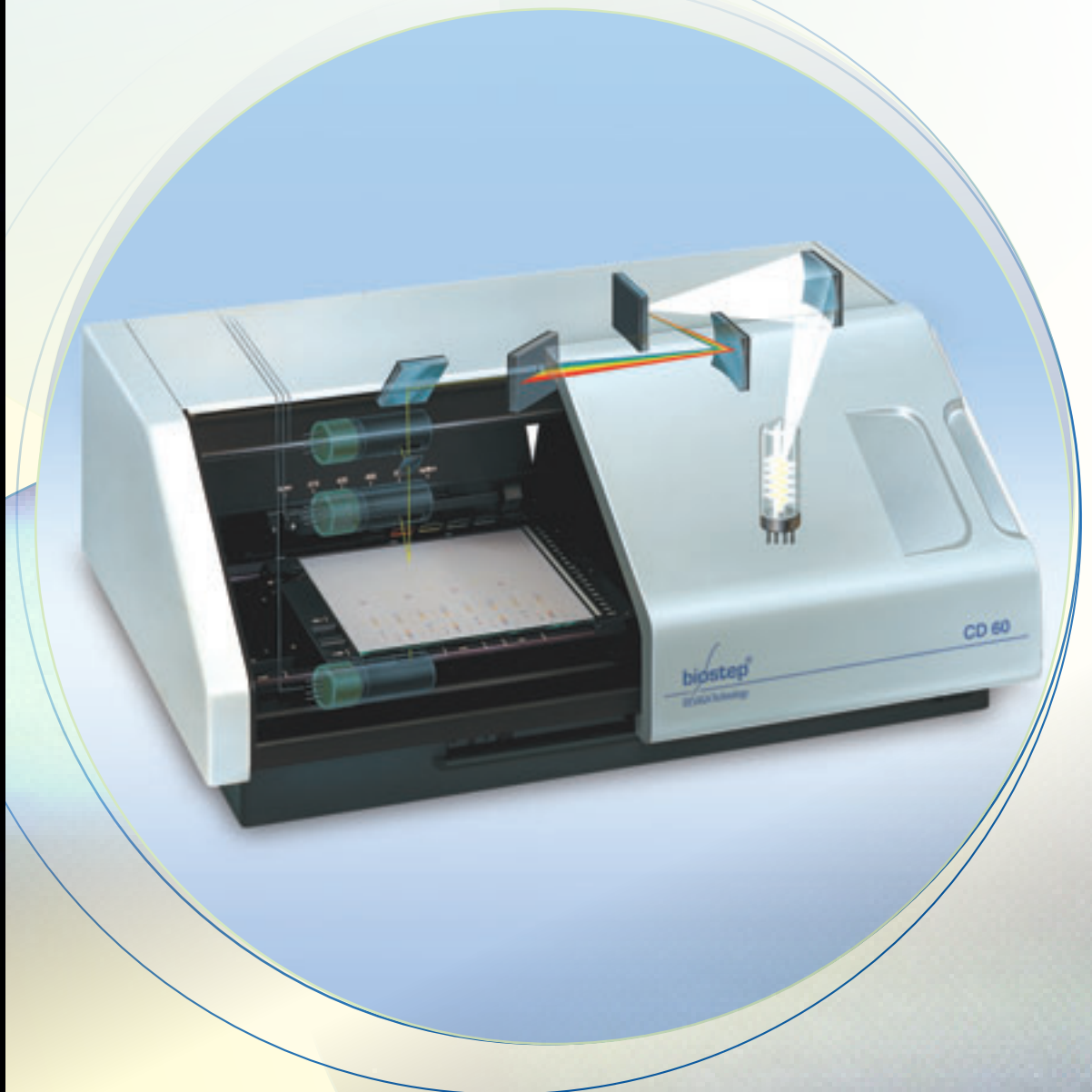


TLC Catalogue

Thin-Layer Chromatography



Contents

Plate Preparation	TLC Plate Cutter, Drying Rack, Simultan Separating Chamber, Desiccator Opener	3
Sample Application	Capillary Dispensing Pipettes, Micro Capillaries	4
	Spotting and Application/Evaluation Templates	5
	Semi-automatic HPTLC-Applicator AS 30	6
Separation	Standard, Simultan and Round Separating Chambers	7
	Nano Separating and Twin-Trough Chambers	8
	H-Trennkammers and TLC-Quicktest Set	9
Derivatisation	Dipping Chambers, Sprayer SG e1, Atomizers	10
	Spray Box, Thermoplate S	11
	ChromaJet DS 20	12
UV Detection	CabUVIS, Documentation Tops	13
	HP-UVIS, UV-Box	14
Documentation	By Scanner: ViewPix® 100/300	15
	By Camera: ProViDoc® System VD 80	16
	By Camera: ProViDoc® System DD 70	17
	Analysis Software Maxim® TLC	18
	By Densitometer: HPTLC Densitometer CD 60	19
Radio-TLC	Scanner CR35bio/HD-CR35bio	20
	Scan RAM for PET/SPECT	21
TLC Equipment	Dyestuff Test Solutions, TLC/HPTLC Plates, Alumina Foils	22

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Third party products might not be available in all countries.

Some techniques like detecting light in biological subjects or some moieties like fluorescent dyes or cell lines are patented and may require licences from third parties. Users are advised to independently determine for themselves whether their activities infringe any valid patent.

Plate Preparation

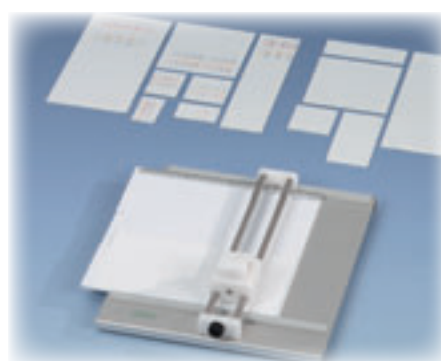
TLC Plate Cutter

The scoring and cutting of glass TLC plates is a routine in many chromatography laboratories either to economise on plate usage or to cut the plate following separation for further derivatization.

The TLC plate cutter consists of a high quality carbide scriber mounted into a movable plastic head. It is designed to cut glass-backed TLC plates up to a size of 200 x 200 mm.

Order Information

Order No.	Description
BS121.200	TLC plate cutter, incl. carbide scriber and template
BS178.501	Carbide scriber



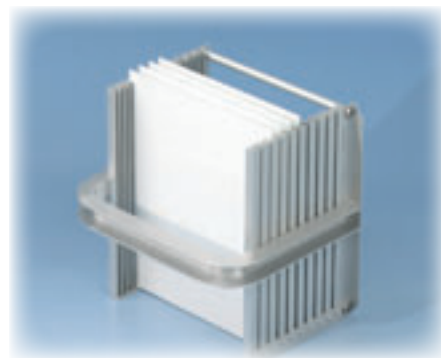
Drying Rack

This is a handy space-economizing light alloy rack for 10 TLC plates with the formats 200 x 200, 200 x 100 and 200 x 50 mm. After prewashing, the TLC plates are pushed into the horizontally standing drying rack. The TLC plates are dried in vertical orientation so that the moisture can easily escape upwards.

The drying rack fits into standard desiccators to protect the plates against environmental influences.

Order Information

Order No.	Description
BS120.180	Drying rack



Simultan Separating Chamber

This chamber is commonly used to wash TLC plates before use and then to store them in protected manner. This procedure is used in particular for quantitative trace analysis.

The vertical grooves in the transverse walls will hold up to five 200 x 200 mm TLC plates. Specific features of this separating chamber are the plain ground flange edge and the flat chamber floor. The glass lid can be used as cover during the prewash of TLC plates.

Order Information

Order No.	Description
BS120.167	Simultan separating chamber with knob lid
BS120.174	Simultan separating chamber with glass lid



Desiccator Opener

Desiccator lids that have become stuck can be pulled off with this desiccator opener safely and without any need to exert force.

This opener is suitable for all sizes of desiccators.

