanks to side knob)

- 0018** Aluminium, with 10 cm branches, 10 mm hole.
0078 Aluminium, with 13 cm branches, 10 mm hole.
- NICKEL-PLATED STEEL RODS**
- 0056** Ø10x100 mm
7108 Ø10x250 mm
0004 Ø10x500 mm
1334 Ø10x750 mm
0169 Ø10x1000 mm
0171 Ø12x1200 mm
0005 Ø 6 mm with hook top. Length 13 cm.

- 0038 CONICAL SMALL BASE**
In alluminio, con foro Ø 6 mm. Diametro base Ø 65 mm.

- 0010 BARREL BASE**
Alluminium, with Ø 6mm holes. Base Ø 70 mm.

- RECTANGULAR STEEL BASE WITH NICKEL-PLATED STEEL ROD**
- F711/F** Base 140x165 mm, bar 10x500 mm
F716 Base 150x100 mm, bar 10x500 mm
F712/F Base 200x260 mm, bar 12x600 mm
F718 Base 200x130 mm, bar 10x750 mm

0039

BASE WITH BAR

Base diameter 130 mm; bar height 350 mm; bar diameter 10 mm

F708
F709

PORCELAIN-STEEL ACID-RESISTANT STANDS

1 position. Dimension: 180x200 mm, bar 12x600 mm
2 positions. Dimension: 180x360 mm, bar 15x1000 mm

0058

Universal stand system

To compose the most useful configurations of supports and stands in the scientific laboratory. Composed by 4 bars of 10x600 mm, 2 bars of 10x300 mm, 2 double clamps, 2 bases, 2 moveable supports e 4 bars support.

0074

Lift table with adjustable height

Metallic plate 20 x 20 cm.

0160

Joint for bars

F700

Support for filtration

With opposed brass rings.

F656

Ring supports with free-stem

Ø 85 mm

F657

Ø 115 mm

F660

Ring supports with clamp

Ø 50 mm

F661

Ø 85 mm

1155

Table clamp

With conical hole for bars with diameter up to 12mm

0159

Clamps for bars

Double, for bars with diameter up to 16 mm.

F297

Double and jointed, for bars with diameter up to 16 mm

F292

Double and jointed, for steady fastening.

0097

Clamp with hook.

0098

Clamp for plates

Special clamp for plates support.

Maximum thickness: 13 mm. Made from die-cast aluminium. Dimension: approximately 10,5x8,5 cm.

F431

Clamp for round flasks with free stem

Maximum opening 40 mm, stem 12x240 mm.

F435

Clamp for round flasks with bosshead

Maximum opening. 40 mm, length 120 mm.

F439

Universal clamp with free stem

Opening 30-50 mm, stem 12x200 mm.

F445

Universal clamps with bosshead

Opening 10-20 mm, length 120 mm.

F446

Opening 20-30 mm, length 120 mm.

F474

Universal clamp, 3 branches with bosshead

Opening 10-25 mm, length 85 mm.

F355

Clamp for beakers

Stainless steel, length 310 mm.

F356

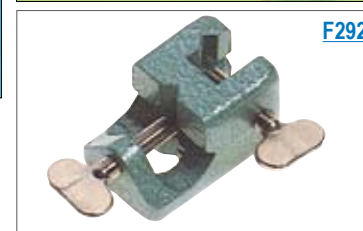
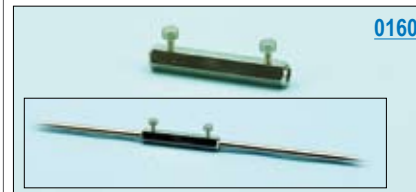
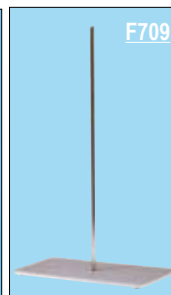
Clamp for volumetric and round-bottom flask

Stainless steel, length 250 mm.

F365

Clamp for crucible and for capsules

Nickel iron, length 220 mm.



LAB TOOLS AND CONSUMABLES



F408



F418



8154



F800



F792



F760



F601



F621



F622



F624



F212



F364



F370 - F370-10



F942



F329



F340



F333



F348 - F348-20



F2021



K2384 K383



Y001



F2810



FILTER PAPER

F408 Wood clamp for test-tubes

Wood, length 180 mm.

F418 Mohr clamp

Nickel brass, length 50 mm.

