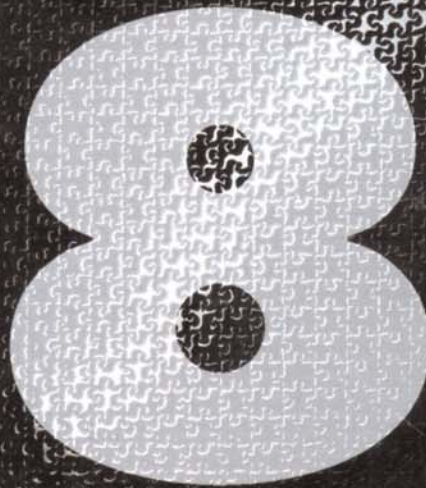


Nummer - Number - Numéro



Numero - Número - Номер

RECOMMENDATIONS FOR SYSTEM CONFIGURATION..... PAGE 8-12

ROTARY PROCESSORS..... PAGE 4-27

CHART ROTARY PROCESSORS..... 13
ATL 500 / 800..... 6-7
DUOLAB..... 14
CPE-2PLUS..... 15
CPA-2 / CPP-2..... 16
TEMPERINGBOX..... 17
ATL 1500..... 18
ACCESSORIES ATL 1500..... 19-20
ATL 2200..... 22
ATL 2300..... 23
ATL 2400..... 24
ATL 2500..... 25
ACCESSORIES ATL 2200-2500..... 26-27

TANK SYSTEM..... PAGE 29-38

SYSTEM OVERVIEW..... 29
CHART TANK / DRUM SYSTEM..... 30
SYSTEM TANKS 1500..... 31-32
35 MM TANK..... 31
TOP TANK..... 32
SYSTEM TANKS 2500..... 33/34
DAYLIGHT LOADING TANK..... 35
EXPERT DRUMS..... 35
HOLDER FOR X-RAY FILM..... 36
RO-KITS FOR 5+8 M FILM..... 36
PAPERDRUMS..... 36/38
CHANGING BAGS..... 39
LABKIT..... 41
CASCADE FILM WASHER..... 44

USEFUL ACCESSOIRES..... PAGE 39-48

CONTACT PRINTER..... 39
TESTPRINTER..... 39
COLOR CONTROL CARD..... 39
COLOR CONTROL SYSTEM..... 40
CHANGING BAGS..... 39/40
E-6 HANDBOOK..... 40
PH CORRECTION KIT..... 40
SLIDE MOUNT..... 41
FILMCARTRIDGE OPENER..... 42
FILMPICKER..... 42
DARKROOM TRAYS..... 42
GRADUATES..... 42

FILM CLIPS..... 43
THERMOMETERS..... 43
FUNNELS..... 43
FILMWIPER..... 44
CASCADE FILMWASHER..... 44
PROCESSOR CLEAN..... 45
SUCTION PUMP..... 45
PRINT TONGS..... 45
MIXING RODS..... 45
BOTTLES / CONTAINERS..... 46
LIGHT BOXES..... 47
WATERFILTER..... 47
LOUPES..... 47
SORTILUX..... 47
DARKROOM SAFELIGHTS..... 48

EXPOSURE METERS AND TIMERS

COLORANALYSER..... PAGE 49-53

CHART TECHNICAL DATA..... 50
TIME SWITCH..... 53
COLORLINE 100..... 49
COLORLINE 7000..... 52
COMPARATOR 100..... 49
COMPARATOR II..... 53
COMTIME..... 53
PROTIME 100..... 49
MULTILINE 51

CONTINUOUS PAPER

PROCESSORS..... PAGE 54-57

EASELS..... PAGE 58

JOBO CHEMISTRY..... PAGE 59

PROCESSOR CLEAN..... 45
PH CORRECTION KIT..... 40

DRYER..... PAGE 60-61

ENLARGER AND ACCESSOIRES.... PAGE 62-67

CHART ENLARGER..... 62/63
4x5" ENLARGER..... 64/65
7x7 ENLARGER..... 66
6x6 ENLARGER..... 66

B/W PHOTOGRAPHY..... PAGE 70

SPARE PARTS..... PAGE 68-69

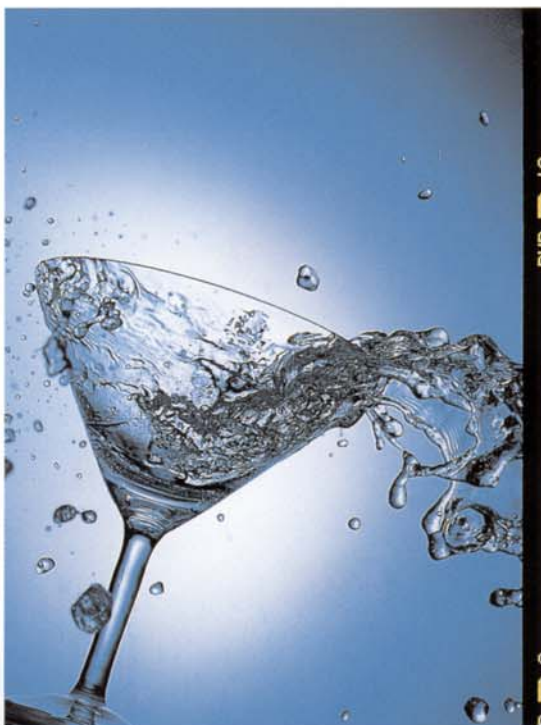


HOW MANY CAMERAS DOES THE PROFESSIONAL NEED? The appropriate one for each application: A 35mm camera, a medium-format camera, a sheet film camera and now also a digital camera... maybe a scan back? With so much traditional equipment available for your needs, we believe more strongly than ever that the hybrid silver-halide /digital system is the right choice.

You are able to keep all the advantages of silver-halide while offering all the new advantages brought by digital. This advantage means real time and cost savings for you.

WHETHER YOUR CUSTOMER WANTS digital or traditional output, whether your customer has needs not possible with a digital

camera, with a hybrid system you can meet those needs. And with your own film processing you are always able to meet the customer's needs on your schedule with your quality. Shot by shot - the original as a hard copy suitable for all purposes, traditional and digital. Whether you scan your own film or let others do it for you, you can provide the proper format for today's imaging and publishing workflow. The next pages represent a new overview of our complete product line **FOR YOUR BEST IMAGE.** Enjoy reading our catalogue! We wish you successful photo highlights!



Yours,

J. Beckmann

YOUR COMPETITIVE ADVANTAGE





MORE THAN EVER

FILM IS AND WILL CONTINUE TO BE THE MAIN CAPTURE MEDIUM FOR MOST PHOTOGRAPHERS PROVIDING A RELIABLE IMAGE OR A BASE FOR BIG SCANS.

THE JOBO AUTOLAB allows you to work according to your own quality standards, at all hours of day or night, at any time or place - just as you want it.

FOR ALL FILM SIZES 35mm, 60mm, sheet film up to 20x25cm, special formats and paper up to 50x60cm.

FOR ALL PROCESSES B/W, C-41, E-6 3 bath, E-6 6 bath, and special processes such as infra-red films, and Ilfochrome.

1. **RAPID QUALITY**, no need for time-consuming tests. JOBO's processors are tested and come pre-programmed with the most popular processes. Even inexperienced staff can operate an Autolab. The space requirement is small and installation is easy and quick. A power source and a water connection - that's all you need and you are ready to go!

2. **QUALITY CONTROL**. When shooting difficult shots or working with live models, you can view your finished film in approx. 40 mins. This allows you to perfect your photo down to the last detail. This type of perfection is a secret of professionals.

3. **INDIVIDUAL QUALITY**. This advantage is hard to copy by others. You can get processing that matches your lighting and films. You want to cross-process? Just go ahead; all with the JOBO Autolab.

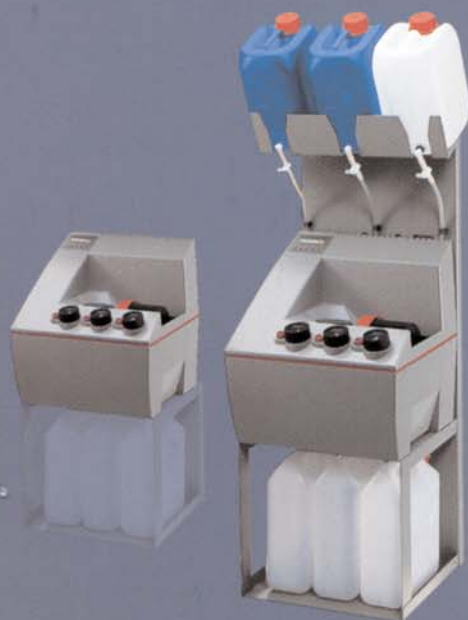
4. **CONSISTENT QUALITY**. Whether on Friday, Monday or every day. Even when the amount of film to be processed varies - it does not matter - consistent, repeatable quality, absolutely reproducible results as only minimal chemistry/fresh chemistry is required.

PROFESSIONALS ALL OVER THE WORLD WORK WITH JOBO EQUIPMENT.

LESS IS MORE

The new ATL-500/800 processors represent JOBO's response to new market demands: low film throughput rates, occasional use of equipment, a high level of convenience and no quality restrictions.

FOR MINILABS, JOURNALISTS, IMAGING BUREAUS, STUDIO PHOTOGRAPHERS, IN-HOUSE LABORATORIES, SEMI-PROFESSIONALS AND FOR ALL THOSE WHO



- need automatic film processing at all hours of the day and night
- need to instantly meet the needs of their customers without time-consuming preparation, for example rapid scans
- need to provide consistent quality results

SAFETY FIRST!

- Pre-programmed cleaning program
- Integrated battery back-up
- Processes programmed by the user are kept in the built-in memory
- Automatic emptying of water-jacket avoids algae contamination
- Easy to service
- Compact and sturdy design, proven components

ECONOMY

The ATL-500 and ATL-800 help you to save on energy, water consumption, and chemistry - this means real money savings. Stock chemistry is stored in special canisters (5 litres), for example for C-41, and has a shelf life of several weeks; only the minimal amount of chemistry required for processing is pre-heated.

B/W, THE WAY YOU WANT IT

Special B/W programs provide precise heating of chemicals to 20° or 24°C. In addition, the AutoLab offers the benefit of automatic adaptation of the processing time (Automatic Time Compensation) according to the room/chemistry temperature. This means, in practice, you can process at every temperature in the range of 18° and 27°C. The processor measures the temperature of the developer and calculates the required processing time automatically.



WHAT ARE THE DIFFERENCES BETWEEN ATL-500 AND ATL-800?

The ATL-500 is our economical alternative. It offers the same advantages as the ATL-800 but cannot be connected to the refilling rack.

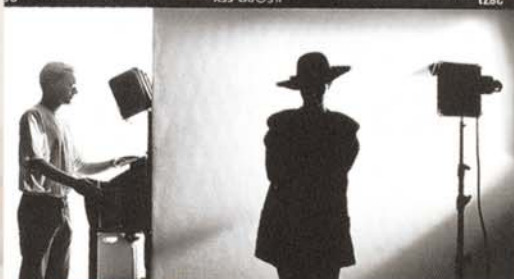
Without the refilling rack, the required processing chemicals are measured and poured into the processor. The subsequent procedure is the same as with ATL-800. We recommend the reclamation rack as a useful accessory when working with the ATL-500.

Technical Data

	ATL-800	ATL-500
Item No.:	4237	4235
HxWxD (cm):	122x44x39	42x40x35
Weight (kg):	25	12
Includes:		
Chemistry refilling rack	•	—
Reclamation rack	•	—
1 film tank for 2x35mm, 2x120	•	•
1 film tank for 6x up to 4x5"	•	—
1 film tank for 1x35mm	•	•
incl. warming of rinse water	•	•
Complete installation kit	•	•
Changing bag	•	—
Mains cable	•	•
Battery back-up	•	•
Max. filling quantity: 3x600ml for E-6 3-bath, C-41, B/W:	•	•
Semi-automatic refilling based on 5 L stock chemistry:	•	—
Water pressure 15-90 psi	•	•
Max. film capacity:		
2-135	•	•
2-120	•	•
6-4x5"	•	•
Ready for use from 20° to 38°C:	about 15min	about 15min
Separate reclamation of used chemicals:	•	•
Process temperature:	20°-45°C	20°-45°C
Voltage:	230V 50Hz 1100W or 115V 60Hz 1100W	

OPTIONAL FOR ATL-500 :

1 Sheet film Set Uni 2509n for six sheets 4x5",
1 Reclamation rack Item No.:4245



JOBO ATL-800 ALL YOU NEED

is an appropriate power source, a water source, and a drain. Integrated: battery back-up and heater for rinse water. Since the films can be loaded in the changing bag, you don't need a darkroom.

ANYWHERE, ANY TIME

whether on the table or on the wall due to its small place requirements (0,16 sqm).

EASY TO OPERATE

Attach a tank to the processor, open the chemical supply valve to fill the processing bottles, press START - that's all. Only two filling quantities are necessary: 150ml for 1 film 120/135 and 300ml for 2 films 120/135 or 6 sheet films 4x5".

READY TO USE IN MINUTES

Ready for use after about 15 min. due to the quick tempering feature. Automatic start - consistent repeatable quality.

ALL IN ONE

Pushing/pulling, cross-processing - all are included. For E-6 3-bath, C-41 (and Speed C-41 at 45°C), B/W, up to 2 films 120/135 or 6 sheet films 4x5". With 16 user-programmable processes and full LCD display.

EASY HANDLING OF CHEMISTRY

5 liters of chemistry is sufficient for processing 30 films. New chemistry can then be easily mixed and the 5 L canisters refilled. Used chemistry is automatically collected separately in 5 liter canisters for reuse or waste disposal.



THE PROFESSIONAL LAB

In addition to daily, routine jobs, a professional lab must be ready to handle virtually all customer requirements, quickly and professionally. It is important for a professional lab to produce high quality results by efficiently using their existing equipment. Whether the customer has an unusual requirement for a 50x60cm Ilfochrome enlargement from 35mm film, C-41 processing of 30x40cm sheet film, or even wants a lith film to be processed, the equipment always has to be ready and able.

Now all processing needs can be handled, without quality restrictions, with only a small

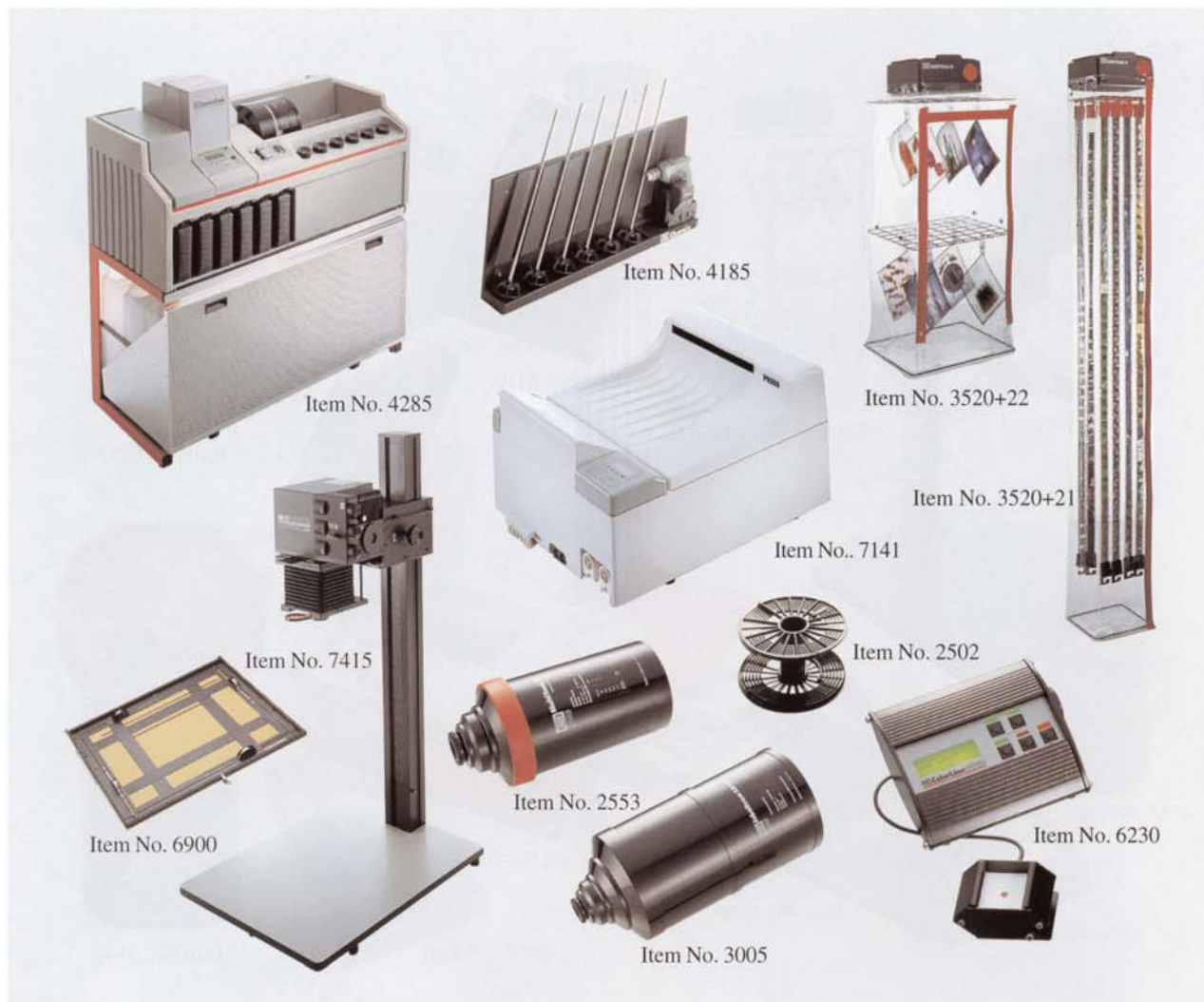
investment. Even when the amount of machine use varies, JOBO's ATL processors provide consistency for your developing operations. There is no need for replenishment as only minimal chemistry per roll or sheet is required. Time-consuming control strips and tests are a thing of the past since your chemicals are always fresh. Consistent results whether on Monday or Friday, whether one or fifty rolls of film have to be processed.

The JOBO ATL processors enable you, the proprietor of a professional lab, to meet a variety of specific needs with only a small investment and a small space requirement. **With the ATL** you can have up to four different processes available at the same time. You select the process you require by simply choosing the program you want. The tank/drum system enables you to process from one roll 35mm film up to 24 sheet films in one run with an optimized consumption of chemicals. This means in practice, you can process approx. 120 roll films or

120 rolls of 35mm/36 exp. or 240 sheets of film in a day.

The enlarger, when used with the Colorline 7000 color analyser, exposure meter, and timer, provides proper exposure and color filtration. The paper is then processed quickly and securely in the PrintLab. A daily throughput of about 300 30x40cm prints is possible. Output is even greater when using roll paper or multiple exposures of the same image. The ATL, of course, can also be used for paper processing in case of special wishes and exotic processes.

The small professional lab of JOBO: Reach a high level of efficiency and flexibility with only a small investment in equipment and manpower.



THE IN-HOUSE LAB

Often it is convenient to be independent. Why wait for the courier service? Why run the risk of giving the original away? Why pay extra money for special processing, rush processing or off-hour processing? Sometimes it simply makes sense to have everything firmly under your own control.

You can view your finished film in approx. 30 min. If problems occur or the image is "just not right" there is no need to rebuild sets, or recall models. This is a real competitive advantage for you. The customer expects his 400 press photographs this afternoon, guaranteed. Your ability to meet deadlines reinforces your customer's confidence in you and provides additional sales.

With JOBO equipment you can handle virtually every film and print process up to 50x60cm. Even unconventional requests can be handled. In addition to the advantages of a small space requirement and easy installation, the system is amazingly simple to operate. All jobs can be completed without quality restrictions and with only a small investment. Even when the level of machine use varies, JOBO's ATL processors provide consistency for your developing operations. There is no need for replenishment as only minimal chemistry per roll or sheet is required. Time-consuming control strips or tests are a thing of the past since your chemicals are always fresh. Consistent results, whether on Monday or Friday, whether one or fifty rolls of film have to be processed.

The JOBO ATL can have up to four different processes available at the same time. You select the process you require by simply choosing the program you want. The tank/drum system enables you to process from one roll of 35mm film up to 24 sheet films in one run with a minimal use of chemicals. This means in prac-

tice, you can process approx. 120 roll films or 120 rolls of 35mm/36 exp. or 240 sheet films in a day. Since processing is handled in tanks/drums, which are light-tight, you don't need to keep the ATL in a darkroom.

The enlarger, in conjunction with the Color-Line 7000 color analyser, exposure meter, and timer, provides proper exposure and color filtration. The paper is then processed quickly and securely in the PrintLab. Built in self-cleaning as well as a replenishment system represent a considerable time and money saving for the user. Only 10 minutes after turning on the machine, work can be started. A daily throughput of about 300 30x40cm prints is possible. Output is even greater when using roll paper or multiple exposures of the same image. The ATL, of course, can also be used for paper processing in case of special wishes and exotic processes.