Order Information

Order No.	Description
BS124.058	Desiccator opener



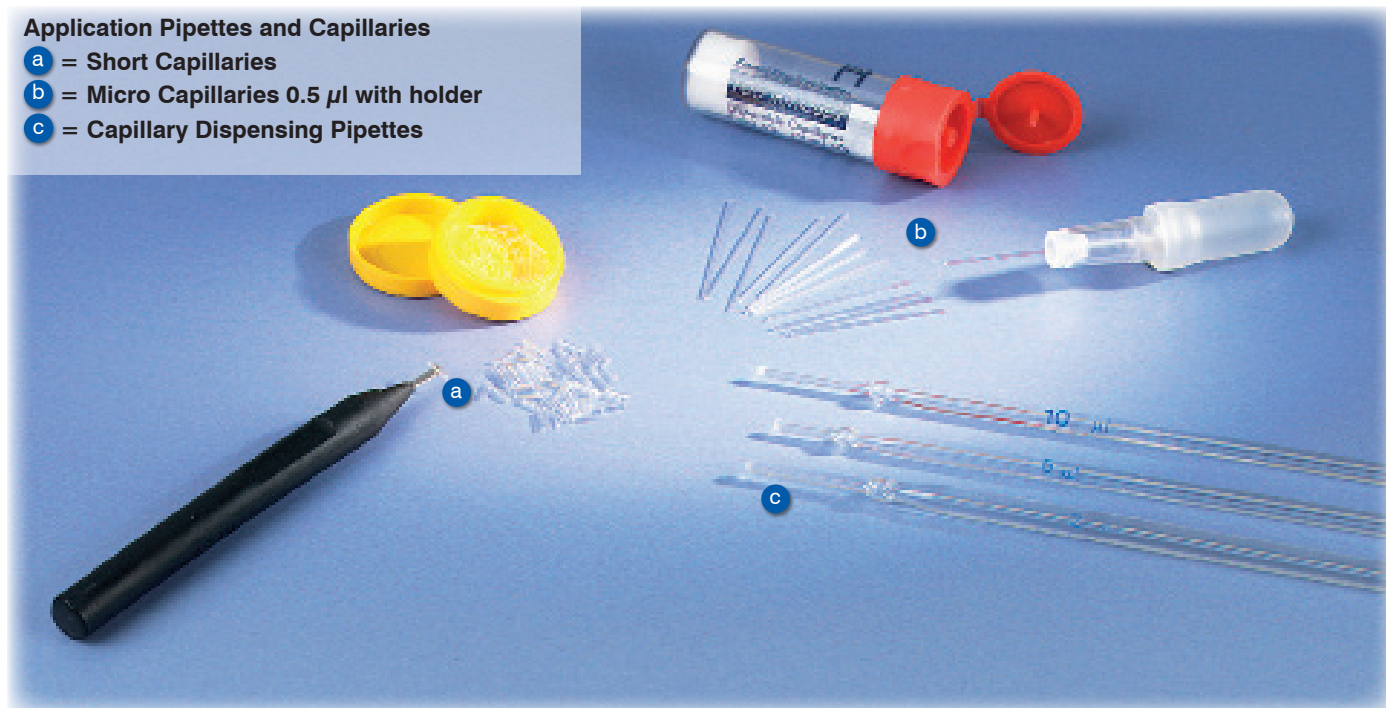
Sample Application

Capillary Dispensing Pipettes and Micro Capillaries

For manual sample application

Application Pipettes and Capillaries

- a** = Short Capillaries
- b** = Micro Capillaries 0.5 μl with holder
- c** = Capillary Dispensing Pipettes



Capillary Dispensing Pipettes

These pipettes fill automatically when they are dipped into the sample liquid. By virtue of the capillary widening, the liquid column automatically adjusts itself to the nominal volume. The short filling and run-out times permit very quick working.

Micro Capillaries

These capillaries are intended for single use only. They automatically fill themselves right from one end to the other. Their accuracy is better than 1%. A capillary holder is provided with each pack of these capillaries. This holder consists of the guide for the capillary and a small bulb with an opening which must be mounted on the capillary. Pressing on this bulb is an effective means for assisting filling and emptying of the capillary.

Order Information

Order No.	Description		
BS130.080	Capillary dispensing pipette	1 μl	
BS130.081	Capillary dispensing pipette	2 μl	
BS130.082	Capillary dispensing pipette	5 μl	
BS130.083	Capillary dispensing pipette	10 μl	
BS130.084	Capillary dispensing pipette	20 μl	
BS130.085	Capillary dispensing pipette	Set of 1, 2, 5, 10 and 20 μl	
BS120.192	Micro capillaries	0,5 μl	100 pieces, 1 holder
BS120.193	Micro capillaries	1 μl	100 pieces, 1 holder
BS120.194	Micro capillaries	2 μl	100 pieces, 1 holder
BS120.195	Micro capillaries	5 μl	100 pieces, 1 holder
BS120.196	Micro capillaries	10 μl	100 pieces, 1 holder

Sample Application

Spotting Templates

Spotting/Application templates ensure exact positioning of the samples on the TLC plate

Application Templates for all formats of plates

a = for 200 x 200 mm

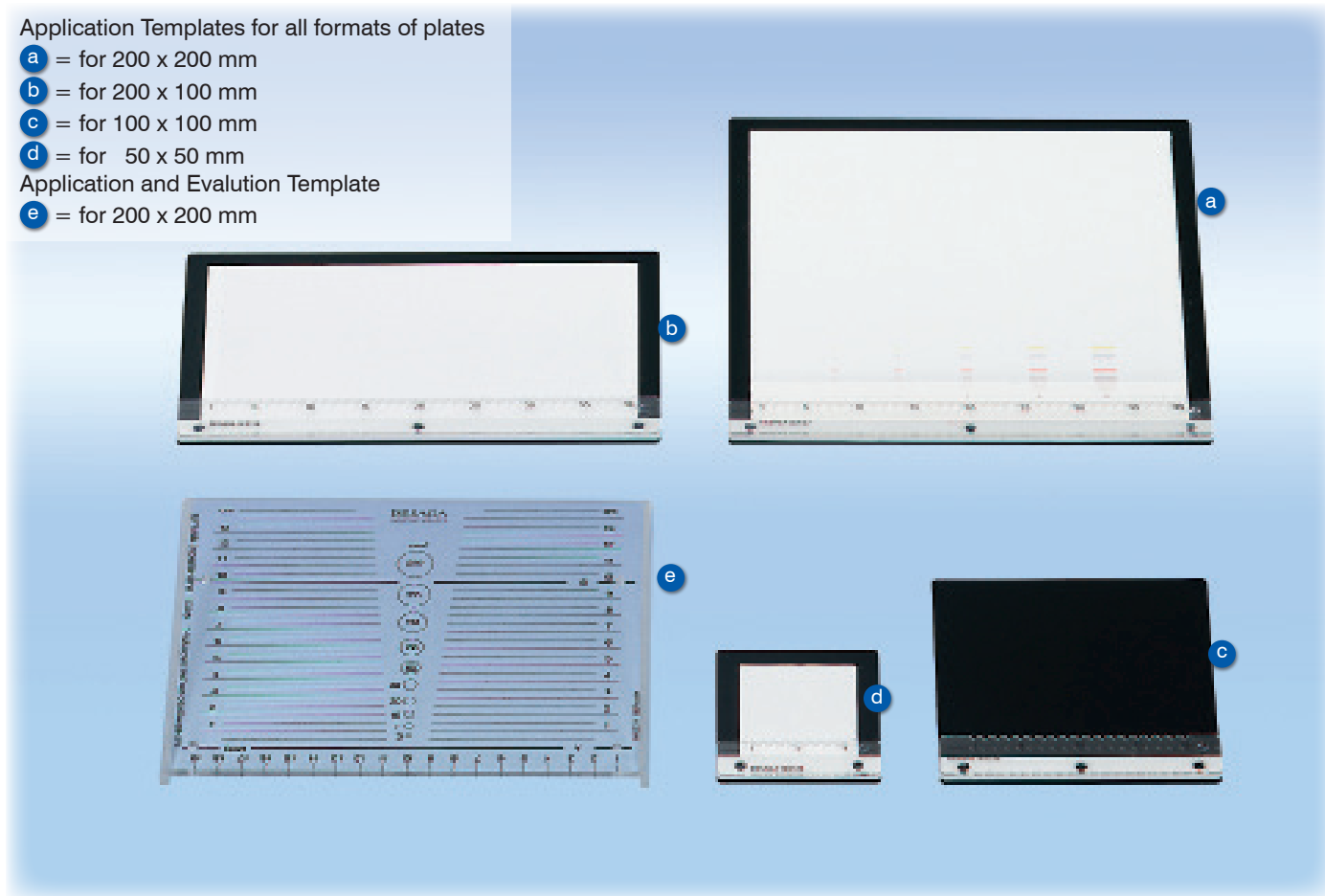
b = for 200 x 100 mm

c = for 100 x 100 mm

d = for 50 x 50 mm

Application and Evaluation Template

e = for 200 x 200 mm



Application Templates (a - d)

These templates are available for TLC plates having the formats 50 x 50, 100 x 100, 200 x 100 and 200 x 200 mm.

The numbered triangular cut-outs at 5 mm intervals provide exact guidance for the pipette. This gives 9, 19 or 39 spotting positions, depending on the size of the template. The non-slip underside prevents unintentional displacement on the table.

Application and Evaluation Template (e)

This template can be used with TLC plates up to 200 x 200 mm. It has 19 markings with 10 mm spacing. Holes are provided for marking the starting line and the standard separation distance of 100 mm. The good hand rest permits spotting, writing and line ruling with minimum effort required. The Rf-values can be read-off directly on the template.

The marked circular areas ranging from 3 to 200 mm² permit immediate comparison of spot sizes without further aids.

Order Information

Order No.	Description	
BS120.135	Application template	50 x 50
BS120.134	Application template	100 x 100
BS120.136	Application template	200 x 100
BS120.137	Application template	200 x 200
BS120.131	Application and evaluation template	200 x 200

HPTLC-Applicator AS 30



The HPTLC-Applicator AS 30 is a decisive contribution towards modern GxP-conform thin-layer chromatography and works according to the spray-on-technique. A stream of gas carries the sample from the cannula tip onto the HPTLC plate - therefore,

compressed air is needed.

This proven principle prevents damage to the layer and allows the application tower to be moved during sample ejection. The samples can be applied on TLC plates,

HPTLC plates or foils up to the size of 200 x 200 mm as dot or line. During the filling process, the dosing syringe is positioned over the tray which collects rinsing and flushing solvent and excess sample.

The sample is injected into the body of the syringe through a lateral opening. After the syringe has been filled, a stepping motor moves the piston downwards to close the fill port. A second stepping motor moves the tower sideways across the TLC plate. The microprocessor controls the two stepping motors and the gas valve for accurate application, as dot or as line. All parameters for the application of up to 30 samples are entered via the keyboard. The user is guided through the clearly structured menu by the 2-line LCD display. After entering all parameters, the data will be checked for plausibility such as compliance of limit, clear assignment of lane or clear assignment of name.

One method contains the plate size, number, length and distance of the path, the volume applied as well as the rate of application. The sample number and volume factor can be indicated for each path.

The battery-buffered memory holds ten different methods which can be loaded, edited and printed out at any time.

