

Food & Feed line Authorized Distributor www.clarksonlab.com

Innovative
Laboratory
Equipment
Solutions



NEUTECH
GROUP INC

Food and Feed Line

Food and feed represent all of the substances that, when introduced in living organisms, supply the energy and structural components required for growth and preservation of vital functions.

Food and feed are characterized by their composition in terms of proteins, carbohydrates, and fat for their nutritional content and also according to laws of the European Economic Community (EEC), United States (US), etc.

The innovative equipment manufactured by VELP Scientifica provides substantial assistance to food and feed analysis specialists involved in production and research.

Equipment for Protein Determination in Food and Feed

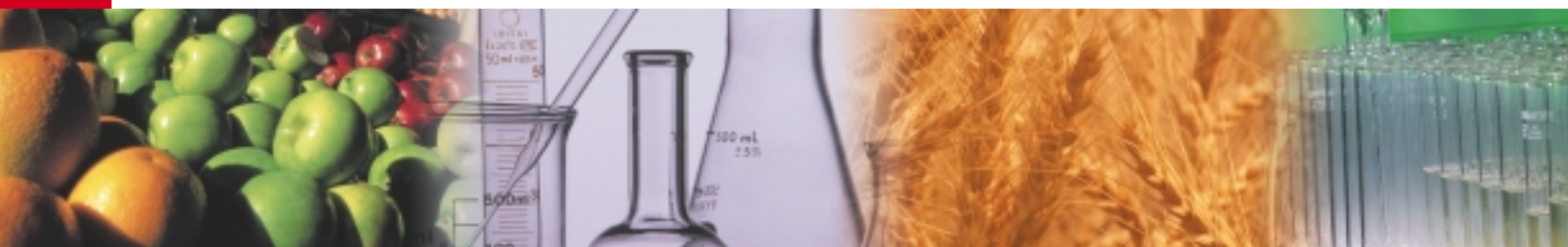
JP Recirculating Water Pump for fumes aspiration
VELP Scientifica's innovative microprocessor-controlled recirculating water jet pump allows you to select two different time-related programs. These programs ensure high performance removing fumes related to the

different digestion phases and to the number of digested samples. The airflow rate is up to 35l/min. The pump aspirates corrosive fumes during acid digestion, for rotary evaporation systems, or for distillation and filtration under vacuum. Save water with recirculation pump.

SMS Scrubber
This very efficient unit allows correct disposal of toxic substances without emission to the work place or environment. The SMS Scrubber is designed to remove corrosive and toxic fumes during oxidative mineralization or other processes.

DK Series Heating Digesters
We provide a wide range of digesters for different sizes and numbers of test tubes.

- Features and Benefits:**
- Ease of programming by only 4 keys that control all functions
 - Accurate temperature control by a microprocessor (+/- 0.5C)
 - Flexibility achieved by 20 optional programs, each with up to 4 temperature ramps
 - Connectivity to a computer for data logging with RS232



UDK 142 Automatic Steam Distillation unit connected to an Automatic Titrator.

Features and Benefits:

- The UDK142 is a fast, easy to set up distillation unit that can be connected to various auto-titration units
- All parameters are fully programmable
- Push button operation
- Accepts multiple size flasks and tubes
- High Durability to chemical corrosion
- Comply with IP55 protection level
- Visible identification of process stage

It is useful for determining ammonia nitrogen, total Kjeldahl or direct alkaline proteic nitrogen (after reduction), phenols, volatile fatty acids, cyanides, sulfur dioxide, alcohol content, etc. in cereals, food and feed, water, soil, sludge, sediment, and chemicals.

The UDK 142 is equipped with an innovative, patented steam generator that allows you to change from fast to slow distillations speeds based on the product being determined.

The Kjeldahl's Method is named after the danish chemist who developed it more than a century ago. Today, the method is widely used according to official methods to determine nitrogen and proteins in food, feed, wastewater, etc. Velp scientifica's equipment allows you to perform the kjeldahl method easily and with reproducible results.

UDK 132

- Mid range model offering some automated functions
- Safety features to assure safe operation

UDK126D

- Basic model designed for laboratories performing low number of analysis per day
- Fast operation
- Safety features to assure safe operation



Equipment for solvent extraction of soluble substances

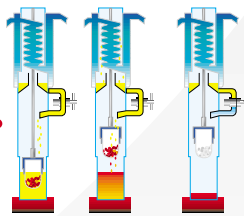
Extraction by an organic solvent allows a quantitative separation of a component or group of components (e. g., fat) from a mixture of solids.

Examples of such applications include the analysis of food, feed, detergents, rubber and plastic formulates, pharmaceutical products, soils, etc. for their content of soluble components, such as fat, tensides, plastifiers, and pesticides.