B / W P A P E R P R O C E S S I N G K I T



HAS YOUR CURIOSITY EVER BEEN AROUSED- by a great advertisement for a special perfume? Or has your attention been attracted by the great images at a recent exhibition? Processing your own images is so simple! You already have a camera, probably a good one. Just start by exposing a B/W film.

The JOBO darkroom helps you get high quality results in an instant. Even if it is not possible to have a darkroom permanently installed, you're half way there with nothing but a board over the bathroom sink. Darken the room entirely. Put the enlarger on the

board and set the darkroom trays next to it - ready! Load the film into the reel - and here we go. After only 10 minutes, your first experience - the film is ready - great, it was so easy.

Dry the film and put it into the enlarger. Adjust the size, expose the paper, and start processing. Slowly the first outlines appear on the white sheet of paper, the picture suddenly pops up - what a thrilling experience.

You are in control processing your films in your own lab. What happened in the past when your pictures came back from a remote minilab and didn't live up to your expectations? What if part of the important image was too dark or too light or the colors did not match your imagination? Often you had to accept such irregularities just because it was too complicated to send your images back to the minilab operator.

Now you are able to create artistic work that is an expression of YOURSELF.

If you later decide to attempt color, the enlarger includes color filters, which can also be used for contrast modification of modern B/W VC paper.

The darkroom trays provide the possibility of processing B/W and color pictures at room temperature.

Safelights provide light in the dark. Light in a very narrow spectrum prevents your paper from damage.

This kit is for all types of 35mm film and paper up to 20x25cm. It can be further upgraded with the JOBO system.

BEGINNER'S FILM PROCESSING KIT



BEGINNER'S FILM PROCESSING KIT

The JOBO darkroom enables you to get high quality results within a short period of time. Whether slides or negatives, handling is so simple. JOBO products stand for good and consistent quality.

The TBE-2 provides precise temperature control of your chemicals and tanks. The rest is simple. Pour the chemicals into the tank one after the other. Turn the tank upside down every thirty seconds to eliminate uneven striping. That's all. After washing the film for just 3 min. with the Cascade, the film is ready. Remove excess water from the surface of the newly processed film by using the wiper and dry the film in the Mistral. Place the results on the Light Box and view them with the magnify-

ing loupe. The slides can immediately be framed and the negatives can be put into the transparent pages for better protection.

You don't need a darkroom when processing films yourself. All you need is a changing bag for loading the film or just use the daylight loading tank.

Film processing at home offers many advantages, especially for the photographer shooting B/W and slides. With slide films, the speed of the film can be controlled by changing the processing time. When processing yourself, the speed of the film can be increased by up to 3 F-stops.

Sports photographers often use this technique in order to work with fast shutter speeds even in the low light conditions often found at sporting events.

The choice of a combination of B/W developer and film is a very personal decision. Different combinations bring out different film characteristics. Different processing times change the nature of the film. Only you know what pleases you artistically and works with your combination of equipment. When you do your own pro-

cessing you can use the developer and times that allow you to achieve the vision you had for your image.

SAFE FILM PROCESSING

The emulsion side of the film in the reel does not touch the transport rollers or other guides. This provides even processing with no scratches on the sensitive film surface.

All film and chemical manufacturers offer suitable chemistry kits for film processing so even low volumes of film material can be processed economically.

JOBO SYSTEM TANKS

Rely on the quality of JOBO film developing tanks. For 75 years our systems have continuously adapted to the newest film generations. The tank system fits all JOBO automatic processors. A JOBO film tank represents the entry into a high-quality system, which can be upgraded to meet the requirements of studios and professional labs.



The history of photography tells us that a number of famous professional photographers had their roots in hobby photography.

Darkroom work is a fascinating experience. The creation of an image doesn't end when you snap the picture, the creative process continues in your own darkroom ending with a final product that is truly yours. On the other hand, all the advantages of your advanced equipment and techniques can be lost when film and print finishing is sent out and subsequently processed with the same equipment that is used for routine amateur prints.

MAKE MONEY WITH YOUR OWN PHOTOS

Doing your own darkroom work allows you the opportunity to choose what is important in the overall image, determine the best

contrast grade or tone your final print. In addition, the numerous creative variations possible when working with color offer a new possibility to express your imagination and creativity.

THE PRODUCTIVE HOME PHOTO LAB

There are many semi-professionals who have, by far, recouped the investment made for their own darkroom. Processing your pictures at home after weddings and other important events or while festivities are still going on will amaze the public. What newspaper doesn't like to take pictures of local happenings when they can be presented in that day's edition?

Your Home Photo Lab should be ready to handle all types of films and photographic papers. With this capability you can handle routine tasks, but you can also utilize creative and experimental techniques that make your work unique and individual. While you expect and need professional results, you can also maximize your investment by buying equipment that allows you to manually do some of the tasks normally done automatically by more expensive equipment.

Jobo equipment allows you to handle color negatives,

slides and B/W films from 35mm (up to 36 exposure) films as well as 120/220 roll films.

About two films per hour can be processed. With the addition of a tempering box, it is possible to increase your output to 30 films per hour.

Prints up to 20x25cm (8x10") can be processed quickly and continuously in the deep tanks. With today's modern papers it takes only 30 to 45 seconds for development. Also, short exposure times of about 5-seconds shorten the total time needed in the dark. Large print sizes up to 30x40cm (12x16") and Ilfochrome prints are handled in the daylight loading tank, which allows daylight operation. Up to 20 20x25cm (8x10") prints can be processed per hour. By using the Jobo Varioformat exposure easel, the quantity of 9x13cm prints would be 80 per hour.

Professional results in the Home Photo Lab. Quality without compromise, despite a lower automation level compared to a professional lab.

CHART JOBO ROTARY PROCESSORS

	Duolab	CPE-2 Plus	CPA-2/CP-2	ATL-500/800	ATL-1500	ATL-2200	ATL-2300	ATL-2400	ATL-2500
HxWxD cm	24x44x54	25,5x65,5x30	33,5x96x37/ 33,5x96x37	42x40x35 122x44x39	64x54x50	61x116x50	61x116x50	122x116x50	122x116x50
Approx. weight empty/full kg	7/14	3/10	6,8/30	12/19,5 / 25/47,5	11/18,5	29/58	29/58	45/150	45 / 150
Voltage / Max. power consumption	230V/ 50Hz 620W 115V 60Hz 620W	230V/ 50Hz 330W 115V 60Hz 300W	230V/ 50Hz 880W 115V 60Hz 440W	230V/ 50Hz 1100W 115V 60Hz 900W	230V/ 50Hz 850W 115V 60Hz 850W	230V/ 50Hz 1100W 115V 60Hz 900W	230V/ 50Hz 1100W 115V 60Hz 900W	230V/ 50Hz 1100W 115V 60Hz 900W	230V/50Hz 1100W 115V 60Hz 900W
Item No.	4055	4065	4070 / 4080	4235 / 4237	4228	4262	4280	4285	4290
Chemical storage quantity	8x 270ml*	6x 600ml*	6x 1000ml	3x 600ml	6x 660ml	6x 1000ml	12x 1000ml	12x1000ml	6x1500ml 6x 1000ml
Automatic refilling								•	•
Semi-automatic refilling				— /•					
Tempered refilling									•
Fully automatic operation				•/•	•	•	•	•	•
Fully automatic changing of chemicals				•/•	•	•	•	•	•
Fully automatic rinsing				•/•	•	•	•	•	•
Fully automatic reclamation of used chemicals				•/•	•	•	•	•	•
Circulation pump for water-jacket			•/•	•/•	•	•	•	•	•
Cooling via cold water			— /•	•/•		•	•	•	•
Programs, user-programmable				16	15	14	14	14	14
Automatic cleaning programs				•/•	•	•	•	•	•
Digital display			— /•	•/•	•	•	•	•	•

	Duolab	CPE-2 Plus	CPA-2/CP-2	ATL-500/800	ATL-1500	ATL-2200	ATL-2300	ATL-2400	ATL-2500
35 mm film/36 exp.	2	5	7	2	5	7	7	7	12
Roll film 120	2	6	8	2	6	8	8	8	14
4x5" sheet film		12	18	6	12	18	18	18	24
13x18 sheet film			6 (Lift)			6	6	6	6
8x10" sheet film			5 (Lift)			5	5	5	5
Sheet film up to size 40x50cm			• (Lift)			•	•	•	•
X-ray film			• (Lift)			•	•	•	•
Bulk film			• (Lift)			•	•	•	•
Paper up to size	30x40	30x40	50x60 (Lift)	—	20x25	50x60	50x60	50x60	50x60

DUOLAB

Item No. 4055

The universal workstation for film and paper processing. Continuous paper processing in deep tanks.

Slide your exposed print into the first deep tank and then through the remaining deep tanks at the proper intervals and after only 90 seconds your enlargement is processed. The tanks can take prints up to 20x25cm (10x8"). Since the DuoLab does not require a water connection, it can be set next to your enlarger.

LARGER SIZES, UP TO 30X40CM (12X16")

can be processed in an optional daylight loading drum which is automatically agitated. Pictures from slides, color negatives or B/W films can all be processed.

MODERN HANDLING OF CHEMICALS:

No splashing or spilling chemicals. The unique design makes transfer of the chemicals possible by simply attaching the film tank or paper drum onto the chemical bottle (see illustration 2).

Economical use of chemicals: For example, only 170ml is required per 35mm film/36 exp. For a 30x40cm (12x16") exhibition size enlargement, only 80ml is needed. The common working solutions in the deep tanks can be freshened and used for a long time or they can be drained and used for processing large enlargements in the rotary drum (see illustration 5).

Important processing parameters such as agitation and working temperature are automatically and reliably controlled (see illustration 4).

While processing films and large enlargements, the DuoLab takes over control of agitation ... and the temperature of the working solutions is thermostatically controlled.

The target group

FOR HOME DARKROOMS:

Now the creative process doesn't end when you send your film out for processing. You can continue creation of your pictures in your own darkroom. It's fun trying to get the best out of your pictures.

FOR SCHOOL LABS:

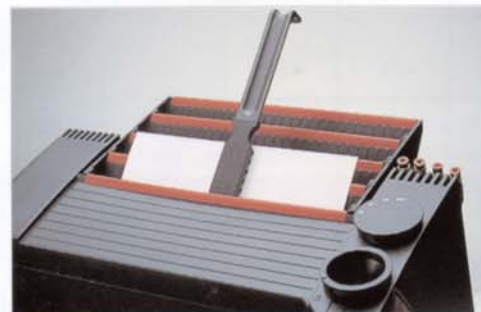
Clean, safe handling and the work-



III.1



III.2



III.3



III.4



III.5

ing tools are clearly arranged.

FOR SMALL OFFICE LABS:

Efficient processing with minimal space requirements. For small capacity film processing.

The DuoLab represents an excellent choice for anyone who needs a complete workstation for film and paper processing all contained in a small space.

How to handle the DuoLab

FILM PROCESSING

Load the film into the light-tight tank in your darkroom. Screw the tank directly onto the first chemical bottle. Place the tank-bottle combination in the water-bath. The cog engages and rotates the tank in the thermostatically-controlled water-jacket. After the proper time, remove the combination, switch the tank to the next bottle and repeat. It's that simple!

Paper Processing is possible up to 20x25cm (10x18") in the deep tanks. Expose the print, attach the JOBO Paper Grip to the back of the print and start agitation by sliding it into the deep tanks (developer and bleach fix). Rinse the print in a separate washing tray and hang it to dry.

Larger paper processing from 20x25cm (10x18") up to 30x40cm (12x16") is possible. Expose the print, insert it into the optional light-tight paper drum and attach the drum directly onto the chemical bottles. Final rinsing can be done in the tank or a separate washing tray.

UPGRADE

The DuoLab comes with one 35mm film tank. With the optional JOBO tank 1520 it can be upgraded to process two roll films or two 35mm/36 exp. films at the same time. The large paper drum is optional and is available as Item No. #2834.

The DuoLab comes with the following items:

- One 35mm Film Tank w. Adapter #1510*
- One Adjustable Reel #1501*
- 1 Funnel*
- 1 Paper Grip #4057*
- Six 270ml Bottles #4056*
- Instruction Manual*
- Some items to consider buying to make the system more complete include:*
- * Paper Drum 30x40cm (11x14") #2834*
- * Film Tank #1520 for 2x 35mm, 120/220 (requires adapter #95554)*
- * Reel #1501*
- * Film Changing Tent #6775*
- * Graduates*
- * Cascade #3350*
- * Film Wiper #3530*
- * MultiLine #6225*
- * Maxilux #6420*
- * Color Control System #4416*

Technical Data: See chart on page 13

CPE-2 PLUS

Item No. 4065

The JOBO CPE-2 Plus is the sure-fire way to process your film. Tanks and drums are attached to the processor and are automatically rotated in both directions for optimum evenness and repeatability. The very accurate tempering bath assures precision processing. With the CPE-2 Plus you can give over the boring part of your darkroom work to a machine. All types of 35mm film, roll and sheet film as well as paper up to 30x40cm can be processed (See illustration 1). Also, almost all JOBO tank/drum systems may be used with the unit by simply attaching a magnet.

SECURE MAGNETIC COUPLING

The JOBO rotation tanks and drums can be easily attached while the processor is rotating and are firmly secured by means of a simple, yet strong, magnetic coupling. The adjustable roller base makes it possible to use virtually all JOBO tank and drum systems with magnet (See illustration 3).

SIMPLE HANDLING WITH LIFT (ITEM NO. 4062)

With the accessory JOBO Lift, the awkward attaching and removing of the tank/drum for emptying and filling is not necessary anymore (See illustration 2). No wet hands: Chemicals are poured while the drum is rotating, and used chemicals are easily collected by pushing a lever. Your work becomes much easier. Processing times are precisely maintained and even large size papers and films are soaked evenly. Chemistry is easily collected for reuse. All your available Jobo tanks may be used by simply pressing a cog (Item No. 1505) onto the lid of the drum (See illustration 4).

ALL TYPES OF FILM AND PAPER

Whether film or paper, from E-6 to Ilfochrome, the CPE-2 Plus provides consistent and repeatable results. The automatic directional reversing assures even and streakless processing.

ACCURATE TEMPERATURE CONTROL

The chemicals and the film or



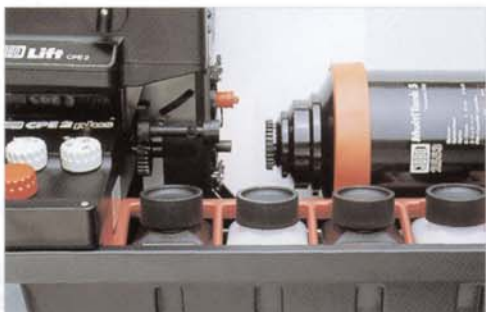
III.1



III.2



III.3



III.4



III.5

print are all kept at the same controlled temperature in a common thermostatically controlled water-jacket. Temperature can continuously be set between 20° and 40°C (See illustration 5). A red indicator light signals when the heater is in operation. All graduates and bottles lock into place and are kept from floating thus providing an even water level and optimum tempering.

SLIDE PROCESSING

The E-6 Conversion Kit (Item No. 4061) converts the CPE-2 Plus to a 6-bath, E-6 slide film processor (3-bath E-6 can be done with no modification). This is especially useful when the unit is primarily for professional use and when more than two films have to be processed in one run. The 2 additional bottles and graduates are sufficient for processing up to 4 E-6 films in E-6 if occasional slide film processing is required.

INCLUDES:

600ml bottle pack (4 bottles),
Graduate kit (4 graduates)

TECHNICAL DATA (W/O LIFT):

HxWxD: 25,5 x 65,5 x 30 cm
(10 x 11,8 x 25,7")

Weight empty: 3 kg

Voltage / capacity: 230V/50Hz 330W
115V/60Hz 300W

Temperature range: 20-40° C

Capacity of water

-jacket: approx. 7,5 L

Film and paper capacity, up to

5x 136-36

6x 120

12x 4x5"

For sheet films and paper up to 30x40cm.

THE CPE-2 PLUS STARTER KIT

(Item No. 4067) includes all essential items for film and print processing.

Compatible tank/drum systems :

1500 SYSTEM FOR FILM

Item No. 1510

Item No. 1520

Item No. 1540

2500 SYSTEM FOR FILM (WITH LIFT)

Item No. 2513

Item No. 2523

Item No. 2553

2800 SYSTEM FOR PAPER

Item No. 2820

Item No. 2830

Item No. 2840

See also chart on page 13 for more technical data.

CPA-2 CPP-2

Item No. 4070/80

The JOBO CPA/ CPP-2 processors are the sure-fire way to process your film. Tanks and drums are attached to the processor and automatically rotated in both directions for optimum evenness and repeatability. The tempering bath assures precision processing. With the CPA-2 or CPP-2 you can give over the boring part of your darkroom work to a machine. All types of 35mm film, roll and sheet film as well as paper up to size 30x40cm can be processed (See illustration 1). Also, almost all JOBO tank/drum systems may be used with the unit by simply attaching a magnet.

SECURE MAGNETIC COUPLING

The JOBO rotation tanks and drums can be easily attached while the processor is rotating and are firmly secured by means of a simple, yet strong, magnetic coupling. The adjustable roller base makes it possible to use virtually all JOBO tank and drum systems with magnet (See illustration 3).

SIMPLE HANDLING WITH LIFT (ITEM NO. 4062)

With the accessory JOBO Lift, the awkward attaching and removing of the tank/drum for emptying and filling is not necessary anymore (See illustration 2). No more wet hands; chemicals are poured while the drum is rotating, used chemicals are easily collected by pushing a lever and your work becomes much easier. Processing times are precisely maintained and even large size papers and films are soaked evenly. Chemistry is easily collected for reuse. All your available tanks may be used by simply pressing a cog (Item No. 1505) onto the lid of the drum (See illustration 4).

ALL TYPES OF FILM AND PAPER

Whether film or paper, from E-6 to Ilfochrome, the CPA/ CPP-2 provides consistent and repeatable results. The automatic directional reversing assures even and streakless processing.



III.1



III.2



III.3



III.4



III.5

ACCURATE TEMPERATURE CONTROL

The chemicals and the film or print are all kept at the same controlled temperature in a common thermostatically controlled water-jacket. Temperature can be set anywhere between 20° to 40°C (See illustration 5). On the CPA-2, a red indicator light signals when the heater is in operation. The CPP-2 shows the actual temperature in an LED display. All graduates and bottles lock into place and are kept from floating thus providing an even water level and optimum tempering.

SLIDE PROCESSING

The professional processors CPA/ CPP-2 already include 6 bottles for traditional E-6 (6-bath) processing.

DIFFERENCES BETWEEN CPA-2/ CPP-2

The CPP-2 has several features not available on the CPA-2: An LED display and an electronic thermostat. This is an essential advantage when regularly working with different processes and changing temperatures of the chemicals. In addition, the CPP-2 includes a cold-water solenoid that allows you to maintain a processing temperature that's below room temperature (provided the incoming water is below that temperature).

Includes:

1000ml bottle pack (6 bottles),
Graduate Kit (4 graduates),
1 color thermometer (only CPA-2)

Technical Data:

HxWxD: 33,5 x 96 x 37cm
(13 x 15 x 38")
Weight empty: 6,8 kg
Voltage / capacity: 230V/50 Hz 880W
115V/60 Hz 440W
Temperature range: 20-40 °C
Capacity of water-jacket: approx. 18 L

Film and paper capacities:

7x 136-36
8x 120
18x 4x5"
Sheet film and paper up to size 50x60cm.

Compatible tank/drum systems :

1500 System
2500 System
2800 System
3000/Expert
See also chart on page 13 for further technical data.

CPE-2 PLUS STARTER KIT

Item No. 4067

Color processor with accessories for semi-automatic film and paper processing.



The Starter Kit includes all essential items for film and paper processing.

Includes:

CPE-2 plus # 4065
Print Drum # 2840
Film Tank w. reel #1520
Magnetic couplings
16mm Duo Set Reel #1502
Color Thermometer #3321
Print Wiper #4122

For technical data see CPE-2 plus #4065.

TEMPERING-BOX TBE-2

Item No. 3630

Basic system for temperature-controlled, inversion tank, film processing. The TBE is designed to hold six 1-litre bottles, six 260ml graduates and one processing tank.



Accurate temperature control for color film processing. The TBE-2 maintains temperature with an accuracy of $\pm 0,2$ C. With the TBE and a #1520 JOBO film tank all color film processes can be handled.

Includes:

Six 1-liter white bottles #3373
Six 260ml graduates #3308

Technical Data:

HxWxD: 25,5 x 60 x 30 cm
(10 x 12 x 24")
Weight/empty: 2.5 kg
Voltage: 230V/50 Hz
115V/60 Hz
Temperature range: 20-40°C
Capacity of water-jacket: 11 L

TEMPERING-BOX TBE-2

Item No. 3640



Tempering system for 12 one-liter bottles. The TBE maintains temperature with an accuracy range of $\pm 0,2$ °C. Provides pre-tempered extra chemicals.

