

# Distillation Unit K-350 and K-355



# **Distillation Unit K-350 and K-355**

**Distillation Unit K-350 and K-355 are efficient and versatile. Both units provide accurate and highly reproducible measuring results with a high recovery rate. They can be used for a wide range of applications in analytical laboratories in the food and beverages, feed, agricultural, environmental, chemical and pharmaceutical industries. These applications include the classical practices of nitrogen and protein determination, such as Kjeldahl, TKN (Total Kjeldahl Nitrogen) and Devarda, in accordance with official methods (AOAC, EPA, ISO and DIN). Beyond the classical methods (Kjeldahl, TKN, Devarda) the K-355 is designed for additional applications, such as alcohol, sulfur dioxide, volatile acids and phenol determination.**

**The K-350 and K-355 are based on proven technology, and feature a robust and compact design that takes up minimal space in your laboratory. A powerful steam generator ensures a fast and reliable process.**

**Up-to-date monitoring technique ensures safe operation of the distillation units.**



**The K-350: Easy-to-use distillation unit for classical Kjeldahl applications**

The K-350 is the cost-effective solution for fast and reliable nitrogen determination in accordance with official methods.

- Nitrogen and protein determination according to Kjeldahl
- Nitrogen determination according to Devarda
- TKN determination in the environmental industry



**The K-355: Versatile Kjeldahl distillation unit for a wide range of applications**

In addition to classical applications, the K-355 allows all kinds of steam distillation options, including methods which require reduced steam output. A reliable and acid-resistant pump even allows applications where the dosage of strong acids is required.

Additional applications for the K-355:

- Alcohol distillation
- Determination of sulfur dioxide
- Phenol distillation
- Determination of volatile acids
- Cyanide determination
- Formaldehyde determination
- TVB-N (Total Volatile Basic Nitrogen) in fish



# Features of K-350 and K-355

	K-350	K-355
<b>High degree of convenience:</b>		
Compact stand-alone unit using minimal space	●	●
Modern and functional design	●	●
Easy-to-use keyboard	●	●
Integrated timer	●	●
LC display	●	●
Service door (front access)	●	●
Storage of nine different methods		●
<b>Steam generator:</b>		
High-performance steam generator for efficient steam distillation	●	●
Electronic regulation of steam output		●
Storage of steam output		●
<b>Dosage:</b>		
Alkali addition	●	●
Acid dosage via acid-resistant pump		●
Recall of last dosage	●	●
<b>Safety features:</b>		
Protective door with sensor	●	●
Sample tube detector	●	●
Service door sensor	●	●
Drip tray	●	●
Cooling water flow sensor		●
<b>Control:</b>		
Glass splash protector	●	●
Plastic splash protector	●	●
Cooling water control	●	●
Storage of distillation time	●	●
<b>Applications:</b>		
Kjeldahl, Devarda, TKN	●	●
Alcohol, phenol, sulfur dioxide, volatile acids, formaldehyde, TVB-N		●

The keyboard and easy-to-read display allow user-friendly operation. Error codes (e.g. door open) are immediately displayed and indicated by a signal. The K-355 offers additional convenience, enabling the storage and recall of nine different customer-specific methods.



User interface of the Distillation Unit K-355



Plastic splash protector



Glass splash protector



Protective door monitored by a sensor



## **Buchi Kjeldahl solutions: An integrated workflow package**



Some applications require sample preparation prior to distillation. With the powerful Mixer B-400, non-homogeneous substances can be minced or crushed and homogenized to provide a representative sample. Digestion with a Buchi digestion unit is necessary whenever the nitrogen-containing substance in a sample has to be converted into the appropriate form of nitrogen. During this process, acid fumes and reaction gases may emerge. For this reason the Scrubber B-414 is recommended to prevent bad odors and hazardous gases by neutralizing and absorbing all kind of fumes and gases. Once it has cooled to room temperature, a sample prepared in this way can be utilized directly for Distillation Unit K-350 or K-355.

# Order information

Order no.

## Distillation Unit K-350

Includes steam generator, pair of glass tongs, sample tube, hoses, mains cable and two 10-liter tanks

Unit with glass splash protector 230 V, 50/60 Hz	43500
Unit with plastic splash protector 230 V, 50/60 Hz	43418

## Distillation Unit K-355

Includes steam generator, pair of glass tongs, sample tube, hoses, mains cable and three 10-liter tanks

Unit with glass splash protector 230 V, 50/60 Hz	43505
Unit with plastic splash protector 230 V, 50/60 Hz	43419

## Accessories for K-350 and K-355

Order no.