Soxhlet technique
 The solubilization of extractable components is performed by a cold solvent dropping from a reflux condenser. Consequently, a complete extraction lasts many hours.



Randall's technique - the first phase of extraction is performed by immersing a sample - containing thimble in boiling solvent followed by a washing with cold refluxing solvent. The fast solubilization achieved by the hot solvent results in a sharp reduction of extraction time.



SER 148
 Our solvent extraction equipment includes three or six places for solid or semisolid products, according to Randall's technique. The equipment optimizes manual operations, reduces extraction time, maximizes solvent recovery and ensures completely safe operation.

The equipment includes a safety system that signals the lack of cooling water. According to GLP, it is possible to print or save data related to the extraction.



Filtration and determination of dietary fiber

CSF 6
 Filtration equipment is used to determine dietary fiber. The unit is equipped with a peristaltic pump that has high suction capacity and electronic control of counterpressure, allowing a sharp reduction of filtration time. Among the main analytical applications are the determination of total, soluble, and insoluble dietary fiber. Dietary fiber includes cellulose, hemicelluloses, lignin, pectins, gums, and waxes.

The American Association of Official Analytical Chemists for the dietary fiber determination by thermostable enzymes proposes the method 985.29 (AOAC Official Methods of Analysis).

GDE Enzymatic Digester
 This thermostating unit consists of an immersion heating head, a transparent tank, and a magnetic stirrer with six places. It allows precise control of temperature during critical enzymatic digestion.



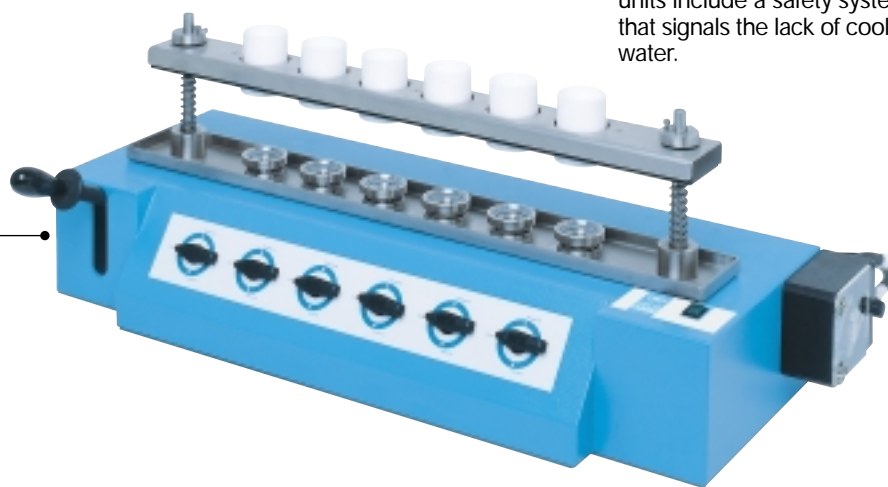
Equipment for raw fiber determination

In the field of qualitative and quantitative control of food and feed, increasing importance is given to "raw fiber," which by convention is defined as indigestible residue. Raw fiber determination is performed mainly in chemical analytical and research laboratories within the Food and Feed industry.



FIWE 3 and FIWE 6

These extraction units with three or six places are used for raw fiber determination. Their innovative technological design allows cold or hot extractions with accurate and reproducible results through easy, reliable operation. The units include a safety system that signals the lack of cooling water.



COEX Cold Extractor

COEX equipment allows rapid defatting of samples in the same glass crucibles used by FIWE 3 and FIWE 6 for subsequent crude fiber determination. Normally used with samples with high (>1%) fat content.



