



FIWE ADVANCE

Automatic Fiber Analyzer

Crude and Detergent Fiber Determination
according to Official Methods



FIWE Advance Fiber Analyzer

The FIWE Advance is a fully automatic analyzer for Crude and Detergent Fiber determination according to standard methods. State-of-the-art technology ensures safety, premium remote connectivity and a unique user experience. FIWE Advance Load&Go operation, requires a minimum operator time of only 2 minutes, to improve lab productivity.

COMPLIANCE AND CONSISTENCY

- The FIWE Advance crucible method is adherent to official standards (ISO and AOAC) ensuring reliability and efficiency.
- Crude Fiber determination and Detergent Fiber determination of NDF, ADF and ADL
- Fiber residues stay in crucibles during all steps of the analysis eliminating the risk of errors and ensuring consistent results.

LOAD THE SAMPLES AND GO

- The FIWE Advance heats and doses the required reagents precisely to analyze up to 6 samples.
- The VELP Dispensing Nozzle drives the reagents precisely into each column avoiding user contact with hot chemicals and fumes.
- FIWE Advance automates digestion, filtration and washing steps without any operator intervention.

SAVING TIME AND MONEY

- The operator time required is as little as 2 minutes.
- FIWE Advance treats each sample individually and takes care of each step of the analysis allowing for overnight work.
- The FIWE Advance automatic processes free up valuable time enhancing lab productivity and saving money.

COMPLETE SAFETY

- All the reagents required are contained in dedicated glass tanks and bottles located inside the instrument.
- The FIWE Advance pre-heats, dispenses, and collects hot chemicals automatically so the risk of contact with the operator is eliminated.

SMART AND EASY TO USE

- The 7" color touch screen offers simple and intuitive user interface designed to simplify operations.
- Choose from preset methods or customize your own, mark as your favorites for quick access.
- Optional balance connection and barcode scanner are available to simplify analysis preparation.



TEMS™ Technology

Save Time, Energy, Money and Space.

THE MAIN FIBER DETERMINATION OFFICIAL METHODS

CRUDE FIBER (Weende Method)

The crude fiber is a method of analysis based on the estimation of the amount of fiber or plant cell walls. Crude fiber is also known as Weende method and is widely spread for the determination of fiber content for monogastrics.





DETERGENT FIBER (Van Soest Method)

Van Soest method is based on the concept that plant cell can be divided into less digestible cell walls consisting of hemicellulose, cellulose and lignin. As a result is possible to fraction fiber in NDF, ADF and ADL that are used to estimate the energy intake from feed and particularly for ruminants.

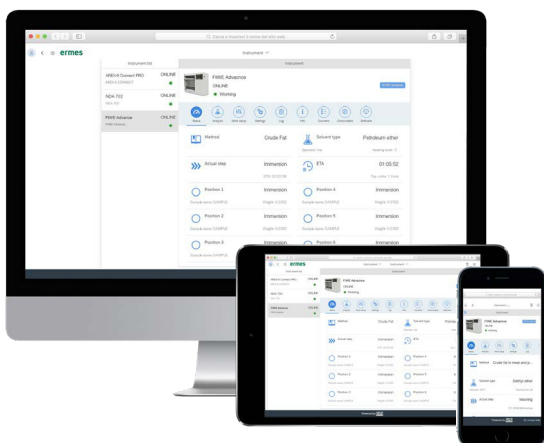
CRUDE FIBER ANALYSIS - CF	EN ISO 6865	AOAC 978.10
NEUTRAL DETERGENT FIBER - NDF, aNDF	ISO 16472	AOAC 2002.04
ACID DETERGENT FIBER and LIGNIN - ADF, ADL	EN ISO 13906	AOAC 973.18

Load and Go!

Drastically reduce the manual and repetitive operation of Fiber analysis to save time and increase productivity in your lab. The fully automatic FIWE Advance system takes care of each step and guarantees consistency and repeatability.

FIWE ADVANCE	SEMI AUTOMATIC EXTRACTOR
 OPERATOR TIME in front of the instrument (Crude Fiber determination)	 OPERATOR TIME in front of the instrument (Crude Fiber determination)
<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 1' ● Crucible loading and instrument start </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> ⋮ Preheating and reagent loading (acid + antifoam) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> ⋮ Heating up until reagent boiling </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> ⋮ Filtration and washing (hot water) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> ⋮ Preheating and reagent loading (alkali + antifoam) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> ⋮ Heating up until reagent boiling </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> ⋮ Filtration and washing (hot water) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center;"> 1' ● Crucible removing </div> </div>	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 1' ● Crucible loading and instrument start </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 5' ✋ Preheating and reagent loading (acid + antifoam) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 10' ✋ Heating up until reagent boiling </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 10' ✋ Filtration and washing (hot water) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 5' ✋ Preheating and reagent loading (alkali + antifoam) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 10' ✋ Heating up until reagent boiling </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> 15' ✋ Filtration and washing (hot water) </div> <div style="margin-bottom: 10px;"> ⋮ </div> <div style="display: flex; align-items: center;"> 1' ● Crucible removing </div> </div>
TIME OF ANALYSIS: 120 MIN	TIME OF ANALYSIS: 120 MIN
 TOTAL OPERATOR TIME: 2 MIN	 TOTAL OPERATOR TIME: 57 MIN

VELP ERMES CONNECTION



Connect the FIWE Advance 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.

