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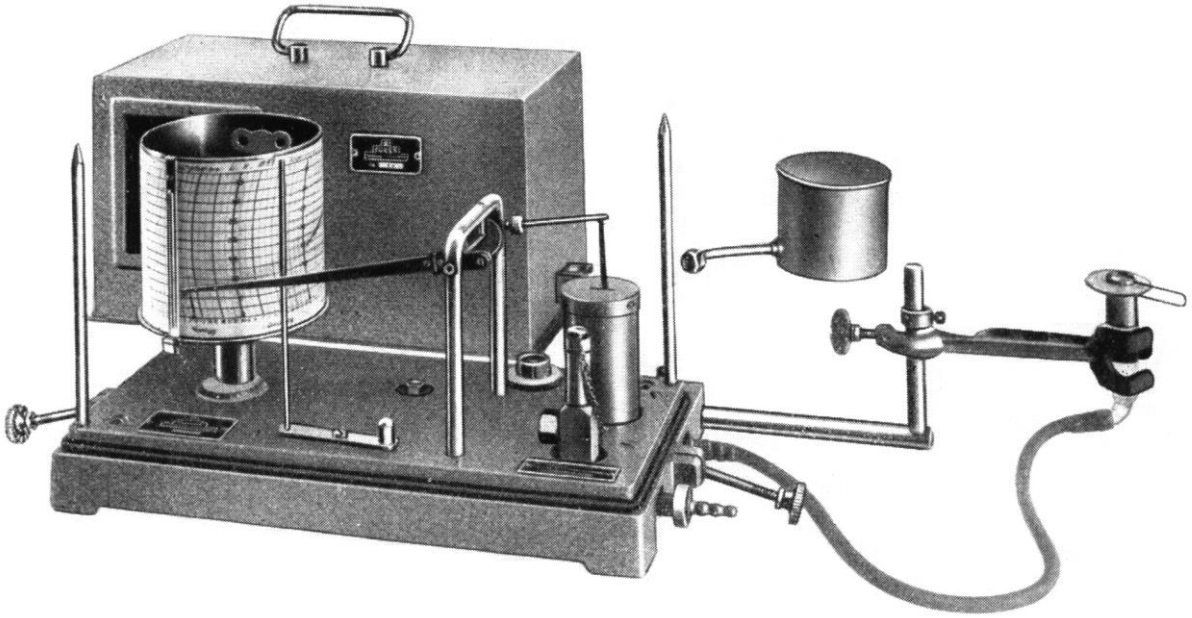
EVAPORIMETERS

and EVAPORIGRAPHS



Evaporimeter, Piche type

A porous paper disc of 30 mm diameter is pressed with a wire clamp against the lower end of the glass measuring tube and serves as evaporator for this simple instrument. The tube is graduated up to 30 cm^3 which corresponds to a measuring range of appr. 25 mm height of evaporation. The instrument is so fastened to a pole that it stands off appr. 30 cm. The support 72f consists of a hook with a wooden thread which is screwed into the pole. Onto this a support is screwed, the spring tongue of which holds the measuring tube tight

Specification

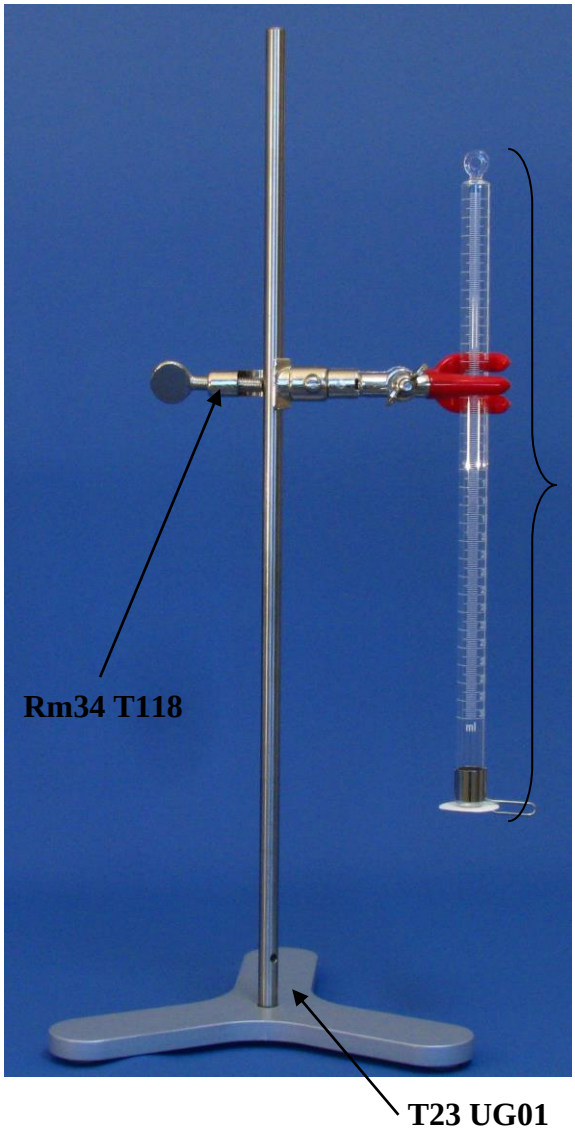
72c
Evaporimeter, Piche type
incl. 100 porous paper discs of 30 mm diameter
Measuring range: 25 mm evaporation height (30cm³)
Length: 340 mm
Weight: 0.04 kg

