Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70 **Казахстан** +7(7172)727-132 **Киргизия** +996(312)96-26-47

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NDA 702

Dumas Nitrogen Analyzer

Nitrogen / Protein Determination in a Flash

NDA 702 Nitrogen Analyzer

The NDA 702 combustion elemental analyzer is a versatile, cloud-enabled and fully automated solution for nitrogen determination according to Dumas Method in a wide range of applications. The NDA 702 offers high performance on both solid and liquid samples, working in accordance to international standards such as AOAC, AACC, ASBC, ISO, IFFO, OIV.

FAST ANALYSIS

The fully automatic NDA 702 elemental analyzer perform analysis in 3-5 minutes. The quick start and sleeping mode ensure fast operation set up with possibility of leak test per zone.

THE HIGHEST PRECISION

The LoGas™ TCD (Thermal Conductivity Detector) designed by VELP guarantees unmatched precision with the unrivaled LOD of 0,001 mgN and low standard deviation.

MAXIMUM SAFETY

The NDA 702 is equipped with state-of-the-art safety features that interrupt the analysis in case of irregularities. Immediate notification and remote stop via VELP Ermes Cloud Platform ensures safe unattended operations.

EFFICIENCY

The fully automatic and reliable combustion method of the NDA 702 together with DriStep™ water trap guarantee moderate cost. The 30-positions disc autosampler expandable with extra 3 discs ensures maximum productivity and uptime.

VERSATILITY

NDA 702 works with solid, liquid and doughy samples of up to 1 gram. Seamless carrier gas selection between Helium and Argon without hardware changes and whit no memory effect.

SMART INSTRUMENT

The NDA 702 N/protein analyzer is easy to use and does not require skilled operator. The user-friendly DUMASoft™ software and VELP Ermes connection will deliver a new user experience and smart workflows.

TEMS™ Technology
Save Time, Energy, Money and Space.