Order Information:

Order No.	Description
BS130.500	HPTLC-Applicator AS 30, 230 V, incl. 10 µl dosing syringe, 25 µl filling syringe, fillport, 2.5 m pressure tubing Ø 4 mm, filter cardboard 40 x 40, 25 pcs.
BS130.501	HPTLC-Applicator AS 30, 110 V, incl. 10 µl dosing syringe, 25 µl filling syringe, fillport, 2.5 m pressure tubing Ø 4 mm, filter cardboard 40 x 40, 25 pcs.
BS130.550	Dosing syringe 10 µl for AS 30
BS130.555	Filling syringe 25 µl for AS 30
BS130.560	Dosing syringe 100 µl for AS 30
BS130.565	Filling syringe 250 µl for AS 30
BS130.580	Filter cardboard 40 x 40, 25 pieces
BS130.510	Autosampler for AS 30, 230 V incl. PTFE hose connection, connecting cable to HPTLC-Applicator AS 30 and 144 sample containers 1.5 ml
BS130.511	Autosampler for AS 30, 110 V, incl. PTFE hose connection, connecting cable to HPTLC-Applicator AS 30 and 144 sample containers 1.5 ml
BS130.532	Software for HPTLC-Applicator AS 30, incl. connecting cable
BS130.525	IQ/OQ for HPTLC-Applicator AS 30
BS130.540	Compressor 230 V, max. 8 bar, 17 l/min
BS130.541	Compressor 110 V, max. 8 bar, 17 l/min

Standard Separating Chamber

This is THE separating chamber which has accompanied thin-layer chromatography worldwide since its introduction, it has been proven a hundred thousand times. The standard separating chamber is used for TLC plates up to format 200 x 200 mm.

Specific features of this separating chamber are the plain ground flange edge and the flat chamber floor. The heavy knob lid with plain ground surface ensure a gastight seal of the separating space. The standard separating chamber is also available with glass lid.

Order Information

Order No.	Description
BS120.160	Standard separating chamber with knob lid
BS120.173	Standard separating chamber with glass lid
BS120.161	Standard separating chamber without lid



Simultan Separating Chamber

The simultan separating chamber has all the advantages as well as dimensions of the standard Trennkammer. The lids are interchangeable. The additional vertical grooves in the transverse walls will hold five 200 x 200 mm TLC plates.

This chamber is commonly used to wash TLC plates before use and then to store them in protected manner. This procedure is used in particular for quantitative trace analysis.

Order Information

Order No.	Description
BS120.167	Simultan separating chamber with knob lid
BS120.174	Simultan separating chamber with glass lid
BS120.168	Simultan separating chamber without lid



Accessories

BS120.179	Filter paper for gas space saturation, 460 x 190 mm, 25 sheets
BS120.163	Knob lid
BS120.177	Glass lid

Round Separating Chamber

These inexpensive cylindrical Trennkammers with overhanging lid are available in two sizes. They are used for the TLC plate formats of 200 x 100 and 200 x 50 mm.

These Trennkammers are very easy to use. Complete gas space saturation is easily and quickly achieved by standing a rolled-up piece of filter paper in the chamber. Only a very small quantity of flow medium is required, by virtue of the plain floor.

Another advantage is their limited weight compared to the Standard/Simultan chambers.

Order Information

Order No.	Description
BS120.170	Round separating chamber with lid, 200 x 100
BS120.171	Round separating chamber with lid, 200 x 50



Nano Separating Chamber



Nano and HPTLC layers are being used to an increasing extent for quantitative TLC.

The nano separating chamber has been developed for the preferred plate format of 100 x 100 mm. This separating chamber has all the advantages of the biostep standard separating chamber.

Order Information

Order No.	Description
BS120.210	Nano separating chamber 100 x 100 mm with knob lid
BS120.212	Nano separating chamber 100 x 100 mm with stainless steel lid

Accessories

Order No.	Description
BS120.211	Nano knob lid for chambers 100 x 100 mm
BS120.213	Nano stainless steel lid for chambers 100 x 100 mm
BS120.214	Filter paper for gas space saturation, 230 x 105 mm, 25 sheets
BS120.178	Filter paper for gas space saturation, 180 x 75 mm, 25 sheets

Twin-Trough Chamber



The biostep twin-trough chambers have all advantages for the chromatographic development of TLC/HPTLC plates.

The low solvent consumption makes the chromatography extremely economical and reduces the solvent waste. Reproducible chromatography by means of calculated pre-equilibration is reached.

Order Information

Order No.	Description
BS120.505	Twin-trough chamber 200 x 100 mm with stainless steel lid
BS120.510	Twin-trough chamber 100 x 100 mm with stainless steel lid

Conditioning top



With the help of the biostep conditioning top, TLC/HPTLC plates can be adapted to the chamber atmosphere - time-controlled! It can be put on any separating chamber of biostep GmbH.

After reaching the pre-chosen conditioning time (max. 1 hour), the plate is automatically inserted into the solvent. As soon as the required height of the front is reached, the unit must be taken out of the chamber manually.

Order Information

Order No.	Description
BS120.610	Conditioning top for chambers 100 x 100 mm
BS120.615	Conditioning top for chambers 100 x 200 mm
BS120.620	Conditioning top for chambers 200 x 200 mm

Horizontal Separating Chambers (H-separating) and TLC-Quicktest Set

The H-separating chamber exploits the advantages of the high performance TLC layer in optimum manner: small grain size of 5 μm , improved packing and greater number of theoretical plates. This separating chamber is price-worthy and intended for the time and cost saving TLC-plate format of 50 x 50 mm and the common format of 100 x 100 mm. Optimum separation is obtained on shortest possible runs.

The H-separating chamber permits good control of developing conditions, optionally with flow medium vapour saturated atmosphere or without pre-expose vapour.

The H-separating chamber is ideal for all kinds of work, particularly where little time is available yet clear results must be obtained: in the laboratory, in the dispensing chemist shop, in tuition and student practicals. Experiments can be repeated still within the time allowed for the practical session and each person obtains an evaluatable result. Ambient atmospheric pollution with solvent vapours

is minimized, even under congested working conditions.

The chambers are made of solvent-resistant PTFE, precision milled to the required

dimensions. It is closed with a 4 mm thick glass lid. An easily cleanable glass frit rod brings the flow medium to the layer. Frit rod and glass lid are included in scope of supply.



Literature regarding H-separating chamber

The H-separating chamber was developed by Prof. Dr. Kraus of Hamburg University, who has also written a guide for practicals containing many working examples and suggestions. This book aims to introduce a time saving separating method which can be mastered very quickly even by beginners.

The separating examples – updated from edition to edition – have been chosen in order to make this subject readily accessible even to inexperienced persons who are thereafter able to separate complicated mixtures of substances such as natural products, synthetic drugs, conservation agents and herbicide residues.

A further chapter deals with the techniques with which chemical reactions are performed with the substances on the layer or with which the course of the reaction (methylation, acetylation, etc.) can be monitored with the aid of chromatography.

A series of coloured illustration documents the good reproducibility of the separation results.

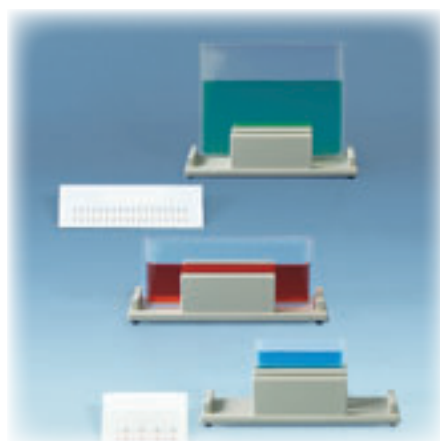
TLC-Quicktest Set

The TLC-quicktest set has been designed not only for thin-layer chromatographic work in schools, but also for practicals, drug store laboratories, etc. The advantages of the H-separating chamber for time and cost saving work have been exploited for this set.

Order Information

Order No.	Description
BS120.090	TLC-Quicktest Set Consisting of 1 H-separating chamber 50 x 50, 1 application template 50 x 50, 100 micro capillaries 0.5 μm with holder, 10 ml each of lipophylic and hydrophylic test solution, 100 HPTLC ready-to-use plates K 60 F 254, 50 x 50 mm and the Concise Practical Book of TLC
BS120.150	H-separating chamber 50 x 50
BS120.151	H-separating chamber 100 x 100
BS124.953	Concise Practical Book of Thin-layer Chromatography
BS120.155	Frit rod, 50 mm, 5 pieces
BS120.156	Glass lid for H-separating chamber 50 x 50
BS120.157	Glass lid for H-separating chamber 100 x 100
BS120.135	Application template 50 x 50
BS120.134	Application template 100 x 100

Dipping Chamber



The dipping chamber is an alternative to spraying for avoiding environmental pollution. These chambers fulfil the established requirement: rapid and uniform implementation of a precise detection reaction. Special advantages of the dipping method are the improved uniformity of reagent distribution and the quick, reliable operation. The reagent is brought onto the plate - not into the air! All familiar spray reagents can also be used for dipping.

The chambers are made of high-inert glass and available in three formats: 200 x 200; 200 x 100 and 100 x 100 mm. They have a clear width of only 5 mm. This allows manual immersion without difficulties and requires only small volumes of reagent: 100 ml for 200 x 200, 50 ml for 200 x 100 and 25 ml for 100 x 100 mm plate format.

A rack made of polypropylene enables safe holding during dipping as well as easy storage.

Order Information

Order No.	Description
BS124.160	Dipping chamber 100 x 100
BS124.161	Dipping chamber 100 x 200
BS124.162	Dipping chamber 200 x 200
BS124.210	PP-Rack for 2 dipping chambers

Sprayer SG e1



Spraying without CFC – an alternative for the environmental conscious laboratory

The Sprayer SG e1 works with a built in, quietly operating, high performance pump. Independent of mains ultrafine spray mist is generated. Liquids with viscosities up to those of light oils are atomized simply by pressing a button. The droplet diameter is 5 - 10 μm .

The closable container for the spray reagents is made of borosilicate glass and can hold 50 ml. It is screwed into the spray head which is made of high-quality PTFE and can be replaced within seconds. The handy and modern form of the Sprayer SG e1 was designed under ergonomical aspects.