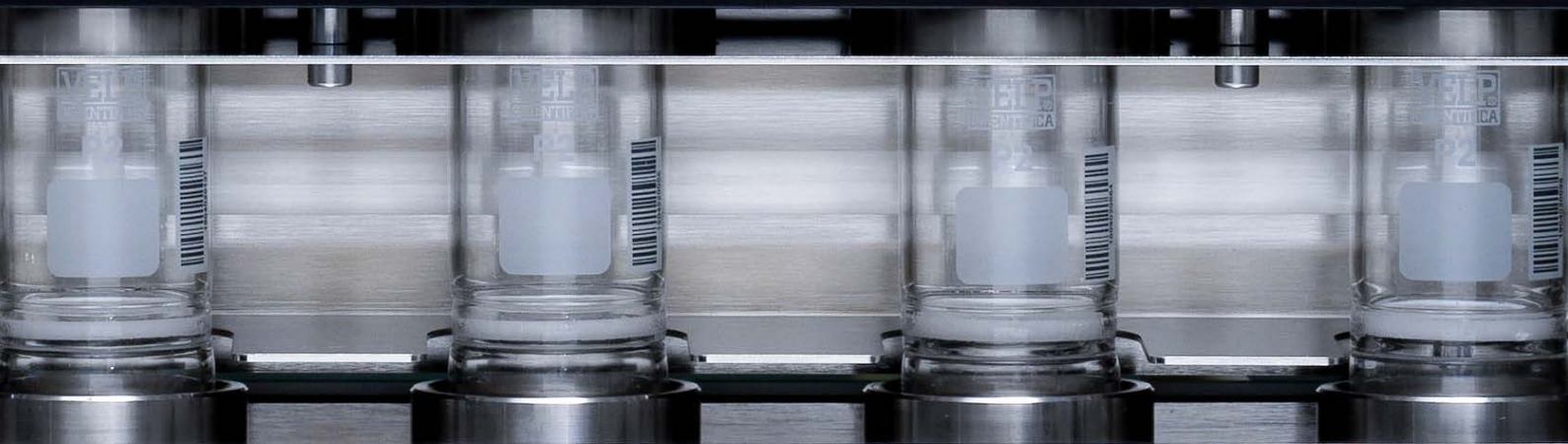
- Real time monitoring and control of the instrument from PC, smartphone and tablet whenever you want, wherever you are
- Immediate alert and notification with the possibility to stop the instrument for maximum safety
- Regular software updates will guarantee the best performance and new features with just one-click

ermes enabled



**EASY TO USE,
INTUITIVE & SMART**

**FULLY AUTOMATIC AND
COMPLIANT TO OFFICIAL METHODS**



**STATE-OF-THE-ART
SAFETY**

OPTIONAL ACCESSORIES

Glass crucible P0 6pcs/box	A00000138
Glass crucible P1 6pcs/box	A00000139
Glass crucible P2 6pcs/box	A00000140
Glass crucible P3 6pcs/box	A00000137
Adapter USB-RS232	A00000195
Barcode scanner with USB socket	A00000364
Wireless barcode scanner	A00000365
USB Wi-Fi Adapter	A00000392
H2O residues tank with caps	A00000266
Oat meal, 30g	A00000318
IQ/OQ FIWE Advance Manual	A00000386
VELP Ermes 1 Year Connection	E00010012
VELP Ermes 3 Years Connection	E00010036

INSTRUMENT - CODE

FIWE Advance	230 V / 50-60 Hz	F30500500
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SUPPLIED WITH

VELP Ermes 1 Year Connection	E00010012
Glass crucibles P2 6 pcs/box	A00000140
Calibration pump device	A00000384
Cooling tap water inlet tube	10000280
PVC tube Ø 7x10 mm	10001086
EPDM tube Ø 6.4x11.2 mm	10002412
Inlet tube for distilled H2O	40000153
Outlet tube for residues	40000387
Pincer for crucibles	10000247
Holder for crucibles	40002662
Heat shield	40002545
Handling device for crucibles	40002596

Premium technology

The VELP Nozzle automatically dispenses the reagents into each column.

The 7" LCD touch display and VELP User Interface ensure smart operations.

Multiple USB port and LAN to connect the balance, Wi-Fi Adapter, Barcode scanner.

Bright LED illumination of the active positions.



Advanced filtration system ensure consistency and repeatability

The transparent tanks allow an immediate visualization of the reagents level.