Includes:

Eight 1-liter white bottles (scaled) #3373
Four 1-litre black bottles (scaled) # 3372

Technical Data:

HxWxD: 25,5 x 60 x 30 cm
(10 x 12 x 24")
Weight/empty: 2,5 kg
Voltage: 230V/50Hz
115V/60Hz
Temperature range: 20-40°C
Capacity of water-jacket: 11 L

ATL 1500

Item No. 4228

ATL 1500 - THE NEW DIMENSION.

The new, compact, automatic processor. Latest technology, simple to operate. With the addition of the proper amount of chemistry, you can process up to six roll films per run. If required, the ATL 1500 can even be operated without connection to a water supply. The perfect processor for mobility and independence.

The ATL 1500 is a professional processor designed to meet the needs of professional photographers. It is a unit of uncompromising quality for occasional use and/or low-volume film throughput rates. For all types of 35mm film and sheet film up to size 4x5".

APPLICATION

The ATL 1500 has been designed to provide a high degree of flexibility in film processing. Virtually all processes, including slides, color negative and B/W can be handled.

The JOBO ATL 1500 uses the principle of one-shot processing. Chemicals are filled in manually according to the quantity of film to be processed. Built-in level indicators on the bottles make it easy to quickly fill the bottles to just the right amount from a larger canister. When the chemicals are cooler than the required processing temperature, the ATL 1500 automatically heats them to the correct temperature. In addition to the hotter color processes, the ATL 1500 is also able to handle B/W 24°C processes.

The ATL 1500 can be used in a wide range of applications with the addition of various accessories such as: Transport case #4209, Submersible pump # 4212, Battery back-up #4211 etc.

CAPACITY

Up to 5 rolls of 35mm/36 exp., 6 roll films or 12 sheet films of 4x5" can be processed per run. The unit includes 15 program channels which come from the factory with standard programs installed. The pre-installed programs can, however, be modified by the user as



III.1



III.2



III.3



III.4



III.5

the unit is user-programmable. "Push" and "pull" for E-6 are possible.

Processing times per run:

B/W negative: approx. 20 min.
Color negative/C-41: approx. 30 min.
Color reversal film E-6: approx. 45 min.

OPERATION

Once the desired program is selected, the chemicals poured in, and the tank attached, the rest is carried out automatically. Just turn the unit on and the ATL 1500 will heat the chemicals and the tank to the correct process temperature. Once at temperature, the first chemical is automatically pumped into the tank, and at the end of each step drained into a collection container. Rinse water is accurately heated by the hot-water accumulator #4167, the portable water supply #4217 or you can use your existing hot and cold water lines. After completion of the process, you will hear a signal, indicating that the processed and rinsed film is ready. The integrated hand spray unit as well as the cleaning programs clean the ATL 1500 in only a few minutes after completion of a process.

Includes:

- Film Tank, small #4218
- Film Tank, large #4219
- Base & center core from 2513 tank
- 5 Film Reels, #2502 for 35mm/120
- 1 Sheet Film Reel, #2509n for up to size 4x5"
- Instruction Manual
- Pressure Hose 150cm
- Hoses for Draining
- Processor Clean #4181

Technical Data

HxWxD: 30 x 54 x 50cm
(12x21x20")

Max. height in draining
position w. open

cover: 50 cm (20")

Weight empty/full: 11 kg / 18,5 kg

Voltage: 230V/50Hz
850watts
115V/60Hz
850watts

Adjustable
temp. range: 24 + 38°C

Capacity of
water-jacket: 3 litres

Temp.-controlled
water

supply: 1-6 bar

Thread size of water

connection points: 3/4"

Diameter of drain: 20mm

Programs: 15+2 cleaning programs

SEPARATOR

Item No. 4220

For ATL 1500. Allows separate collection of developing chemicals and bleach-fix chemicals.



If special disposal of the used chemicals is required, developing and bleach-fix chemicals can be collected separately. The separator is simply connected to the ATL 1500, no mains connection is necessary.

Includes:

Two containers 15 liters #3385

TRANSPORT CASE

Item No. 4209

For ATL 1500.

No longer available.



For mobile operation of ATL 1500. Sturdy design with high quality steel handles. Offers extra space for useful accessories.

Technical Data

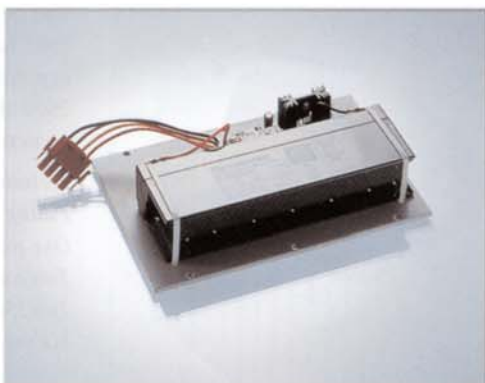
HxWxD: 75 x 57 x 35cm
(29,5 x 22,5 x 14")

Weight: 9 kg

POWER FAILURE BACK-UP

Item No. 4211

For ATL 1500.



Assures the safe completion of the running process during a power failure. The back-up can be connected in a built-in compartment underneath the ATL 1500. It is continuously recharged by the ATL and switched on automatically in case of a power failure so the running process is completed safely.

SUBMERSIBLE PUMP

Item No. 4212

For ATL 1500.



In case there is no running water supply available for rinsing, the submersible pump can pump water from a container (min. volume 15 litres). The submersible pump is simply connected to the ATL 1500 with provided, plug-in connections.

IMMERSION HEATING ROD

Item No. 4216

For ATL 1500.



The immersion heating rod is an ideal addition to the submersible pump as it automatically maintains rinse water temperature for color processes. The immersion heating rod is simply put into the rinse water container. Temperature is permanently set to maintain wash water temperature for C-41 and E-6 processes.

Technical Data

Voltage: 230V 250 watts

PORTABLE WATER SUPPLY

Item No. 4217

For ATL 1500.



In case there is no water supply available, the portable water supply provides tempered rinse water.

Includes:

- 1 Submersible Pump #4212
- 1 Immersion Heating Rod #4216
- 2 Containers 15 liters #3389

SUPPORT TABLE

Item No. 4214

For ATL 1500.

The support table converts your ATL 1500 into a workstation.

No longer available.



The water-proof surface offers the user a convenient working height. All hoses and wires can be routed through provided openings in the support table. It also has a container for wetting agent and can hold six 5 L canisters as well as the Chemical Separator. The support table is easily assembled and can be leveled by the integrated leveling feet.

Includes:

- 6 Containers 5 litres # 3336

TANK, SMALL

Item No. 4218

For ATL 1500.



The tank accepts two different reels: the 2502 Adjustable Duo Reel for two 35mm/36 exp. films or for two roll 120 films and the 2509 Sheet film Set Uni for six sheet films up to size 4x5".

Technical Data

Filling quantities:

One roll film	140ml
Two roll films	270ml
Two 35mm films/36 exp.	270ml
Six sheet films 4x5"	270ml

TANK, LARGE

Item No. 4219

For ATL 1500.



The tank accepts two different reels: the 2502 Adjustable Duo Reel for five 35mm/36 films exp. (5 reels required) or six rolls 120 films (3 reels required) and the 2509n Sheet film Set Uni for twelve sheet films up to size 4x5" (2 reels required).

Technical Data

Filling quantities:

Six roll films	640ml
Three roll films	330ml
Five 35mm films/36 exp.	640ml
Twelve sheet films 4x5"	640ml

STORAGE CONTAINER

Item No. 4227

5 litres container with spigot and stop valve.



Container for stock chemistry made of chemical-resistant material. The chemicals can be directly poured into the graduates or the processors.



Item. No. 4800



Item. No. 4177



Item. No. 4167



Item. No. 4181



Item. No. 4180



Item. No. 2502



Item. No. 4228



Item. No. 4217



Item. No. 3520



Item. No. 4211



Item. No. 4218/4219



Item. No. 4227

ATL 2200

Item No. 4262

The well-built ATL 2200 is our most cost effective table top unit in the ATL 2000 series. The Autolab ATL 2200 can have two processes ready to run at all times. It contains six 1 litre bottles for handling up to eight roll films per run.

For small studios, schools, institutes and anyone, who requires high quality. The ATL 2200 is a table top unit designed for light-duty use.

APPLICATION

The JOBO ATL 2200 can be used to process virtually all film types including slides, color negatives, B/W and all paper types including Ilfochrome and overhead foils.

CAPACITY

Set-up is user-friendly and adaptable. Two chemical temperature sensors are included. The ATL 2200 comes with an improved lift arm and is ready for use with an optional battery backup. It has been designed to be easily serviced by the user. The ATL is user-programmable allowing all process times to be easily modified. (Illustration 2).

OPERATION

Using the Autolab ATL 2200 is simplicity itself: load the film, attach the tank to the processor, and start the program, that's it. The ability to process in batches, without having to insert film continuously is a great advantage. The new, redesigned, bottle cover saves time by allowing easy access to the bottles for refilling, even during processing (Illustration 3). The bottles are always covered and opening the bottle tops has no effect on previously heated solutions. The new design also saves on wear and tear of hinges.

ECONOMY

Time-consuming test strips are not required as the ATL 2200 operates with fresh chemicals. It is also possible to lower costs by purchasing the supply chemistry in larger quantities and reusing the non-critical chemicals. The quantity of chemicals used for each batch is selected according to the film volume to be proces-



III.1



III.2



III.3



III.4



III.5

sed, for example, only 125 ml is required per roll of 120 mm film (Illustration 4). Minimal water consumption, separate collection of the individually used chemicals and low energy consumption make the ATL 2200 particularly environmentally friendly. The unit is built with a functional one-piece housing made of chemical-resistant plastic. Use of this plastic allows processing of materials such as Ilfochrome which requires use of corrosive chemicals. The double-walled plastic housing is an excellent insulator which helps save energy costs. With this modern type of plastic molding, seams do no leak even after years of use and scratches and dents are a thing of the past.

Technical Data

HxWxD: 61 x 116 x 50 cm
(24 x 46 x 20")

Max. height in draining position
w. 3063 print drum: 115 cm (45")
Weight empty/full: 29 kg / 58 kg
Voltage: 230V/50Hz
115V/60Hz

Connected load w/o heater operating: 1,3 kW
Connected load w. heater operating: 3,3 kW
Average power consumption: 0,8 kW
Thermostat temp. range: 18-40°C
Capacity of water-jacket: 18 L
Cold water supply: 1-6 bar
Required incoming temp.-controlled water supply: 1-6 bar (accuracy +/- 3°C)

Thread size of cold and tempered water connections: 3/4"
Diameter of drain: 40 mm
Warm-up time from 20 to 38°C: approx. 1.5 h
ATL 2200 Item No. 4262

Recommended accessories

- Power Failure Back-Up 230V (#4267)
- Power Failure Back-Up 115V (#4268)
- Hand Spray Unit (#4266)
- Support Table (Illustration 5) (#4221)
- Chemical Reclamation Cart (#4225)
- Hot-Water Accumulator (#4167)

Technical Data see chart on page 13

ATL 2300

Item No. 4280

The well-built ATL 2300 is the most flexible table top unit in our ATL series. The Autolab ATL 2300 is able to have up to four processes ready at the same time by means of twelve 1 litre bottles. It can handle up to eight roll films per run. B/W and color processes can be processed in quick alternation without any waiting time.

For small to medium-sized studios, schools and institutes. The first step for many, who wish to put their ideas of quality into practice.

The ATL 2300 is a table top unit of medium capacity. It is best used in a situation where there are two primary processes and the film quantities are not high enough to require the larger chemical storage and automatic refilling capacities of the ATL 2400 and ATL 2500.

APPLICATION

The JOBO ATL 2300 can be used to process virtually all film types including slides, color negatives, B/W and all paper types including Ilfochrome and overhead foils. The ATL 2300 is user-programmable allowing the user to set all processing times.

ATC-THAT'S NEW!

Now it is possible to go from a high temperature process like E-6 or C-41, to a low temperature process like B/W, without waiting for the chemical temperatures to adapt (Illustration 2). The B/W bottles are not located in the tempering bath but are instead kept at room temperature (Illustration 3). This has the added benefit of lengthening the effective shelf life of the B/W chemistry. The processor, through microprocessor control, automatically adjusts processing times for B/W to compensate for changes in room temperature (ATC). At the same time, the microprocessor continues to accurately maintain the correct processing temperature for the color processes (ATC-Automatic Temperature Compensation).

CAPACITY

Set-up is user-friendly and adaptable. Two chemical temperature sensors are included. The ATL 2300 comes with an improved lift arm and is ready for use with an optional battery backup. It has been designed to be easily serviced by the user. The ATL is user-



III.1



III.2



III.3



III.4



III.5

programmable allowing all process times to be easily modified.

OPERATION

Using the Autolab ATL 2300 is simplicity itself: load the film, attach the tank to the processor, and start the program, that's it. The ability to process in batches, without having to insert film continuously is a great advantage. The new, redesigned, bottle cover saves time by allowing easy access to the bottles for refilling (Illustration 3). The new design also saves on wear and tear of hinges.

ECONOMY

Time-consuming test strips are not required as the ATL 2300 operates with fresh chemicals. It is also possible to lower costs by purchasing the supply chemicals in larger quantities and reusing the non-critical chemicals. The quantity of chemicals used for each batch is selected according to the film volume to be processed, for example, only 125 ml is required per roll of 120 mm film (Illustration 4). Minimal water consumption, separate collection of the individually used chemicals and low energy consumption make the ATL 2300 particularly environmentally friendly. The unit is built with a functional one-piece housing made of chemical-resistant plastic. The double-walled plastic housing is an excellent insulator which helps save energy costs.

The optional support table and chemical reclamation cart provide an optimum working height as well as the possibility to collect all used chemicals separately in 15 L containers. The chemical reclamation cart comes with six 15 L containers (Illustration 5).

Technical Data

See chart on page 13

HxWxD: 61 x 116 x 50 cm
(24x45x19")

Max. height in draining
position w. 3063 115 cm (45")
Weight empty/full: 29 kg / 58kg
Voltage: 230V/50Hz
115V/60Hz

Connected load w/o.
water heater: 1,3 kW
Connected load w.
water heater: 3,3 kW
Average power
consumption: 0,8 kW
Thermostat temp.
range: 18-40°C
Capacity of water-
jacket: 18 litres
Cold water supply: 1-6 bar
Temp.-controlled water
supply: 1-6 bar (accuracy
+/-3°C)

Thread size of water
connection points: 3/4"
Drain diameter: 40mm
Warm-up time from
20 to 38°C: approx. 1.5 h
ATL 2300 Item No. 4280
For accessories see ATL 2200.

ATL 2400

Item No. 4285

While stock lasts.

The ATL 2400 is our most economical floor model in the ATL series. It is able to provide the user with four processes at the same time by means of twelve 1 L bottles for handling up to eight rollfilms per run. The chemicals are automatically refilled from the supply canisters after each process run. B/W as well as color processes can be handled in quick alternation without any waiting time.

The processor for small studios of all sizes, small professional labs, institutes, hospitals, museums, finishers, newspapers and special processing.

The Autolab ATL 2400, the complete system; ideal for all those who need to have up to four different 3-bath processes available at the same time.

APPLICATION

The JOBO ATL 2400 can be used to process virtually all film types including slides, color negatives, B/W and all paper types including Ilfochrome and overhead foils. Chemicals are automatically refilled into the 1 liter supply bottles from the 15 L containers (Illustration 3). This means no spilled chemicals when refilling the bottles, time saving back-to-back operation with no waiting time, and no chance of pouring in the wrong chemical while refilling. Mixing large batches of chemistry provides a high level of consistency over weeks of work. The gentle refilling from the automatic refill system avoids additional oxidation and reduction of the shelf life of the chemicals.

ATC - THAT'S NEW!

Now it is possible to go from a high temperature process like E-6 or C-41, to a low temperature process like B/W, without waiting for the chemical temperatures to adapt (Illustration 2). The B/W bottles are not located in the tempering bath but are instead kept at room temperature (Illustration 3). This has the added benefit of lengthening the effective shelf life of the B/W chemistry. The processor, through microprocessor



III.1



III.2



III.3



III.4



III.5

control, automatically adjusts processing times for B/W to compensate for changes in room temperature (ATC). At the same time, the microprocessor continues to accurately maintain the correct processing temperature for the color processes (ATC - Automatic Temperature Compensation).

CAPACITY

Set-up is user-friendly and adaptable. Four chemical temperature sensors are included. The ATL 2400 comes with an improved lift arm and is ready for use with an optional battery back-up. It has been designed to be easily serviced by the user. The ATL is user-programmable allowing all process times to be easily modified.

OPERATION

The support table and chemical reclamation cart provide a practical and functional solution for placement of the ATL 2400. In addition, they make installation much easier. Leveling feet in the table allow leveling of the processor for even processing. The support table places the processor at an optimum working height for attaching and removing tanks and drums. The height also makes refilling the chemical containers easy. Chemicals can be mixed in the containers on the cart. Floating lids keep the mixed solutions fresh by protecting against oxidation. There are also 15 L containers that collect the used chemicals separately for reuse.

Using the Autolab ATL 2400 is simplicity itself: load the film, attach the tank to the processor, and start the program, that's it. The ability to process in batches, without having to insert film continuously is a great advantage.

ECONOMY

Time-consuming test strips are not required as the ATL 2400 operates with fresh chemicals. It is also possible to lower costs by purchasing the supply chemicals in larger quantities and reusing the non-critical chemicals. The quantity of chemicals used for each batch is selected to the film volume to be processed, for example, only 125 ml is required per roll of 120 mm film. Minimal water consumption, separate collection of the individually used chemicals and low energy consumption make the ATL 2400 particularly environmentally friendly. The unit is built with a functional one-piece housing made of chemical-resistant plastic. The double-walled plastic housing is an excellent insulator which helps save energy costs. The battery back-up units assure the safe completion of running processes in case of a power failure. The ATL 2200-2500 are prepared for use with a battery back-up unit. The battery back-up system is simply connected via the mains supply of the ATL.

For technical data see chart on page 13.

ATL 2500

Item No. 4290

The ATL 2500 is our top-of-the-line, complete floor model in the ATL series. It is able to provide the user with four processes at the same time by means of six 1 L and six 1,5 L bottles for handling up to 14 rollfilms per run. The chemicals in the lower 1,5 L bottles are automatically refilled from the supply canisters after each process run. B/W as well as color processes can be handled in quick alternation without any waiting time.

The processor for all those who require continuous operations or need to handle occasional processing of high film volumes. The complete workstation for the professional.

The Autolab ATL 2500, the complete system; ideal for all those who need to have up to four different 3-bath processes available at the same time.

In order to take full advantage of the max. capacity of the unit per hour, it is important not to waste time between batches waiting for refilled chemical bottles to come to the proper temperature. The ATL 2500 can process film, one batch after the other, without any waiting time for chemicals to reach processing temperature. Back to back processing is available with the ATL 2500 through the use of heat exchangers. These built-in heat exchangers pre-warm the room temperature solutions as they are pumped to refill the final tempering bottles.

APPLICATION

The JOBO ATL 2500 can be used to process virtually all film types including slides, color negatives, B/W and all paper types including Ilfochrome and overhead foils. Chemicals are automatically refilled into the 1 liter supply bottles from the 15 L containers (Illustration 3). This means no spilled chemicals when refilling the bottles, time saving back-to-back operation with no waiting time, and no chance of pouring in the wrong chemical while refilling. Mixing large batches of chemistry provides a high level of consistency over weeks of work. The gentle refilling from the automatic refill system avoids additional oxidation and reduction of the shelf life of the chemicals.



III.1



III.2



III.3



III.4



III.5

ATC - THAT'S NEW!

Now it is possible to go from a high temperature process like E-6 or C-41, to a low temperature process like B/W, without waiting for the chemical temperatures to adapt (Illustration 2). The B/W bottles are not located in the tempering bath but are instead kept at room temperature (Illustration 3). This has the added benefit of lengthening the effective shelf life of the B/W chemistry. The processor, through microprocessor control, automatically adjusts processing times for B/W to compensate for changes in room temperature (ATC). At the same time, the microprocessor continues to accurately maintain the correct processing temperature for the color processes (ATC - Automatic Temperature Compensation).

CAPACITY

Set-up is user-friendly and adaptable. Four chemical temperature sensors are included. The ATL 2500 comes with an improved lift arm and is ready for use with an optional battery backup. It has been designed to be easily serviced by the user. The ATL is user-programmable allowing all process times to be easily modified.

OPERATION

The support table and chemical reclamation cart provide a practical and functional solution for placement of the ATL 2500. In addition, they make installation much easier. Leveling feet in the table allow leveling of the processor for even processing. The support table places the processor at an optimum working height for attaching and removing tanks and drums. The height also makes refilling the chemical containers easy. Chemicals can be mixed in the containers on the cart. Floating lids keep the mixed solutions fresh by protecting against oxidation. There are also 15 L containers that collect the used chemicals separately for reuse.

Using the Autolab ATL 2500 is simplicity itself: load the film, attach the tank to the processor, and start the program, that's it. The ability to process in batches, without having to insert film continuously is a great advantage.