300 ml sample tube (set of 4)	37377
300 ml sample tube graduated (set of 4)	43049
500 ml sample tube	26128
500 ml sample tube (set of 4)	43982
Holder for 4 sample tubes, 500 ml	16951
Holder for 6 sample tubes, 300 ml	43039
Holder for 12 sample tubes, 300 ml	43041
Tanks 10 l: chemicals/waste	43468/43470
Tanks 20 l: chemicals/waste	43469/43471
Splash protector Devarda	43335
Condenser cover	43484
SO <sub>2</sub> adsorption glass set	48680
Universal adapter Kit for competitor Kjeldahl tubes	43115
Constricted distillate outlet tube ø 5 mm	43096
IQ/OQ-set K-350 (en)	45542
IQ/OQ-set K-355 (en)	45543

# Technical data

Distillation Unit	K-350	K-355
Mains voltage	230 V	230 V
Frequency	50/60 Hz	50/60 Hz
Power consumption	2200 W	2200 W
Current consumption (230 V)	9.5 A	9.5 A
Weight	16.5 kg	17 kg
Dimensions ( L x H x D)	400 x 660 x 360 mm	400 x 660 x 360 mm
Recovery rate	≥ 99.5 %	≥ 99.5 %
Reproducibility (RSD)	≤ ± 1 %	≤ ± 1 %
Detection limit	≥ 0.1 mg nitrogen	≥ 0.1 mg nitrogen
Steam performance	160 ml / 5 Min	160 ml / 5 Min

BUCHI Labortechnik AG  
Postfach  
9230 Flawil 1  
Schweiz  
T +41 71 394 63 63  
F +41 71 394 65 65  
buchi@buchi.com  
www.buchi.com

BUCHI Labortechnik GmbH  
Postfach 10 03 51  
45003 Essen  
Deutschland  
Freecall 0800 414 0 414  
T +49 201 747 490  
F +49 201 237 082  
deutschland@buchi.com  
www.buechigmbh.de

BUCHI Labortechnik GmbH  
Branch Office Netherlands  
Postbus 142  
3340 AC Hendrik-Ido-Ambacht  
The Netherlands  
T +31 78 684 94 29  
F +31 78 684 94 30  
netherlands@buchi.com  
www.buchi.nl

BUCHI Italia s.r.l.  
Centro Direzionale, Milano Fiori  
Pal. A-4, Strada 4  
20090 Assago (MI)  
Italia  
T +39 02 824 50 11  
F +39 02 57 51 28 55  
italia@buchi.com  
www.buchi.it

BUCHI India  
Private Ltd.  
201, Magnum Opus  
Shantinagar Industrial Area  
Vakola, Santacruz (East)  
Mumbai 400 055,  
India  
T +91 22 667 18983 / 84 / 85  
F +91 22 667 18986  
www.buchi.com

BUCHI (Thailand) Ltd.,  
77/175, Sin Sathon Tower,  
39th FL, Unit F  
Krunghthonburi Rd.  
Klongtong, Klongsan  
Bangkok 10600  
Thailand  
T +66 2 862 08 51  
F +66 2 862 08 54  
bacc@buchi.com  
www.buchi.com

BUCHI Corporation  
19 Lukens Drive, Suite 400  
New Castle  
Delaware 19720  
USA  
T +1 302 652 3000  
F +1 302 652 8777  
Toll Free: +1 877 692 8244  
us-sales@buchi.com  
www.mybuchi.com

BUCHI Hong Kong Ltd.  
1810 Fortress Tower  
250 King's Road  
North Point, Hong Kong  
China  
T +852 2389 2772  
F +852 2389 2774  
china@buchi.com  
www.buchi.com.cn

BUCHI Shanghai Trading LLC  
21/F Shanghai Industrial  
Investment Building  
18 Caoxi Bei Road  
200030 Shanghai  
China  
T +86 21 6468 1888  
F +86 21 6428 3890  
china@buchi.com  
www.buchi.com.cn

BUCHI UK Ltd  
5 Whitegate Business Centre  
Jardine Way  
Chadderton  
Oldham OL9 9QL  
United Kingdom  
T +44 161 633 1000  
F +44 161 633 1007  
uk@buchi.com  
www.buchi.co.uk

BUCHI Sarl  
5, rue du Pont des Halles  
Z.A. du Delta  
94656 Rungis Cedex  
France  
T +33 1 56 70 62 50  
F +33 1 46 86 00 31  
france@buchi.com  
www.buchi.fr

Nihon BUCHI K.K.  
3F IMON Bldg.,  
2-7-17 Ikenohata, Taito-ku,  
Tokyo 110-0008  
Japan  
T +81 3 3821 4777  
F +81 3 3821 4555  
nihon@buchi.com  
www.nihon-buchi.jp

We are represented by more than 100 distribution partners worldwide. Find your local representative at

[www.buchi.com](http://www.buchi.com)

Quality in your hands