Equipment

Model	Cat. No. 110-120V 50-60Hz	Cat. No. 220-240V 50-60Hz	Cat. No. 220-240V 50Hz	Cat. No. 220-240V 60Hz	Cat. No. 110-120V 60Hz	Power (W)	Temperature °C	Weight Lbs (kg)	Dimensions (W x H x D) Inch (mm)	Accessories
DK 6	10.1182	10.0182	-	-	-	1100	from room temperature to 450	22(10)	11.5x6x13.25 (293x152x339)	1,2,3,4,5,6,7,8,9 10,11,41
DK 20	-	10.0184	-	-	-	2100	from room temperature to 450	52.8(24)	15.5x6x17.5 (393x152x446)	15,6,7,8,12,13,14,15 16,17,18,41
DK 20/26	10.1185	10.0185	-	-	-	1100	from room temperature to 450	22(10)	11.5x6x13.25 (293x152x339)	10,19,20,41,42
DK 42/26	-	10.0186	-	-	-	2100	from room temperature to 450	53.9(24.5)	15.5x6x17.5 (393x152x446)	15,19,21,41,43
DK 6/48	10.1188	10.0188	-	-	-	1100	from room temperature to 450	18(8.2)	11.5x6x13.25 (293x152x339)	10,22,23,24,41
JP	-	-	10.0198	10.0198-60	10.1198	160	-	18.5(8.4)	10x15.75x14.5 (250x400x370)	-
SMS 10.0199	-	-	-	-	-	-	-	7.7(3.5)	7.5x19.75x11.75 (190x500x300)	37,38
UDK 126D	-	-	10.0183	-	10.1183	2100	-	50.6(23)	12.5x29.25x14.5 (318x740x365)	25,26,27
UDK 132	-	-	10.0189	-	-	2100	-	61.6(28)	13.5x28.25x17.25 (340x720x440)	25,26,39,41,45
UDK 142	-	-	10.0191	-	-	2100	-	66(30)	13.5x28.25x17.25 (340x720x440)	25,26,33,34,35 36,39,41
SER 148/3	10.1240	10.0240	-	-	-	400	from 100 to 260	66(30)	19x24.5x15.25 (480x620x390)	28,29,30,40,41
SER 148/6	10.1242	10.0242	-	-	-	900	from 100 to 260	88(40)	27.5x25.5x15.25 (700x620x390)	28,29,30,40,41
OXITEST	-	-	10.0248	-	-	400	from 100 to 260	13.2(6)	12x6x13.5 (300x155x340)	-
CSF 6	-	-	10.0210	10.0210-60	10.1210	120	-	61.6(28)	28.75x15x16.5 (730x380x420)	31
GDE	10.1209	10.0209	-	-	-	850	from room temperature to 60	15.4(7)	16.25x19.75x11.5 (410x500x295)	32
FIWE 3	-	-	10.0201	10.0201-60	10.1201	800	-	77(35)	21x24.5x15.25 (530x620x390)	31,44
FIWE 6	-	-	10.0200	10.0200-60	10.1200	1200	-	101.2(46)	30x24.5x15.25 (760x620x390)	31,44
COEX	-	-	10.0204	10.0204-60	10.1204	70	-	41.8(19)	28.75x11.75x15 (730x300x380)	31

Accessories

N.	Description	Cat. No.	N.	Description	Cat. No.	N.	Description	Cat. No.
1	Test tubes 42x300 mm	11.1080	16	Drop collector for DK20	11.1202	31	6 glass crucibles	11.1140
2	Glassware handle with heat shields	11.1111	17	Stainless steel glassware handle for COD	11.1098	32	Beaker 400 ml	11.0999
3	Suction cap for DK6	11.1096	18	Stainless steel glassware handle	11.1094	33	Connecting cable for auto-titrator Mettler	10.0191-200
4	Stainless steel stand for glassware handle	11.1097	19	test tubes 26' 300	11.1091	34	Connecting cable for auto-titrator Metrohm (CTRL)	10.0191-201
5	COD test tubes 42x200 mm, 200 ml	11.1040	20	Glassware handle with heat shields x DK20/26	11.1110	35	Connecting cable for auto-titrator Metrohm (RS232)	10.0191-202
6	Air refrigerators with ground cone	11.1041	21	Glassware handle with heat shields x DK42/26	11.1109	36	Connecting cable for auto-titrator Schott	10.0191-203
7	Antisplash bells	11.1045	22	Test tube 48 mm	11.1088	37	Filter for activated carbon	11.1165
8	PTFE sheats for 29/32 cones	11.1042	23	Glassware handle with heat shields	11.1113	38	Pack of 10 refill of activated carbon	11.1164
9	Stainless steel glassware handle for COD	11.1049	24	Suction cap for DK6/48	11.1101	39	Adapter for test tube 48x260 mm	MEDI019
10	Support system for DK6, DK20/26,DK 6/48	11.1206	25	Adapter for test tube 26 mm	ACBO021	40	SER 148 Cable for RS232	10.0240.100
11	Drop collector for DK6	11.1200	26	Test tube 80x300mm for alcohol determination	11.1083	41	Printer	11.1009
12	Glassware handle with heat shields	11.1112	27	Spacer for test tube 48x260mm	MEDI013	42	Suction cap for DK 20/26	11.1096/26
13	Suction cap for DK20	11.1093	28	Extraction cup	11.1141	43	Suction cap for DK 42/26	11.1093/26
14	Stainless steel stand for glassware handle	11.1094	29	Extraction thimbles (pack of 25 pieces)	11.1148	44	Water spray device	11.1135
15	Support system for DK20, DK42/26	11.1204	30	Extraction thimbles holder	11.1142	45	Keyboard	ACKE001



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