TECHNICAL DATA

	FIWE ADVANCE
POSITIONS / NUMBER OF SAMPLES	Up to 6 samples simultaneously
CAPACITY PER DAY	Up to 36 (Crude Fiber / Weende Method) Up to 60 (Other Methods)
SAMPLES PROCESSING	Individually processed
SAMPLE QUANTITY	From 0,5 to 3 g
DISPLAY	7" LCD color touch screen
MEASURING RANGE	0.1-100%
REPEATABILITY	± 1% relative at 5%-30% fiber level
BARCODE READER CONNECTION	Yes
LIGHTING	LED showing active positions
HEATING AND DISPENSING OF REAGENTS	Automatic
REAGENT PRE-HEATING TIME	5 - 7 min
TIME FROM PRE-HEATED TEMPERATURE TO BOILING	5 - 10 min
CONNECTIVITY	Cloud via USB Wi-Fi adapter and LAN
INTERFACES	3 x USB, Ethernet (PC)
RESULT CALCULATION	Automatic, On-board archive for data storage
PROTOCOL LIBRARY	5 standard methods + 30 customizable methods
WATER CONSUMPTION	From 1.0 l/min
DIMENSION (WXDXH)	735 x 420 x 666 mm 28,9 x 16,5 x 26,2 in
WEIGHT	57 Kg 125 lb
POWER SUPPLY	230 V – 50/60 Hz
POWER CONSUMPTION	2100 W



SERVICE & SUPPORT

VELP Scientifica products are designed by our engineers to resist years of laboratory use.

Our products are manufactured with premium materials to guarantee the best performance with maximum safety.

According to our experience, a proper and regular maintenance is necessary to ensure the highest performance of analytical instrument. VELP Service Department and VELP Official Partners are always ready to offer you maintenance and service support tailored to your needs.

GET THE SUPPORT YOU NEED CHOOSING THE OPTIONS:

- Installation
- Preventive Maintenance
- Help-desk and Remote support
- Technical Assistance
- Analytical Support
- Calibration Certification



We reserve the right to make technical alterations
We do not assume liability for errors in printing, typing or transmission

VELP Official Partner

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FIWE

Semi-automatic Fiber Analyzers

Crude and Detergent Fiber Determination
according to Official Methods



Reliable and Convenient

The FIWE is the semi automatic fiber extractor that uses pre-heated reagents for fiber analysis according to Weende, Van Soest and other official methods.

- Total raw fiber extraction using Weende technique
- Neutral & acid detergent fiber with NDF, ADF, Van Soest extractions
- Acid detergent lignin extraction with ADL & Van Soest methods
- Reagent preheating on RC 2 hotplate (included)
- Same crucibles used for weighing, drying & washing – no loss of fiber ensured
- High reproducibility
- Back-pressure pump prevents clogging of crucibles



INSTRUMENT - CODE

FIWE 3	230 V / 50 Hz	SA30520201
FIWE 3	230 V / 60 Hz	SA30530201
FIWE 3	115 V / 60 Hz	SA30540201
FIWE 6	230 V / 50 Hz	SA30520200
FIWE 6	230 V / 60 Hz	SA30530200
FIWE 6	115 V / 60 Hz	SA30540200

The products are supplied with accessories and parts, including RC 2 Hot Plate, to start operating from day 1 (visit www.velp.com for more details).

TECHNICAL DATA

	FIWE 3	FIWE 6
CONSTRUCTION MATERIAL	Epoxy painted stainless steel structure	Epoxy painted stainless steel structure
TYPE OF EXTRACTIONS	Cold and hot extractions	Cold and hot extractions
NUMBER OF SAMPLES	3 positions	6 positions
SAMPLE	Individually processed	Individually processed
SAMPLE QUANTITY	From 0,5 to 3 g	From 0,5 to 3 g
REPRODUCIBILITY (RSD)	± 1%	± 1%
SAMPLE REMOVAL	Air pump	Air pump
REAGENT DISCHARGE	Peristaltic pump	Peristaltic pump
DIGITAL TIMER	0 - 99 minutes with acoustic signal at the end	0 - 99 minutes with acoustic signal at the end
TEMPERATURE	Electronic regulation	Electronic regulation
REAGENTS AND COOLING WATER	Separated outlets	Separated outlets
POWER	900 W	1200 W
WEIGHT	35 Kg (77 lb)	40 Kg (101.2 lb)
DIMENSIONS (WXHXD)	530x620x390 mm (20.9x24.4x15.4 in)	760x620x390 mm (29.5x24.4x15.4 in)
APPLICATIONS	Raw fiber (Weende, Wjstrom) Neutral or acid detergent treatment fiber (Van Soest) Lignin, Cellulose, Hemicellulose	Raw fiber (Weende, Wjstrom) Neutral or acid detergent treatment fiber (Van Soest) Lignin, Cellulose, Hemicellulose



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