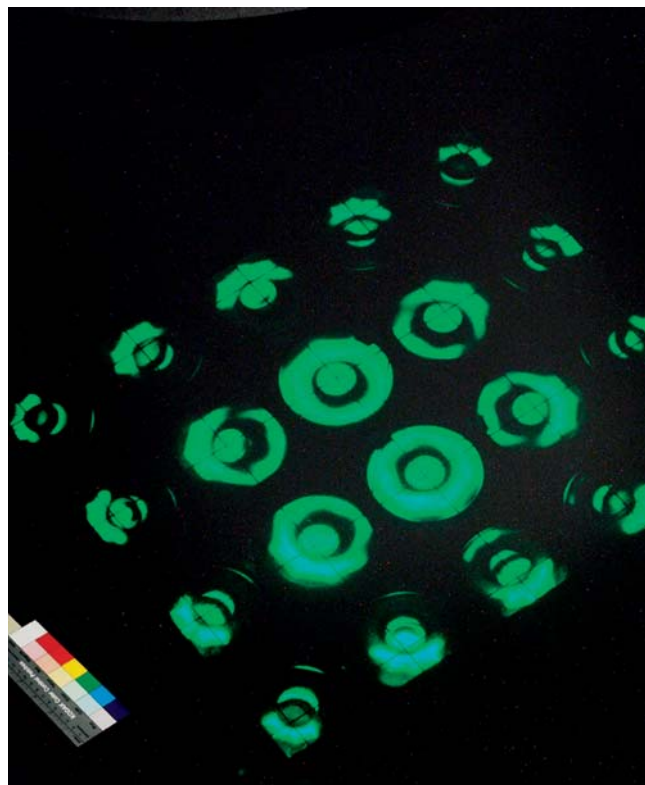


MADE IN GERMANY

MASTER
DIGI REPRO
SYSTEM

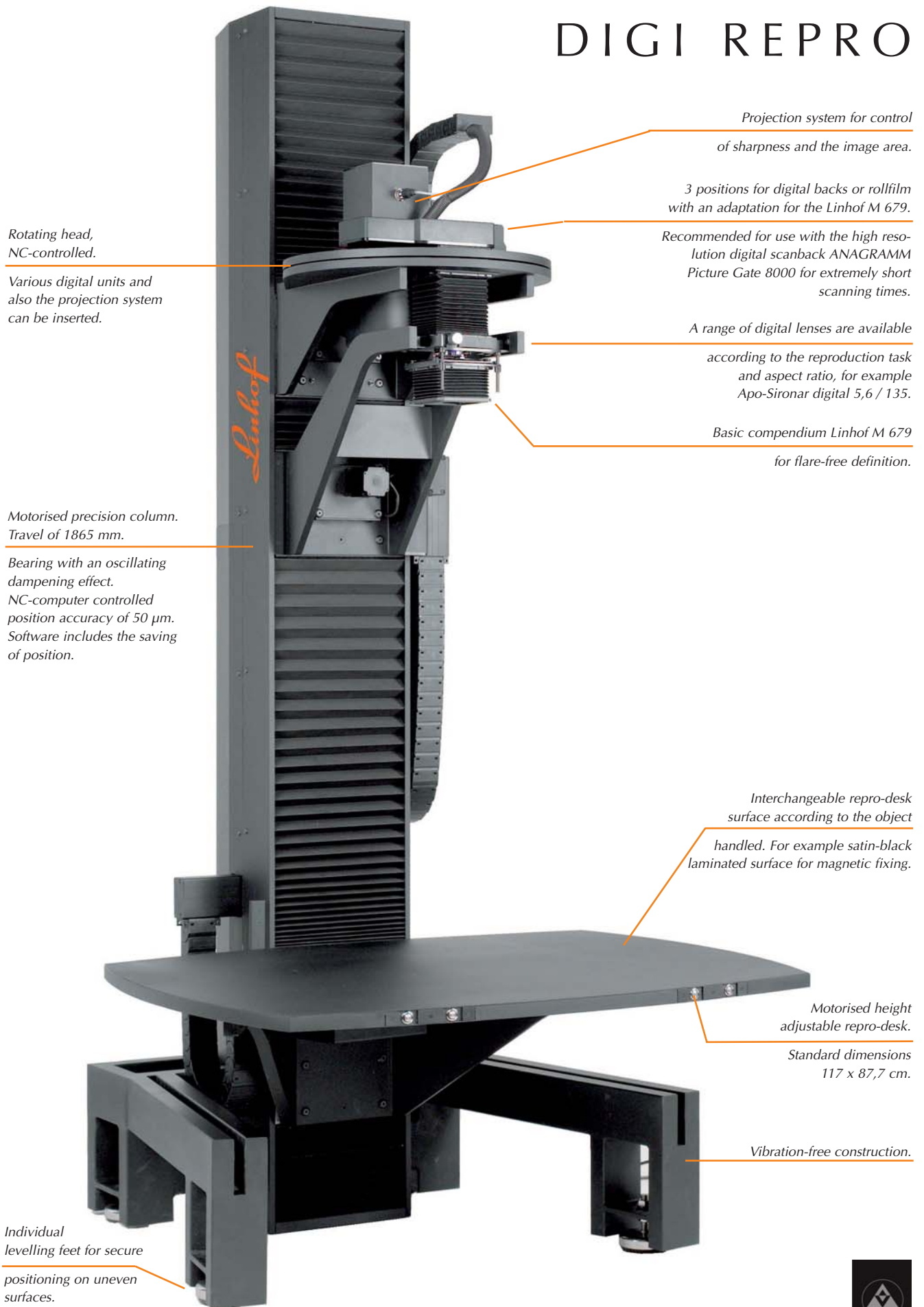


Linhof



LINHOF PRÄZISIONS - SYSTEMTECHNIK GMBH MÜNCHEN
DEVELOPED BY ANAGRAMM GMBH MÜNCHEN

MASTER DIGI REPRO



Rotating head,
NC-controlled.

Various digital units and
also the projection system
can be inserted.

Motorised precision column.
Travel of 1865 mm.

Bearing with an oscillating
dampening effect.
NC-computer controlled
position accuracy of 50 µm.
Software includes the saving
of position.

Individual
levelling feet for secure
positioning on uneven
surfaces.

Projection system for control
of sharpness and the image area.

3 positions for digital backs or rollfilm
with an adaptation for the Linhof M 679.

Recommended for use with the high reso-
lution digital scanback ANAGRAMM
Picture Gate 8000 for extremely short
scanning times.

A range of digital lenses are available

according to the reproduction task
and aspect ratio, for example
Apo-Sironar digital 5,6 / 135.

Basic compendium Linhof M 679

for flare-free definition.

Interchangeable repro-desk
surface according to the object

handled. For example satin-black
laminated surface for magnetic fixing.

Motorised height
adjustable repro-desk.

Standard dimensions
117 x 87,7 cm.

Vibration-free construction.

MASTER DIGI REPRO



THE IDEA

An extremely economical and almost completely automated high-end digitalisation system for reproduction of paintings, graphics, books, slides and different transparent or non-transparent objects. For use in museums, galleries, archives, libraries, image centres, digitalisation centers and discerning reproduction companies.

THE CHALLENGE

Comfortable work-flow with an ergonomic and user-friendly operation. Computer-controlled motorised adjustments of the rotating head and repro-desk.

A system that can be used as a workstation for the physically handicapped.

THE ANSWER

The Master Digi Repro is a completely electronically controlled highly efficient system for digitalisation.

The automatised reproduction workplace is a one system tool for digitalisation or reproduction of transparent and non-transparent objects.

The efficient workflow permits digitalisation of different objects and sizes – whether slides or voluminous books, historic engravings or precious paintings. The Linhof Master Digi Repro fulfils even extreme photographic demands such as individually controlled illumination for obtaining sufficient depth of field when digitising 3-dimensional objects.

THE FREE STANDING MACHINE

Motorised precision column. Bearing with oscillating dampening effect.

Travel of 1865 mm. Positioning accuracy of 50 µm.

The motorised height adjustment of the repro-desk and NC- controlled camera platform are designed so the rotating head permits the use of different techniques such as high-resolution scanbacks, chipbacks or rollfilm.

