VELP SCIENTIFICA

SER 158

Automatic Solvent Extractor

Safe Solid-Liquid Extractor for a Variety of Applications

SER 158 Solvent AutoExtractor

Solvent extraction with the SER 158 can be performed for extractable matter determination on a wide range of sample matrices either in food and non-food industries (such as pulp, paper, textile, chemical etc...) and for sample preparation. The solid-liquid extraction process removes the soluble components from solids using a liquid solvent. The SER 158 works in accordance to international standards such as AOAC, ISO, EPA, APHA, UNI.

FAST EXTRACTION

The automatic extraction process completes fully unattended analysis according to the Randall method that is five times faster than traditional Soxhlet.
The high-speed heating plates in glass-ceramic ensure fast solvent boiling.

MINIMUM SOLVENT CONSUMPTION

The patent pending titanium condensers guarantee the unparalleled solvent recovery of more than 90% that is collected in cooled recovery tank.

HIGH PRODUCTIVITY & VERSATILITY

The powerful ControlPad is able to control up to 4 SER 158 units (3 or 6 positions) independently allowing to increase the number of units according to throughput requirement.

MAXIMUM SAFETY

- SolventXpress™ ensures zero exposure to solvents
- SafeEnd™ prevents the overheating and burning of soluble matter
- Remote analysis interruption and immediate notifications trough VELP Ermes

EASE OF USE

The SER 158 Series makes hot solvent extraction easy and fast:

- Preset library of methods and possibility to add new ones and mark preferred methods
- Multilingual support
- Balance connection for automatic result calculation
- Barcorde reader to reduce risk of errors

SMART INSTRUMENT

The SER 158 is designed to work unattended 24/7 with Load&Go technologies, minimizing necessary operator intervention.
Thanks to VELP Ermes connection is possible to monitor the analysis and be notified, anytime, anywhere.

CONFIGURATIONS

SER 158/3

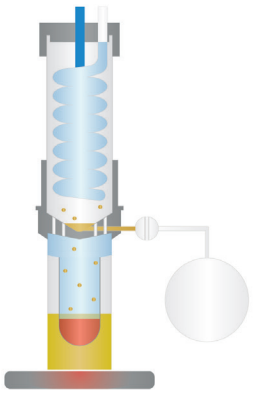
SER 158/6

SER 158/3
no ControlPad

SER 158/6
no ControlPad

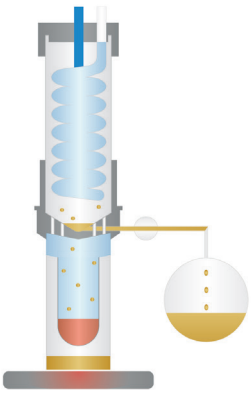
Fully Automatic Extraction Process

The analysis consists of up to 5 steps to ensure a complete sample extraction



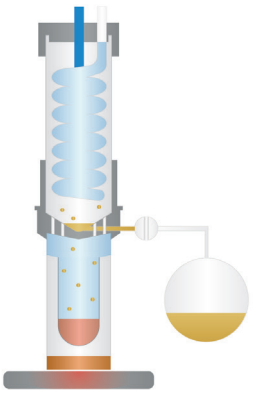
1 IMMERSION

The sample is immersed in boiling solvent for an effective defatting action.



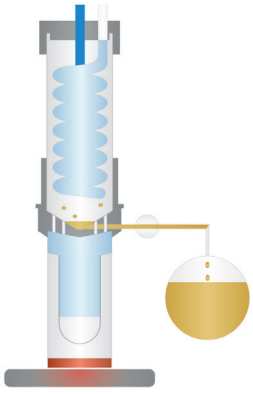
2 REMOVING

The level of solvent is automatically lowered below the extraction thimble. Part of the solvent is collected in the recovery tank, the rest continues to flow through the sample.



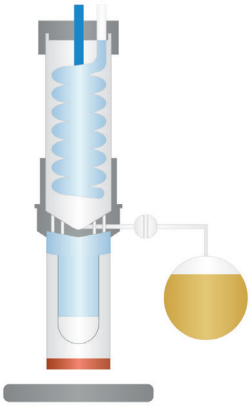
3 WASHING

The condensed solvent flows over the sample and through the thimble to complete the extraction process.