ECONOMY

Time-consuming test strips are not required as the ATL 2500 operates with fresh chemicals. It is also possible to lower costs by purchasing the supply chemicals in larger quantities and reusing the non-critical chemicals. The quantity of chemicals used for each batch is selected according to the film volume to be processed, for example, only 125 ml is required per roll of 120 mm film. Minimal water consumption, separate collection of the individually used chemicals and low energy consumption make the ATL 2500 particularly environmentally friendly.

For technical data see chart on page 13.

SUPPORT TABLE

Item No. 4221

CHEMICAL RECLAMATION CART

Item No. 4225

For ATL 2200 and ATL 2300.



The support table and the chemical reclamation cart provide an optimum working height as well as the possibility to collect all used chemicals separately in 15L containers for reuse. The chemical reclamation cart comes with six 15 L containers.

Technical Data

HxWxD: 61 x 116 x 50 cm
(24 x 45 x 19")

SPARE BOTTLE 1 L/1,5L

For ATL 2200-ATL 2500.

The bottles used in the ATL's are prone to wear and tear from regular opening and closing. We recommend exchanging the bottles and the seals every two years.



The 1500ml bottle can only be used with the ATL 2500.

ATL	Front	Rear
	Item. No.:	Item. No.:
2200	95602	3372
2300	95602	95601 (Bottle 1)
		95603 (Bottle 2-6)
2400	95602	95601 (Bottle 1)
		95603 (Bottle 2-6)
2500	95600	95601 (Bottle 1)
		95603 (Bottle 2-6)

CHEMIX

Item No. 4185

For chemical mixing from 5 liters photographic chemicals. Ideal in conjunction with the 15 liter containers.

While stock lasts.



The Chemix's unique design provides consistent mixing without causing oxidation. Each chemical has its own mixing rod, to avoid contamination. Comes with powerful cordless drill, which can also be used for installation work.

Includes:

- 1 Wall mount
- 1 Battery charging station
- 1 Cordless drill
- 6 Numbered mixing rods

TEMPERATURE SENSOR

Item No. 22114

For all ATL 2200-2500.



Comes with instructions on how to install. Sufficient cable length for reaching all sensor positions.

BATTERY BACK-UP

Battery back-up 230V

Item No. 4267

Battery back-up 115V

Item No. 4268

Fits all ATL 2200-2500.



The battery back-up system allows safe completion of running processes in case of a power failure. All ATL 2200-2500 come prepared for use with a battery back-up. The back-up is simply connected via the mains supply of the ATL's.

Includes:

- Connection cable

HOT-WATER ACCUMULATOR

Item No. 4167

HAND SPRAY UNIT

Item No. 4266



Suited for all ATL's and for installation to darkroom sinks. The 10 L hot-water accumulator includes a special mixing unit for adjusting temperatures between 20° and 40°C. Can be connected by means of included pressure hoses.

The hand spray unit in conjunction with the hot-water accumulator provides tempered water or rinse water and can be attached with the flexible hose.

PRESSURE REDUCER

Item No. 4177

No longer available

WATER BLOCKER

Item No. 4180

For safe operation of all processors with connection to a water supply.



The pressure reducer is prepared for connection to 3/4" pipe threads. Water pressure is adjustable between 1-6 bar and can be read out via a manometer (Item No. 4177).

The water blocker can be mounted on all 3/4" pipe threads and protects your lab from flooding (Item No. 4180).

TANK FOR STABILIZER/WETTING AGENT

Item No. 5150

For film processing.



The tank holds up to 5 liters of stabilizer or wetting agent. The lid avoids contamination of the solutions by dust as well as oxidation.

PROCESSOR CLEAN

Item No. 4181

For cleaning and removing stains and calcium build-up in processors.



The JOBO Processor Clean removes deposits from the heating elements and residues of the color developer. Biodegradable. Regular use of this cleaner (every 2-3 weeks on the ATL) protects the heating elements as well as the pumps of the processors. Chlorine free, avoids corrosion of material. Also ideal for cleaning graduates and bottles.

pH CORRECTION KIT

Item No. 4800



For precise adjustment of color balance with E-6 chemistry.

The pH value has an influence on color with reversal films. The pH correction kit can adjust certain colors or can adjust old color developer.

Includes:

1 pH DOWN 500 ml #4801

1 pH UP 500 ml #4802

1 Graduate 50ml

Instructions



Item. No. 4800



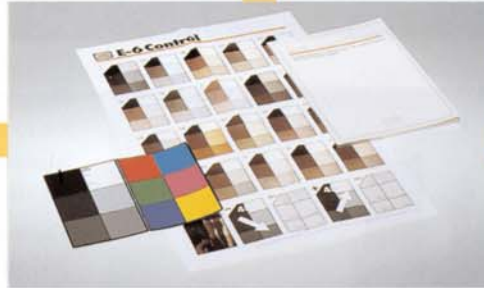
Item. No. 4221+4225



Item. No. 8100



Item. No. 7960



Item. No. 4192



Item. No. 4267



Item. No. 4280



Item. No. 4181



Item. No. 4185



Item. No. 4167



Item. No. 4266



Item. No. 4180



Item. No. 4177

T H E T A N K S Y S T E M



III.1

Enter JOBO's modular system - the JOBO tank and drum system - it really is a system.

The tanks can be enlarged using extension modules to match the quantity of film or paper to be processed. Today's inversion tank can be tomorrow's accessory to your automatic JOBO processor.

III.1

The unique membrane cap includes a flexible area which provides relief in case of a pressure build-up in the tank during processing - no more popped lids and leaking tanks during high-temperature processes.

III.2

Cogs for semi- or fully automatic operation. All tanks and drums can be equipped or modified with add-on cogs or cog lids. The cogs adapt the tanks for use with JOBO Lift equipped and ATL processors.

III.3

A module can be used in order to increase capacity of already existing tanks and drums.

III.4



III.4



III.7



III.2

Magnet - Simple to attach

Each tank or drum in the 2800 and 1500 tank system can be equipped with a magnet #1504 for use with the processors.

III.5

Easy to adjust

All reels can be adjusted to different film widths. Turn the two reel halves in opposite directions and the center loosens allowing you to adjust the reel to the required size, then lock the two reel halves by turning them in the other direction - that's it.

III.6

Simple loading of 35mm and roll films

Load the film into the outer slot of the reel. Alternatively press your right and left index fingers on the film edge protruding through the recessed sections of the reel. Load the full length of the film into the reel by a simple back and forth motion of the two reel halves. The Duo Clip can handle a second roll (120) into the reel and ensures that the two rolls will not overlap during processing.

The sheetfilm loader helps to load the sheet film reel #2509. This film reel holds up to 6 sheets of 4x5". The reel comes with end plates to secure the loaded film. In addition, these plates provide optimum processing results.

III.7



III.5



III.8



III.3

The JOBO Expert drums are designed for sheet film processing up to 21x30cm. The tanks allow easy loading of sheet films and extremely consistent and even processing of large format sheet films.

III.8

Paper Processing

For print processing, JOBO offers the 2800 and the 3000 tank systems. The paper is simply loaded into the drum by laying it on the inner wall of the drum. Ribs inside the drums ensure that the sheets do not overlap. The JOBO print drums can be rolled on a counter top, used on a roller base #1509, used on a manual processor with magnet drive or, with the addition of a cog, they can be used with JOBO Lift equipped or ATL processors.

III.9

Light-tight

All system tanks are light-tight - this means once the tank is loaded in the dark, subsequent processing can take place in daylight allowing use of processors outside the darkroom.



III.6



III.9

Tank/drum system

CHART TANK / DRUM SYSTEM

Which system for which application?

- 1500** Universal tank system for inversion or rotary processing. The entry into the JOBO tank system. The reels #1501 and #1502 can handle all types of film from pocket film (8mm) up to rollfilm.
- 2500** This system is used for rotary processing only and is designed for professional operation. The tanks and reels are larger in diameter and allow easy handling of high film throughput as well as processing of films up to 4x5" sheetfilm size.
- 2800** System is designed for economic processing of paper materials from test print size up to 40x50 cm (16x20"). The drums are ribbed inside to hold your print, or selections of smaller sized prints in place.
- 3000** The 3000 series drums can only be used with processors with a Jobo Lift or the ATL 2000 series of processors. In addition to the two largest print drums, the Expert sheet film drums are based on this system.

FILM PROCESSING ROTARY SYSTEM 1500

Capacity / Drum	1510	1520	1540	1530
Min. filling qty.	140 ml	270 ml	470 ml	330 ml
Pocket film	4	8	16	12
35 mm film	1	2	4	3
Rollfilm / 120		2	4	4

FILM PROCESSING INVERSION SYSTEM 1500

Capacity / Drum	1510	1520	1540	1530
Min. filling qty.	250 ml	470 ml	910 ml	700 ml
Pocket film	4	8	16	12
35 mm film	1	2	4	3
Rollfilm / 120		2	4	4

FILM PROCESSING ROTARY SYSTEM 2500 (35 MM, ROLLFILMS)

Capacity / Drum	2513	2521/23	2551/53	2563	2583	2593
Min. filling qty.	140 ml	270 ml	640 ml	850 ml	1250 ml	1500 ml
35 mm film	1	2	5	6	8	12
Rollfilm / 120		2	6	8	10	14

FILM PROCESSING ROTARY SYSTEM 2500 / 3000 (SHEET FILMS)

Capacity / Drum	2521/23	2551/53	2561/63	2583	2593	3004	3005	3006	3010	4518
Min. filling qty.	270 ml	560 ml	730 ml	1000 ml	1250 ml	270 ml	270 ml	210 ml	210 ml	500 ml
6x9	6	18	18	30	42			6		
9x12	6	12	12	18	30			6	10	
4x5'	6	12	12	18	24			6	10	
13x18 / 5x7'								6		
20x25 / 8x10'						4	5			2
A4						4				2
30x40										1
40x50										1

PAPER PROCESSING ROTARY SYSTEM 2800 / 3000

Capacity/Drum	1525	2820	2830	2840	2850	2870	3062	3063	3004	3005	3006	3010
Min. filling qty.	50 ml	40ml	100 ml	120 ml	200 ml	100 ml	200 ml	300 ml	270ml	270 ml	210 ml	210ml
9x13 / 4x5'	1	2									6	10
13x18 / 5x7'	1	2								5	6	
18x24 / -	1		2	2	4	2	3	6	4	5		
20x25 / 8x10'	1		2	2	4	2	3	6	4	5		
24x30 / 9 fi x12'			1	1	2	1	2	4				
28x35 / 11x14'				1	1		2	2				
30x40 / 12x16'				1	1		1	2				
40x50 / 16x20'					1		1	1				
50x60 / 20x24'								1				

35MM TANK

Item No. 1510

For processing 1 roll of 35mm film.



Inversion tank for handling all types of 35mm film (size 135). Can be upgraded to a rotary tank by attaching a magnet (#1504) or a cog (#1505). Membrane cap for pressure compensation. Made with durable plastic.

Filling quantity:

Hand inversion 170ml

Rotary processing 140ml

Includes:

1 Reel #1501

UNI TANK

Item No. 1520

For processing 2 rolls of 35mm film or rollfilm.



Inversion tank for handling all types of roll-film and 35mm film. Can be upgraded to a rotary tank by attaching a magnet (#1504) or a cog (#1505). Membrane cap for pressure compensation. Made with durable plastic.

Filling quantity:

Hand inversion 270ml

Rotary processing 170ml

Includes:

1 Reel #1501

MULTI TANK

Item No. 1540

For processing up to 4 rolls of 35mm film or rollfilm.



Inversion tank for handling all types of roll-film and 35mm film. Can be upgraded to a rotary tank by attaching a magnet (#1504) or a cog (#1505) to be used with the JOBO Lift. Membrane cap for pressure compensation. Made with durable plastic.

Filling quantity:

Hand inversion 470ml

Rotary processing 240ml

Includes:

1 Reel #1501

TANK MODULE

Item No. 1530

For all 1500 series tanks.

Each module increases the capacity of the tank by 3 additional rolls of 35mm film or two 120 rollfilms.



The tank module expands the capacity of all 1500 series tanks. The module is put between the tank and the lid and includes a center core extension.

Filling quantity:

Hand inversion 700ml

Rotary processing 330ml

DUO-SET REEL

Item No. 1501

Item No. 1502

While stock lasts.

For processing 35mm films and rollfilms.



Fits all tanks of the 1500 system. The reel can be adjusted for either film size and films can be loaded simply without using a loader. The red clip allows loading of two 120 rollfilms end to end with no chance of overlapping. Made with durable plastic that is flexible. Suitable for professional use.

Reel for 35mm film + rollfilm #1501

Reel for pocket film #1502

MAGNET

Item No. 1504

Allows use of all tanks and drums on processors without a Jobo Lift (magnet drive).



The magnet upgrades all inversion tanks to rotary tanks. All tanks and drums (except the 3000 system and Expert) have holding pins on the bottom to which the magnet is attached.

COGLID

Item No. 1503



With a separate 1503 cog lid, you can keep the original inversion lid that came with your tank instead of converting it with a 1505 cog. This allows you to use your tank for inversion with the original lid or as a rotary tank with the 1503 cog lid. Fits all 1500 series tanks.

COG

Item No. 1505

For upgrading tanks and drums for operation with the JOBO Lift.



The cog is pushed into the original lid of the tank/drum and can be used on all processors equipped with a JOBO Lift (except ATL 1500).

TOP TANK

Item No. 9200

Economical tank for processing 35mm films and rollfilms.



The Top Tank is not a system tank and cannot be used on the JOBO processors.

Includes:

2 Reels #9201

TEMPERING BOX 2/6

Item No. 3630

Tempering system for 6 one-liter bottles, 6 graduates and one processing tank.



Allows temperature-accurate color processing. Maintains processing temperature of the prepared solutions in the one-liter bottles and the processing tank in the water-jacket. Satisfactory results depend on agitation - invert the tank every 10 sec. - and proper timing. With the accessory JOBO Protime, timing can be accurate to the second. The six bottles provide space for all chemicals needed for color negatives and slides or pre-tempered wash water.

MULTI TANK 1

Item No. 2513

Rotary tank for processing
1 roll of 35mm film.



Smallest tank of the 2500 system. Can be used by professionals for processing of test strips. Holds one #2502 or one #2519 reel.

Filling quantity: 140ml

Includes no reels.

MULTI TANK 2

Item No. 2521/23

Rotary tank for processing
2 rolls of 35mm film, 2 rolls of
120 rollfilm or 6 sheets of 5x4".



Item No. 2521 comes with a cap and magnet for use with processors with magnet drive. Item No. 2523 comes with a cog lid for use with JOBO Lift. Smallest tank for processing sheet films up to size 4x5" with sheet film reel #2509n. Holds two #2502 reels or one #2509n reel.

Filling quantity: 270ml

Includes no reels.

MULTI TANK 5

Item No. 2551/53

Rotary tank for processing
5 rolls of 35mm film, six 120
rollfilms or 12 sheets of 5x4".



Item No. 2551 comes with a cap and magnet for use with processors with magnet drive. Item No. 2553 comes with a cog lid for use with JOBO Lift. Tank for film processing up to size 4x5". Holds five #2502 reels or two #2509n sheet film reels.

Filling quantity: 640ml

Includes no reels.

MULTI TANK 6

Item No. 2561/63

Rotary tank for processing
6 rolls of 35mm film, eight 120
rollfilms or 12 sheets of 5x4".



Item No. 2561 comes with a cap and magnet for use with processors with magnet drive. Item No. 2563 comes with a cog lid for use with JOBO Lift. Tank for film processing up to size 4x5". Holds six #2502 reels or two #2509n sheet film reels.

Filling quantity: 1000ml

Includes no reels.

TANK MODULE

Item No. 2560

For all 2500 series tanks. Each module increases the capacity of the tank by 6 additional rolls of 35mm film, four 120 rollfilms or 12 sheets of 5x4".



The tank module expands the capacity of all 2500 series tanks. The module is put between the tank and the lid and includes a center core extension.

Tank	+	Module	=	Tank
2513		2560		2573
2523		2560		2583
2553		2560		2593

MULTI TANK 8

Item No. 2583

Rotary tank for processing 8 rolls of 35mm film, ten 120 rollfilms or 18 sheets of 5x4".



With cog for use with the JOBO Lift. Tank for film processing up to size 4x5". Holds eight #2502 reels or three #2509n sheet film reels.

Filling quantity: 1250ml

MULTI TANK 12

Item No. 2593

Rotary tank for processing 12 rolls of 35mm film, fourteen 120 rollfilms or 24 sheets of 5x4".



With cog for use with the JOBO Lift. Tank for film processing up to size 4x5". Holds twelve #2502 reels or four 2509n sheetfilm reels.

Filling quantity: 1500ml

DUO-SET REEL

Item No. 2502

For processing 35mm films and rollfilms.



Fits all tanks of the 2500 system. The reel can be adjusted for either film size and films can be loaded simply without using a loader. The red clip allows loading of two 120 rollfilms end to end with no chance of overlapping. Made with durable plastic that is flexible. The JOBO Duo-Set is designed for professional use.

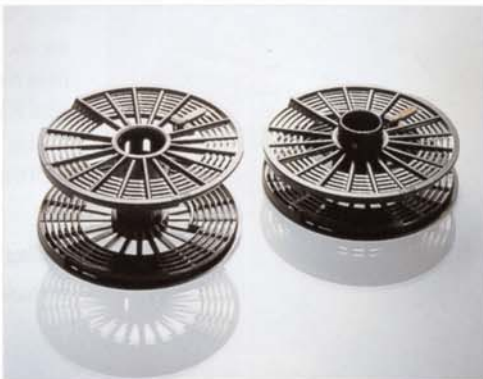
FILM REELS 70MM

Item No. 2517

APS REEL

Item No. 2519

For use in the 2500 system film tanks.



#2519 fits all 2500 series tanks. #2517 fits all 2500 series tanks from #2551/3 and larger. The APS reel can also be adjusted to process 35mm/36 exp. films. Films are loaded without using a loader. The reels are designed for professional use and can handle film lengths of up to 170cm.

SHEET FILM SET UNI

Item No. 2509n

For processing of sheet film.

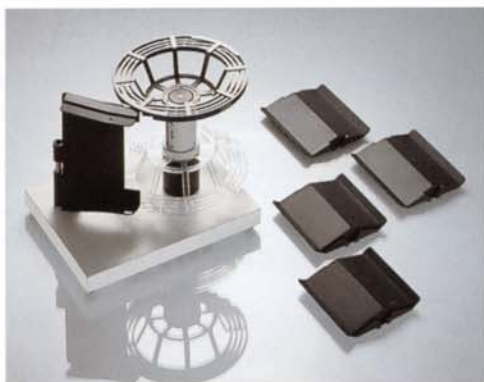


Fits all tanks (except 2513) in the 2500 system. The reel can be adjusted for various film sizes and film can be loaded with or without loader. The reel is designed for professional use and holds up to six sheet films of size 6x9, 9x12, and 4x5".

SHEET FILM LOADER

Item No. 2508

For the 2509n reel.



The loader makes loading film into the reel easy while helping to prevent scratches. The loader must be used in conjunction with a guide to match the desired film size. While no guide comes with the loader, guides for several sheet film sizes are available.

Available film guides:

6x9 #2510
9x12 #2511
4x5" #2512

DAYLIGHT LOADING TANK

Item No. 2400

With this tank 35mm film can be loaded even in daylight.



The ideal accessory for processing film on the road. A special mechanism inside the tank loads the film into the reel and ejects the cartridge (no darkroom or changing bag is needed). Ideal also for partly exposed films. The Daylight Tank is not a system tank and cannot be used for rotary processing.

Filling quantity: 450ml

JOBODRUM EXPERT

Item No. 3004 + 3005

Sheet film tank for use with a CPA-2 or CPP-2 with lift or a JOBO Autolab (except ATL 1500).



The Expert Drum system is a professional tank system for the finest quality processing of sheet films. Films from 20x25 up to 21x30cm can be handled. Provides consistent processing while using only a minimum amount of chemistry.

Item No. 3004 - up to 4 sheets 21x30cm

Item No. 3005 - up to 5 sheets 20x25cm

The foot pump #3360 is a necessary accessory for easy opening of the 3000 drum system.

JOBODRUM EXPERT

Item No. 3006 + 3010

Sheet film tank requiring use with CPA-2 or CPP-2 with lift or a JOBO Autolab.



Professional tank system for sheet films. Films from 9x12 up to 13x18cm can be handled. Provides consistent processing by using only a minimum quantity of chemicals.

Item No. 3006 - up to 6 sheets 13x18cm

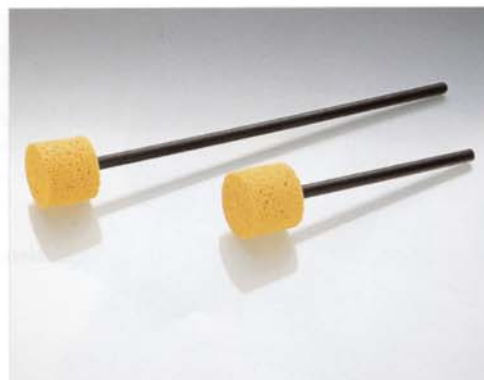
Item No. 3010 - up to 10 sheets 4x5"

The foot pump #3360 is a necessary accessory for easy opening of the 3000 drum system.