DUMAS VS KJELDAHL

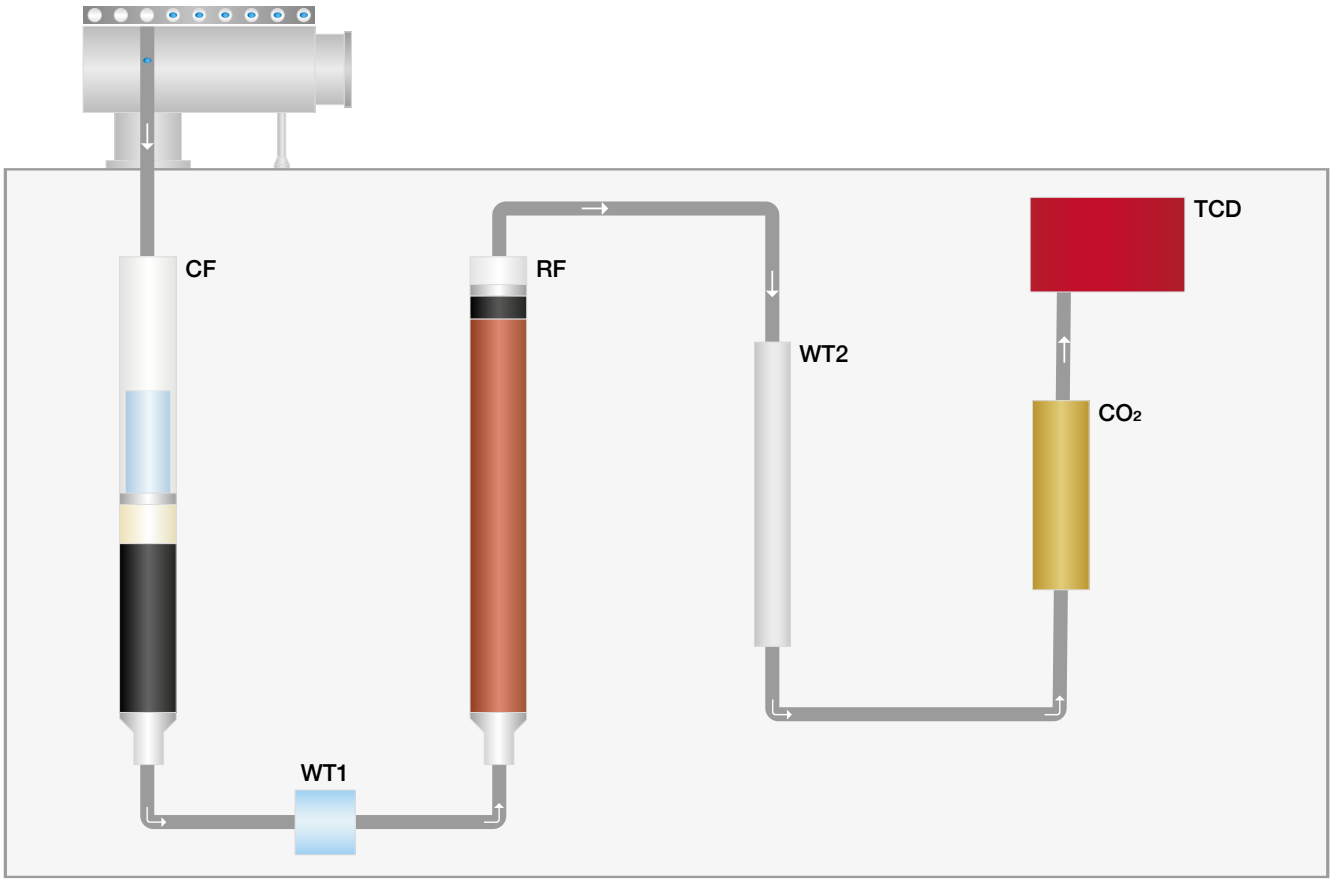
DUMAS

- HIGH PRODUCTIVITY
  Non-stop performance
- TIME SAVING
  Few minutes required
- LOW COST OF OWNERSHIP
  Moderate running costs
- TOTALLY UNSUPERVISED
  Fully automated process
- DRY CHEMISTRY
  No dangerous chemicals
- ECO-FRIENDLY
  Less residues and no wastes produced
- OFFICIALLY RECOGNIZED METHOD
  Gaining in international use with advanced instruments

KJELDAHL

- LESS PRODUCTIVITY
  Inability to operate continuously
- TIME-CONSUMING
  Analyses last hours
- AFFORDABLE EQUIPMENT COST
- PARTLY UNSUPERVISED
  Not entirely automated process
- WET CHEMISTRY
  Uses chemicals
- COSTLY WASTES PRODUCED
  Residues must be disposed off
- WORLDWIDE OFFICIAL METHOD
  Traditional technique, simple equipment

NDA 702 Analysis Process



- **CF** (Combustion Reactor) Allows complete combustion at 1030 °C in order to convert all of the sample into its elemental substances.
- **WT1** (Physical Water Trap) The maintenance-free DriStep™ cooler permits 99% of water to be removed.
- **RF** (Reduction Reactor) Enables the elimination of unwanted compounds and oxygen, transforming NOx into N_2.
- **WT2** (Chemical Water Trap) Eliminates the residual water.
- **CO_2** (CO_2 Regenerating Adsorbers) Used to get rid of all the CO_2. Auto-regenerating, maintenance-free system.
- **TCD** (Innovative TCD) LoGas™ determines nitrogen content without the need for a reference gas. Maintenance-free.

VELP ERMES CONNECTION

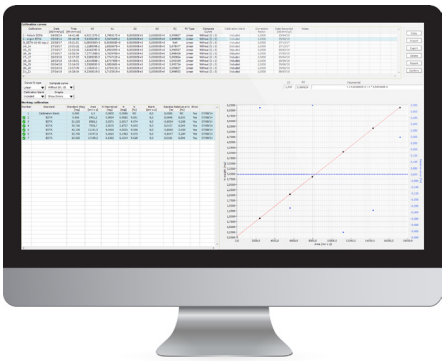
Connect the NDA 702 to the exclusive VELP Ermes Cloud Platform to improve your laboratory experience. The VELP Ermes Cloud Platform connection will unburden you from tedious tasks, improving your lab productivity.

- Enhanced analytical and service support resulting in the highest system uptime
- Real time monitor and control of the instrument from PC, smartphone and tablet whenever you want, wherever you are
- Immediate alert and notification with the possibility to stop the instrument for maximum safety
- Regular software updates will guarantee the best performance and new features with just one-click

ermes enabled

DUMASoft™ Software

The DUMASoft™ software is the powerful VELP solution that controls and operates the NDA 702 analyzer. The DUMASoft™ comes with a user-friendly interface that displays all relevant information at a glance: results, database and instrument conditions. It is possible to choose from a rich library of pre-installed methods and create customized ones.



1 BEFORE THE ANALYSIS

- Create or choose a calibration curve
- Fill in the required data (sample name, analysis type, weight…)
- Select a method and calibration curve

2 DURING THE ANALYSIS

- Monitor of the working parameters
- Real time graph of the analysis
- Immediate read-out of the results in mg of nitrogen, nitrogen % and protein %

3 AFTER THE ANALYSIS

- Multiple data comparison
- Data export in .xls, .txt and .csv to PC or LIMS
- Crate, print and download reports of single or multiple analysis
- If necessary set the instrument in Stand-by mode or Sleeping mode
- Short statistical analysis in one click

