

LABOMAT TYPE «BFA»

BEAKER DYER FOR SAMPLE DYEING UNDER HIGH TEMPERATURE CONDITIONS

VARIOUS APPLICATIONS

Textile materials and their blends can be dyed in various make-ups in the LABOMAT type «BFA».

The LABOMAT can also be used for colour fastness tests against washing.

There are two sizes available for optimum resource planning: the LABOMAT «BFA-12» and the larger LABOMAT «BFA-24».



POSSIBLE APPLICATIONS

There are various accessories available enabling numerous application options. Specially configured to your requirements, the LABOMAT is used for the following operating procedures:

- Beaker dyeing of piece and knit goods, yarns and loose materials.
- Beaker dyeing of fully fashioned articles like socks, shorts, sweat shirts and T-shirts.
- For liquor ratios of 1:6 to 1:50.
- For extra short liquor ratios of 1:5 to 1:2 with special liquor displacement body.
- Carrying out colour fastness tests against washing.

SCOPES OF APPLICATION

The «BFA» can be used universally in the chemical and dyestuffs industries, the textile industry as well as in research institutes and development departments for single tests and tests in series.

PERFECTED FUNCTIONING PRINCIPLE WITH GREAT RESULTS

Very easy handling

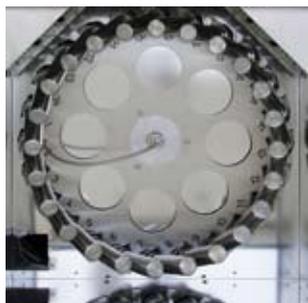
- The closed dye beakers are placed on the revolving disc and heated by infrared radiators under constant rotation. The inclination angle of the dye beakers on the revolving disc is chosen in such a way to achieve optimum liquor circulation by rotation.
- In inching mode the revolving disc is put into each position required to use the dye beakers.
- The disc speed is infinitely variable. The rotating direction can be reversed in intervals.
- During the run of the process, individual dye beakers can be taken out without interruption of the program.
- The dye beakers are cooled by air which is fed through a water-cooled heat exchanger. Therefore the laboratory environment is not affected by warm air emissions from the LABOMAT. In addition, good heat insulation of the treating room ensures minimal heating of the housing exterior.

Dye beakers of 50 ml to 1000 ml or of 3 litres and 5 litres

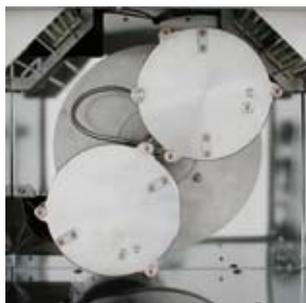
12 dye beakers on the LABOMAT «BFA-12», or 24 dye beakers on the LABOMAT «BFA-24», of the same size are placed on the revolving disc. One of the dye beakers has a temperature sensor.

These dye beakers can also be supplied with a dosing nipple for adding chemicals.

For the dye beaker sizes of 50 ml and 100 ml, on the LABOMAT «BFA-24», there is a special revolving disc available for 32 dye beakers.



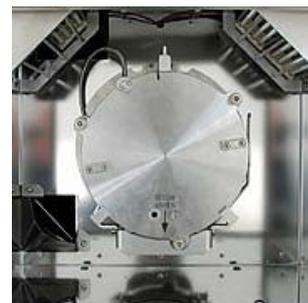
LABOMAT «BFA-24» with 24 dye beakers



LABOMAT «BFA-12» with 2 dye beakers of 3 litres each



LABOMAT «BFA-24» with 5 dye beakers of 3 litres each



LABOMAT «BFA-12» with a 5 litre dye beaker

RELIABLE AND SAFE

The rotation of the disc is continuously monitored. When the drive is not moving, the infrared radiators are switched off. This prevents overheating of the dye beakers.

When the door is opened, the disc rotation and infrared radiators are switched off immediately.

Heating up is not possible if there is no temperature sensor attached.

OPTIONAL, ADDITIONAL PROCESS-ORIENTED COMPONENTS

Carrying out colour fastness tests against washing

The LABOMAT can also be used to carry out colour fastness tests against washing by means of the washing test unit. The washing test unit is simply used in the LABOMAT instead of the revolving disc.

Beakers used for washability checks can also be used for HT dyeing processes.

The colour fastness tests against washing is controlled and monitored by the «Univision S». This guarantees that standard specifications are followed and processes are reproducible.

Adding chemicals after beaker dyeing

Beakers used for adding chemicals are equipped with a connection nipple at the bottom. The needle of the particular dosing device is pushed through the membrane of the connection nipple.

The adding is done in such a way that the liquid is added directly into the dye bath and therefore diluted immediately. This prevents stains on dye samples.

Removal of the dye liquor and pH control

In the same way as when chemicals are added, it is also possible to remove the dye liquor from the dye beaker, e.g. for measuring the pH value.

SMART LIQUOR® - spectrophotometric analysis of the dye bath

The LABOMAT can be combined excellently with SMART LIQUOR®. SMART LIQUOR® is a system for the analysis and optimisation of dyeing processes using the exhaust method.



Washing test unit for use with LABOMAT «BFA-12» or «BFA-24»



Adding of chemicals - directly into the dye liquor

«UNIVISION TOUCH S» - THE USER-FRIENDLY PROCESS CONTROLLER

The programmable «UNIVISION Touch S» process controller is optimally adapted to the requirements of its user and to the functionality of the LABOMAT.