EXPERT DRYING ROD

Item No. 3007 + 3008

For drying of the internal tubes of the Expert drums.



The Expert Drums come with drying rods which should be exchanged every 12 months to prevent damage of the tubes of the tanks.

Item No. 3007 - for Expert 3006/3010

Item No. 3008 - for Expert 3004/3005

FORMAT HOLDER FOR X-RAY FILM

Item No. 4517

TANK FOR X-RAY FILM

Item No. 4518

For processing of X-ray films as well as other films.



X-ray films have an exposed emulsion on both sides and must not touch the tank wall. The JOBO Format Holder #4517 is custom-build (according to a film sample or indication of size). Standard size up to 40x50cm max. is possible or several smaller sizes can be incorporated into one holder. Can also be used for processing sheet films over 21x30cm.

Filling quantity: approx. 500ml

RO-KIT

Item No. 5034

For automatic processing of long roll film in conjunction with all processors equipped with a JOBO Lift.

While stock lasts.



The system consists of a reel, tank and a loading device. The max. film lengths that can be handled depend on the film widths and can be 5m or 8m. Possible film widths are from 8mm to 70mm.

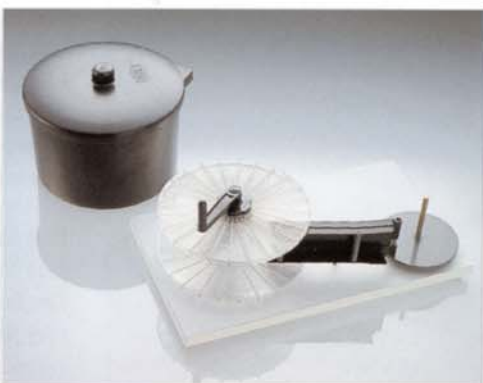
Item. No.	Film width	Film length
5034	35 mm	8m
5046	2x35mm	8m
5037	70mm	5m

BASIC OUTFIT 10M

Item No. 5105

For manual processing of bulk film.

While stock lasts.



The system consists of a reel, tank and a loading device. Max. film length is 10m. Possible film widths are 8mm up to 70mm.

Item Nos. and prices on request.

TEST DRUM

Item No. 2820

Rotary drum for print processing.



Drum #2820 is the smallest system drum for print processing and is used for testing filtration. Can be upgraded for use with the JOBO processors by means of a magnet #1504 or for use with the JOBO Lift by means of a cog #1505. With membrane cap for pressure compensation. Made with durable plastic.

Minimum filling quantity: 40ml

DRUM 24X30 / 9X12"

Item No. 2830

Rotary drum for print processing.



System drum for handling all paper processes (Ilfochrome also) up to size 24x30cm (9x12"). Can be upgraded for use with the JOBO processors by means of a magnet #1504 or for use with the JOBO Lift by means of a cog #1505.

Minimum filling quantity: 100ml

DRUM 30X40 / 12X16"

Item No. 2840

Rotary drum for print processing.



System drum for handling all paper processes (Ilfochrome also) up to size 30x40cm. Can be upgraded for use with the JOBO processors by means of a magnet #1504 or for use with the JOBO Lift by means of a cog #1505.

Minimum filling quantity: 160ml

DRUM 40X50 / 16X20"

Item No. 2850

Rotary drum for print processing.



System drum for handling all paper processes (Ilfochrome also) up to size 40x50cm. Can be upgraded for use with the JOBO processors by means of a magnet #1504 or for use with the JOBO Lift by means of a cog #1505.

Minimum filling quantity: 200ml

DRUM MODULE

Item No. 2870

For all drums of the 2800 system.



The drum module expands the capacity of all 2800 series tanks. The module is put between the drum and the lid.

Tank	+	Module	=	Tank
2820		2870		2840
2830		2870		2850

DRUM 20X25/8X10"

Item No. 1525

ROLLER BASE

Item No. 1509



The JOBO drum 1525, when used with the roller base #1509, is an excellent way to begin paper processing with room temperature chemicals. The roller 1509 can be used for all tanks and drums when purchase of a processor is not possible.

MULTI DRUM 28X35 / 2PCS 40X50 / 1PCS

Item No. 3062

Rotary drum for print processing.



System drum for handling all paper processes (Ilfochrome also) up to size 28x35cm (2 pcs.) 40x50cm (1 pcs.). The Multi Drum requires the use of a JOBO processor with a lift. The foot pump #3360 is needed for opening the drum.

Minimum filling quantity: 200ml

MULTI DRUM 50X60/20X24"

Item No. 3063

Rotary drum for print processing.



Largest system drum for handling all paper processes (Ilfochrome also) up to size 50x60cm. The Multi Drum requires the use of a JOBO processor with a lift. The foot pump #3360 is needed for opening the drum.

Minimum filling quantity: 300ml

FOOT PUMP

Item No. 3360

For all Expert and 3000 series drums.



Unlike the other Jobo system tanks and drums that use a sliding ring closure, the Expert and 3000 series drums have a friction-fit lid. This lid can sometimes be difficult to open by hand but pops off easily if slight air pressure is built up in the drum. To open the drum lid of any 3000 series drum fast and easily, we recommend to use the foot pump #3360.

COG LID

Item No. 2503



Instead of permanently converting your regular cap to a cog lid with a #1505 cog, you may want to have both types of lid. In that case the JOBO cog lid is required. With a regular cap and a Cog Lid, the 2500/2800 series can be used alternatively in the manual processors or with a JOBO Lift. Fits all tanks and drums of the 2500/2800 series.

MAGNET

Item No. 1504

Allows use of all system tanks and drums in Jobo processors without lift.



Each inversion tank can be upgraded to a magnet-drive rotary tank by attaching a magnet. The magnet is simply pressed into the holding pins at the tank bottom (Not for Expert and 3000 system).

COG

Item No. 1505



Snap in Cog Lid attachment to permanently convert your JOBO system lid into a cog lid for attachment to an Autolab or manual processor with lift system.

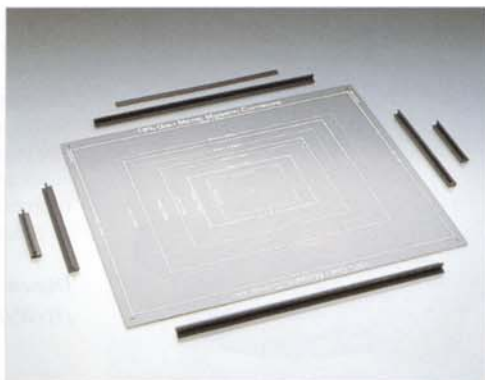
Fits 1500, 2500 and 2800 system lids

MAGNET COPY-BOARD

Item No. 6830

30x40cm(12x16").

While stock lasts.

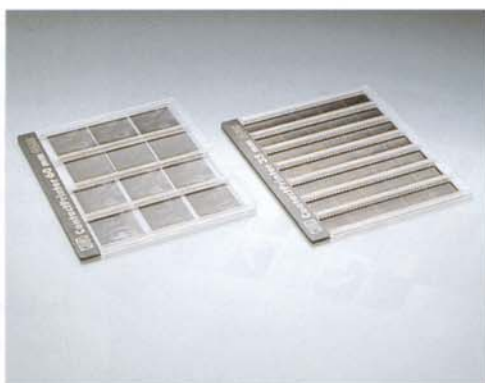


The Magnetic Copyboard has unlimited uses. When using the board as a repro support, it can also be hung from the wall. Includes magnetic strips. Five format markings for better orientation.

CONTACT PRINTER

Item No. 6835 for 35mm film

Item No. 6860 for 120mm film



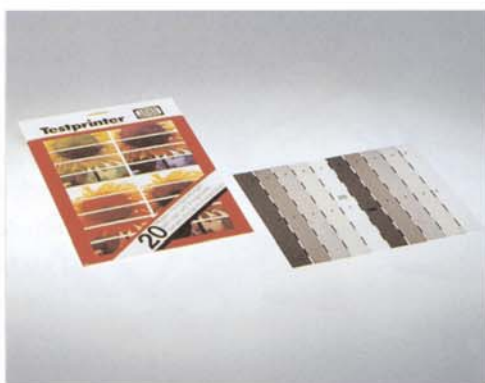
The Contact Printer allows you to easily make contact prints from negatives. You can easily slide the film strips into the transparent guide with the lights on. Only the unexposed paper is inserted in the dark. Due to the white edge on the copy, the numbering of every contact print can be well read.

For paper sizes up to 20x25cm/8x10".

TESTPRINTER

Item No. 6817

For color and B/W papers.



The Testprinter helps you to quickly determine the proper exposure time with only one exposure. The gray scale wedge splits the Testprinter into five different density strips during exposure. The strip with the proper density indicates the correct exposure time. The Testprinter is a helpful accessory and can be utilized in every lab.

COLOR CONTROL CARD

Item No. 6817

For color and B/W films.



The card folds into a 4 1/2"x7" (A-6) pocket size and can easily be cleaned. By taking a picture of the card in each roll of film, you can calibrate your analyzer or simply find the best filter pack to start printing that roll of film. The back of the Card is 18% gray and can be used as a density reference point for measurement of exposure. It also includes six gray patches from 0 up to 1,5 in 0,3 logD increments, basic colors (red, green, blue) and the mixed colors Y,M,C.

CHANGING BAG

Small Item No. 6760

Large Item No. 6770

Includes counter-directional zippers and elastic sealings at the sleeves.



Whether you want to check if the film has been correctly loaded or whether sheet films have to be inserted into the holder, or if you need to load tanks and drums without a dark-room, the changing bag is a helpful aid - especially when you're on the road.

Dimensions:

#6760 approx. 30x40cm/12x16"

#6770 approx. 56x60cm/22x24"

FILM CHANGING TENT

Item No. 6775

With counter-directional zippers and elastic sealings at the sleeves.

No longer available.



Whether you want to check if the film has been correctly loaded or whether sheet films have to be inserted into the holder, the Film Changing Tent, designed for professional use, is a helpful accessory - especially when you're on the road. The tent provides a spacious area for a less cluttered working environment whether loading processing drums or checking darkslides.

Dimensions

(HxWxD): 61x56x87 cm
(24x22x34")

E-6 HANDBOOK

Item No. 4192

The JOBO E-6 handbook provides many answers to questions on mixing of chemicals, handling and E-6 processing control with rotation (available versions: English/German language).



English version: no longer available

German version: while stock lasts

The book consists of two chapters. The first chapter deals with questions on handling and processing preparation, the second chapter refers to questions on processing control and shows how to carry out error diagnosis.

Includes:

Poster for error diagnosis.

PH CORRECTION KIT

Item No. 4800



For precise adjustment of color balance with E-6 chemistry.

The pH value has an influence on color with reversal films. The pH correction kit can adjust certain colors or can adjust old color developer.

Includes:

1 pH DOWN 500 ml #4801

1 pH UP 500 ml #4802

1 Graduate 50ml

Instructions

COLOR CONTROL SYSTEM

Item No. 4416

Color filter training system for getting a well balanced color print in about two to three tries.



Helpful accessory for inexperienced beginners for determining correct filtration. A step-by-step method for balancing color and density. Can be used in conjunction with all types of enlargers.

Includes:

Multiple Exposure Easel (20x25cm) with gray step-wedge,

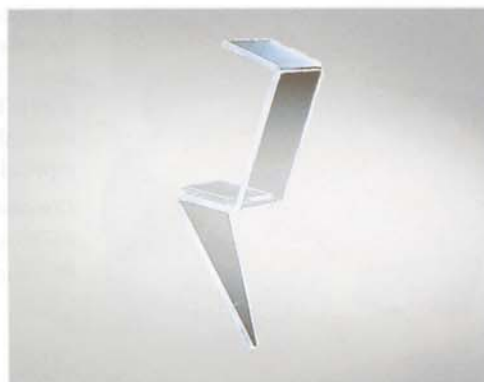
Color Control with Color Corrector Card and instructions.

HOCUS FOCUS

Item No. 6870

For adjustment of sharpness when making enlargements.

No longer available.



The small and handy focusing aid delivers a very bright image - brighter in fact than the image appears on the baseboard (approx. 3 F-stops brighter). Can be used with smaller sizes (up to 13x18cm) and allows focusing at any area of the image.

Ideal aid for persons wearing glasses!

LAB KIT

Item No. 9210

Kit for starting film processing. Economical entry for getting started in processing B/W, film and paper. For all those, who occasionally like to process their film themselves.



Includes:

- 1 #1520 Tank
- 1 #1501 Reel
- 1 Set of Film Clips
- 1 Print Wiper
- 1 Thermometer
- 1 600ml Graduate
- 1 50ml Graduate
- 1 Stirring Rod
- 3 Darkroom Trays 20x25cm(8x10")
- 3 Print Tongs

FOOT SWITCH

Item No. 6201

For ColorLine 5100.



Allows "hands free" operation. Ideal for dodging and burning of prints. Non-slip surface.

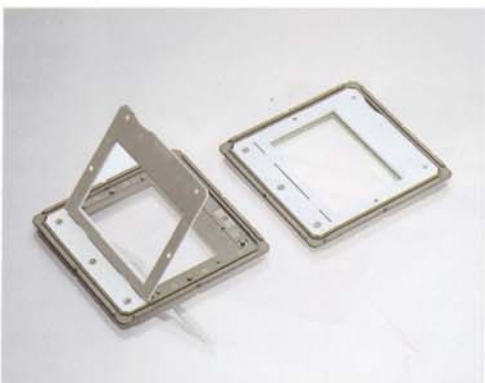
Technical Data:

Surface	6x8cm(2,3x3,1")
Connection Cable	3m
Connection	6,3mm jack plug

SLIDE MOUNT

Item No. 3547

Glassless folding slide mount.



For simple mounting of all slides of size 24x36cm(9x14"). S-slide mount for safe archival. Front side in white for a better absorption of heat.

Package: 200 pieces

ARCHIVAL NEGATIVE TRANSPARENCY PAGES

Item No. 3550-53

Available in several widths and materials.
One package contains 100 pages.
No longer available.



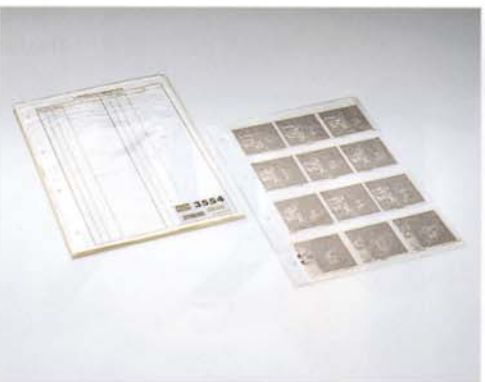
With Euro-punching, fit all file systems.

- Item No. 3550 both sides frosted 35mm
- Item No. 3551 both sides frosted 60mm
- Item No. 3552 Acetate/frosted 35mm
- Item No. 3553 Acetate/frosted 60mm

ARCHIVAL NEGATIVE TRANSPARENCY PAGES

Item No. 3554-57

Available in several widths and materials.
One package contains 25 pages.
No longer available.



With Euro-punching, fit all file systems.

- Item No. 3554 both sides frosted 35mm
- Item No. 3555 both sides frosted 60mm
- Item No. 3556 Acetate/frosted 60mm
- Item No. 3557 Acetate/frosted 35mm

DAYLIGHT FILM-PICKER

Item No. 3533

For safe retrieval of films from cartridges.

FILM CARTRIDGE OPENER

Item No. 3528

For opening metal film cartridges.



DAYLIGHT FILMPICKER

Has your film been rewound into the cartridge? The JOBO Daylight film retriever helps you to retrieve the beginning of your film. In daylight, with no problems and without damaging the film or cartridge.

FILM CARTRIDGE OPENER

Sturdy version made with metal. Coated in mat black. For opening of all types of 35mm film cartridges.

FILM CARTRIDGES

Item No. 3529

One package contains 100 pieces.



Film cartridges for loading of bulk film. Made of plastic, the cartridge bottom can be screwed off. Fits all 35mm cameras and loaders for bulk film.

DARKROOM TRAYS

Item No. 3110-32

Available in several sizes and colors.



With pour spout, groove for the print tongs and high sides for easy paper transport.

cm/"	beige	white	red
	Item. No.	Item. No.	Item. No.
13x18 (5x7")	3110	3111	3112
20x25 (8x10")	3124	3125	3126
24x30 (11x14")	3130	3131	3132

DARKROOM TRAYS

Item No. 3140-62

Available in several sizes and colors.



With pour spout, groove for the print tongs and high sides for easy paper transport.

cm/"	beige	white	red
	Item. No.	Item. No.	Item. No.
30x40 (12x16")	3140	3141	3142
40x50 (16x20")	3150	3151	3152
50x60 (20x24")	3160	3161	3162

GRADUATES

Item No. 3301-06

Available in several sizes.



Crystal clear graduates, scaled in ml and fluid ounces. With pour spout and base.

Size	Item. No.
25 ml	3301
50 ml	3302
100 ml	3303
250 ml	3304
500 ml	3305
1000 ml	3306

260ML GRADUATE

Item No. 3308

Fits the processors CPE, CPA and CPP.



Made with durable plastic. This scaled graduate can be used as a spare graduate for the graduates included with the processors. For all applications in which the graduates are heavily used.

FILM CLIPS

For drying 35mm films and roll-films.



The film clips hold the film securely with stainless steel pins that avoid marks or drips at the clip end. The black clip is weighted and holds the film straight while drying.

Item No.	Film Clip Set
3310	Pair of Film Clips, non-weighted
3311	Pair of Film Clips, weighted
3312	Pair of Film Clips, weighted/non-weighted
3524	Film clips for sheet film (10pcs.)

FILM CLIP SET

Item No. 3315

For drying 35mm films and roll-films.



Economical version w/o. steel pins. Includes one weighted and one regular film clip.

THERMOMETERS

Item No. 3320-23

Precision thermometers without mercury.



With scale markings allowing easy read-out of temperature.

Item No.	Application
3320	For B/W up to 30°C
3321	For color up to 50°C
3323	Angled thermometer for tray processing up to 30°C

FUNNELS

Item No. 3342-43

Available in various sizes.



Made with chemical resistant and durable plastic. With hole designed for easy hanging on a wall-hook. Specially designed to prevent air locks.

Item No.	Diameter
3342	10 cm
3343	12 cm

LAB SAFETY GLOVES

Item No. 3344/45

Available in various sizes.

While stock lasts.



Made with chemical resistant plastic, 100% water-tight. The cotton lining makes it easy to slip them on and off. For safe handling of chemicals and all cleaning work in your lab.

Item No. 3344 Medium-5

Item No. 3345 Large-7

FILM WIPER

Item No. 3530

For 35mm films and rollfilms.



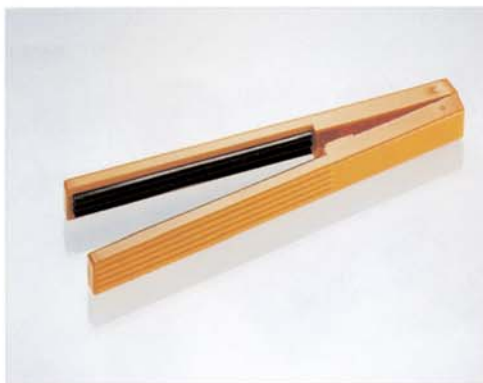
Four soft rubber blades remove excess water from the surface of processed film allowing it to dry quickly. Exerts even pressure on the full width of film without scratching.

FILM WIPER

Item No. 3532

For 35mm films and rollfilms.

Economical version.



Two soft rubber blades remove excess water from the surface of processed film allowing it to dry quickly.

PRINT WIPER

Item No. 4122

For all types of PE papers.



A soft rubber blade removes excess water from the surface of processed paper allowing it to dry quickly. The paper can then be suspended to dry without any water marks. Use of the print wiper speeds up the drying process.

CASCADE FILM WASHER

Item No. 3350

CASCADE PRINT WASHER

Item No. 3351

For archivally washing films in the tank.



Allows full archival washing with minimum water flow. Reduces required washing time to 3 minutes. A universal adapter allows connection to most taps and a unique system allows you to set the water flow to an optimal rate.

The Cascade Print Washer can be attached to all darkroom trays for print washing

SET OF MIXING RODS

Item No. 3316

For mixing of chemicals (set consists of 2 pieces).

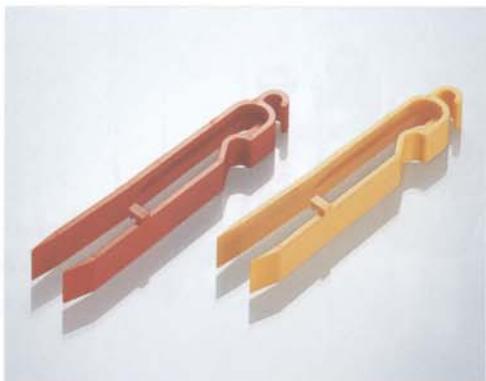


A mixing rod is invaluable for thorough mixing of chemicals. Made with chemical resistant plastic. Suited for all graduates from 500ml and larger.