8154 Telescopic table clamp with joint, bar and pulley

The coupling permits to constantly set the height of the pulley which has a very low friction and a short time of inactivity.

The arm's length is adjustable.

LABORATORY SPATULAS AND BRUSHES

F800 Spatula with 2 wide and rigid paddles

Stainless steel, paddles width 20 mm, total length 150 mm.

F792 Spatula with spoon

As F800 but with a spoon paddle.

F760 Double flexible spatulas

Stainless steel, dimension 6x120 mm.

F759 Stainless steel, dimension 6x210 mm.

Brushes

F601 Brush for test-tubes, 15 mm diameter.

F621 Brush for burettes, 12 mm diameter.

F622 Brush for beakers, length 380 mm.

F624 Brush for flasks and glass balls.

CUTTING AND HANDLING TOOLS

F212 Hand stopper-piercer

For opening from 6 to 11 mm.

F364 Disposable scalpel

With potbellied blade and plastic handle.

F370 Scalpel with replaceable blade

Stainless steel blade-holder handle.

F370-10 Blade for scalpel, potbellied-shape.

F942 Laboratory scissors

Length 140 mm.

Laboratory clamps

F329 Laboratory clamp, length 120 mm

F340 Laboratory clamp, length 130 mm

F333 Laboratory clamp, length 200 mm

Kolle handle and stainless steel handle holder

F348 Kolle handle holder, with clamp for handles..

F348-20 Stainless wire for handles, dim. 0,5x100 mm.

F348-21 Stainless wire for handles, dim. 0,8x100 mm.

LABORATORY SAFETY AND CLEANING

F2810 Paper holder

Fire-painted steel.

F2800 Cellulose wadding roll. 2 rolls pack.

RA3001 Detergent for glass

1 lt. pack

F2021 Protective glasses

With side protections.

K383 Ocular first aid

K2384 Bottle for eyes washing, 500 ml.

K2384 Eyes washing bottle holder.

Instructions printed on the cover.

Y001 Anti-toxic vapours mask

Made from oozing material.

FILTER PAPER

CF1 Quick filter paper, square sheets 50x50 cm

100 sheets pack.

CF3 Quick filter paper, flat disks

CF4 Diameter 80 mm, 100 disks pack.

CF5 Diameter 100 mm, 100 disks pack.

CF6 Diameter 120 mm, 100 disks pack.

CF7 Diameter 150 mm, 100 disks pack.

CF8 Diameter 180 mm, 100 disks pack.

CF8 Diameter 200 mm, 100 disks pack.

CF22 Quick filter paper, folded disks

CF23 Diameter 120 mm, 100 disks pack.

CF23 Diameter 150 mm, 100 disks pack.

- 2072 Alcohol burner**
100 ml, made from stainless steel.
- F010 Bunsen gas burner with tap**
"BUNSEKUR" with safety valve which stops gas flow within 15 seconds if the flames accidentally extinguish. For every kind of gas.
- F284 Autonomous Bunsen burner**
Portable, for laboratories without gas plugs.
Provided without recharge, to be used with the tripod cod. F566.
- F285** 190 g calor gas recharge for item F284.
- Gas tube**
FC2 Length 2 m, Ø 8x13 mm.
FC3 Cable tie diameter 11-19 mm.
- Tripod support for burner**
2108 For alcohol burners. Adjustable height.
F564 Diameter 100 mm, height 180 mm.
F565 Diameter 120 mm, altezza 220 mm.
F566 Diameter 150 mm, altezza 230 mm.
- Wire gauze with ceramic disk**
F541/K 120x120 mm.
F542/K 160x160 mm.
F544/K 200x200 mm.
- F580 Triangle for crucibles made of refractory material**
Side 50 mm.
- 6149 Cast-iron heating plate**
Plate diameter 135 mm, max. temperature 500°C, power 800W.
- 6150 Cast-iron heating plates with electronic settings**
Plate diameter 120 mm, max. temperature 500°C, power 500W.
- 6151** Plate diameter 160 mm, max. temperature 500°C, power 1000W.
- F1154 Glass-ceramic heating plate**
Acid-resistant plate, 175x175 mm, max. temperature 600°C, power 800W.
- F856 Round flasks heater**
500 ml, max. temp. 350°C, power 250W.
- F934 Small waterbath with thermostat**
Suitable for operations that need heating of low quantities. It can be used also as a sand bath.
Stainless basin. Capacity 5,5 liters, max. temperature 150°C.
Power 1000W.
- F934.1 Steel cover with concentric rings**
F934.2 Steel test tube holder
3 plates and 36 openings, 21mm diameter
- F720.10 Small laboratory oven**
Thermostat made from baked painted steel with acid-resistant epoxy powder, thermostat inner part in anodized aluminum with two shelves. A transparent plexiglas door permits to inspect the inner part without affecting the thermal balance. Natural movement of air, temperature electronic settings thanks to a microprocessor and a digital display.
Capacity 5.4 liters, size of the inner part 190x190x150h mm, max. temperature 70 °C, 200W power.
- F720.04 Small laboratory oven**
Stove with remarkable thermal stability and natural ventilation.
Made entirely from baked painted steel with epoxy powder, inner part made from aluminum for better diffusion of heat, with two shelves. Front panel with electronic bimetallic thermo regulator provided with sensor for fluid expansion, 120 minutes max. timer, mercury thermometer supplied.
Capacity 5,4 liters, max. temperatures 150°C, power 400W, inner part size 190x190x150h mm.



