

Lascaux Humidification Chamber HC-5

The professional device for the gentle and perfectly even humidification of art works on paper and for the hydrating of glues (de-lining)

« **Certainly every paper conservator should have one.**

Since 1985 I use my chamber to deal with a number of dampening treatments with simplicity and small risk. The ultrasonic moisture is ideal as a super-delicate moisturizer, it is very controllable. It can also slowly dry paper. I always use it for dampening before pressing, prior to treatment on the suction table, dampening to release backings, it is particularly good where glue is present, and prior to float-rinsing and other further dampening treatments. The ultrasonic moisture works outside the chamber for cleaning paper with suction, if necessary.

My now old chamber has worked miracles for me and has never broken down, though I have needed a new circulation belt from time to time. It gives a dedicated space for all these treatments leaving sinks free. I use it every working day. Every paper conservator should have one, in addition, there will be many other conservators who will find this tool useful. »

Jane McAusland UK

Fellow of the International Institute for the conservation of Historic Works.



Distinctive features of the HC-5

The Lascaux Humidification Chamber HC-5 was designed to offer the professional a maximum of adjustment options in the treatment of paper objects. The robust precision device allows for permanent use and offers distinctive advantages:

- spacious chamber: 157 x 103 x 34 cm
- max. humidity achievable: 100 %
- even and infinitely adjustable humidity
- no condensation
- built-in overhead heating and interior lighting
- infinitely adjustable cross ventilation fan
- precision hygrometre and thermometer
- timer (also for interval operation)

The HC-5 facilitates the gentle and controlled humidification of art works on paper, particularly delicate objects such as pastels, charcoal drawings, watercolours, etc. Also suitable for the gentle hydrating of glues. The perfectly homogenous humidification prevents distortions or deformations of the object. Delicate works can be treated face-up. The glass door allows for visual control of the process.





1 Chamber

Dimensions: 157 x 103 x 34 cm. Aluminium casing, stove-enamelled. The spacious chamber has a glass front door, giving access to the nylon grid form, and is equipped with ceiling illumination. The artworks to be treated are placed on the nylon grid and are separated by blotters to prevent the vapour from condensing in contact with the grid and to direct it towards the work.

2 Ultrasonic humidifier

The regular flow of cool mist is produced by an external ultrasonic humidifier connected to the chamber by a flexible hose. The cool mist circulates round the papers undergoing the treatment, slowly swells the layers of glue and gently relaxes the paper. A hygrostat provides perfect control of the ambient humidity.



3 Cross ventilation fan

The fan inside the unit increases the kinetic energy of the water molecules, reduces the condensation phenomenon, and encourages the even distribution of the vapour around the objects. To ensure the climatic stability of the chamber, the fan motor should be set at a slow speed.

4 Overhead heating

The HC-5 is equipped with a heating system to prevent condensation on the chamber ceiling, which may occur in rare cases. The heater is designed to be set for a minimum temperature just right to keep the surface of the objects from drying out. Too high a temperature would lower the relative humidity and put the success of the required treatment at risk.

5 Hygrostat

Attempting to rush the humidification process can have disastrous consequences for the object. The hygrostat makes it possible to program a very slow and progressive rate of humidification based on the slowest hydration speed of the various elements involved (support, adhesives, binders, pigments, etc.). The hygrostat is therefore a safety guarantee for the conservator because it allows the user to select a precise level of humidity and maintain it indefinitely.

Relative humidity of 100%

A relative humidity of 100% can be achieved in about 12 minutes. Good moisture distribution, thanks to the air-flow, has been tested and verified. The tests indicate a uniform increase in humidity right across the chamber. This is a unique property of the Lascaux HC-5.

Humidification and drying

Humidifying paper in the chamber requires considerably less water than traditional methods. The HC-5 introduces no excess water and the humidification is much more uniform and less abrupt. Thanks to its precise and reliable climate control, also the drying process can be slowed down, thus reducing the tendency of the paper to deform during drying.