SET OF PRINT TONGS

Item No. 4125

For tray processing of paper (set consists of 2 pieces).



Made with plastic to avoid scratches on the surface of PE papers. Specially designed to prevent them slipping off the tray into the solution. With hole to allow hanging from a hook when not in use.

PROCESSOR CLEAN

Item No. 4181

For cleaning and removing stains and calcium build-up in processors.



The JOBO Processor Clean removes deposits from the heating elements and residues of the color developer. Biodegradable. Regular use of this cleaner (every 2-3 weeks on the ATL) protects the heating elements as well as the pumps of the processors. Chlorine free, avoids corrosion of material. Also ideal for cleaning graduates and bottles.

SPIRIT LEVEL

Item No. 4502

For leveling of processors.
While stock lasts.

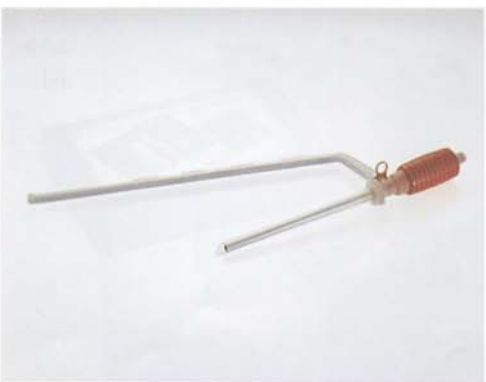


The processors must be installed on a level surface to avoid processing errors. The spirit level ensures proper leveling of the processor. Can be used everywhere due to its small size.

SUCTION PUMP

Item No. 4045

For liquid removal or transfer.



Ideal for all CPE and TBE users. Allows easy draining of the water-jacket. It can also be used to transfer small volumes of chemicals from large containers.

5L CONTAINER

Item No. 3336

5L CONTAINER W. DRAIN

Item No. 4227

For mixing and storage of chemicals.



Chemical container made with chemical resistant and translucent material. With liquid measurement scale. Chemicals can easily be filled directly into your graduates or the processors from these bottles.

SCALED BOTTLES

Item No. 3370-75

Chemical bottles.

For mixing and storage of chemicals.



Quality chemical storage bottles. Available in various sizes, black or white. Measuring grades display the remaining quantity of chemistry in 100 ml increments.

	Black	White
	Item. No.	Item. No.
600 ml	3370	3371
1000 ml	3372	3373
2000 ml	3374	3375

2500ML BOTTLE

Item No. 3376-77

For mixing and storage of chemicals.



	Black	White
	Item. No.	Item. No.
2500 ml	3376	3377

AIR REDUCTION STORAGE BOTTLE

Item No. 3395-96

For mixing and storage of chemicals.



Bottle compresses to allow complete expulsion of air prolonging the shelf life of your chemistry.

Size	Item. No.
1000 ml	3395
2000 ml	3396

1 5L CONTAINER

Item No. 3389

For preparation and storage of chemicals.



Fits all JOBBO reclamation carts and support tables. With measuring scale and floating lid.

WATER FILTER

Item No. 8050

FILTER CARTRIDGE

Item No. 8051

Reduces most dust and dirt from the water supply and rinse water.



Prepared for connection to pressure hoses with thread size 3/4". Includes wall support. For water temperatures up to 45°C and 8 bar pressure.

Comes without filter cartridge #8051.

MAGNIFICATION LOUPE 4/8X

Item No. 3525/3526

Attractive gold finish body.



The aspheric loupes with coated lenses provide an excellent view of the total motif and yet allow specific judgement of sharpness in the details.

With transparent and opaque ring for either reflection or transmission viewing. Diopter adjustment built in.

Comes with neck strap.

MAGNIFICATION LOUPE 3X

Item No. 3544

Professional loupe for medium-format 6x6 and 6x7.



Mat black body. Allows judgement of sharpness right up to the edges.

Whether slide or negative, sharpness needs to be discerned down to the details. At the same time it is important to have an overview not only on the details but also on the total motif. With diopter adjustment.

Includes carrier bag and neck strap.

SORTILUX 2

Item No. 6432

Small light box for viewing negatives or transparencies.

No longer available.



Height of the light box is only 10mm. The black grip allows to easily insert the light box behind the transparency pages in the archiving file for viewing your negatives. Two brightness levels. Indirect halogen illumination avoids warming up of the glass panel. Ideal for working in the darkroom, convenient to be used below most enlarger baseboards.

LIGHT BOX, SMALL

Item No. 6480

LIGHT BOX, LARGE

Item No. 6481

Battery or optional electrical outlet operation.



Fluorescent tubes provide illumination similar to daylight and avoid heating up the viewing panel as with conventional bulbs. With ON/OFF switch, Film retaining bar and tilting support for inclining. The large light box can also be wall mounted.

Accessories:

Item No.

- | | |
|-------|---|
| 6485 | Mains supply unit (Optional, not included with light box) |
| 16331 | Spare tube for 6480 |
| 16330 | Spare tube for 6481 |

MINILUX

Item No. 6410

MINILIGHT

Item No. 6415

Darkroom color and b/w safe-light.



Battery-operated, portable LED safelight for orientation in the dark.

The **Minilux** has 2 brightness levels and a built-in light sensor that shuts the unit off when room lights are on.

The **Minilight** is identical to the Minilux minus the light sensor and extra brightness level.

MAXILUX

Item No. 6420

LED safelight for color and B/W.



Provides directed light by means of a prism reflector. The swivel head allows you to direct the light onto areas that need extra illumination. Contains three selectable filters for B/W, color negative, and color positive papers. The Maxilux can be used on a counter or can be wall mounted. An ON/OFF switch is located on the power cord for easy access. No warm-up time is required so the unit can be switched off during exposure determination. With use of LED's the unit will virtually last for a lifetime.

ORTHOLUX

Item No. 6440

LED safelight designed for use with orthochromatic films and VC papers.



Provides directed light by means of a prism reflector. The swivel head allows to direct the light onto areas that particularly need extra illumination. The spectral range is calibrated $> 650\text{nm}$ (dark red) and is ideal for use with VC papers and X-ray material. The Ortholux can be used on a counter or can be wall mounted. An ON/OFF switch is located on the power cord for easy access. No warm-up time is required so the unit can be switched off during exposure determination. With use of LED's the unit will virtually last for a lifetime.

COLORLINE 100

Item No. 6240

Color analyzer with three separate cells for Y/M/C.



For all color films. Excellent for beginners due to favorable price and easy handling. Modern technology ensures impressive results and simple working: Place the analyzer on the baseboard, slide in the diffuser and adjust the filter settings on the enlarger until the ColorLine display says they are correct.

Exceptional feature: Allows handling of all film types and brands with only one calibration.

For technical data see chart on page 50.

COMPARATOR 100

Item No. 6252

Exposure timer for photographic papers.



For determination of correct exposure time. Battery operated. Place the timer on the baseboard and determine the correct exposure time by turning the adjustment wheel above the indicator arrows.

For selective and integrated measurements.

For technical data see chart on page 50.

PROTIME 100

Item No. 4620

Digital timer for exact process control.



Pre-programmed for the most popular dark-room processes. The Prottime allows exact process control for B/W and color processing in trays and processors. Small, handy and battery operated. 9 programs with up to 13 processing steps each are available with the JOBO Prottime. The maximum time range of 199 minutes allows utilization for other procedures.

The remaining time is displayed on a large easy-to-read display. Continues to count up after 0 seconds to show over-run time. Count-down with audio signals.

Technical Data:
(see also chart on page 50)

Power: 9V PP9 battery

Display illumination

With audio signals

No. of programs: 9, user-programmable

EXPOSURE METERS AND TIMERS

C H A R T T E C H N I C A L D A T A

	ProTime 100	Time- Switch	Compara- tor 100	Compa- rator 2	Com- Time	Multi- Line	ColorLine 7000	ColorLine 5100	ColorLine 100
Item. No.	4610	6110	6252	6251	6254	6225	6245	6230	6240
Process Timer	●					●			
Enlarger Timer		●			●	●	●	●	
Exposure Meter			●	●	●	●	●	●	
Color analysis negative							●	●	●
Color analysis positive							●	●	●
Determination of paper grade				●	●	●	●	●	
Spot Measurement			●	●	●	●	●	●	●
Integrated Measurement			●	●	●	●	●	●	●
Multiple Spot Measurement						●	●	●	
Digital Display	●				●	●	●	●	
Mains Supply operation		●			●	●	●	●	
Battery-operated	●		●	●					●
Programmable	●				●	●	●	●	
Illuminated buttons		●				●	●	●	
Illuminated display	●				●	●	●	●	
Automatic-focus Lamp switch-off						●	●	●	
Desired language can be chosen							●	●	
Automatic calibration							●	●	
Color densitometer function							●	●	
B/W densitometer function						●	●	●	
Automatic compensation of safelight						●			
Calibration of paper slope							●	●	
Foot switch connection							●	●	
Acoustic signal	●					●	●	●	

MULTILINE

Item No. 6225

Digital multi-functional unit for use in the darkroom. When color analysis is not needed but a full-featured exposure analyzer is still needed or required, the Multiline provides the perfect solutions. It also works as a process timer or densitometer.

MEASURING AND SWITCHING

The large measurement range of 0,005 - 100 Lux allows handling of all paper types with various levels of sensitivity. Whether you are using low sensitivity B/W Baryt papers or highly sensitive color negative papers, the values for all materials can be adjusted and read out. The enlarger is plugged directly into the Multiline. With this connection the enlarger lamp can be switched directly with either the measured time or a manually entered time without having to use a separate exposure timer (Exposure time: 0,1 up to 999 sec.).

COMPENSATION FOR DARKROOM SAFELIGHT

Many darkrooms today use some form of safe light. In particular, when handling B/W paper, illumination in the darkroom is relatively bright to allow control of tray processing. However, this light influences exposure measurement and leads to measuring errors or wrong selection of paper grade. Switching off the safe light during measurement and exposure is cumbersome and also leads to eye fatigue. In addition, some safe lights require time-consuming warm-up periods when first switched on (except Maxilux, Ortholux). To avoid these problems, with each measurement and exposure the influence of the safelight is automatically calculated and deducted from the measuring result.

MEASURING MODES

The Multiline is designed to handle many different measuring tasks. The small probe (Illustration 3) is ideal for making spot readings of very small details in the picture. Also, for certain images you can use multiple spot readings which are then averaged. This averaging



III.1



III.2



III.3



III.4



III.5

function allows you to take up to 9 readings which are then averaged to the ideal exposure time. Integrated readings can also be made with the enclosed diffuser.

DETERMINATION OF PAPER GRADE

Exposure time alone is not enough to provide a properly exposed print, you also need to choose the correct contrast grade of paper. With the Multiline, after making an exposure measurement you can measure a second spot which allows determination of the optimum paper grade. The display (Illustration 2) then shows the correct exposure time as well as the recommended paper grade.

DENSITOMETER FUNCTION

For advanced users, the Multiline also offers the possibility of using the unit as a densitometer. This feature is invaluable when working with the zone system or when testing B/W film processing. LogD measurement 0,01 up to 4,0 in increments of 0,01 steps is possible.

PROCESS TIMER

In addition to all the various measuring and switching functions, the Multiline can also be used as a user-programmable process timer. This feature allows you exact process control of paper and film processing. An audible signal works in conjunction with the digital display giving you a 10 sec. warning as well as bleeping at the end of each stage. Because you can program the times in the Multiline yourself, (3 program selections with up to 9 process steps each with a range from 1 second to 99,5 minutes) it will never become obsolete even as processes change in the future.

Technical Data

(See also chart on page 50)

LxWxH:	190x150x70cm (75x59x28")
Weight:	750 g (without power supply unit)
Calibration:	manual
Probe:	3mm
Paper channels:	5
Process Timer:	3
Key illumination:	yes
Switching capacity:	230V/460W 115V/460W
Measuring functions:	neg., pos., B&W, densitometer
Display of gradation:	yes
LogD measurement:	yes
Multi Spot Measurement:	possible (up to 9 measurements with automatic calculation of average value)
Exposure Time:	0,1 to 999 seconds
Starting/Stopping exposure time:	yes, can be repeated as many times as desired

COLORLINE 7000

Item No.: 6245

AN ANALYZER? YES, BUT IT ALSO MUST BE EASY TO USE!

The new JOBO ColorLine 7000 combines the latest technology with extremely user-friendly operation.

Separate keys for each function make the ColorLine 7000 easy to use.

Even when the analyzer mode changes, the necessary operating steps are easy to understand. Operation is made clear with an integrated user-guide displayed on the LCD panel. Comes pre-programmed for easy start-up. A high-quality exposure meter and timer for serious amateur photographers and professional photographers.

MAKES THE VC-HEAD FOR B/W ENLARGEMENTS OBSOLETE

With the ColorLine 7000 your color enlarger becomes a variable contrast enlarger (VCCE). Utilize the built-in contrast table or enter your own custom settings.

THE COLORLINE 7000 IS ALSO A DENSITOMETER

When used in conjunction with your enlarger you can read out logarithmic values of measured areas. This allows you to determine zone densities for zone system filter processing or color corrections for color processing. Exact slide duping is easy with the ColorLine.

LCD-DISPLAY

The LCD panel shows all information in one of six user-selectable languages (D, GB, E, F, Rus, T). With the easy-to-read text provided, the unit is the easiest to use analyzer on the market. Menus, user instructions, logarithmic values and time are shown with the LCD display. Back lighting of the display is user adjustable allowing the ColorLine 7000 to be tailored to your individual darkroom. Manual exposure corrections can be viewed and entered in seconds or densitometric values.

99 memory channels store different paper and measurement method combinations. The state-of-



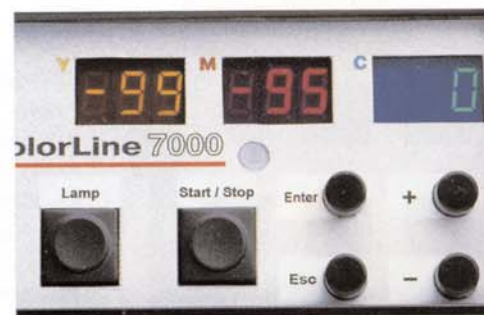
III.1



III.2



III.3



III.4



III.5

the art technology of the ColorLine 7000 allows you to use all kinds of films with programming a channel for each type.

MULTI-SPOT AVERAGE READING, ZONE SYSTEM, CONTRAST MEASUREMENT

With the multiple spot reading multiple areas of an image can be measured and all the values are averaged. This way images with dominant colors can still be successfully analyzed. The combination of spot readings and a logarithmic read-out allow interesting analytical work with the zone system.

SO SIMPLE!

For normal color analyzing the simple steps are: Place the sensor on the baseboard of the projected image. Press the analyze key. Adjust the filters on the enlarger until the ColorLine display reads 000 for filtration and shows the correct exposure time. Press the START/STOP key, place the paper on the baseboard and expose.

SLOPE CORRECTION FOR EXPOSURE TIME AND FOR COLOR FILTRATION

Until now only professionals used this type of sophisticated correction. Now any ColorLine 7000 user has this function working to increase the quality of their prints. The ColorLine 7000 compensates exposure time and filtration between one and forty seconds automatically.

Important features:

The ColorLine 7000 comes in a sturdy case including a foot switch and test films.

- All kinds of films can be used with only one calibration for one paper type - no re-programming is necessary
- 99 paper channels
- Switching capacity: 900 W
- Sensor: Diameter of 4mm, important for spot and multi-spot reading
- Three contrast charts for VC-papers so that no re-programming of the unit for papers made by different manufacturers is necessary
- Use of VC-papers with color enlargers with accurate grade settings
- Probe comes with fluorescent stripes making it easy to find in the dark
- Densitometer function
- Built-in print counter and paper surface calculator for manual replenishment of chemicals in cm and inches
- Slope correction for exposure time and color filtration

For further technical data see chart on page 50.

JOBO COLORLINE 5100

Item No. 6230

Operation using of multi-functional keys. For technical data see chart on page 50.

TIME SWITCH

Item No. 6110

Inexpensive electromechanical timer for enlargers.



The Time Switch offers two time ranges: 0.1 to 6 seconds with an adjustment increment of 1/10th of a second or 1 to 60 seconds with an adjustment increment of 1 second. The enlarger or the mains transformer is plugged directly into the Time Switch. With illuminated display and keys. For dodging and burning the running time can be interrupted, and then the countdown of the remaining time can be re-activated. This procedure can be repeated as many times as desired.

COMTIME

Item No. 6254

Digital exposure meter and timer for enlargers.

The ComTime allows you to measure the exposure time and switch the enlarging lamp with simple one-handed operation. The small 4mm probe is ideal for precise measurement on the easel. The exposure time is displayed on a large easy-to-read LED display. Exposure times are interruptible showing the remaining time on the display. The measuring head/control unit and transformer are connected by a spiral cable allowing you to easily take readings while leaving the transformer out of the way on your workbench. As soon as you have taken your readings, the cable re-coils, keeping it out of your work area.



For selective and integrated measurements. By adjusting the timer until two opposing, illuminated arrows go out and a green light is lit, the correct exposure time is determined and indicated in the display. In addition, for B/W work, after a second contrast measurement, the recommended paper grade is indicated on an LED indicator. The ComTime will give you impressive results because of its precise measurement and simple operation.

See also chart on page 50 for further technical data.

Voltage:	230V 50Hz 115V 60Hz
Switching capacity:	230V/900W 115V/470W
Measurement mode:	Spot and integrated
Paper channels:	1
Paper types:	Neg., Pos., B/W, VC
Exposure time:	0,1 up to 60 sec.
Gradation increment:	0-5 in 0,5 steps

COMPARATOR II

Item No. 6251

Exposure time and grade meter for photographic papers.



For determination of correct exposure time. Battery operated. For selective or integrated readings. Displays the proper exposure time and for B/W, the required paper grade from 0 through 5 in 1/2 grade segments. Can be utilized for all color and B/W papers. Ideal complement to TimeSwitch #6110.

For technical data see chart on page 50.

CHART JOBO CONTINUOUS PAPER PROCESSORS PRINTLABS

	3504	3503 Auto Repl	3503	3502
Max. paper width	35 cm	35 cm	35 cm	35 cm
Control system	computer-controlled with operator guidance, user-programmable	computer-controlled with operator guidance, user-programmable	analogue via rotary wheel	analogue via rotary wheel
Developing time	45 sec. RA-4 (adjustable from approx 25-120 sec.)	45 sec. RA-4 (adjustable from approx 25-120 sec.)	45 sec. RA-4 (adjustable from approx 25-120 sec.)	45 sec. RA-4 (adjustable from approx 25-120 sec.)
Number of tanks/Volume	4 (CD/Bx/W/W)/5L	3 (CD/Bx/W)/5L	3 (CD/Bx/W)/5L	2 (CD/Bx)/5L
Replenishment	automatic	automatic	manual	manual
In Feed sensors	5	5	1	1
Processing temp	adjustable in 0,1° steps up to 40°C	adjustable in 0,1° steps up to 40°C	variable from room temperature up to 40°C	variable from room temperature up to 40°C
Bleach fixing temp.	adjustable in 0,1° steps up to 40°C	adjustable in 0,1° steps up to 40°C	automatic adjustment to processing temperature	automatic adjustment to processing temperature
Evaporation protection	all racks covered	all racks covered	all racks covered	all racks covered
Dryer	hot air, ajustable, programable	hot air, ajustable, programable	hot air, adjustable	no
Water consumption	controlled via micro-processor dependent on area of paper, two-tank reverse cascade	controlled via micro-processor dependent on area of paper	automatic cut off of water supply in stand-by mode	manual
Water supply	¾" 1bar- 6bar	¾" 1bar- 6bar	¾" 1bar- 6bar	possible
Water outlet	min. 40mm Ø	min. 40mm Ø	min. 40mm Ø	connection possible
Built-in flow heater for tempered rinse water	•			
Self-cleaning after operation	•			
Filter in pumping path	•	•	•	•
Separate heaters for developer and bleach	•	•	•	•
Ready for operation (20-35°C) after approx.	10 Min	10 Min	10 Min	10 Min
Pre-programmed for	for RA-4, B/W, EP-2, Duratrans	for RA-4, B/W, EP-2, Duratrans	for RA-4	for RA-4
Display	Temperature and position of paper via liquid-crystal display	Temperature and position of paper via liquid-crystal display	Temperature and processing time via scales	Temperature and processing time via scales
Electrical rating 230V	230V/50 Hz 3000W	230V/50 Hz 1800W	230V/50Hz 2300W	230V/50Hz 1200W
115V		115V/60 Hz 1600W	115V/60 Hz 1600W	115V/60Hz 600W
Weight empty/full	40/60	35/55	35/55	30/40
LxWxH cm	95x60x42	78x60x42	78x60x42	78x60x32
Through wall install. possible	•	•	•	•
3-Track paper feed	included	included	included	included
Wall mount for 5 L canister	included	Item.No.7151	Item.No.7151	Item.No.7151
5 L canister for wall mount	included	Item.No.7164	Item.No.7164	Item.No.7164
Collecting tank for overflow	included	Item.No.7153	Item.No.7153	Item.No.7153
Support Table	Item.No.7161	Item.No.7156	Item.No.7156	Item.No.7156
Sealing guide for through-the-wall installation	Item.No.7162	Item.No.7162	Item.No.7162	Item.No.7162
Cubitainer for replenisher (5L)	included	Item.No.7163	Item.No.7163	Item.No.7163
Cleaning powder for cleaning of tanks	included	included	included	included
Processor-Clean	included	included	Item.No. 4181	Item.No.4181
Pressure hose	included	included	included	not necessary
External water pump	Item.No.4112			
Roll paper attachment	Item. No. 7165	Item. No. 7165	on request	
Hot-water accumulator w. mixing unit	not necessary	Item.No. 4167	Item.No. 4167	Item.No. 4167
Pressure reducer	Art.Nr 4177	Art.Nr 4177	Art.Nr 4177	Item. No. 4177

JOBO PRINTLAB CONTINUOUS PAPER PROCESSORS

ACCESSORIES

PRINTLAB 3504

Item No. 7160

JOB PrintLab -the innovative paper processor system for professionals. Increased shelf life of chemicals, minimal cleaning work.