Order Information

Order No.	Description
BS130.600	Sprayer SG e1B, battery operated
BS130.605	Sprayer SG e1, 230 V, incl. accumulator and charging unit
BS130.606	Sprayer SG e1, 110 V, incl. accumulator and charging unit
BS130.610	Reagent reservoir, 50 ml, 10 pieces

Atomizers



Test tube atomizer - glass spraying device for spraying very small reagent quantities. The atomizer insert is fitted in a 12 ml test tube with standard taper and secured with springs.

Special atomizer - glass spraying device with rubber ball for producing reagent mists. When using this atomizer, the spray reagent comes into contact only with glass. The atomizer insert is fitted in a conical flask with ground joint and secured with clips. The capacity of the flask is 100 ml. If requested, the provided rubber ball can be replaced by other compressed air sources.

Order Information

Order No.	Description
BS123.990	Test tube atomizer, 12 ml
BS124.000	Special atomizer with rubber ball, 100 ml

Spray Box with Ventilator

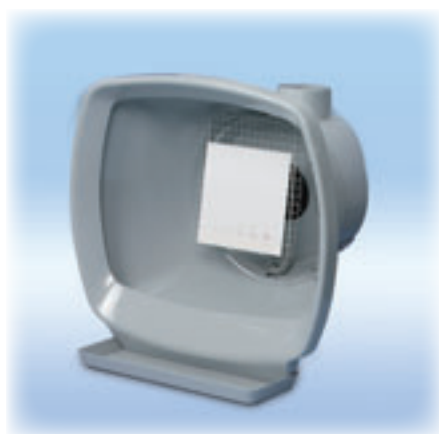
The spray box functions as protective device when spraying TLC plates with aggressive solutions.

A built-in low noise ventilator leads the spray mist via the pipe connector on the rear into a fume cupboard. The pipe adapter of the ventilator leads upwards. It can be connected to standard installation tube NW 110. This converts the spray box into a small exhaust cupboard on the bench. The air feed is 400 m³/h.

Any reagent run-off is collected into a separate trough. The spray box is made of acid-resistant PVC and can hold plates up to 200 x 200 mm.

Technical Data

Air feed:	400 m ³ /h air
Dimensions (W x H x D):	620 x 580 x 610 mm
Pipe adapter:	NW 110
Weight:	7 kg



Order Information

Order No.	Description
BS124.105	Spray box with ventilator, 230 V
BS124.106	Spray box with ventilator, 110 V
BS124.110	Tube for spray box

Thermoplate S

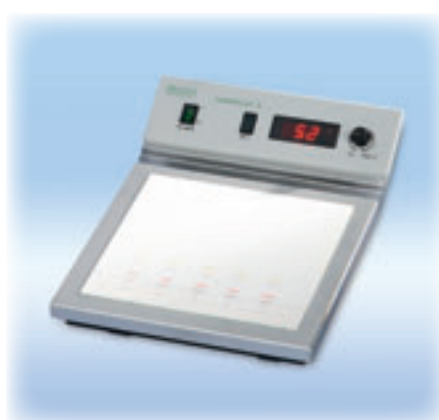
The Thermoplate S is an electronically controlled hotplate for detection reactions in thin-layer chromatography and for precise heating and drying operations in the laboratory.

The set nominal temperature of the Thermoplate S is held constantly within 2 K. The operating range is between 25 and 199 °C. However, the lowest possible controlled temperature is 10 K above ambient temperature. The unit operates with a platinum resistance thermometer. Temperature readout is on a large 2.5 digit numerical display.

The nominal temperature which has been set with the control knob is displayed after pressing the key. When the nominal temperature has been reached, the controller switches the heater on and off as required to maintain the temperature. A symbol in the display indicates when the heater is working. The heating surface is made of high conductivity aluminium which, together with the ultralarge area of the heating element, ensures a uniform temperature distribution.

Technical Data

Temperature range:	25 – 199 °C
Heating area:	240 x 240 mm
Heating rate (at 50 °C):	10 K/min
Fluctuation range of controlled temperature:	2 K
Power supply:	100 - 240 V, 50 – 60 Hz, 500 W
Dimensions (W x H x D):	340 x 245 x 110 mm
Weight:	4.6 kg



Order Information

Order No.	Description
BS121.840	Thermoplate S, 230 V
BS121.841	Thermoplate S, 110 V

ChromaJet DS 20



The ChromaJet DS 20 presents a completely new derivatization concept. Reagents are sprayed on thin-layer plates or foils with the highest precision under microprocessor or computer control. The distinction from manual spraying lies in the great reduction in the quantity of reagent required, the almost complete absence of aerosol formation and the evenness of the spray pattern.

It is possible to create and store up to 4 spray methods specifically adapted to individual chromatography schemes and call them up as required. The integrated software has been specifically developed for Windows XP/VISTA/7.

The individual working steps of the spraying procedure, including date and running number, are stored with the spray method.

That permits operation in conformity with GxP for the first time in the field of documentation, as a result of the exact reproducibility and documentation.

The spray methods define all important parameters, such as spray rate, volume to be sprayed and reagent selected. The free selection of X-Y coordinate direction means that it is possible to spray evenly, either individual tracks or areas of any size up to 200 x 200 mm.

The integrated reagent changer selects from 4 possible reservoirs of the desired spray medium depending on the spray program. An integrated rinsing process stops any carry-over. The transparent protective cover permits close inspection during the spray process and prevents the escape of aerosols. Excess spray mists are evacuated continuously and lead, for instance, into a fume cupboard, via an optional exhaust hose. The spray protocol includes all individual parameters of the spray program and is issued completely with date, time, user name, a plate designation assigned to the chromatogram and any comments that might have been entered.

Comprehensive documentation is available on request!

Order Information

Order No.	Description
BS130.700	ChromaJet DS 20, reagent spraying device, 230 V
BS130.701	ChromaJet DS 20, reagent spraying device, 110 V
BS130.732	Exhaust hose, viton with connector, 250 cm
BS.62555	Screw tubes with closures, PP, 40 ml, 1 pack of 50 pieces
BS130.720	Filter for ChromaJet DS 20, 1 pack of 20 pieces
BS130.725	IQ / OQ for ChromaJet DS 20

UV Viewing Systems

The UV detection methods belong to the most sensitive methods for the detection in Thin-layer chromatography. At long-wavelength UV light 366 nm substances fluoresce brightly on a dark background. This method becomes more sensitive when the light intensity increases. In order to boost the contrast, it is important that the visible light is filtered out with a special filter. At 254 nm, when using TLC plates containing a fluorescent indicator, the substances reveal themselves as dark spots on a bright fluorescent background. Light intensity and the filtering out visible light are less critical for this form of detection.

CabUVIS

The CabUVIS UV-lamp is the standard device for the observation and documentation of Thin-layer chromatograms in UV light 254 nm and 366 nm as well as in white light, even when the room is not darkened. Two white light tubes, two 8 Watt low pressure Hg tubes for 254 nm and four 8 Watt low pressure Hg tubes for 366 nm, are symmetrically arranged in the CabUVIS for incident illumination purposes and guarantee the uniform illumination which is necessary for documentation. The visible light emitted by the low pressure tubes is interrupted by special UV filters. The measurements and electrical specifications of the tubes are identical and interchangeable with each other. The observation plate of polyacrylate glass provides adequate protection from reflecting short-wavelength UV light. However, the protective goggles included with each unit should be worn for your own safety. For transmission light illumination, the CabUVIS has a special white light 8 Watt tube that is built-in the base. It is covered by a matted polyacrylate glass plate and allows the uniform illumination of objects up to 200 x 200 mm in size.



Documentation tops

It is possible to combine the CabUVIS analysis lamp with digital and CCD cameras. The interface is a documentation top. This is composed of a cover plate with camera mounting and can easily be interchanged with the polyacrylate glass plate. The documentation top excludes stray light from the system completely. The special filter for UV work, supplied in scope of supply, can be mounted in the integrated filter magazine or is implemented into the camera, depending on the system.

Technical data

Illumination from above

White light	2 x 1 white light tube
366 nm	2 x 2 Hg low pressure tube
254 nm	2 x 1 Hg low pressure tube

Illumination strength (Distance 10 cm)

254 nm	2.0 mW/cm
366 nm	4.8 mW/cm

Illumination from below

White light	1 x 1 white light tube
Light scattering window	200 x 200 mm

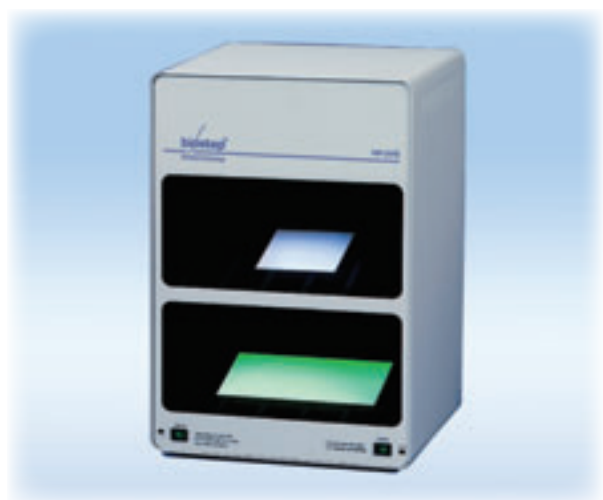
Dimensions (W x D x H)

Dimensions (W x D x H)	395 x 390 x 290 mm
Weight	11.3 kg
Power Supply	110 - 230 V, 50 - 60 Hz

Order Information

Order No.	Description
BS131.305	CabUvis analysis lamp, 230 V incl. safety glasses
BS131.306	CabUvis analysis lamp, 110 V incl. safety glasses
BS131.315	Documentation top VD 80
BS131.325	Documentation top DD 70
BS131.120	White light tube, 8W
BS131.123	White light tube, 8W, transmission
BS131.121	Hg low pressure tube 366 nm, 8 W
BS131.122	Hg low pressure tube 254 nm, 8 W
BS131.144	UV filter 254 nm for CabUVIS

HP-UVIS



Cabinet for UV analysis without a darkroom

The HP-UVIS combines two UV-tubes for 254 and 366 nm in one unit. Two inclined plate tables with non-slip surface are positioned one above the other. Incident stray light is minimized by the cabinet which is closed on three sides, so that observation is possible without requiring a darkroom.