Rm34 T118 (=No. 72f)
Support consisting of hook-screw and support
Weight: 0.04 kg

72g
100 porous paper spare discs of 30 mm diameter

72L
Spare measuring tube

T23 UG01
Tripod with bar



Evaporimeter 72c
Piche type with
support RM34 T118

Evaporigraph, Piche type

The instrument (frontispiece) records potential evaporation by using the porous cardboard disc according to Piche, which has been universally tested for several decades as standard evaporator. As the thin disc with its minimum of mass quickly takes on the temperature of the wet-bulb thermometer, it operates practically free of inertia.

The instruments of operation can be seen on the next page. On the base plate (1) a float-vessel (2) is mounted, which is connected by a rubber hose (3) with a disc of porous paper (4). The float (5) is hanging on the lever arm (7) by means of the connecting link (6), which is fastened to aturnable axle (9) like pen arm (8). In this way the curve of evaporation is recorded on the drum (10) for which, in general, a rotation period of 1 week is expedient.

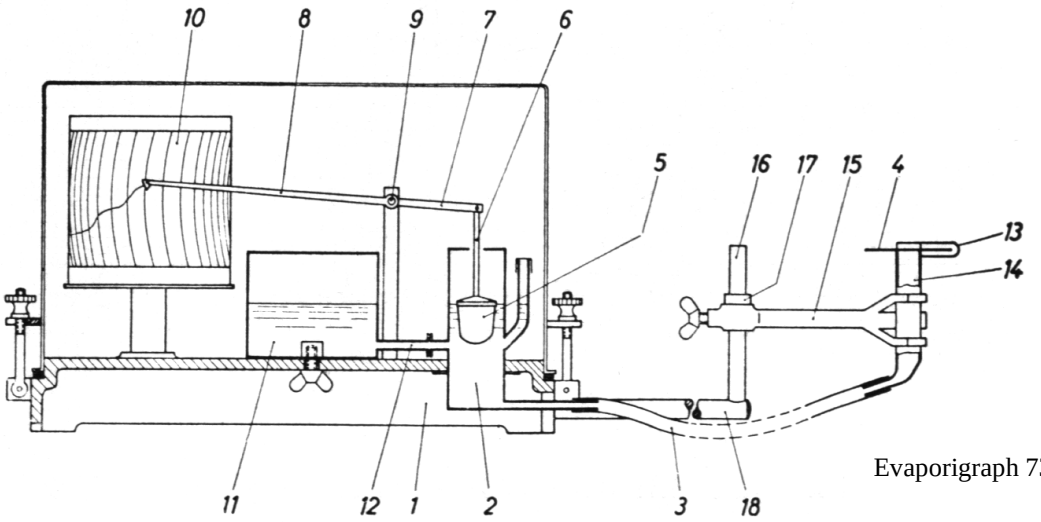
By choosing porous paper discs of various diameters, the scale of height may be altered. A further possibility of variation is given by connecting a second vessel (11), whereby the total of the following ranges and scales of measurement is obtained:

Diameter of disc mm	Additional receiving vessel	Scale of recording	Measuring range in mm height of evaporation
50	without	5:1	15,0
30	without	2:1	37,5
50	with	1:1	75,0
30	with	1:2,5	187,5

The usable height of recording is 75 mm.

The values indicated refer to the single surface of the evaporation disc. Between the two disc-sizes the empirically determined conversion factor 2,5 has been taken as base*. The discs consist of sufficiently rigid cardboard.