The integrated projection system serves for control of sharpness and image section.

THE DIGITAL SYSTEM

We recommend the Anagramm picture gate 8000 production² which is a high resolution scanback 8000 x 9700 pixels, 16 bit color depth and a short scanning time of 21 seconds with 444 MB data volume.

According to demand and handling there are digital backs available featuring even better resolution if required. The control of the motorised operation of the Linhof Master Digi Repro is integrated in the Anagramm scan software.

This means that once correct positions have been achieved, they can be filed for repeating tasks.

THE SYSTEM ACCESSORIES

The repro-desk permits objects up to sizes of 118,9 x 84,1 cm (DIN A0) and is supplied with interchangeable surfaces of either glass, plastic, or

black tanned metallic for magnetic fixation. The transparent box is flicker suppressed and spectral adjusted. It is used for digitalisation of transparencies and transparent objects up to 50 x 60 cm.

The well proven Linhof copying easel facilitates the digitalisation of books. This device automatically adjusts the position of the book so that despite differing thickness the two halves lie perfectly flat against the plate glass cover.

INDIVIDUALLY ADJUSTED

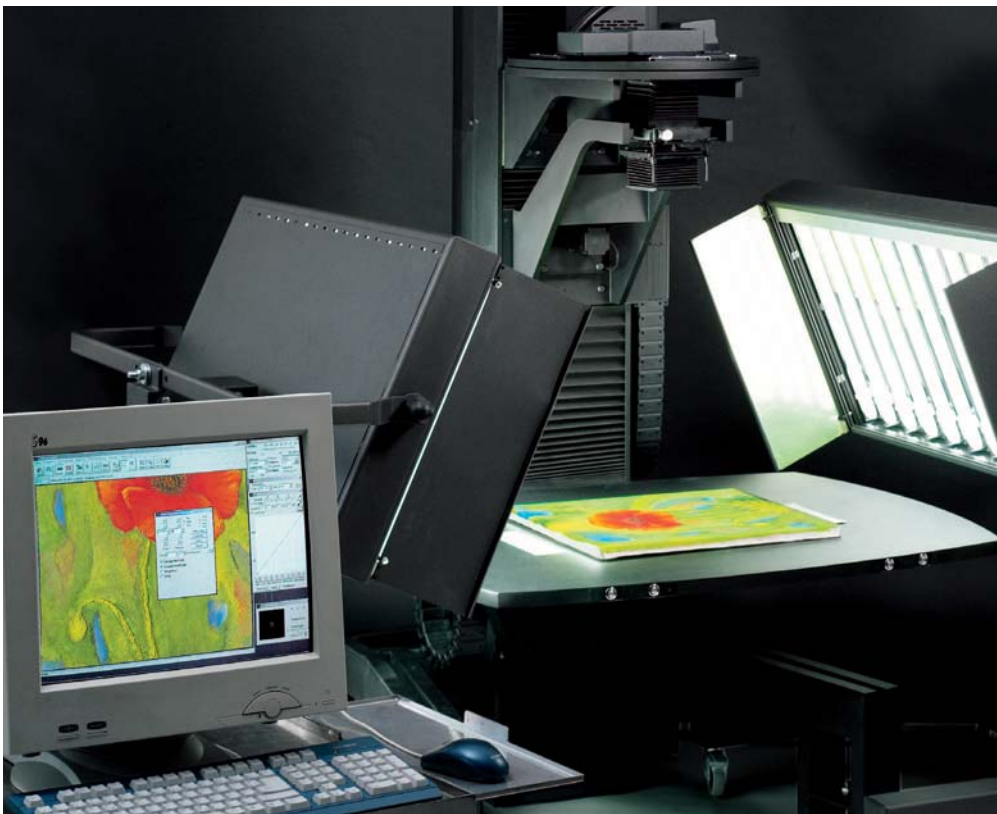
The Master Digi Repro System can be adjusted to any need and special requirement. Linhof provides the photographic know how, the precision mechanical features as well as innovative electronic elements. Linhof is your competent partner offering training on location and reliable after sales service.