Through the use of a high pressure mercury vapour discharge lamp, the HP-UVIS provides a very high radiation intensity at 366 nm for fluorescence evaluation of thin-layer chromatograms. In this respect, it is superior to all analyzing lamps with cold light tubes. Fluorescent substances can still be detected on the chromatogram in nanogram quantities.

A selected SCHOTT filter and an 8 Watt low pressure mercury discharge tube give optimum contrast at 254 nm.

For security reasons, the HP-UVIS is now equipped with a UV protection shield.

Order Information

Order No.	Description
BS131.221	HP-UVIS UV-Cabinet, 230 V, incl. UV safety glasses and UV protection shield
BS131.222	HP-UVIS UV-Cabinet, 110 V, incl. UV safety glasses and UV protection shield
BS131.020	Hg high pressure tube 366 nm, 125 W
BS131.122	Hg low pressure tube 254 nm, 8 W

UV-Box



The UV-Box combines two UV-tubes for 254 and 366 nm in one unit and allows inspecting thin-layer chromatograms in an undarkened room.

Visible light compounds being held back by a selected filter of SCHOTT.

The viewing window is made of polyacrylate glass and provides adequate protection from reflected short-wavelength UV-light. For safety reasons, there is an automatic UV cut-off when opening the door.

If requested, safety glasses can be worn additionally, but it is not definitely needed anymore due to the newly integrated UV cut-off functionality.

Order Information

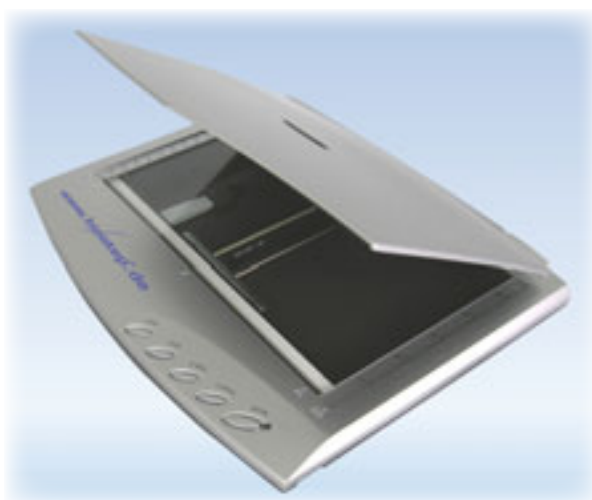
Order No.	Description
BS131.210	UV-Box, 230 V, incl. UV safety glasses
BS131.211	UV-Box, 110 V, incl. UV safety glasses
BS131.121	Hg low pressure tube 366 nm, 8 W
BS131.122	Hg low pressure tube 254 nm, 8 W
BS131.143	UV filter 254 nm for UV-Box

TLC/HPTLC Scanner ViewPix® 100/300

The scanners of the series ViewPix® 100/300 are inexpensive documentation systems for colorimetrically-stained HPTLC plates. The systems are characterized by a slim and compact design. Therefore, they only need little space and can easily be used. The power supply is directly carried out via the USB interface without an additional mains adapter.

The HPTLC plate with the stained side is put in a frame on the glass surface of the scanner and will be scanned using the method-based control software. This direct control without the need of a TWAIN-interface guarantees a very high reproducibility in connection with a very open serviceability.

The ViewPix® scanners are optimally suitable for use in TLC laboratories due to the sealing of the glass plate in the scanner. The TLC/HPTLC plates can be scanned and saved in a very high colour fastness. Furthermore, all samples also can be taken as a greyscale image. In this mode, the ViewPix® scanners can be calibrated by means of a greyscale wedge.



The creation and administration of different acquisition methods ensure a high flexibility for the users and save reliably specific applicative settings. Already during the acquisition, the quality can be assessed, e.g. by checking the over/underexposure and by controlling the detection sensitivity.

The systems ViewPix® 100 and ViewPix® 300 each consist of

- especially sealed A5 scanner with 4 sample frames (200 x 100 mm, 100 x 100 mm, 100 x 50 mm and 50 x 50 mm)
- control software and
- reflective greyscale wedge for the calibration of the system.

The main difference of both systems is the software equipment as well as the type of the greyscale wedge. While the ViewPix® 100 is controlled via the software ViewPix® Control and contains a standard greyscale wedge, ViewPix® 300 is controlled by the software argusX1® - particularly favourable is the included database function. Additionally, this system is equipped with a calibrated greyscale wedge for quantification purposes.

In combination with the modules User Administration and GxP, the system ViewPix® 300 is perfectly suitable for applications which have to comply to 21 CFR part 11. Using the software Maxim TLC, the images can be evaluated for quantification purposes.

Technical data:

Max. scanning area	21.6 x 14.0 cm
Resolution in dpi // in μm	600 dpi // 42.3 μm
Spectral range	420 - 765 nm
Max. dynamic range	255 greyscales (8 Bit), 16.78E6 colours (24 Bit)
Port	USB 1.1
Power supply	via USB port
Dimensions (W x D x H)	22.3 x 27.6 x 3.3 cm
Weight	0.95 kg

For the optimal printout of the acquisitions taken by our scanner or camera systems, the following printers have been successfully tested and are recommended: Solid ink printer Color Qube 8570ADN of Xerox and colour thermal sublimation printer CP 3800DW of Mitsubishi.

Order Information

Order No.	Description
BS01-C1410	ViewPix® 100 system, incl. scanner, greyscale wedge (standard), 4 frames, software ViewPix® Control
BS01-C1430	ViewPix® 300 system, incl. scanner, greyscale wedge (calibrated), 4 frames, software argusX1® with additional modules User Administration, GxP
BZ07-Q1022	Greyscale wedge, reflective, 22 steps, standard
BZ07-Q2022	Greyscale wedge, reflective, 22 steps, calibrated
CD04-CQ8570	Colour solid ink printer ColorQube 8570ADN
CD02-D3800	Digital colour thermal sublimation printer CP 3800DW

A modern computer-supported system must fulfil the following requirements:

- An image-recording model with the best possible resolution, high replay quality and adequate speed, which can operate on all types of subjects.
- Easily operated and rapidly mastered software which is adapted to scientific requirements but avoids all unnecessary programmatic embellishments.
- A uniform illumination with visible and UV-light at 254 and 366 nm.
- A documentation module that reproduces even the finest nuances correctly, without loss of detail and in true colour.

Our camera-based systems are based on the CabUVIS (please see page 13) and mainly differ in their cameras and the appropriate documentation top. They are either equipped with a cooled CCD or a digital reflex camera.

ProViDoc® System VD 80



* NEW: cooled, 16 bit camera *

For perfect documentation in thin-layer chromatography and electrophoresis with high resolution 16 bit CCD camera.

The documentation of thin-layer chromatograms, electropherograms, DNA/RNA fragments and many other objects in visible and UV light has entered a new dimension with the VD 80 imaging system of biostep GmbH. It is easily possible to record specimens in their true colours and in an environmentally friendly manner. The advantages of this advanced technique are the rapidity and favourable price-performance-ratio.

This top version uses a high-resolution, peltier-cooled 16 bit CCD camera for the acquisition of objects up to 200 x 200 mm. As alternative, a 24 mm lens serves for taking small objects up to 100 x 100 mm.

The camera is connected via USB interface and achieves problem-free image transfer. The camera with a resolution of **4 Mpixels** produces accurately detailed images of real evidential value in excellent colour brilliance.

The high light-sensitivity and maximum exposure time of 10 minutes enables the record of very weak fluorescence, even hardly visible for human eyes. The preliminary assessment on the control monitor avoids unnecessary print-outs. You get the image you see.

The documentation program ProViDoc® developed by DESAGA, makes it possible to process the images recorded, in conformity with GxP, and to archive them without problems. This extraordinarily powerful 32 bit software running under Windows XP/7/8 can be readily operated also by users who are not familiar with computers and its functions can be learned in a very short time. Each image is automatically allotted an unequivocal identification number together with the date, time and user name and so saved in a data base in accordance with GxP – if necessary, it can also be password-protected. The ProViDoc® document is a file format specially developed by DESAGA for image, comments and other information. The integral file manager allows the assignment of meaningful file names, the search function makes it possible to find the stored images rapidly

Recommended colour printers for perfect results taken by scanner or camera can be found on page 15, see order information.

Order Information

Order No.	Description
BS140.022	ProViDoc® system VD 80, incl. CabUVIS 230 V, documentation top, CCD camera and UV filter, ProViDoc® software
BS140.023	ProViDoc® system VD 80, incl. CabUVIS 110 V, documentation top, CCD camera and UV filter, ProViDoc® software
BS140.025	Positioning aid for CabUVIS
BS140.026	25 mm lens for objects smaller than 100 x 100 mm
BS140.066	IQ / OQ for ProViDoc® system, incl. validation plate
BS140.085	Validation plate for documentation system

ProViDoc® System DD 70

A modern digital documentation work station consists of the following:

Illumination

2x white light tubes, 2x 8W tubes of 254 nm and 4x 8W of 366 nm are arranged symmetrically in the CabUVIS for incident light applications and guarantee the uniform illumination which is very important for documentation. The visible light component of the low pressure tubes is kept back by means of selected UV filters. A special 8 W white light tube is fitted in the base for transmitting light applications. It is covered by means of an acrylic sheet and, thus, allows the observation of objects up to 200 x 200 mm.