2072



F285 - F284



F010



FC3



FC2



F565

- 2108**
F564
F565
F566

- F541/K**
F542/K
F544/K

F580

6149

6150

6151

F1154

F856

F934

F934.1

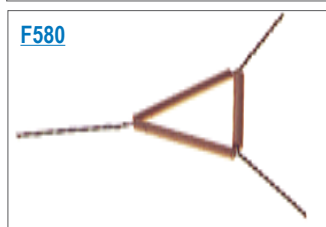
F934.2

F720.10

F720.04



2108



F580



F541/K



6150



6149



F856



F1154



F934



F720.04



F720.10



F934.1

F934.2

HEATING AND DISTILLATION

MZ-1



DAS42000



DAS42000 Laboratory oven

Outer structure made from steel refined with acid and scratch resistant epoxy powders. Air duct with adjustable opening. Inner part made from stainless steel with removable shelves. Door with silicone gaskets to avoid dispersion and pressure closure. Thermal insulation panels made from rock wool, heating thanks to resistors with armor plate, control panel located on the bottom of the stove, thermo isolated. Electronic adjustment of temperature, digital display, warning lights and safety thermoregulator. Inner part capacity: 40 liters. Temperature range: from room-temperature to 280°.

DAS42010 Laboratory oven

As the above model but with chamber of 80 liters.

MZ-1 Muffle furnace

For heat treatments with temperature up to 1100°C, with electronic safety thermoregulator provided with digital display. Chamber size: 100x200x65 mm. Mitt with protective garment, made in only one block, door opening thanks to a thermo isolated lever. Insulation thanks to ceramic fiber. Fumes discharge on the back.

IC23000



IC23000 Electric glass distiller

It is provided with a vertical coolant with a double coil that assures high efficiency. Electric heating thanks to plug covered with quartz to avoid metals contamination. Provided with safety system for possible break or lack of water pressure. Distilled water production: 3 liters/hour. Electric power: 230V 50 Hz. Consume: 2000 W. Size: 750x350x800 mm.

5542



5542 Small distiller

It is fitted with a burner, supports and rubber tubes. Useful to perform experiments on distillation process.

SUPPLIED ITEMS

- | | |
|--------------------------------|-------------------------|
| 1 Steel pliers with clamp | 1 Flame scattering grid |
| 1 Support with rod | 1 Rubber cover |
| 2 Rubber tubes | 1 250ml beaker |
| 1 Tripod support | 1 Filtration flask |
| 1 Alcohol burner | 1 Distilled water |
| 1 Cooling with latex junctions | 1 Sodium sulfate |
| | 1 Barium chloride |
| | 1 Methylene blue |