The Master Digi Repro System is a profit gaining investment in your media future: For realisation of images or exposures of films.

PRACTICAL WORK FLOW

ILLUMINATION

Two dimmable fluorescent lamp boxes, flicker suppressed, 12 x 35 Watt, 5.500 Kelvin finally complete the work station. For most careful digitalisation of valuable objects dimming is effected via integrated software thus utilising maximum intensity for the scanning process only. A remote control serves for the motorised height adjustment of the mobile supports of the illumination boxes.



EFFICIENT WORKFLOW

The complete system is NC-computer-controlled which includes the selection of the rotating head position, the micro-driven adjustment of the motorised precision column and the camera bellows extension for focusing.

The Linhof projection system is used to determine the image section and focusing. The positioning of the repro-desk is automatically calculated. The necessary adjustments are applied correspondingly.

COMPUTER CONTROL



COMPUTER-CONTROLLED ROTATING CAMERA HEAD

The computer-controlled NC-rotating camera head permits the use of different digital and analogue recording units such as high-resolution scanbacks, chipbacks or film cassettes, the Linhof projection system or imaging systems for exposure of objects and films.



ADJUSTMENT OF OBJECT SIZES AND IMAGE SHARPNESS

With the projection system selected, the image section and sharpness can be projected. The image section is determined by adjusting the camera to the object. The sharpness is achieved by the micro-motorised control of the camera bellows extension.

With the aid of the precisely projected grid the image section and sharpness can be controlled with extreme accuracy. All data (position of column and repro-desk, camera bellows extension etc.) can be filed and reproduced at any time for similar digitalisation tasks.

For example: existing data of digitalised restorations can be repeated even weeks later under the same conditions.



The control of the Master Digi Repro System is integrated either in the Anagramm scan software.

This means that one and the same software is available for digitalisation and for composing the reproduction (image section, aspect ratio, sharpness).

When applying a chipback a "stand-alone" software can be used for the control of the Master Digi Repro System.

The complete work station is computer-controlled: Motorised travel of the precision column, bellows extension of the camera for focusing and selecting the position of the rotating head.

With the projection system selected the image section and the sharpness can be projected.

All data can be filed and reproduced at any time for similar digitalisation tasks.



UNIVERSAL OPERATION



FOR LARGE OBJECTS

Extreme position: camera head top, repro-desk down – for large objects or small image scales.

The extreme mechanical stability of the device with oscillating dampening effect permits a travel range of 1865 mm and a positioning accuracy of 50 µm.

An additional feature is the fast motorised adjustment possibility of the repro-desk from 40 cm to 80 cm (distance ground level – repro-desk).



FOR SMALL OBJECTS

Extreme position: camera head low, repro-desk elevated – for small objects or macro reproductions.

ANAGRAMM SCANBACK



THE TOOL FOR YOUR HIGH-END REPRODUCTIONS

Quality and the print medium determine the tool. The Anagramm Scanbacks cover off large flexibility in any task of digitization. Large reserves on resolution and image quality guarantee optimal results, even for very fastidious reproduc-

tions. Data records are provided, which are also come up for the requirements of art and culture protection.

THE DIGITAL PICTURE GATE 8000 SYSTEM

The Anagramm picture gate 8000 production² which is a high resolution scanback 8000 x 9700 pixels, 16 bit color depth and a short scanning time of 21 seconds with 444 MB data volume. According to demand and handling there are digital backs available featuring even better resolution if required.



YOUR SOLUTION IN DETAIL

The case and the mechanics of the picture gate 8000 scanback distinguishes itself by robustness and a long life. The precision linear guide guarantees sharp pictures and accurate lines. Technical details, like the light stop and motorized shutter, facilitate the daily work. Special interfaces allow a fast data transfer over fiber glass leaders to the processor.



The control of the motorised operation of the Linhof Master Digi Repro is integrated in the Anagramm scan software.

This means that once correct positions have been achieved, they can be filed for repeating tasks. Automated Workflow with standardized ICC-Colormangement give you also for the future the guaranty for the right colors.

PRODUCT RANGE:

Depending on required resolution and scanning speed different types are offered.