The racks are the key to even, smooth, trouble-free print transport. The design of the PrintLab insures that the paper is gently guided through the racks ensuring faultless processing. Intelligent design makes rollers easy to clean. Prints are visible in all parts of each bath making troubleshooting a snap. All rollers are compatible with each other.

LASTING PERFORMANCE

These sturdy paper processors have been designed for the future. If process parameters change, the JOB PrintLab can be re-programmed easily, without mechanical alterations. Drying temperatures are controlled by a thermostat, which is adjustable to achieve efficient energy use with different materials and varying environments. On the 3504, the replenisher pumps can be pre-programmed for different processes so when switching between them there is no need for recalibration.

SUITABLE FOR COLOR AND B/W

The JOB PrintLab comes pre-programmed for all PE papers, B/W graded and variable contrast papers, RA-4 color papers as well as Duratrans. The rack design, variable transport speed and temperature control assure you of the highest quality.

HIGH CONSISTENCY

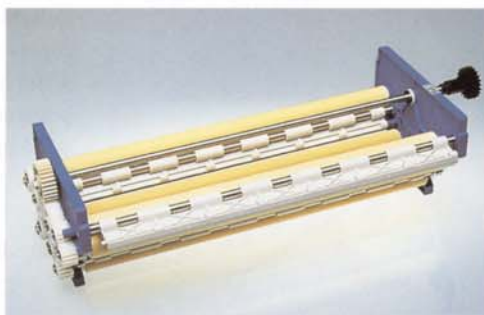
A high level of consistency and long chemical life is achieved by exact replenishment rates determined by 5 infrared sensors. In addition, consistency is enhanced due to an automatic cleaning cycle and special air-tight replenishment containers. Occasional users have been surprised by the high level of consistency over weeks of work. This increases efficiency and reduces costs.

AUTOMATIC CLEANING

After a day's work, all of the chemistry is automatically emptied into air-tight containers with just the touch of a button. At the same time, all of the tanks and racks are automatically cleaned with fresh water hence keeping the rollers



III.1



III.2



III.3



III.4



III.5

rollers in the best possible condition. The automatic cleaning helps to avoid marks on your prints caused by chemical residue on the rollers. This feature saves so much cleaning time it even makes it worthwhile to turn on the machine for just one print.

WATER ECONOMY SYSTEM

A microprocessor controls the water consumption of the processor. The PrintLab uses only the amount of water needed to thoroughly wash the paper. The microprocessor controls the amount of washwater used based on the square area of material running through the washer. This saves on energy costs and is environmentally beneficial.

LONG LASTING REPLENISHER

For economy and quality. The replenisher solutions are stored in collapsible cubitainers and should therefore reach the maximum life as detailed by the manufacturer. Solutions are drawn from the cubitainers by special replenishment pumps that prevent air from entering the system. The result: Reproducible high quality results day by day.

BUILT-IN WASH WATER HEATER

Installation of the 3504 is simple. All you need is a cold water supply since the built-in wash water heater saves the additional cost of having tempered water installed. The PrintLab is clever too, as it automatically sets the wash water to the same temperature as the developer.

QUICK START

After about 10 minutes your processor is ready to go. Each bath is independently heated to its specific temperature and controlled by an independent thermostat which allows for individual programming of each chemical bath.

Increased capacity for up to 3 10x15cm postcards at one time

Due to the unusual 14" (35cm) width, up to 3 postcards 4x6" (10x15cm) can be safely fed at the same time. A paper guide has been designed to avoid overlapping, making work fast and easy. When making large prints, the generous width of the processor and long paper guides add to the operator's feeling of confidence. The paper feed area has a light-tight cover that can be closed immediately after loading the print, making it possible to turn on the lights right away. The print feeding area is kept free of moisture by a fan.

Capacity per hour:

Size"/cm	Qty./h
3,5"x5"(9x13)	415
4x6,5"(10x15)	360
5x7"(13x18)	238
7x9"(18x24)	138
8x10"(20x25)	90
11x14"(28x35)	64
12x16"(30x40)	45

For technical data see chart on page 54.

PRINTLAB 3502

Item No. 7150

Paper processor without dryer.



Suitable for B/W and color negative PE papers as well as B/W sheet films up to a width of 35cm. Prints are washed in a special built-in tray in the lid of the processor. Drying not included. With stand-by function, and automatic start-up via in-feed sensors

Capacity per hour:

Size"/cm	Qty./h
3,5x5"(9x13)	415
4x6,5"(10x15)	360
5x7"(13x18)	238
7x9"(18x24)	138
8x10"(20x25)	90
11x14"(28x35)	64
12x16"(30x40)	45

For technical data see page 54.

PRINTLAB 3503

Item No. 7140

Paper processor with integrated dryer.



Suitable for B/W and color negative PE papers as well as B/W sheet films up to a width of 35cm. Washing and drying of the prints takes place within the processor. With stand-by function for drive, dryer and washing. Automatic start of operation via in-feed sensors.

Capacity per hour:

Size"/cm	Qty./h
3,5x5"(9x13)	415
4x6,5"(10x15)	360
5x7"(13x18)	238
7x9"(18x24)	138
8x10"(20x25)	90
11x14"(28x35)	64
12x16"(30x40)	45

For technical data see page 54.

PRINTLAB 3503 AUTO REPLE- NISH

Item No. 7141

Paper processor with integrated dryer and automatic replenishment.



Suitable for B/W and color negative PE papers as well as B/W sheet films up to a width of 35cm. Washing and drying of the prints take place within the processor. With stand-by function for drive, dryer and washing. Automatic start of operation via in-feeding sensors.

Capacity per hour:

Size"/cm	Qty./h
3,5x5"(9x13)	415
4x6,5"(10x15)	360
5x7"(13x18)	238
7x9"(18x24)	138
8x10"(20x25)	90
11x14"(28x35)	64
12x16"(30x40)	45

For technical data see page 54.

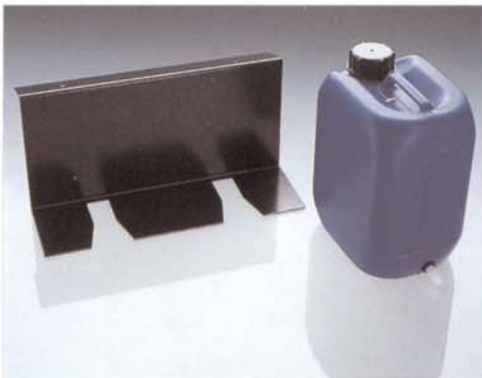
WALL MOUNT

Item No. 7151

CANISTER FOR WALL MOUNT

Item No. 7164

Included with PrintLab 3504, optional for other PrintLabs.



Filling and draining of chemicals from the internal processor tanks is much easier when using the wall mount and the accompanying canisters.

CANISTER FOR CHEMICAL OVERFLOW

Item No. 7153

Suitable for all PrintLabs. Included with PrintLab 3504.



5 L canister including all necessary hoses. Made with transparent plastic for displaying the quantity of chemicals.

BENCH SUPPORT FOR PRINTLAB

Item No. 7156/61

Sturdy, high-quality steel construction.

No longer available.



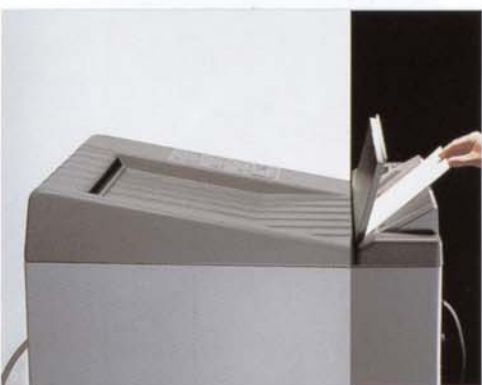
This custom-made support table has the same "footprint" as the processor to save on valuable lab space. The PrintLab comes with four leveling feet for easy installation and leveling of the processor. The bench support has also been designed to be used in conjunction with the sealing guide for through-the-wall use so that engineers can gain access to the processor without having to move it.

Bench support for	Item. No.
Printlab 3502/03	7156
Printlab 3504	7161

SEALING GUIDE

Item No. 7162

Suitable for all models.



By using the sealing guide, the PrintLab can be installed with the in-feed portion in a darkroom and the exit in daylight.

Includes:

Instructions

CUBITAINER

Item No. 7163

Suitable for all models with replenishment.

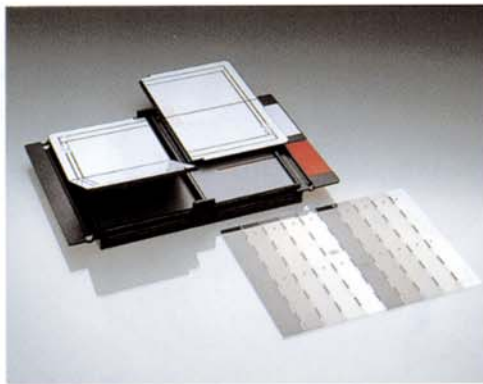


5 L cubitainer, made with HDPE. HDPE is extremely air-tight extending the working life of the solutions. The cubitainer can directly be connected to the replenishment pumps.

VARIOFORMAT

Item No. 6810

Borderless exposure easel for 7x9" (18x24cm) and 8x10" (20x25cm) prints.



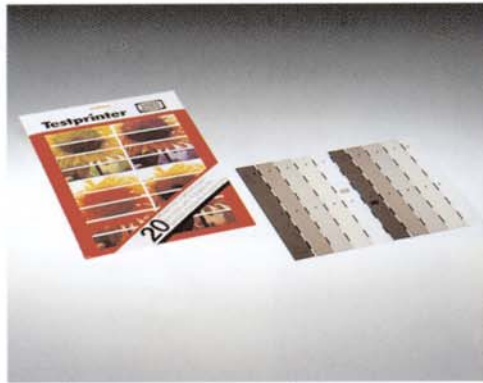
The JOBO Varioformat accepts paper up to size 8x10" (20x25cm). The four light-tight cover plates allow printing of two 5x7" (13x18cm) and four 4x5" (10x13cm) borderless prints on a single 8x10" (20x25cm) sheet of paper. With white focusing plane for determination of proper focus even with the covers in place and paper "lift key" for easy lifting and removal of paper.

Supplied complete with testprinter described below.

TESTPRINTER

Item No. 6817

For color and B/W papers.

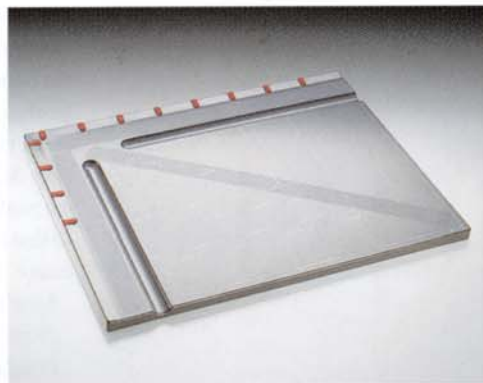


The Testprinter helps you to quickly determine the proper exposure time with only one exposure. The gray scale wedge splits the Testprinter into five different density strips during exposure. The strip with the proper density indicates the correct exposure time. The Testprinter is a helpful accessory and can be utilized in every lab.

VARIOPRINT

Item No. 6840

Borderless exposure easel for enlargements up to 12x16" (30x40cm).

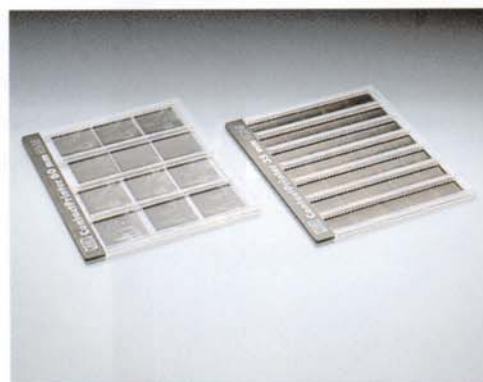


The easel accepts paper up to size 12x16" (30x40cm). A double-sided sticky tape holds the paper flat and firmly in place during exposure. The most common print sizes are clearly marked on the neutral grey baseboard. Small grooves in the easel make it easy to lift up the paper.

CONTACT PRINTER

Item No. 6835 for 35mm film

Item No. 6860 for 120mm film

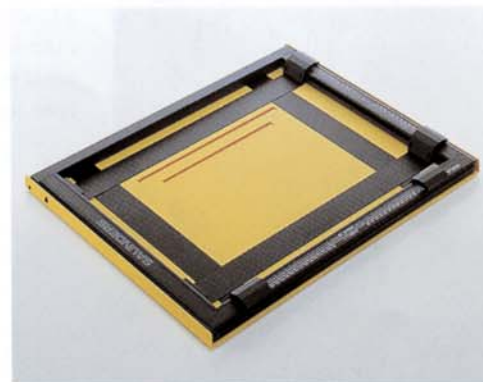


The Contact Printer allows you to easily make contact prints from negatives. You can easily slide the film strips into the transparent guide with the lights on. Only the unexposed paper is inserted in the dark. Due to the white edge on the copy, the numbering of every contact print can be well read.

For paper sizes up to 8x10"/20x25cm.

PROFESSIONAL 4-BLADED EASEL

Item No. 6901



Individual adjustment and easy alignment of the four masking strips. For paper insertion the carrier frame can be raised and locked in place. Special color coating for optimum adjustment and low reflection.

Item. No.	up to size
6901	12x16" (30 x 40cm)

JOB O E-6

JOB O E-6 3-BATH KIT, 5 LITERS, Item No. 9220

JOB O E-6 FIRST DEVELOPER, 15 LITERS, Item No. 9225

JOB O E-6 COLOR DEVELOPER, 15 LITERS, Item No. 9226

JOB O E-6/C-41 BLEACH/FIXING BATH, 15 LITERS, Item No. 9227 NEW!

JOB O E-6 STABILIZER, 6X5 LITERS, Item No. 9228



JOB O C-41

JOB O C-41 3-BATH KIT, 5 LITERS, Item No. 9240

JOB O C-41 COLOR DEVELOPER, 3X5 LITERS, Item No. 9246

JOB O E-6/C-41 BLEACH/FIXING BATH, 15 LITERS, Item No. 9227

JOB O C-41 STABILIZER, CONTAINS NO FORMALIN, 4X5 LITERS, Item No. 9248



JOB O RA-4

JOB O RA-4 KIT, 5 LITER, Item No. 9250

JOB O RA-4 COLOR DEVELOPER/REPLENISHER, 2X10 LITERS, Item No. 9255

JOB O RA-4 COLOR DEVELOPER-STARTER, 1 LITER OF CONCENTRATE, Item No. 9256

JOB O RA-4 BLEACH/FIXING BATH/REPLENISHER, 2X10 LITERS, Item No. 9257

JOB O B/W-COLOR STOP, 1 LITER OF CONCENTRATE, Item No. 9266



JOB O WALL MOUNT

JOB O WALL MOUNT incl. Chemistry Filling Station/5 pcs., Item No. 9230

JOB O CHEMISTRY FILLING STATION (for 5 cubitainers), Item No. 9229

JOB O CHEMISTRY FILLING STATION for Bleachfix (for 2 cubitainers), for Bleach-



The concentrates for the preparation of 15 liters of working solution come in practical cubitainers which provide protection against oxidation. Long shelf life - even if only small amounts of working solutions are needed. The cubitainers contract when chemistry is taken out so that the container continues to have no dead air space. All working solutions are made with the same mixing ratio, 200ml of concentrate with 800ml water. This provides easy mixing, even if only small quantities are mixed. Now you can mix only the amount needed, meaning you can always use fresh chemistry. For convenient measuring of the concentrates we recommend our filling station, or our wall mount incl. the chemistry filling station.

Quick and cost effective - C-41 2-bath process:

The C-41 color developer (3x5 liters) and the Bleach-Fix (15 liters) are available individually. The bleach-fix is useable with both Jobo C-41 and E-6 products. This provides great convenience for users needing both processes.

Professional RA-4 chemistry for brilliant color prints from the color negative. Designed to be used at the industry standard of 35°C. The 5 liter Kit is optimized for processing with the JOB O Rotation system, but is also suitable for the JOB O Duolab, Nova Processors and continuous paper processing machines. The 2x10 liters concentrates can be replenished and can be used in replenishing continuous paper processing machines. We also offer a required stop bath for processing in the "JOB O Rotation", JOB O Duolab and machines with three tanks.

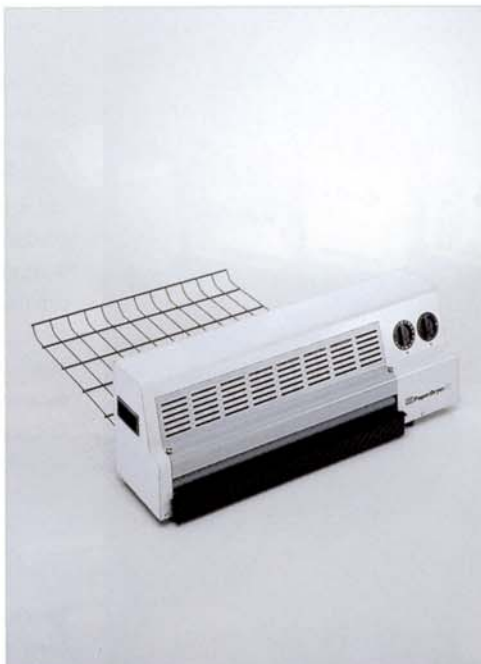
fix cubitainers with C-41 2-bath 15 liters, Item No. 9249.

The wall mount is designed for a complete preparation of chemistry consisting of 5 concentrates/cubitainers.

JOBO PAPER DRYER 52

Item No. 3512

Continuous dryer for all PE papers up to 20" (52cm).



Variable speed range and three temperature settings. With integrated drip tray. Rapid and easy drying by means of warm air and a pair of rollers.

Technical Data:

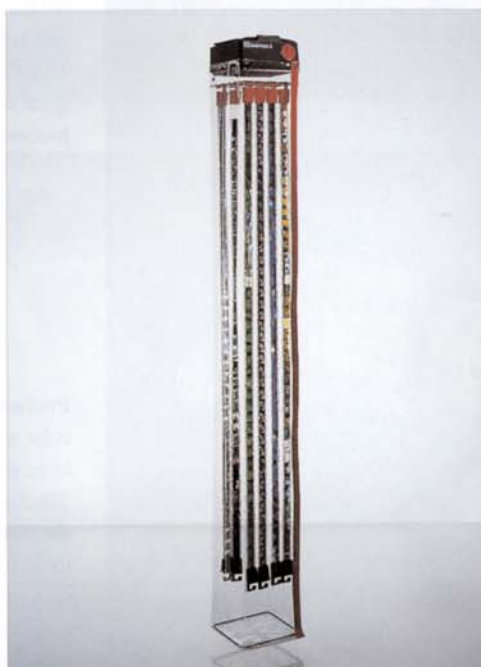
HxWxD:	12,5x28x8" (32x72x20cm)
Format width:	20" (52cm)
Running speed:	6-85cm/min. variable
Drying temperature:	level 1. Room temperature level 2. 35°C level 3. 45°C
Power supply:	230V/50Hz 1530 watts

MISTRAL FILM DRYER SYSTEM

Item No. 3520/3521

Mistral Motorhead Item No. 3520
Drying cabinet for 35mm films
Item No. 3521

Film dryer for 35mm and roll-films.



Air is filtered and heated. With two heat settings of 35°C and 45°C and one additional cold air setting. Transparent drying cabinet composed of very sturdy and durable plastic. Magnetic strips allow for easy opening and closing.

Technical Data:

LxWxH:	80"x10"x9" (204x26x22cm)
Drying temperature:	level 1: room temperature level 2: 35°C level 3: 45°C

Capacity

35mm 36 exp	16 films
120 / 220 rollfilm	9 films

MISTRAL SHEET FILM DRYER SYSTEM

Item No. 3520/3522

Mistral Motorhead Item No. 3520
Sheet film drying cabinet Item No. 3522

Film dryer for sheet films and photographic papers.