Documentation head

Our digital camera can be attached to the CabUVIS without difficulties. The special documentation top serves as interface. It consists of a cover plate with camera mounting and completely protects the system from stray light. The special filter for UV task is included in scope of supply and can be mounted in the integrated filter magazine if requested. This special filter of high quality optical glass suited to digital imaging yields stable colour results with high resolving power.

Digital camera

The core of the image collection system consists of a high resolution **digital reflex camera** equipped with a high-performance objective, motor zoom and auto-focus over the whole focal range for razor- sharp images. This camera with a resolution of **18 Mpixels** produces accurately detailed images of real evidential value in excellent colour brilliance. The high light sensitivity makes it possible to record weak fluorescence. Once the desired detail of the object has been selected, the camera settings follow with stored standardized parameters. A high quality objective glass filter, specially selected for the requirements of digital image processing, yields stable colour results with the highest resolution. The image is either taken manually or without contact via an IR shutter. The images so obtained are stored on the memory card provided. Image output can either be direct using a suitable printer or by downloading via the USB interface onto a computer using the camera-specific software.

Software and Printer

The **ProViDoc® software** supports the GxP editing and problem-free archiving of the taken images. This extraordinarily high performance 32 bit software operating under MS Windows XP/Vista/7 can easily be operated - even by users who have no computer experience, and, hence it is easy to learn to use in a short time. The image displayed on the monitor can be edited, labelled and marked. There is a free choice of type size and font. A zoom function is available to increase the image format. Any desired number of windows with images can be opened at the same time. The arrangement of the images is a matter of choice. They can automatically be superimposed, overlapped or, for purposes of comparison the images can be displayed next to each other. Each image is automatically labelled with the date, user name and an unequivocal identification number and thus it is stored in conformity with GxP guidelines – it can even be protected by means of a password if desired. The ProViDoc® document so generated is a file format specially developed by DESAGA for image, comments and other information. The user can add comments of any desired length to each image. This is stored directly with the image and can be printed out with every laser or inkjet printer that is supported by Windows. The integral file manager allows the assignment of meaningful file names, the search function makes it possible to find the stored images rapidly in the data base.

For the quantitative analysis of TLC samples, we offer the **software Maxim® TLC** version. You can choose one of 4 versions: entry version, semi-automatic version as well as full 21 CFR part 11 compliant version. Please see page 18 for details.

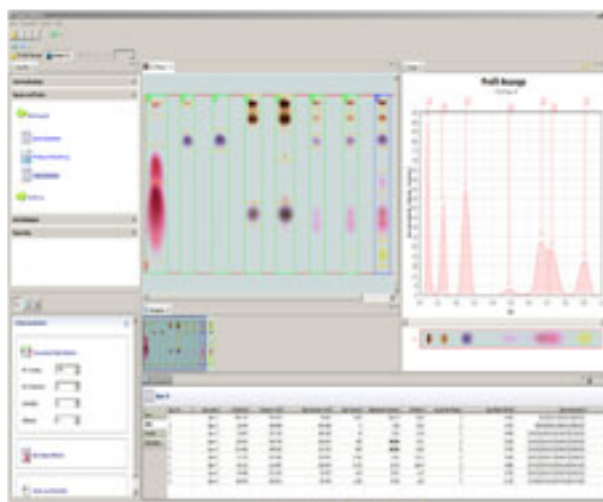
Recommended colour printers for perfect results taken by scanner or camera can be found on page 15, see order information.

Order Information

Order No.	Description
BS140.061	ProViDoc® system DD 70, incl. CabUVIS 230 V, documentation top with UV filter, digital reflex camera, ProViDoc® software
BS140.062	ProViDoc® system DD 70, incl. CabUVIS 110 V, documentation top with UV filter, digital reflex camera, ProViDoc® software
BS140.025	Positioning aid for CabUVIS
BS140.066	IQ / OQ for ProViDoc® system, incl. validation plate
BS140.085	Validation plate for documentation system



Maxim® TLC - Analysis Software for TLC/HPTLC



The product series Maxim® TLC consist of 4 functionally graduated software solutions for the analysis of TLC and HPTLC samples which have been acquired with the imaging systems ProViDoc® and ViewPix®.

The software is logically structured and intuitively usable. German or English can be selected as user language.

The single steps for the evaluation of the TLC/HPTLC samples are logically structured in one workflow. This includes the following areas in Maxim®: Preprocessing, Runs & Peaks, Calculation, Reporting.

The respective versions are graduated in their functionalities and can be upgraded if requested.

Maxim® TLC 410 is an entry version for the manual analysis of TLC/HPTLC plates. This version has especially been developed for users with low sample through-put as well as for educational institutions.

Maxim® TLC 420 includes all features of the version 410 and is additionally equipped with functions for the automated analysis. Based on powerful Maxim® algorithms, an automatic Run and Peak detection as well as an automated background correction is possible. In addition, a comfortable quantity calibration as well as normalisation are available.

The analysis results can be shown and printed in a configurable report and also be exported as PDF file. Due to this equipment, Maxim® TLC 420 is an optimal software for users with a medium sample through-put and routine tasks.

Maxim® TLC 430 includes all features of the version 420 and is additionally equipped with functions for the analysis, Rf-calibration, quantification, normalisation as well as modern visualisation technologies. The results of the analysis can be presented in various ways. Especially the 3D gel display, 3D lane profile and comprehensive possibilities of the report creation are nice features. The export into other Windows applications is made via clipboard or as saved file. Particularly for applications in the production environment, parameters for Runs have been established in addition to the important information about the peaks (e.g. Rf value, volume, area). The quality factor for the judging the quality of the analysis has been proved in praxis. Maxim® TLC 430 is a professional analysis software for TLC/HPTLC. It is the premium choice for users in science, clinical and pharmaceutical production. There is always the possibility of upgrading the software with the module 21 CFR Part 11 in order to comply to GxP.

At a very high sample through-put, a fully-automated analysis of the complete sample batch is recommended. Furthermore, a method-based, automated analysis facilitates work for the user at always recurring samples – e.g. in quality control and also leads to an increase of the reproducibility of the results.

Maxim® TLC 440 contains the specific module „Automation/Batch Processing“ for this requirement. This module together with the possibility of defining several ROIs (Region of Interest) are the main add-ons compared to version 430. There is also the possibility of upgrading the software with the module 21 CFR Part 11 in order to comply to GxP.

Order Information

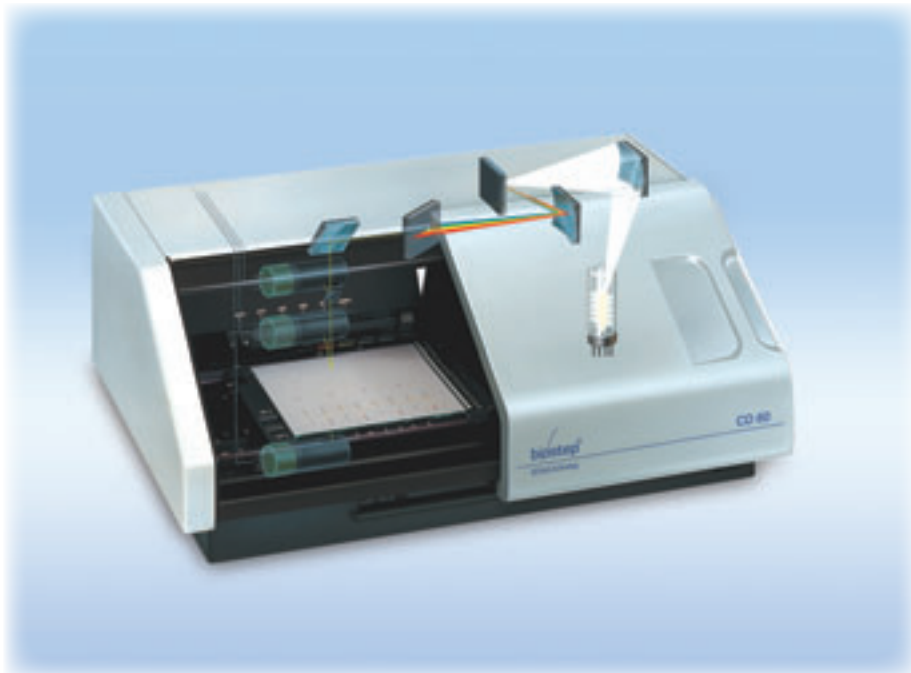
Order No.	Description
BG04-T0105	Maxim® TLC 410, single licence
BG04-T0205	Maxim® TLC 420, single licence
BG04-T0240	Maxim® TLC 420, network licence 3 user
BG04-T0305	Maxim® TLC 430, single licence
BG04-T0340	Maxim® TLC 430, network licence 3 user
BG04-T0365	Maxim® TLC 430 21 CFR Part 11, single licence
BG04-T0380	Maxim® TLC 430 21 CFR Part 11, network licence 3 user
BG04-T0405	Maxim® TLC 440, single licence
BG04-T0440	Maxim® TLC 440, network licence 3 user
BG04-T0465	Maxim® TLC 440 21 CFR Part 11, single licence
BG04-T0480	Maxim® TLC 440 21 CFR Part 11, network licence 3 user

HPTLC Densitometer CD 60

DESAGA has been active in the field of quantitative Thin-layer chromatography for more than 20 years. The measurement station CD 60 incorporates this know-how and the current state of the art. The computer serves as interface between the user and the measuring instrument and controls all of the functions of the densitometer, even the basic version is equipped for absorbency and fluorescence measurements in reflectance and transmittance on objects with dimensions up to 265 x 200 x 4 mm.

Three light sources are provided, a deuterium lamp, an incandescent halogen lamp and a mercury vapour lamp.

The usable spectral range extends from 190 to 900 nm, whereby the monochromator, the lamps and the filters are automatically switched over. The size of the scanning light beam can also be adjusted from the computer. Slit widths from 0.4 to 10 mm and slit heights from 20 μm to 2 mm are possible.