DIGITALISATION UNIT

ANAGRAMM

picture gate 8000	david	salvadore	production ²
Optical Resolution Pixel	14.400 x 17.400	8000 x 9700	8000 x 9700
Max. Data Size 48 bit RGB	1,5 GB	444 MB	444 MB
Scan time max. Resolution	4:20 Min.	80 Sek.	21 Sek.

HIGH-END DIGITAL

LINHOF QUALITY AND LINHOF
PRECISION FOR DIGITALISATION
AND REPRODUCTION

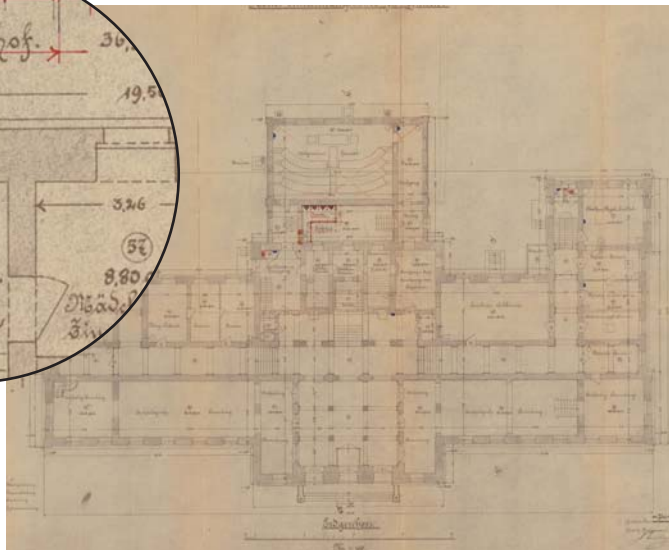
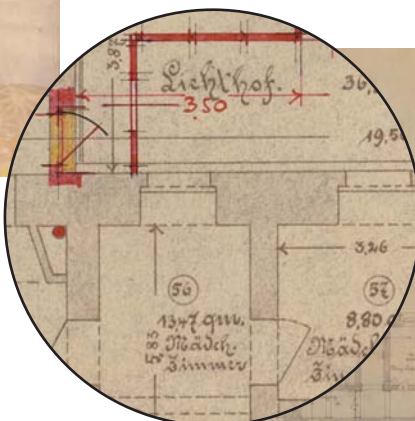
- Touch-sensitive objects such as valuable graphics, pictures and paintings
- Reproductions to visualise structures absolutely necessitating perfect illumination.
- Archiving of books, journals and magazines
- Three-dimensional book covers
- Objects to be restored
- Reprints of maps and blue-prints
- Documents, Seals and Coins
- 3-dimensional objects of any kind
- Criminology
- Transparent objects up to 50 x 60 cm
- Glass negatives
- Historic glass paintings
- Industrial measuring and testing
- Material analysis, research and development



Corpus Christi College Cambridge



Museum für Ostasiatische Kunst



FINEST DETAILS

Precious artwork can be reproduced with the most care and ultimate quality. Media-neutral high-end data sets are available for any kind of process – valuable fine-art prints, RCB-exposures etc.

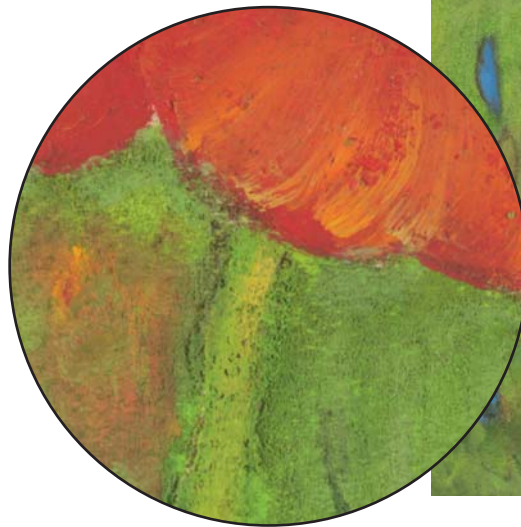
THREE DIMENSIONAL ILLUMINATION

The correction of the illumination is integrated in the Anagramm software thus always ensuring evenly illuminated reproductions. Should a 3-dimensional surface be reproduced, for example a painting, there exists the possibility of operating with genuine streak illumination. The software assists avoiding light fall-off to the corners.