Air is filtered and heated. With two heat settings of 35°C and 45°C and one additional cold air setting. Transparent drying cabinet composed of very sturdy and durable plastic. Magnetic strips allow for easy opening and closing.

Technical Data:

LxWxH:	36"x16"x12" (92x40x30cm)
--------	-----------------------------

Capacity

4x5" (9x12cm)	24 films
5x7" (13x18cm)	12 films
8x10" (20x25cm)	6 films
9,5x12" (24x30cm)	6 films

PRODRY 8100

Item No. 8100

Professional film drying cabinet satisfying the needs of the professional user. A modern film dryer should meet the following requirements: it should be able to dry the films quickly, it should not over-dry the films, it should avoid static build-up, it should be well made to avoid films touching each other and it should not fill your lab with warm and humid air.

The JOBO ProDry meets all these requirements. Heavy-duty steel construction with Plexiglas door for daily use. Leveling feet ensure that the drying cabinet is positioned in a perfectly vertical position to prevent the film from hitting the inner wall of the door. In addition, the back wall of the cabinet can be attached to the wall of your lab for maximum stability.

Filtered air enters from the top via a removable dust filter, is routed through a thermostatically-controlled heater to the bottom, and then rises again to the top drying the film as it passes.

The set drying temperature can be monitored at any place in the drying chamber with the aid of the built-in magnetic thermometer. In order to prevent over-drying of sensitive materials, it is possible to mix humid warm air from the inside with dry air by opening the air regulator.

Exhaust air can be vented by means of the included exhaust-air hose (See illustration 3). When being used in small rooms or near persons with allergies it is possible to use the exhaust-air hose to vent any possible formalin fumes and also for avoiding unwanted heat build-up in your lab. The air should, in any case, be vented if non-exposed and undeveloped photographic emulsions are stored or used in the same room.

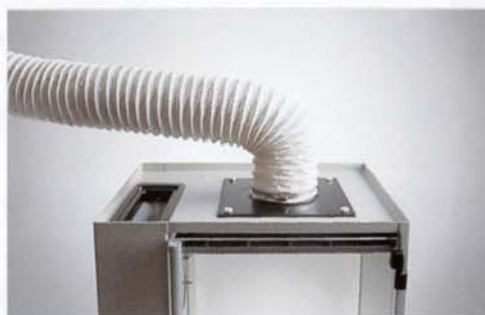
The base of the dryer includes a covered tray for stabilizer, so the wet films can be stabilized after processing and hung to dry (See illustration 5). The clip grid makes it easy to hang up the films using JOBO film clips. Excess stabilizer which drips off the film is



III.1



III.2



III.3



III.4



III.5

channeled back into the stabilizer tray.

The unique dryer features rear illumination, a white back wall, and a Plexiglas door allowing you to view and assess your film as it dries.

In order to achieve maximum sheet film capacity, a special non-drip intermediate sheet film deck is available (See illustration 4). The deck is simply inserted into the prepared guides of the drying cabinet to prevent drips from hitting other films in the cabinet.

The built-in timer automatically switches off the dryer, after the time set by the user has elapsed.

Technical Data:

HxWxD: 79"x21"x16"
(200x53,5x41cm)
Weight empty: approx. 60 kg
Voltage: 230V/50Hz/
2000 watts

Temp. range of
thermostat: 68 to 131°F (20-
55°C)

Capacity approx.:

35mm films/135	25 films
Rollfilms 120	25 films
4x5" (9x12cm)	30 films with inserted sheet film deck
5x7" (13x18cm)	18 films with inserted sheet film deck
8x10" (20x25cm)	9 films with inserted sheet film deck
9,5x12" (24x30cm)	9 films with inserted sheet film deck

Accessories

Replacement filter (spare)	#8101
Sheet film deck	#8102
Exhaust-air hose, 250cm	
Ø 12,5cm	#8103

C H A R T E N L A R G E R S

Technical Data	4x5' Color	4x5' Variocontrast	4x5' S/W	7700MX Color	VCCE 7700	6700 Color	6600S/W	6550S/W
Enlarger	Item. No. 7415	Item. No. 7425	Item. No. 7435	Item. No. 7700	Item. No. 7701	Item. No. 6612	Item. No. 6611	Item. No. 6550
Max. negative format	4x5'	4x5	4x5	6x7	6x7	6x7	6x6	24x36
Halogen lamp	24V 250W	24V 250W	24V 250W	12V 100W	12V 100W	12V 100W		
Opal lamp							230V / 75W	230V / 75W
Red filter holder	•	•	•	•	•	•	•	•
Metal housing	•	•	•	•	•	•	•	•
Wall projection	•	•	•	•	•	•	•	•
White-light lever	•	•	•	•	•	•		
Automatic density compensation with variable contrast paper		•			•			
Diffuse light (diffusor)	•	•	•	•	•	•		
Directed light (condensor))							•	•
Cooling fan	•	•	•					
Dichroic filter	•	•	•	•	•	•		
Gelatine filter								•
Column height	135 cm	135 cm	135 cm	110 cm	110 cm	108 cm	108 cm	70cm
Baseboard	60x80 cm	60x80 cm	60x80 cm	45x60 cm	45x60 cm	45x45 cm	45x45 cm	30x40
Color transformer				Item.No. 6605	Item.No. 6605	Item.No. 6605		
Color transformer stabilised	included	included	included	Item.No. 6606	Item.No. 6606	Item.No. 6606		
Fine Focus	•	•	•	Item No. 7703	Item No 7703			
Repro adapter				Item.No.7705	Item.No.7705			
Lens holder M39	•	•	•	•	•	•	•	•
Lens								4,5/50mm
Included negative carrier	4x5' glassles	4x5' glassles	4x5' glassles	Universal carrier with glass	Universal carrier with glass	24x36 glassles	24x36 glassles	24x36 glassles

A C C E S S O R I E S N E G A T I V E C A R R I E R S

	4x5' Color	4x5' Variocontrast	4x5' S/W	7700MX Color	VCCE 7700	6700 Color	6600S/W	6550S/W
Metal inserts for universal carrierw. glass 12x17mm				Item.No.7720	Item.No.7720	Item.No.7720	Item.No.7720	
28x28 mm				Item.No.7721	Item.No.7721	Item.No.7721	Item.No.7721	
24x36 mm				Item.No.7722	Item.No.7722	Item.No.7722	Item.No.7722	
18x24 mm				Item.No.7725	Item.No.7725	Item.No.7725	Item.No.7725	
Glassless negative carriers 12x17 mm				Item.No.7730	Item.No.7730	Item.No.7730	Item.No.7730	
24x36mm	Item.No.7464	Item.No.7464	Item.No.7464	Item.No.7731	Item.No.7731	Item.No.7731	Item.No.7731	
5x5cm f.framed slides	Item.No.7485	Item.No.7485	Item.No.7485	Item.No.7732	Item.No.7732	Item.No.7732	Item.No.7732	
4,5x6cm	Item.No.7465	Item.No.7465	Item.No.7465	Item.No.7733	Item.No.7733	Item.No.7733	Item.No.7733	
6x6cm	Item.No.7466	Item.No.7466	Item.No.7466	Item.No.7734	Item.No.7734	Item.No.7734	Item.No.7734	
6x7cm	Item.No.7467	Item.No.7467	Item.No.7467	Item.No.7735	Item.No.7735	Item.No.7735	-	
6x9cm	Item.No.7468	Item.No.7468	Item.No.7468					
9x12cm	Item.No.7484	Item.No.7484	Item.No.7484					
4x5'	Item.No.7469	Item.No.7469	Item.No.7469					
Universal negative carrier w. glass and masking strips				Item.No.7736	Item.No.7736	Item.No.7736	Item.No.7736	
Masking strips for all carriers	Item.No.7462	Item.No.7462	Item.No.7462					

A c c e s s o r i e s l e n s h o l d e r

	4x5' Color	4x5' Variocontrast	4x5' S/W	7700MX Color	VCCE 7700	6700 Color	6600 S/W	6550 S/W
39mm	Item.No.7740	Item.No.7740	Item.No.7740	Item.No.7740	Item.No.7740	Item.No.7740	Item.No.7740	
42 mm	Item.No.7479	Item.No.7479	Item.No.7479	Item.No.7479	Item.No.7479	Item.No.7479	Item.No.7479	
50 mm	Item.No.7480	Item.No.7480	Item.No.7480	Item.No.7480	Item.No.7480	Item.No.7480	Item.No.7480	
53 mm	Item.No.7481	Item.No.7481	Item.No.7481	Item.No.7481	Item.No.7481	Item.No.7481	Item.No.7481	
55 mm	Item.No.7492	Item.No.7492	Item.No.7492	Item.No.7492	Item.No.7492	Item.No.7492	Item.No.7492	

A C C E S S O R I E S S P A R E P A R T S

	4x5' Color	4x5' Variocontrast	4x5' S/W	7700MX Color	VCCE 7700	6700 Color	6600 S/W	6550 S/W
Focusing extension	Item.No.7494	Item.No.7494	Item.No.7494					
Wall mount	Item.No.7488	Item.No.7488	Item.No.7488					
VCCE module	Item.No.7472	Item.No.7472	Item.No.7472					
Color module	Item.No.7473	Item.No.7473	Item.No.7473					
B/W module	Item.No.7458	Item.No.7458	Item.No.7458	Item.No.7755	Item.No.7745			
Repro adapter				Item.No.7705	Item.No.7705			
Fine Focus				Item.No.7703	Item.No.7703			
Halogen lamp	Item.No.7471	Item.No.7471	Item.No.7471	Item.No.16006	Item.No.16006	Item.No.16006		
Opal lamp							Item.No.7747	Item.No.7747
Dust cover				Item.No.7739	Item.No.7739	Item.No.7739	Item.No.7739	Item.No.7739
Spare glass 4x5" normal	Item.No.7482	Item.No.7482	Item.No.7482					
Spare glass 4x5" Anti-Newton	Item.No.7483	Item.No.7483	Item.No.7483					
Diffusor Box 6x7	Item.No.7457	Item.No.7457	Item.No.7457					
Transformer, unstabilised				Item.No.6605	Item.No.6605	Item.No.6605		
Transformer, stabilised	Item.No.6607	Item.No.6607	Item.No.6607	Item.No.6606	Item.No.6606	Item.No.6606		

4X5" ENLARGER

Item No. 7415

Professional enlarger for negative formats up to size 4x5".



III.1



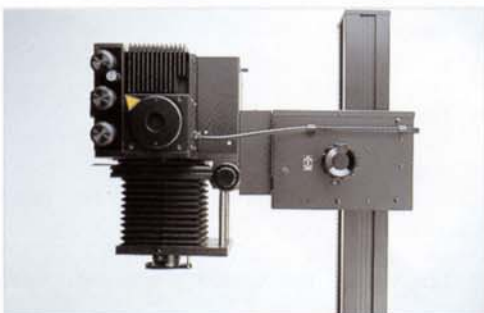
III.2



III.3



III.4



III.5

The tried and tested top-quality unit for professional applications. For all formats from 10x14" (24x36cm) up to 4x5". User-friendly, compact, robust. The JOBO 4x5" professional enlarger is available as a B/W, VCCE variable contrast or color enlarger. The baseboard allows for formats up to 20x24" (50x60cm). For larger formats, the JOBO wall mounting set is available as an accessory. With cooling fan, white-light lever and stabilised transformer.

Precision focus control 1:5, counter-balanced spring supported height adjustment. 80x60cm baseboard made with 2,5cm thick, grey-coated wood with steel reinforcement and rubber legs, additional cover paneling for the integrated fan, improved noise insulation. 135cm long column consisting of solid square metal sections, 11cm wide and 9cm deep, increased distance between optical axis and column.

COLOR MODULE

Easy-to-use rotary knobs, a precise filter system and illuminated scales ensure repeatable filter settings. A white-light lever for sliding out the filters for brighter focusing and a built-in density shutter (reduction approx. 2 F-stops) complete the practicality of the color module.

The unit is equipped with dichroic filters with values from Yellow 200, Magenta 170, Cyan 200.

VCCE MODULE

For work with variable contrast paper, the VCCE module provides constant exposure times with varying gradation. You only set the required gradation number. With white-light lever and selector switch for papers of different manufacturers.

B/W MODULE

For professional B/W printing. If required, color or VCCE modules can be inserted (not included).

The JOBO 4x5" enlarger includes the following items:

- Diffusor box up to 4x5"*
- Halogen lamp*
- Glassless negative carrier for 4x5"*
- Red filter*
- Column/Baseboard*
- Lens holder 39mm*
- Transformer, stabilised*

<i>Color enlarger</i>	<i>Item No. 7415</i>
<i>VCCE enlarger</i>	<i>Item No. 7425</i>
<i>B/W enlarger</i>	<i>Item No. 7435</i>

For technical data see chart on page 62.

VCCE MODULE

Item No. 7472

COLOR MODULE

Item No. 7473

VCCE module for work with variable contrast paper.

Color module for upgrading the professional enlarger #7458.



The VCCE module provides constant exposure time with varying gradation. Settings for different paper types can be chosen. The color module upgrades a B/W or a VCCE enlarger to a color model. Insertion of the module allows correct filtration and exposure of all color papers. Both modules incorporate dichroic filters and a white-light lever.

WALL MOUNT

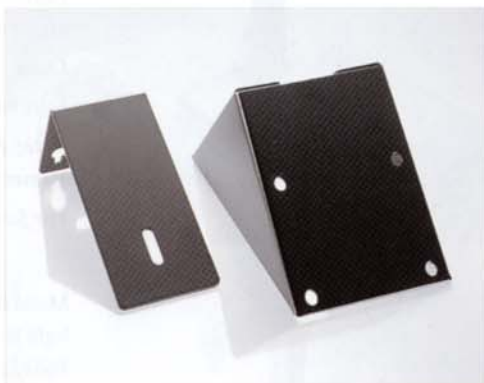
Item No. 7488

Suitable for 4x5" enlargers.

Item No. 7415

Item No. 7425

Item No. 7435



The wall mount allows you to expose larger formats and sections of the print. If required, a roll paper easel can be used below the enlarger.

LENS HOLDERS

Item No. 7740 / 7479 - 92

Suitable for 4x5" enlargers.

Item No. 7415

Item No. 7425

Item No. 7435



The lens holder allows fast and easy connection of all lenses to the enlarger.

Item. No.	lens thread
7740	39 mm
7479	42 mm
7480	50 mm
7481	53 mm
7492	55 mm

TRANSFORMER

Item No. 6607

Suitable for 4x5" enlargers.

Item No. 7415

Item No. 7425

Item No. 7435



The stabilized transformer comes with the 4x5" enlarger and can be used as a spare or in conjunction with other enlargers equipped with 24V 250 watts lamps.

DIFFUSOR BOX 6X7CM

Item No. 7457

Suitable for 4x5" enlargers.

Item No. 7415

Item No. 7425

Item No. 7435



Increases light output of the enlarger by up to 1 F-stop. For handling negative formats up to size 6x7cm. Installation is done by simply removing the 4x5" box and inserting the new one in its place.

C O L O R - ENLARGER LPL MX7700

Item No. 7700

VCCE MULTI- GRADE ENLARG- ER

Item No. 7701

for negative formats up to size
2x3" (6x7cm).



Professional enlarger allowing parallax correction with a tilting lens base. Metal housing, with dichroic filters. Column and enlarger head can be rotated for floor and wall projection. Illuminated filter scale for exact read-out of the filter settings. With white-light lever, red filter holder and built-in IR and UV filter.

Technical Data:

WxDxH: 18"x24"x48"
(45x60x122cm)

Comes with:

Universal glass carrier w. adjustable masking strips

Lamp

Lens holder M39

Note: Enlarger does not include a transformer (Item No. 6605 or 6606) or lenses!

For further technical data see page 62/63.

C O L O R ENLARGER LPL 6700

Item No. 6612

for negative formats up to size
2x3" (6x7cm).

B/W CONDEN- SOR ENLARGER LPL 6600

Item No. 6611

for negative formats up to size
2x2" (6x6cm).



Metal housing, with dichroic filters, white-light lever and illuminated filter scale (with #6612). With red filter holder and built-in IR and UV filters. Item No. 6611 comes with condensor head and opal lamp for high-contrast B/W work.

Technical Data:

WxDxH: 18"x18"x42,5"
(45x45x108cm)

Comes with:

Negative carrier for 9x14" (24x36cm)

Lamp

Lens Holder M39

Note: Enlarger does not include lenses!

For further technical data see chart on page 62/63.

B/W ENLARGER 6559

Item No. 6550

for negative formats up to size
9,5x14" (24x36cm).



Metal housing with condensor system and opal lamp for high-contrast B/W work. Filter drawer for color and VCCE filters. Incl. repro camera adapter, with built-in red filter holder.

Technical Data:

WxDxH: 12"x16"x27,5"
(30x40x70cm)

Comes with:

Negative carrier for 9,5x14" (24x36cm)

Lamp

Lens 50mm

For further technical data see chart on page 62/63.

FINE FOCUS

Item No. 7703

REPRO CAMERA ADAPTER

Item No. 7705

B/W CONDENSOR HEAD

Item No. 7745

for enlarger 7700MX.



The fine focus #7703 can be used instead of the rotary wheel for easy focusing. 1:5 ratio for precise adjustment.

The repro camera adapter #7705 can be fixed to the column in place of the enlarger head. For high-contrast B/W work, i.e. enlargements of old B/W negatives, the B/W condenser head can be used instead of the color or VCCE head.

SPARE ENLARGING LAMPS

for enlargers.



Quality lamps with proper spectral range.

Halogen lamps

Item No. 7471 24V/200W

Item No. 7496 24V/250W

Item No. 16006 12V/100W

Opal Lamp

Item No. 7747 220V/75W E27

DUST COVER

Item No. 7739

for enlargers.



Dust is one of major problems when working in a photo lab. The dust cover protects filters, lenses and negative carriers from dust.

TRANSFORMER

Item No. 6605 Transformer

Item No. 6606 Transformer stab.

for enlargers 12V/100W.



All enlargers (except the 4x5" enlarger) come without transformer. A transformer, however, is absolutely necessary when working with an enlarger (except with enlargers #6611, #6550). When handling color it is recommended to use the stabilised transformer #6606.

NEGATIVE CARRIERS

Item No. 7720-31

for enlargers.



A range of glassless as well as glass negative carriers is available for handling the various negative formats.

See chart on page 62.

PUSH-ON-CAP

Item No. 03046



Spare part, fits all lids of the JOBO tanks and drums, except those fitted with a 1505 Cog drive adapter (system 1500, 2500, 2800).

LIGHT TRAP-PING FUNNEL

Item No. 03042

BEAKER

Item No. 03049



Spare funnel, for film tank systems 1500 and 2500. Spare beaker for all paper drums 2800.

TANK HOUSING, EMPTY



Spare Part Tank housing, empty

for Tank	Item no.
1510	02015
1520	02016
2523	02017
2551/53	02020
2561/63	02021

CORE TUBES



Spare Part Core Tube

for Tank	Item.No.
1510	04043
1520	04044
1530	04045
1540	04045+04043
2513	04043
2521/23	04044
2551/53	04045+04044
2561/63	04073+04044+04045

LIFT HANDLE ASSEMBLY

Item No. 95186



In case of breaking of the lift handle due to heavy use (can be simply exchanged by loosening one screw).

SPARE FILTER FOR CD/BX

Item No. 7154

3-TRACK FEED- ING GUIDE

Item No. 7155



This type of filter is used in every PrintLab. It is located below the racks and avoids damage of the film surface caused by dust particles and other residues. In addition, it protects the pumps.

The 3-track feeding guide allows processing of up to 3 postcards of size 4x6" (10x15cm) at the same time.

ROLLER BLOCK

Item No. 95183



Spare part, fits all JOBO lifts.

EASY RUNNING ROLLER

Item No. 92167

ROLLER

Item No. 07007



If you decide to run room-temperature processes in your JOBO processor without the water bath, the supplied white roller in the roller block should be exchanged with the Easy Running roller. The Easy Running roller has a steel axle on which the roller turns. This low friction replacement protects the motor of the processor and avoids wear and tear on the roller block when used without a water bath. The Easy Running roller can remain in the processor when using the water bath.

MAGNETIC COUPLING

Item No. 95001



For	Item. No.
CPE-2	95001
CPE-2 plus	95442
CPA-2	95556
CPP-2	95556

DRIVE GEAR, COMPLETE

Item No. 95523



For	Item. No.
CPE-2	95523
CPE-2 plus	95299
CPA-2	95555
CPP-2	95555

CREATE PHOTO- GRAPHIC WORKS OF ART



Whether amateur or professional - the individual perfection of photos in the professional lab is a secret of professionals. Express your vision, create eye-catching images by doing your own enlargements. Turn ordinary landscapes, portraits or close-up shots into outstanding pictures. As a compensation for everyday life and as an expression of your own point of view. Win new friends and make others happy. Invest your time in a hobby which has a future. Create originals with JOBO.

For 75 years JOBO has offered a whole range of laboratory equipment for professionals and

amateurs throughout the world allowing them to express their individual world of imaging.

75 years of competence and experience.

To learn more about our company and the complete product line, point your browser to www.jobo.com

E-mail: info@jobo.com

WWW.JOBO.COM