There are many application possibilities in conjunction with the biostep (DESAGA) ProQuant program. This extraordinary 32-bit software operating under Windows XP/VISTA/7 is also easy to use by those without computer experience, so that its use can be learned in very short time. This combination of densitometer and computer can be used to process chromatograms and compile result and peak lists in a simple, reliable manner that conforms with GxP. You rapidly acquire reproducible results and data of real evidential worth.

Software option

Provalid®

Software Program for Automatic Validation

The scanner validation program provides an automatic check on and, if necessary, re-adjustment of the mechanical, optical and electronic systems of the densitometer. The following are individually checked.

- The accuracy of the wavelength adjustment of the monochromator
- Tests on the slit module
- The positioning of the plate table
- The condition of and adjustment of the electronic system
- The condition and adjustment of the lamps and the lamp mirror

The results are evaluated, printed out and stored.

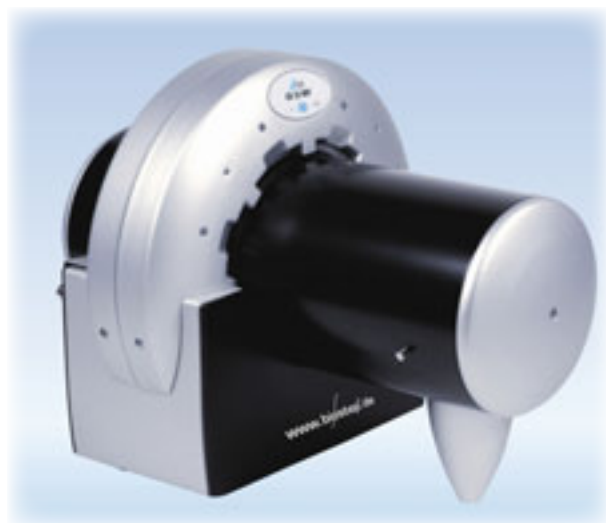
Maxim® TLC

Software Program for Analysis - please see page before

Order Information

Order No.	Description
BS131.800	CD 60 HPTLC Densitometer, 230 V, Transmission/Remission incl. interface, cable, control/evaluation software ProQuant
BS131.801	CD 60 HPTLC Densitometer, 110 V, Transmission/Remission incl. interface, cable, control/evaluation software ProQuant
BS131.802	CD 60 HPTLC Densitometer, 230 V, only Remission, incl. interface, cable, control/evaluation software ProQuant
BS131.803	CD 60 HPTLC Densitometer, 110 V, only Remission, incl. interface, cable, control/evaluation software ProQuant
BS131.816	Provalid®, Program for automatic validation
BS131.825	IQ / OQ for HPTLC-Densitometer CD 60
BS131.742	Carrier plate with magnetic strips for foils up to 265 x 200 mm
BS131.741	Densitometer cuvette for flat gels and films up to 250 x 170 mm
BS131.780	PC - specifications upon request

CR35bio/HD-CR35bio - Densitometry for X-ray Applications in TLC



Today radiography is not done anymore by X-ray film but uses modern technology of phosphor image plates in combination with laser excitation and latest photomultiplier tube technology to generate a digital image with much higher dynamic range. Second, unlike film, a phosphor image plate can be reused: plates can be „erased“ by exposing the plate to red light. For more information in general and detail see special flyer!

The core of the CR35 bio/HD-CR35 bio is manufactured by the German company Dürr NDT GmbH & Co. KG, Division Medical. More than 25,000 units of this instrument were sold in the field of veterinary under the label CR35vet. biostep optimized the system for soft beta- and gamma emitters and developed special software packages, for example an integrated eraser for applications in nuclear medicine, radio-TLC and other blotting technologies and sells it under the label CR35bio. Two versions are available, the standard-version CR35bio with a resolution of 30 μm and the high-resolution version HD-CR35bio with a resolution down to 12,5 μm .

Applications

The main application for radio-TLC is today the quality control of PET-tracers. FDA and other equivalent organizations recommend that a radiochromatogram scanner should be used to measure radioactivity distribution in the developed thin layer chromatography plate. The scanner should have sufficient sensitivity and spatial resolution for the intended discriminatory and quantitative objective. Another field for radio TLC is metabolism studies. In both cases the TLC plate is coupled with the phosphor image plate in a cassette for “writing” the image. In a second step - scanning by 635 nm laser wavelength -, the image is „read“ and “digitized”.

Dark box with integrated eraser

Erasing image plates to a low level requires a radiation time of more than 10 min. For optimizing this process and avoiding unnecessary runs at the scanner, the darkbox is equipped with an integrated erasing unit. Another important aspect for the darkbox is the detection of weakly exposed image plates whose signal-noise-ratio is below the lower detection limit. In connection with this, the darkbox protects from surroundings and scattered lighting effects.

Software Option

Professional analysis software TotalLab Quant with modules for a comprehensive analysis for 1D gels, blots and TLC, autoradiographies and unspecific structures. For GxP conformity, just use the additional module 21 CFR part 11.

Technical data and features

Dynamic range	65.536 greyscales (16 Bit)	Weight	21 kg
Resolution	from 12.5 μm up to 200 μm (pixel size)	Dimensions	390 x 380 x 520 mm
Scan Time	approx. 5 min (IP size 20 x 25, 100 μm)	Port	USB 2
Max IP size	width 35 cm, length up to 50 cm	Power Input	120 W
Laser	LED laser (635 nm)	Laser category	I (EN60 825.1)

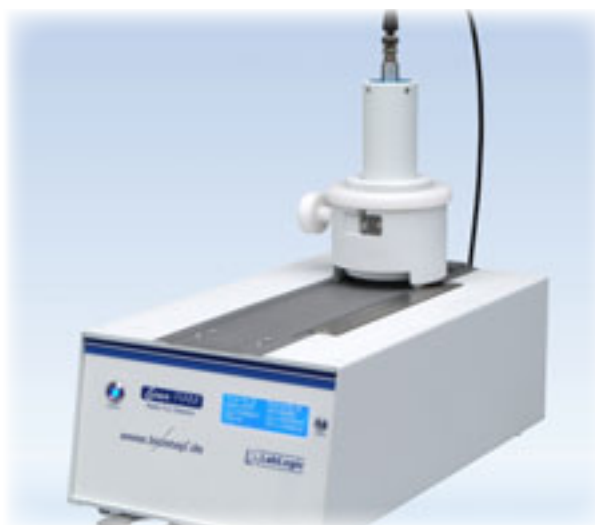
Order No.	Description
BR35-C0100	Image plate scanner CR35-bio, 230 V, incl. control software
BR35-C0101	Image plate scanner CR35-bio, 110 V, incl. control software
BR35-C0300	Image plate scanner HD-CR35bio, 230 V, incl. control software
BR35-C0301	Image plate scanner HD-CR35bio, 110 V, incl. control software
BR35-C0810	Darkbox with integrated eraser unit
BR35-P1824	Image plate IP size 18 x 24 cm
BR35-P2430	Image plate IP size 24 x 30 cm
BR35-P3040	Image plate IP size 30 x 40 cm
BR10-C2430	Image plate cassette IPC size 24 x 30 cm
BR10-C3040	Image plate cassette IPC size 30 x 40 cm
BR35-C3543	Image plate cassette IPC size 35 x 43 cm
BW01-A0100	Analysis software TotalLab Quant, single licence
BW01-A0170	21 CFR part 11 Module for TotalLab Quant

Scan RAM - Compact Radio-TLC Scanner for PET/SPECT

The Scan-RAM is a modern, high-duty and very compact detection system for the direct measurement of radioactively-marked samples on TLC plates, foils and membranes. The scanners are mainly used in nuclear-medical environment among others for PET and SPECT.

For adapting to different applications und therefore different isotopes, there are several types of detectors available:

- > NaI / PMT for low energy Gamma (e.g. 125I), energy range 10 keV - 60 keV
- > NaI / PMT for medium up to high energy Gamma (e.g. 99mTc), energy range 50 keV – 1,5 MeV
- > Plastic / PMT for detection of high-energy Beta emitters and PET radionuclides
- > PIN Diode for high count-rate capability and low sensitivity to provide linear pulse counting from 10 μ Ci to 1 Ci



In order to reduce the influence of background radiation to a constant and low background, the detectors are protected by a lead shielding. Additionally, a lead collimator is put in front of the sensor for minimising the lateral irradiation and for being able to detect the peaks in the real sensitivity. Different sample thicknesses are no challenge for the Scan-RAM as the complete detection unit can be adjusted in its height for ensuring an optimal distance to the sample surface. On the scanning area, the samples can be placed exactly next to a ruler for precisely positioning the start and front area and record it in the detection. The positioning of samples on a rigid carrier material (e.g. TLC plates on glass basis) can be carried out without aids. Samples on a flexible carrier material (e.g. foils, membranes, paper) frequently tend to roll and get waved. For an accurate fixation of this kind of samples, there are 2 frames made of stainless steel available which can easily be decontaminated by cleaning after the measurements. These frames are included in the scope of supply

The control of the system, the acquisition and evaluation of the data are carried out by the radiochromatography software Laura. This very efficient and well structured software is characterized by various functions and expandabilities:

- > Creation and administration of methods for the sample detection
- > Complete control of the Scan-RAM
- > Half-life correction
- > Functions for the manual and fully-automated analysis (among others automatic peak detection)
- > Various possibilities for the representation and comparison of the results
- > Comprehensive report functions
- > Optional add-ons, e.g. module for 21 CFR part 11 / GxP
- > Scalability of a single-user system to a multi-user network licence
- > Interface to PET-LIM system PETra

Technical data and features:

Detectors	different types of detectors	Maximum size of the TLC plate	20 x 5 cm
High voltage range	0 - 2000 V	Collimator aperture slit	3 mm (standard) (optional.: 1 or 2mm)
Upper level discriminator range	0 - 4095 mV	Lead shield	1.4 cm
Analogue output BNC	0 - 1 Volt	Control port	USB
Counter input	2 x 16 Bit	Dimensions (D x L x W)	15 x 38 x 23 cm
Digital Input/Output	4 digital channels	Weight	9.4 kg
Control port	USB		

Order No.	Description
RL31-G1005	Scan-RAM Radio-TLC system for GxP, 230 V, includes Laura full version software - requires detector and PC
RL31-G1006	Scan-RAM Radio-TLC system for GxP, 110 V, includes Laura full version software - requires detector and PC
RL31-G1010	Scan-RAM Radio-TLC system for non GxP, 230 V, includes Laura Academia software - requires detector and PC
RL31-G1011	Scan-RAM Radio-TLC system for non GxP, 110 V, includes Laura Academia software - requires detector and PC
RL34-G0005	NaI PMT remote detector suitable for detection of high-energy Gamma radionuclides (Nuclear Medicine/PET)
RL34-G0015	PMT/Plastic scintillator remote detector suitable for detection of high energy Beta radionuclides
RL34-G0025	PMT/NaI remote detector for 125I and other low energy Gammas
RL34-G0045	Miniature PIN Diode remote detector for high activity monitoring up to 1 Curie

Dyestuff Test Solutions

The functions of the mobile phase and the stationary phase can be checked and demonstrated impressively for tuition and practical work using the multidye test solutions. In order to check the development conditions, it is useful to run a test mixture together with every Thin-layer chromatographic separation.

The **lipophilic** test solution contains three dyes. 4-dimethylaminoazobenzene/butter yellow, which changes colour from yellow to red in the acidic pH-range, Sudan G and indophenol blue, which changes colour from blue to yellow in the acidic pH-range. The dyes are dissolved in toluene.

The **hydrophilic** test solution contains four dyes. Fluoresceine which fluoresces with an intense light green colour when excited with long wavelength ultraviolet light, methyl red whose colour changes from red to yellow in the alkaline pH-range, methylene blue and emerald green. The dyes are dissolved in isopropanol.

Order Information

Order No.	Description
BS125.000	3-Dyestuff test solution, lipophylic, 10 ml
BS125.005	4-Dyestuff test solution, hydrophilic, 10 ml

Unmodified standard silica layers on glass plates for TLC

TLC glass plates with silica 60, specific surface (BET) ~ 500 m²/g, mean pore size 60Å, specific pore volume 0.75 ml/g, particle size 5 - 17 µl, standard grade, with or without UV254 indicator

Advantages:

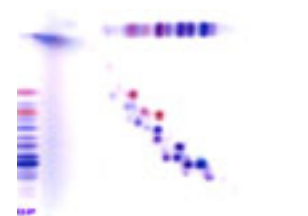
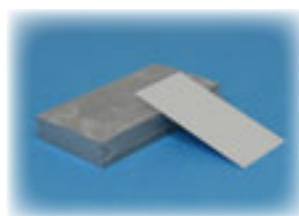
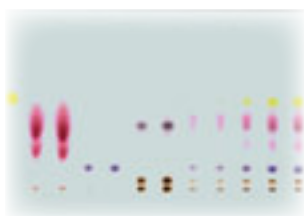
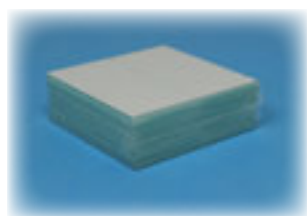
- Outstanding wettability for precise colorization results, even with 100 % aqueous detection reagents
- Excellent separation efficiency and reproducibility from lot to lot
- Easy and reliable cutting due to an optimized binder system, no flaking of silica

Order No.	Material	Size	UV ₂₅₄	Thickness	Extras	Quantity
BS122.105	Glass plates	50 x 100 mm		0.25 mm		1 pack of 50 pcs
BS122.110	Glass plates	100 x 200 mm		0.25 mm		1 pack of 50 pcs
BS122.120	Glass plates	200 x 200 mm		0.25 mm		1 pack of 25 pcs
BS122.205	Glass plates	50 x 100 mm	x	0.25 mm		1 pack of 50 pcs
BS122.210	Glass plates	100 x 200 mm	x	0.25 mm		1 pack of 25 pcs
BS122.220	Glass plates	200 x 200 mm	x	0.25 mm		1 pack of 25 pcs
BS122.400	Glass plates	200 x 200 mm		1.00 mm	preparative	1 pack of 15 pcs
BS122.420	Glass plates	200 x 200 mm	x	1.00 mm	preparative	1 pack of 15 pcs

Unmodified standard silica layers on glass plates for TLC with concentrating zone

Same specifications as glass plates, please see above

Order No.	Material	Size	UV ₂₅₄	Thickness	Extras	Quantity
BS122.310	Glass plates	100 x 200 mm		0.25 mm	concentrating zone	1 pack of 50 pcs
BS122.320	Glass plates	200 x 200 mm		0.25 mm	concentrating zone	1 pack of 25 pcs
BS122.330	Glass plates	100 x 200 mm	x	0.25 mm	concentrating zone	1 pack of 50 pcs
BS122.340	Glass plates	200 x 200 mm	x	0.25 mm	concentrating zone	1 pack of 25 pcs



Unmodified standard silica layers on alumina foils for TLC

Same specifications as glass plates, please see on page before

Order No.	Material	Size	UV ₂₅₄	Thickness	Extras	Quantity
BS123.105	Alumina foils Xtra	50 x 100 mm		0.20 mm		1 pack of 50 pcs
BS123.120	Alumina foils Xtra	200 x 200 mm		0.20 mm		1 pack of 25 pcs
BS123.210	Alumina foils Xtra	100 x 100 mm	x	0.20 mm		1 pack of 20 pcs
BS123.220	Alumina foils Xtra	200 x 200 mm	x	0.20 mm		1 pack of 25 pcs
BS123.300	Alumina foils Xtra	100 x 200 mm		0.20 mm	concentrating zone	1 pack of 20 pcs
BS123.320	Alumina foils Xtra	100 x 200 mm	x	0.20 mm	concentrating zone	1 pack of 20 pcs

Unmodified HPTLC layers on glass plates, particle size 2 - 10 µm

HPTLC glass plates with silica 60, specific surface (BET) ~ 500 m²/g, mean pore size 60Å, specific pore volume 0.75 ml/g, particle size 2 - 10 µl, HPTLC grade, with or without UV254 indicator

Advantages:

- Outstanding wettability for precise colorization results, even with 100 % aqueous detection reagents
- Higher separation efficiency than standard layers and excellent reproducibility from lot to lot
- Easy and reliable cutting due to an optimized binder system, no flaking of silica

Order No.	Material	Size	UV ₂₅₄	Thickness	Extras	Quantity
BS122.510	Glass plates	100 x 100 mm		0.20 mm		1 pack of 25 pcs
BS122.520	Glass plates	100 x 100 mm	x	0.20 mm		1 pack of 25 pcs
BS122.530	Glass plates	100 x 100 mm		0.20 mm	concentrating zone	1 pack of 25 pcs
BS122.532	Glass plates	100 x 100 mm	x	0.20 mm	concentrating zone	1 pack of 25 pcs

Unmodified HPTLC layers on alumina foils, particle size 2 - 10 µm

Same specifications as glass plates, please see above

Order No.	Material	Size	UV ₂₅₄	Thickness	Extras	Quantity
BS123.520	Alumina foils Xtra	50 x 100 mm	x	0.20 mm		1 pack of 50 pcs
BS123.530	Alumina foils Xtra	100 x 100 mm		0.20 mm	concentrating zone	1 pack of 25 pcs
BS123.532	Alumina foils Xtra	100 x 100 mm	x	0.20 mm	concentrating zone	1 pack of 25 pcs
BS123.550	Alumina foils Xtra	50 x 200 mm		0.20 mm		1 pack of 50 pcs

Modified HPTLC layers on glass plates, particle size 2 - 10 µm

HPTLC glass plates with silica 60, specific surface (BET) ~ 500 m²/g, mean pore size 60Å, specific pore volume 0.75 ml/g, particle size 2 - 10 µl, HPTLC grade, with or without UV254 indicator, Octadecyl-modified layers, 50% or 100% C-18 silanized (C18-50 or C18-100)

Advantages:

- Outstanding wettability for precise colorization results, even with 100 % aqueous detection reagents
- Higher separation efficiency than standard layers and excellent reproducibility from lot to lot
- Easy and reliable cutting due to an optimized binder system, no flaking of silica

Order No.	Material	Size	UV ₂₅₄	Thickness	Extras	Quantity
BS122.710	Glass plates	100 x 100 mm		0.20 mm	100 % silanized	1 pack of 25 pcs
BS122.715	Glass plates	100 x 100 mm		0.20 mm	50 % silanized	1 pack of 25 pcs
BS122.720	Glass plates	100 x 100 mm	x	0.20 mm	100 % silanized	1 pack of 25 pcs
BS122.725	Glass plates	100 x 100 mm	x	0.20 mm	50 % silanized	1 pack of 25 pcs



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biostep - made in Germany

The company biostep GmbH was founded in June 1997 and is located in the region of the ore mountains in Saxony/Germany.

At the beginning, biostep mainly dealt with analytic radioactivity measuring technology and bio-imaging systems. Due to systematic research and development activities, we produce a variety of our articles by ourselves according to the high German quality standard. Test yourself!

Starting 2012, we have overtaken the worldwide well-known and established product line thin-layer chromatography (TLC/ HPTLC) from Desaga GmbH/Sarstedt AG & Co. The strategic decision was to combine gel documentation with thin-layer chromatography as both technologies are based on detection by CCD cameras or epi-illumination by UV lamps and very similar evaluation.

Today, biostep is YOUR Specialist for PCR, Electrophoresis, Thin-Layer Chromatography, Bio-Imaging and Radioanalytics.

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