Using this technique effects can be achieved exceeding pure reproduction thus fulfilling demands of conservatoriums and aesthetics.

For 3-dimensional objects the required depth - of- field is obtained by appropriately stopping down the diaphragm – same as handled in 3-dimensional photography.

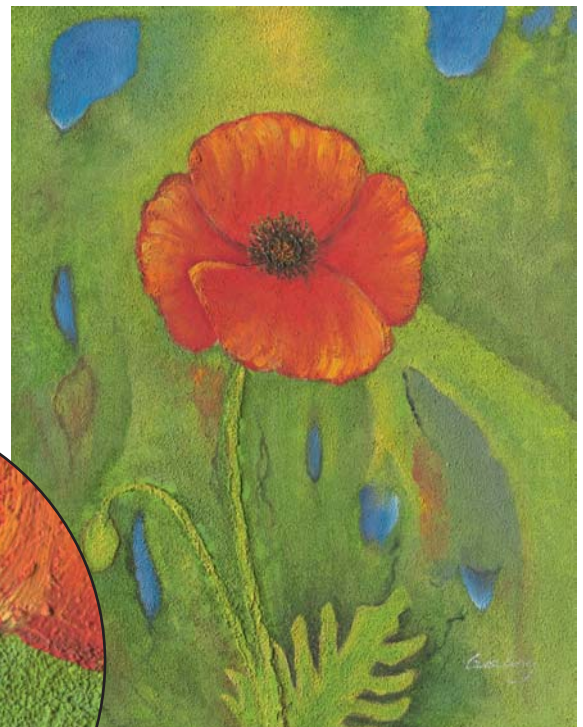
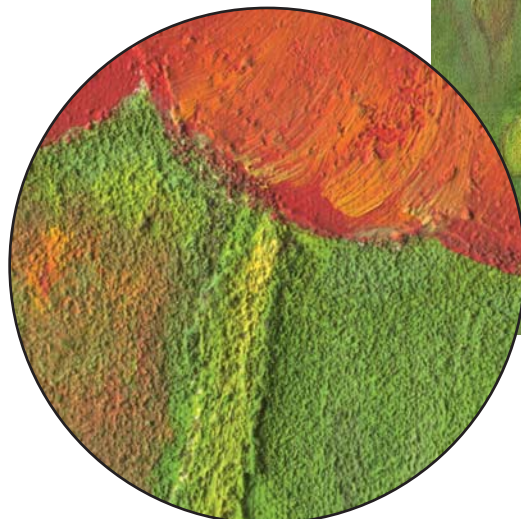
Depending on the lens used and depending on the scale required 3-dimensional objects can be digitalised with large height dimensions.



REPRODUCTION CHALLENGING PHOTOGRAPHIC RESULTS

Top: Corrected illumination and evenly illuminated from two sides.

Bottom: Corrected illumination and unilateral streak light for 3-dimensional surface reproductions.





ACCESSORIES

LED REPRO LIGHTBOX

Translucent box for objects up to 30x40 cm. A new design that covers the demands by conservatoriums for digitalising of original glass negative plates. Thanks to an innovative LED-technique the precious glass negatives are not damaged by any heat. A special holder permits the touch-free scanning of different formats. A colour temperature of 5.500 Kelvin ensures colour neutral reproduction.



THE LINHOF COPYING EASEL

The Linhof copying easel automatically adjusts the position of the book so that despite different thickness the two halves lie perfectly flat against the glass plate cover. Using this copying easel with the Master Digi Repro even large libraries can easily and efficiently be digitalised. When handling valuable books the glass-plate is omitted. Special accessories for voluminous books and large-size documents are available.



SPECIAL SUCTION PLATE

An extremely flat and light suction plate based on an electro-static process is available for paper sizes up to DIN A 0 / 118,9 x 84,1 cm (no illustration).

