

Density Column Material Density Determination

The Davenport two column density measuring apparatus is designed to measure the density of solid materials, notably plastics, by the technique described in BS2782 Part 6: Method 620D, ASTM D1505-68, ISO 1183 and others. It is also a quick comparative test, ideal for discerning differences between similar materials.

A linear liquid density gradient is fitted in a cylindrical glass tube and maintained at 23°C to prevent the gradient being disturbed by thermal convection. Temperature control circuits work in conjunction with electric heaters and a simple cooling coil to maintain accuracy. The density gradient obtained is determined by introducing a

set (usually nine) of accurately calibrated market floats whose densities cover the desired range of the column at equal density intervals. The floats provide not only the calibration reference values of the gradient, but also act as a check on the stability of the density gradient. Samples placed in the column will sink until they reach liquid of their own density.

The relative position of specimens is determined by the graduations on the side of the column. Back illumination of the columns improves visibility of the precise sample position. The Davenport apparatus is equipped so that column tubes are filled in situ as simply as possible.

Features

- Measures density of small samples of solid materials
- Simple set-up, operation and maintenance
- Complies with international standards
- Accuracy to 0.0001 g/ml
- Constant temperature control via heating and cooling circuits
- Accepts mains water
- Column solution filling apparatus supplied for ease of use

Specifications

Graduated Columns:	2 mm interval markings
Accuracy:	Accurate to 0.0001 g/ml
Cathetometer:	No
Column Illumination:	Yes
Column Sweep:	Standard
One Float per Column:	Sets of 9, calibrated and certificated. Standard ranges falling between the overall range 0.8-1.5999 g/ml. Others 0 to special order.
Filling Mechanism:	Standard
Temperature Control:	Constant 23°C±0.1°C
Water Capacity (distilled):	20 litres
Water Supply (cooling):	Mains water, preferably recirculated
Standards:	BS2782 Part 6: Method 620D, ASTM D1505-68, ISO 1183
Minimum Height Clearance:	2160 mm (85 in)
Net Weight:	24 kg (53 lb)



Specification Sheet

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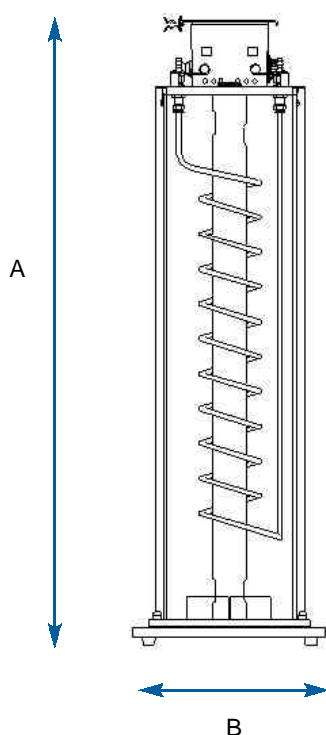
Standard Accessories Supplied with the Density Column

Item	Model	Part No	Item	Model	Part No
Algicide (to treat two columns)	DC/ALG2	304/210	Stopclock with Right Angle Bend	DC/STOPCLOCK	618/10/4
Sweep Basket and Line	DC/BASKET	772/18	Stopclock Assembly	DC/STOP]	
Stainless Steel Capillary Filling Tube	DC/CAPILLARY	304/102/6	Thermometers 18°C-28°C	CLOCK1]	TBE/0025/00
PTFE Covered Magnetic Stirrer Bar	DC/MAGNET	304/102/11	Two sets of Floats - user specified	DC/THER 23	402/30
Plastic Covered Rod (inserts column into the water jacket)	DC/ROD	304/119			

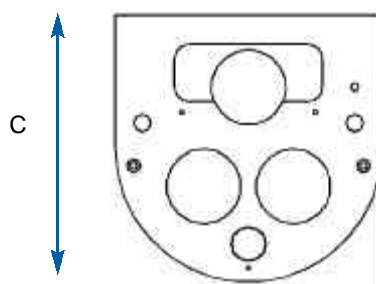
Optional Accessories

Item	Model	Part No	Item	Model	Part No
Replacement Float 0.8-1.5999 g/ml (without Calibration Certificate)	DC/FLOAT	FLOAT	Set of 9 Floats in Range 0.8-1.5999 g/ml	DC/FLOATS/A	FLOATSA
Calibration Certificate for Single Float	DC/FLOAT] CERT	FLOATCERT	Set of 9 Floats in Range 1.6-2.7 g/ml	DC/FLOATS/B	FLOATSB

Product Dimensions



		mm	in
A	Height	1020	40
B	Width	320	13
C	Depth	480	19



Top of Density Column

Ordering Information

Model	Part No	Description
DC/02	772/AA	2 Column Density Measuring System

AMETEK
TEST & CALIBRATION INSTRUMENTS



CERTIFICATE No: 02529/11/11

www.ametek.com

UK
Lloyd Instruments Ltd
12 Barnes Wallis Road
Segensworth East, Fareham
Hants, PO15 5TT

Tel +44 (0)1489 486 399
Fax +44 (0)1489 885 118
E-mail general@lloyd-instruments.co.uk
Web www.lloyd-instruments.co.uk

USA
AMETEK TCI Division
8600 Somerset Drive
Largo
Florida 33773

Tel +1 (727) 536 7831
Fax +1 (727) 539 6882
E-mail chatillon.fl-lar@ametech.com
Web www.lloyd-instruments.co.uk

Far East
AMETEK Singapore Pte Ltd
10 Ang Mo Kio Street 65
#05-12 Techpoint
SINGAPORE 569059

Tel +65 6484 2388
Fax +65 6481 6588
E-mail aspl@ametech.com.sg
Web www.lloyd-instruments.co.uk

France
Lloyd Instruments S.A.S.
3, Avenue des Coudriers
Zone d'activité de l'observatoire
78180 Montigny Le Bretonneux

Tel +33 (0)1 30 57 47 74
Fax +33 (0)1 30 57 50 33
E-mail general@lloyd-instruments.com
Web www.lloyd-instruments.fr

Germany
AMETEK GmbH
Rudolf-Diesel-Straße 16
D-40670 Meerbusch

Tel +49 (0)2159 9136-70
Fax +49 (0)2159 9136-80
E-mail info@ametech.de
Web www.ametek.de