It is very simple in operation, thanks to:

- Clearly laid out graphic illustration of the process with all functions.
- Simple and easily remembered function pictograms.
- Menu-driven parameter entry.
- Updating and display of all process data during the operation.
- Information displays (error and fault displays) in plain text.
- Call up of a comprehensive helpfile.
- Update-capable software.
- Import and export of process data to other «UNIVISION Touch S» or to PC.

The LABOMAT in combination with the «UNIVISION Touch S» is ready for the present as well as future processes in your business.

OPTIONAL FUNCTIONS OF THE «UNIVISION TOUCH S»

Process programmer

Up to 99 recurrent processes consisting of several treating intervals can be saved and retrieved when necessary.

Auto start

A starting time can be preselected if required. The LABOMAT starts automatically and performs the process selected.

Process management using PC

It is possible to connect the «UNIVISION Touch S» with a LAN network using Interface RS232C or Ethernet Interface TCP/IP connection. Process data as well as complete programs are thus created centrally and transferred to the «UNIVISION Touch S». Even a running process can be changed this way. Over a connected PC e.g. reports of the processes of the «UNIVISION Touch S» can be created for ISO 9001.



«UNIVISION TOUCH S» the clearly laid out, user-friendly process controller



Three LABOMATs «BFA-12» controlled and monitored by one «UNIVISION TOUCH S» process controller

TECHNICAL INFORMATION

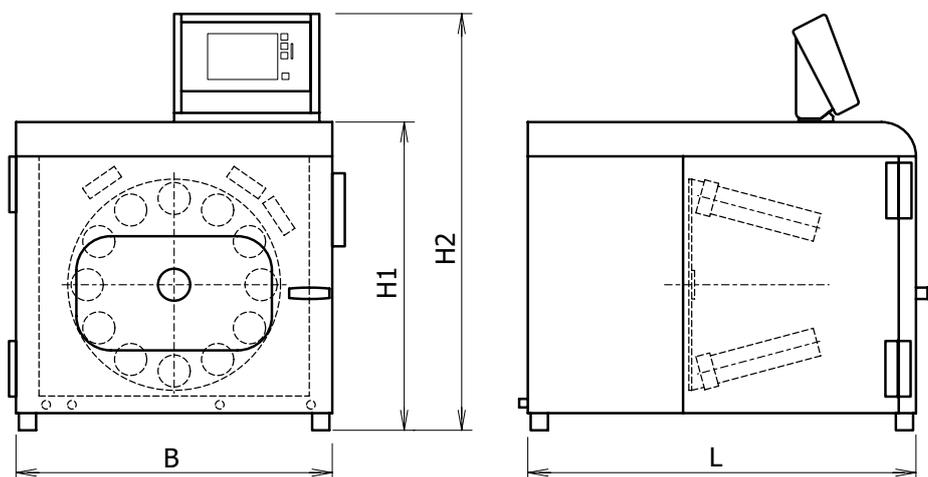
	Type «BFA-12»	Type «BFA-24»
Number of beakers:	12	24
Volume in ml:	50, 100, 150, 200, 300, 400	
Number of beakers:	8	16 / 32
Volume in ml:	500, 1000	500, 1000 / 50, 100
Number of «large» beakers:	2 x 3 litre 1 x 5 litre	3 x 3 litre 5 x 3 litre 1 x 5 litre
Temperature range:	20 – 140 °C	
Temperature gradient:	0.3 – 4 °C/min	
Weight without beakers:	100 kg	180 kg
Heat capacity:	2.25 kW	4.3 kW
Infrared radiator:	3 pieces	6 pieces
Cooling:	Water/air heat exchanger circulation air fan	
Revolving disc speed:	5 – 65 rpm reversing	
Dimensions:		
Length L	675 mm	675 mm
Width B	550 mm	820 mm
Hight H1	540 mm	875 mm
Hight H2	730 mm	1065 mm

«UNIVISION Touch S»

Operating system:	Windows CE
Storage capacity:	16 MB RAM
Touchscreen:	5.7" TFT
Interfaces:	TCP/IP connection (Ethernet Interface), USB, MMC-drive

ACCESSORIES

Washing test unit: DIN 54014 ISO-105-C01-C03- C04-1982	8 x beakers of 500 ml with 80 x V4A steel balls
Liquor displacement body:	8 or 12 pieces from PTFE
Yarn holder:	Special yarns for dyeing in skein form
5000 ml beaker:	One 5000 ml beaker including holder and temperature sensor
3000 ml beaker:	Two 3000 ml beakers including holder and temperature sensor (LABOMAT «BFA-12» and «BFA-24»)
3000 ml beaker:	Five 3000 ml beakers including holder and temperature sensor (LABOMAT «BFA-24»)
Preparation basket holder, removable: Enables easy loading and unloading of the dye beakers.	



OTHER DOCUMENTATION

Laboratory Dyeing Apparatus COLORSTAR type «CJ»

Laboratory Dyeing Apparatus TURBY type «T»

Laboratory Beaker Dyeing Apparatus Polycolor type «P» for samples of approx. 40–120 g

Laboratory Jet Dyeing Apparatus type «JFL» for samples of 40–100 g

Jet Dyeing Apparatus type «JFO» for samples of 100–1000 g

Jet Dyeing Apparatus type «JFP» for samples up to approx. 3 kg

Bobbin Dyer type «SFA» for goods up to approx. 1 kg

Drum Dyeing Apparatus type «TWA» for various capacities

SMART LIQUOR®

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