7029



7029 GLASSWARE KIT AND LABORATORY ACCESSORIES

SUPPLIED ITEMS

- | | | | |
|--|-----------------------------|-------------------------------|-------------------------------|
| 1 Beaker 100 ml | 2 Stirrer | 100 Filter paper disks | 1 Spatula with spoon |
| 1 Beaker 250 ml | 2 Capillary glass tubes | 1 Nickel-chrome wire on glass | 9 Solid rubber plugs |
| 1 Beaker 400 ml | 1 Pipette 5 ml | 1 Fire-spread net | 4 Rubber plugs with hole |
| 1 Conical flask 100 ml | 1 Pipette 10 ml | 1 Funnel | 1 Rubber plug with two holes |
| 1 Conical flask 250 ml | 1 Graduated plastic pipette | 1 Universal clasp with stem | 1 100 ml sprayer |
| 1 Graduated cylinder 50 ml | 1 Thermometer -10 +110°C | 1 Tripod base | 6 Plastic bottles |
| 1 Graduated cylinder 100 ml | 6 Test-tubes 16x160 mm | 1 50 cm metallic bar | 1 Refractory triangle |
| 1 Small bent glass tube with plug | 6 Test-tubes 20x200 mm | 1 Clamp | 1 Universal pH 1-10 Indicator |
| 1 Small straight glass tube of 300 mm with plug | 1 Test-tubes holder | 1 Ring bar for filtrations | 1 Case |
| 1 Small straight glass tube of 200 mm with plug | 1 Alcohol burner | 1 Mohr clamp | |
| 2 Small straight glass tubes of 300 mm without plug. | 1 Tripod support for burner | 2 pencil droppers | |
| 2 Small straight glass tubes of 200 mm without plug. | 1 Capsule | 1 Wood clamp | |
| | 1 Crucible | 1 Spatula | |

TOOLS KIT - VACUUM FILTRATION - STIRRING AND CENTRIFUGATION

VACUUM FILTRATION

- K1395 Water vacuum pump**
It works thanks to water fall, with rubber junction. It permits to get depressions up to 30 mm of mercury. Plastic made.
- 1130 Hand vacuum pump**
Provided with analogic vacuum gauge, light weight, portable and with a great capacity of suction. In few turns it is possible to get vacuum up to 135 mm of mercury. Equipped with an atmospheric pressure reinstatement valve, no need of unplugging. It can produce a positive pressure for liquid transfer. Plastic made.
- 1415 1-stage electric pump (oil and tube included)**
Monostage vacuum pump. Capacity 13 liters/minute; minimum pressure 10 Pa. Motor power 60W. To be used with the tube cod. 0090. Working voltage 230V.
- 1409 2-stage electric pump (oil and tube included)**
High vacuum bistage pump. Capacity 4,2 liters/minute; minimum pressure 6,7x10⁻³Pa. Monostage motor power 250W. To be used with tube cod. 0090. Working voltage 230V.
- 1238 Small metallic manual pump**
Small metallic manual pump, aspirating and pressing provided with tube.
- V290 Buchner porcelain funnel**
External diameter 90 mm. To be used with filter paper flat disks (diameter 80 mm) cod. CF3, any flask for filtration and a rubber plug with hole.



MAGNETIC STIRRERS

- HI190M Electromagnetic stirrer**
Maximum stirring capacity 1 liter, adjustable speed from 100 to 1000 turns/min. Superior plate made from acid-resistant ABS. Size: 120x120x45h mm.
- 6134 Electromagnetic stirrer with heating plate**
Plate power 400W. Stainless steel plate surface, 150 mm diameter. Electronic adjustment of temperature.
- 7514 Electromagnetic stirrer working with batteries**
Equipped with bottle and agitator, suitable for agitation of low quantities of liquid without the need of plug in.
- Magnetic anchors**
Size: Ø6x20 mm.
Size: Ø6x20 mm.



LABORATORY CENTRIFUGES

- 1045 Hand centrifuge**
Equipped with 4 test-tubes holders and with a locking device which allows to fix it to a working plan.
- CS-1 Small centrifuge**
Lid-lock device. Constantly adjustable speed. Sturdy metallic structure. Electronic timer with stop switch (HOLD button). Microprocessor for working control.

TECHNICAL FEATURES

Angular rotor for 6 test-tubes of 12 (15) ml	Power (VA) 100
Speed (turns/min) from 500 to 3500	Environment temperature from 2 to 40 °C
Voltage (Volt/Hz) 230/50, 115/60	Size (A x L x P) mm 340x290x225
Timer 0-30 min with stop position (HOLD button)	(Kg) 11,0

- TN23.8 Professional centrifuge**
Digital and compact table-centrifuge, cooling plug system, silent. All the functions are adjustable thanks to a microprocessor which includes a device to prevent the imbalance of the rotor and the locking of the lid. It is provided with a 8-port rotor, with a 12ml test-tubes holder (the test-tubes are not provided), with spare fuses and tools for the rotor and the lid.