DIGITAL LENSES

Optimised for digital photography. Various focal lengths are available for any task and reproduction scale. The lenses can be supplied either in mechanical Copal shutters or in Schneider electronic shutters mounted on lensboards from the Linhof M 679 system. When using electronic shutters the diaphragm is controlled remotely.



Lens Type	Aperture / Focal Length	Shutter Type / Size	Code	Image Circle (mm)
Apo-Digitar	4,5 / 90	Copal 0	000964	100
Apo-Digitar	4,5 / 90	Schneider el.0	000564	100
Apo-Digitar	5,6 / 100	Copal 0	000965	125
Apo-Digitar	5,6 / 100	Schneider el.0	000565	125
Apo-Digitar	5,6 / 120	Copal 0	000966	150
Apo-Digitar	5,6 / 120	Schneider el.0	000566	150
Apo-Digitar	5,6 / 150	Copal 0	000968	210
Apo-Digitar	5,6 / 150	Schneider el.0	000568	210
Apo-Digitar-Makro	5,6 / 120	Copal 0	000967	210
Apo-Digitar-Makro	5,6 / 120	Schneider el.0	000567	210
Apo-Sironar-digital	5,6 / 90	Copal 0	000919	125
Apo-Sironar-digital	5,6 / 135	Copal 0	000955	150
Apo-Sironar-digital	5,6 / 150	Copal 0	000956	150
Apo-Sironar-digital	5,6 / 180	Copal 0	000957	150
Apo-Macro-Sironar-digital	5,6 / 120	Copal 0	000970	150

INFORMATION



TECHNICAL DATA BASIC DEVICE

Design	Freestanding machine, motorised precision column, bearing with oscillating dampening effect. Repro-desk and rotating head are extremely stable made from torsion-free material.
Measurements of Basic Device	237,5 x 117 x 125,6 cm
Weight	about 120 kg
Space for Basic Steel Support	20 x 100 x 90 cm
Measurements of Precision Column	237,5 x 31,0 x 34,3 cm
Accuracy of Positioning	50 µm
Travel Speed	200 cm / min
Distance of Camera to Object	can further be reduced by adding plates
Repro-desk	automatically adjustable in height, motorised min. 40 cm, max. 88 cm
Measurements Repro-desk	117,0 x 87,7 cm suitable for rectangular objects up to 104 x 76 cm optional extension of repro desk for objects up to 118,9 x 84,1cm
Camera Platform	4 connecting positions. M 679 for projection unit, scan back, chipback or film cassette. Can automatically be rotated and positioned.
Control	Anagramm software for NC-computer-controlling the Master Digi Repro (either integrated or as stand-alone) Windows XP, Mac OS (in preparation) Linhof DigiBack software.
Current	AC 110 V oder 240 V 50/60 cycles
Maximum Consumption	500 watts

DIGITALISATION UNIT Depending on required resolution and scanning speed the following types are offered:

ANAGRAMM

picture gate 8000	david	salvadore	production ²
Optical Resolution Pixel	14.400 x 17.400	8000 x 9700	8000 x 9700
Max. Data Size 48 bit RGB	1,5 GB	444 MB	444 MB
Scan time max. Resolution	4:20 Min.	80 Sek.	21 Sek.

For further information please ask for Anagramm brochures

TECHNICAL DATA ILLUMINATION

Measurement Light Box	58 x 105 x 10 cm
Weight Light Box	17 kg
Measurements Basic Steel Support	79 x 80 x 18 cm
Weight Basic Steel Support	22 kg
Motorised Lighting Column	Position of lamps bottom 57 cm Position of lamps top 107 cm
Illumination	2 x 660 watts (12 x 55 watts each) Daylight 5.500 Kelvin, high frequency dimmable light of 50 K cycles, wave-free

ACCESSORIES

- Enlarging facility of repro-desk for objects DIN A0 / 118,9 cm x 84,1 cm
- Easily interchangeable table surfaces. Various materials and lacquering.
- Linhof LED Repro Light Box for objects up to 30 x 40 cm
- Linhof book copying easel with accessories
- Special Suction Plate
- Digital lenses of different focal lengths



INDUSTRIAL SYSTEMS

For special requirements we are able to offer different applications. Our consulting engineers will be pleased to inform you at any time