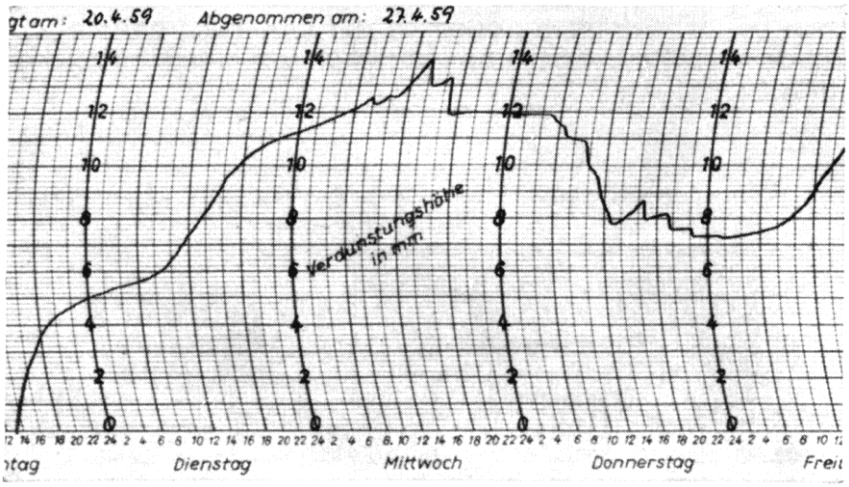
If necessary, the additional vessel (11) can be fitted in simply by connecting it with the receiving vessel of the float with the conduit (12). With the aid of a spring (13) the disc of porous paper is clamped onto the open end of the glass tube (14). Its height is adjusted by shifting the clamp (15) on the journal (16) in such a way that at the beginning of the recording it is lying appr. 1 cm above the water level inside of the vessel. This position is fixed by the stop-ring (17).



Evaporigraph 73p, scheme

The evaporation disc is upward in order to avoid any shadow from the feeding tube. Supporting bar (18) may be displaced within a cast on the base-plate. For transport it may be pushed inside after loosening a clamping screw on order to diminish the extent of the instrument. If need be, the evaporator may also be set up separately at a certain distance from the casing although a disturbing influence of the casing on the chosen length of the bar (18) is hardly to be expected. With the aid of the built-in circular spirit level, the instrument is aligned appr. horizontally. To replace the chart, the upper part of the casing is withdrawn in an upward direction. It is fitted with a rainproof rubber packing which allows an unprotected installation the instrument in the open air.

Contrary to instruments working on a principle of balances, the recording mechanism will in no way be influenced by the wind so that clear and unobjectionable recordings are obtained even during heavy storms. The inclination of the curve is proportional to the intensity of evaporation. Heavier precipitations caused by rain or dew are shown by the curve's inversion. As it is the case with thermographs and hygrographs, mean values for any period of time may be taken from the recording too.



reproduction of an Evaporigram

Specifications

73p Evaporigraph Piche Type
Range: 15 and 37.5 mm height of evaporation
Division of chart: 0.2 resp. 0.5 mm height of evaporation
Drum: 93.3 mm diameter x 93 mm height
Height of recording: 75 mm
Drum rotation: 1 day or 1 week or reversing clock, reversible from 1 day to 1 week
Running time: 9 days
Dimensions (mm): 360 width x 160 depth x 200 height
Weight: 6.2 kg

Accessories (no additional costs):
1 set of charts, porous cardboard discs 30 or 50 mm diameter,
1 Spare-cartridge-pen

Supplementary and Spare Parts

Rm34 UG34	1 additional vessel for 75 and 187.5 mm height of evaporation
72g	100 spare discs of porous cardboard, 30 mm diameter
73r	100 spare discs of porous cardboard, 26 mm diameter
73s	100 spare discs of porous cardboard, 50 mm diameter
Rm34 T119	Spare glass pipe bend (knee bend)
	Spare recording drum with inner clock for rotation of:
901d	1 day
901w	1 week
901u	Reversible clock reversing rotation time from 1 day to 1 week

Charts:

56f	1 set = 100 sheets for daily rotation Paperfeed: 11.2 mm/h
56e	1 set = 100 sheets for weekly rotation Paperfeed: 1.67 mm/h
78wf	Fiber-pen
78q	Spare metal pen
1095v	1 bottle of recording ink

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