TECHNICAL FEATURES

Voltage: 230V /60Hz	Centrifugal process duration: 0.1 – 60 min
Power 400VA - Fuse: 2 da 5A	Acceleration and stop power: 9 steps
Insulation class: I - Working temperature: 2 – 40°C	Temperature interval: DIN 58970
Relative humidity: 85% max	Protection against interferences in radio frequency: VDE 0875
Rotation speed: 500 – 13000 RPM	Size (H x L x W): 275x330x240mm
Variation of rotation speed: 100 RPM steps	Weight: 14.5Kg



ELECTRICAL POWER SOURCES



BATTERY HOLDER

5705
5706
5707

Batteries holder with 4 mm plug junction
For one battery torch-size.
For two batteries torch-size.
For four batteries torch-size.

5052

Transformer with fixed output
Input voltage 230V AC. Output tension 6V.
Max. current 5A.

5011

DC power supply Unit
Input tension 230V; outputs in continuous current with jerky adjustable tension: 3 - 4,5 - 6 - 7,5 - 9 - 12V. Max current 2A.

5228

AC and DC power supply Unit
Suitable for experiments that don't need any balance of the output tension, this power supply unit is equipped with two independent outputs, both with a 3A maximum current:
1st output: from 1 to 12Vca, 1V jerky adjustable;
2nd output: from 1 to 12Vdc, 1V jerky adjustable.

5229

AC and DC power supply, 5A, with protection
Like the previous model but fitted with locking system which allows the teacher to lock the output voltage on a specific position.

5361

Dual power supply unit balanced from 5 +5 A
This is a dual power supply unit, with independent adjustments of current and voltage as for power supply unit cod. 5360. Two buttons allow to connect the two power supply units in series, resulting in a maximum voltage of 60V, or in parallel, achieving a maximum current of 10A. Equipped with four digital instruments. Voltage outputs continuously adjustable from 0 to 30VDC. Current outputs continuously adjustable from 0 to 5Acc. Size: 280x130x155h mm; weight: 11,8 Kg.

5248

Power supply unit balanced from 3A
Suitable for the study of electrical phenomena in which you don't need high voltage, This power supply unit is equipped with two independent outputs:
1st output: balanced voltage continuously adjustable from 0 to 20VDC Its value is mentioned on a digital voltmeter. Max. current 3A.
2nd output: tension 6VAC. Max. current 5A, suitable for optical projectors mentioned on page 71.
Size 240x130x160h mm.

5360

Power supply unit balanced 5A
Equipped with regulator of supplied current and tension. It is possible to perform tests in which the current must remain constant during a change of voltage. Output voltage continuously adjustable from 0 to 30VDC. Current output continuously adjustable from 0 to 5Acc. Equipped with two digital devices.
Dimensions: 280x130x155h mm, weight: 5,5 Kg

5230

Power supply unit, 8A
Suitable for teachers.
Adjustable output voltage, continuity from 0 to 12Vdc.
Adjustable output voltage, continuity from 0 to 12Vdc.
Maximum current: 8A (for short periods); nominal current: 6A.
Dimensions : 255x220x110h mm; weight: 4,75 Kg.

5324

DC 5 KV Generator
This generator is indispensable for the performance of quantitative electrostatic experiments and to power vacuum tubes. Its use doesn't present any danger for the user as, in the case of a short circuit, the maximum current output is limited to 2 mA by the presence of a high resistance output. Supplied with two safety cables for high-insulation. Output voltage continuously adjustable up to 5 KVDC. 3 digit digital voltmeter integrated. Fixed output 6,3 VAC/3A.
Dimensions: 300x180x100h mm.

5718

Low-frequency signals generator
It is a generator of precision signals, amplified in power. It can generate sine, square and triangular waves. The frequency of the main generator varies from 0.1 Hz to 100 KHz. The maximum output power is 4.5 W. Equipped with LED display mentioning the frequency and the output amplitude level.
This instrument is particularly suitable for teaching and for scientific research.

TECHNICAL FEATURES

- 4 ohm output and at 6 ohm.
- Auxiliary input for the amplifier stage.
- Frequency range: 0.001 Hz - 100 kHz with 0.01% accuracy.
- Wave shape: sine, square and triangular.
- Output power: 4W on the whole range of frequencies.
- Output width: 17V peak to peak (600ohm output),
- 8.8 V peak to peak (40hm output)
- Output attenuator 1x / 0,1X / 0,01X (on the 600ohm output)

5292

Cc power supply unit, 300Vdc
Suitable for powering electronic tubes.
Powering voltage: 300VDC.
Output voltage: 0 - 250 VDC adjustable 0 - 30 VDC
6,3 VAC fixed.