Technical data

Equipment:	Aluminium case, white stove enameled, with glass front door.
Size:	174 x 117 x 52 cm external dimensions (68,5 x 46 x 20,5) 142 x 96,5 x 30 cm chamber space above nylon grid frame (56 x 38 x 12) 142 x 95 cm working surface of the nylon grid frame (56 x 38)
Electric supply:	230 V, 50 Hz (adaption to 110 V on request)
Internal lighting:	true-lite tube 40 W
Ceiling heating:	max. 150 W
Hygrometer:	scaled 0 - 100% RH
Hygrostat:	control range of RH
Thermometer:	scaled 0° - 60° C Horizontal fan blower: 18 W Ultrasonic humidifier: 50 W
Control panel:	single switches for light, ceiling heating, fan, humidifier
Potentiometer:	for fan and ceiling heating elements
Main switch:	on/off, manual or by the timer (auto)
Weight:	approx. 100 kg

Literatur

Le montage et l'encadrement d'œuvres d'art sur papier (mounting and framing artworks on paper)

O. Masson and V. Strasser

Association Suisse de conservation et restauration, Cabinet des estampes du Musée d'art et d'histoire, Genève (1995).

The use of the Lascaux Humidification Chamber in the treatment of works on paper, O. Masson and W. Percival-Prescott: paper conservation news, No. 43, 1987

Die Verwendung der Lascaux Befeuchtungskammer bei Behandlung von Werken auf Papier, O. Masson
In: Preprints VI. IADA-Kongress Berlin (1987), S. 238–246.

Paper and Water: A Guide for Conservators, Gerhard Banik / Irene Brückle, published by: Elsevier Science & Technology 2011. ISBN: 0750668318, 9780750668316

Selected references

National Gallery of Australia, Canberra
Museum of Contemporary Art, São Paulo
St Catherine's Monastery, Sinai
Kunsthalle, Bremen
Berlinische Galerie, Martin-Gropius-Bau, Berlin
Staatsbibliothek zu Berlin, Berlin
Hessisches Staatsarchiv, Darmstadt
Fachhochschule, Cologne
Kunstmuseum, Bonn
Museum Ostdeutsche Galerie, Regensburg
Thüringisches Hauptstaatsarchiv, Weimar
Staatsgalerie Stuttgart, Stuttgart
Atelier de Restauration des Photographies, Paris
La Reluire du Limousin, Malemort sur Corrèze
Albertina, Vienna
Salzburger Landesarchiv, Salzburg
National Gallery, Dublin
University of Art, Tehran
University of Isfahan, Isfahan
Munch Museet, Oslo
Ermitage, St. Petersburg
Pushkin Museum, Moscow
Moscow State Academy of Fine Arts, Moscow
Biblioteca Nacional de España, Madrid
Prado, Madrid
Staatsarchiv Luzern, Lucerne
Franziskanerkloster Freiburg, Freiburg i.Ü.
Restorers: Oliver Masson, Zurich; Caroline Dick, Geneva; Martin Strebel, Aargau, Jane McAusland, UK
National Library, Prague
The British Museum, London
Merseyside Maritime Museum, Liverpool
The Wellcome Institute for the History of Medicine, London
National Museum & Galleries, Liverpool
Bodleian Library, Oxford

Do you need to know more?

For more information or a price request please write to info@lascaux.ch or call +41 44 807 41 41

Images: © Lascaux Colours & Restauro, courtesy of Olivier Masson.

Disclaimer:

The information provided above is given to the best of our knowledge and is based on our current research and experience. It does not absolve the artist from the responsibility of first testing the suitability of our products for the substrate and specific use conditions he or she has in mind.

SWISS MADE 100% ARTIST QUALITY SINCE 1963

Lascaux Colours & Restauro, Barbara Diethelm AG, Zürichstrasse 42, CH-8306 Brüttisellen
Tel. +41 44 807 41 41, Fax +41 44 807 41 40, info@lascaux.ch, www.lascaux.ch