APPLICATIONS

PROTEIN DETERMINATION

- CEREAL GRAINS AND OILSEEDS
  AOAC 992.23
- ANIMAL FEED
  AOAC 990.03
- MILK AND MILK PRODUCTS
  UNI EN ISO 14891, FIL-IDF 18
- FLOURS, CEREALS GRAINS, OIL SEEDS AND ANIMAL FEEDS
  AACC 46-30
- GRAIN AND GRAIN PRODUCTS
  ICC 167
- OIL SEEDS AND ANIMAL FEEDING STUFFS
  ISO 16634-1:2008
- BEER, WORT, AND BREWING GRAINS
  AOAC 997.09
- MEAT AND MEAT PRODUCTS
  AOAC 992.15

NITROGEN DETERMINATION

- FERTILIZERS
  AOAC 993.13
- SOIL
  ISO 13878:1998
- RUBBER, LATEX, ELASTOMERS
  ISO TC 45/SC 2 N2116
- CELLULOSE
- VACCINES
- PLASTICS
- PAPER

OPTIONAL ACCESSORIES

1000 analyses kit	A00000194
2000 analyses kit	A00000270
4000 analyses kit	A00000271
Disc 2 for Autosampler	A00000199
Disc 3 for Autosampler	A00000200
Disc 4 for Autosampler	A00000201
Pre-packed combustion reactor	A00000158
Pre-packed reduction reactor	A00000226
Quartz reactor tube	A00000162
Metal reactor tube	A00000321
Cleaning kit for metallic ash collector	A00000353
Ceramic ash collector	A00000198
Metallic ash collector	A00000322
Quartz ash collector	A00000161
Anhydrone, 454g	A00000225
Super-Absorbent Powder, 10g	A00000317
Quartz wool, 50g	A00000154
Vcopper High Reduction Efficiency, 470g	A00000240
Copper oxide, 50g	A00000157
Velpcatalyst with inert layer, 36g	A00000320
EDTA Certified, 100 gr	A00000149
Rice Flour, 30g	A00000235
Tin Foil Cups, 150pcs	A00000153
Tin Foils 50x50mm, 450 pcs	A00000260
Mold for tin foils 50x50mm	A00000262
Tin foil cup closing device	A00000217
Kit for TOC/sample preparation	TA00000378
Silver Foil 35x35mm, 100 pcs	A00000371
High temperature sealing grease	A00000236
IQ/OQ/PQ CN Manual	A00000370
VELP Ermes 1 Year Connection	E00010012
VELP Ermes 3 Year Connection	E00010036

GLP Good Laboratory Practice

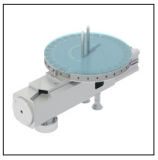
AOAC		AACC	ASBC
ISO	IFFO	AOCS	OIV

INSTRUMENT - CODE

NDA 702	230 V / 50-60 Hz	**F30800080**

SUPPLIED WITH

A00000193
Start-up kit



40001065
Autosampler with disc 1

40001504
DUMASoft™ Software

40001693
USB cable for PC, 5m

10003926
RS232 Cable for balance

E00010012
VELP Ermes 1 Year Connection

The Dumas Analyzer is supplied with all necessary parts to perform up to 1000* analyses (inclusive of catalysts, copper, quartz wool, reagents and seals). In addition it contains chemicals and small consumables spares for maintenance.

Use Genuine Velp Consumables accessories to get the best performance from your NDA

FIELDS OF APPLICATION

The NDA 702 is extremely versatile, being suitable for nitrogen and protein determination in several kinds of sample, in accordance with official AOAC, AACC, ASBC, ISO and OIV methods.

TECHNICAL DATA

	NDA 702
METHOD OF ANALYSIS	Dumas method / Combustion
DETECTOR	Autocalibrating TCD (no need for a reference gas)
CARRIER GAS	Helium or Argon
SAMPLE WEIGHT	Up to 1 g
MEASURING RANGE	ppm - 200 mgN
ANALISIS TIME	3-5 min
AUTOSAMPLER CAPACITY	Up to 4 discs, 30 positions each
AUTOSAMPLER TYPE	Pneumatic
REPRODUCIBILITY (RSD)	< 0.5% for EDTA standards approx. 100 mg (9.57% N)
RECOVERY	> 99.5%
DETECTION LIMIT	0.001 mg N (He) or 0.01 mg N (Ar)
COMBUSTION TEMPERATURE	1030 °C / 1886 °F
HELIUM (He) / ARGON (Ar)	Purity 99.999% (grade 5.0)
OXYGEN (O_2)	Purity 99.999% (grade 5.0)
CARRIER GAS PRESSURE	2 bar
OXYGEN (O_2) PRESSURE	2 bar
CONNECTIVITY	Cloud via LAN or Wi-Fi
INTERFACES	USB, RS232, VELP Ermes Cloud Platform
POWER	1400 W
POWER SUPPLY	230 V / 50 - 60 Hz
WEIGHT	54 kg 119 lb
DIMENSIONS (WxHxD) (including autosampler)	655 x 690 x 410 mm 25.8 x 27.2 x 16.1 in