4 RECOVERY

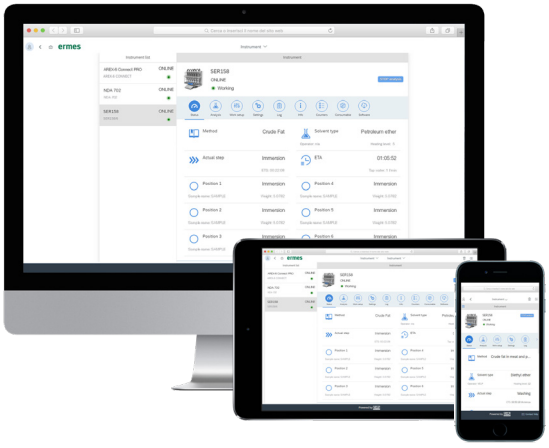
More than 90% of the solvent is recovered in the internal recovery tank.



5 COOLING

The heaters are switched-off and the cups containing the extracts are automatically lifted to prevent burning of the extracted matter.

VELP ERMES CONNECTION



Connect the SER 158 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

TEMS™ SAVING

TIME, ENERGY, MONEY, SPACE SAVING

TIME SAVING: Fast solvent addition, easy analysis set-up, one-click start function.

ENERGY SAVING: Heaters are independent, limited water consumption.

MONEY SAVING: More than 90% solvent recovery and reduced extraction time.

SPACE SAVING: Extremely compact footprint saves bench space.

OPTIONAL ACCESSORIES

White vaflon seal SER158 3pcs/box	**A00000288**
Green viton seal SER158 3pcs/box	**A00000297**
Grey butyl seal SER158 3pcs/box	**A00000298**
Extraction cup Ø 48x120mm 3pcs/box	**A00000303**
Extraction cup Ø 65x120mm 3pcs/box	**A00000302**
Extraction cup Ø 56x120mm 3pcs/box	**A00000290**
Extraction cup STD aluminium 3pcs/box	**A00000361**
Extraction thimble holder Ø 25mm	**A00000291**
Extraction thimble holder Ø 33 mm	**A00000312**
Extraction thimble holder Ø 40mm	**A00000292**
Cellulose thimbles 25x80mm, 25pcs/box	**A00000294**
Cellulose thimbles 33x80mm, 25pcs/box	**A00000295**
Cellulose thimbles 40x80mm, 25pcs/box	**A00000296**
Glass fiber thimbles 25x80mm, 25pcs/box	**A00000314**
Glass fiber thimbles 33x80mm, 25pcs/box	**A00000313**
Glass fiber thimbles 40x80mm, 25pcs/box	**A00000393**
Thimble weighing cup	**A00000310**
Thimbles stand 6 places	**A00000311**
Handling device extraction cups SER158/6	**A00000304**
Crucible holder HU 6 for SER158	**A00000293**
Complete Glass bottle solvent collection	**A00000301**
Inlet Connection1/4NPT-tube Ø 4,3÷4,5mm	**A00000299**
Inlet Connection 1/4NPT-tube Ø4,8÷5mm	**A00000300**
Barcode scanner with USB socket	**A00000364**
Wireless barcode scanner	**A00000365**
Slave connection cable	**A00000287**
Adapter USB-RS232	**A00000195**
Extension lead 2m for ControlPad	**A00000315**
IQ/OQ SER158	**A00000306**
Boiling stones, 30g	**A00000305**
Oat meal, 30g	**A00000318**
VELP Ermes 1 Year Connection	**E00010012**
VELP Ermes 3 Year Connection	**E00010036**

GLP Good Laboratory Practice

AOAC	**ISO**	**EPA**
APHA	**UNI**	

INSTRUMENT - CODE

SER 158/3	115-230 V / 50-60 Hz	**S303A0390**
SER 158/6	115-230 V / 50-60 Hz	**S303A0380**
SER 158/3 no ControlPad	115-230 V / 50-60 Hz	**F303A0390**
SER 158/6 no ControlPad	115-230 V / 50-60 Hz	**F303A0380**

SUPPLIED WITH

A00000286* ControlPad

A00000297 Green viton seal SER158 3pcs/box

A00000312 Extraction thimbles holder Ø 33mm

A00000295 Cellulose thimbles 33x80mm, 25pcs/box

E00010012 VELP Ermes 1 Year Connection

A00000298 Grey butyl seal SER158 3pcs/box

A00000290 Extraction cup Ø 56x120mm 3pcs/box

A00000305 Boiling stones, 30g

10000280 Inlet water tube

10006054 Connection 1/8 NPT - tube 6x4

10002866 Teflon tube Ø 4x6mm

* Included only in codes S303A0390 and S303A0380

The SER 158 can be supplied with or without ControlPad.
All configurations already include a set of accessories that can be used for the most common industries and applications. Optional accessories are available on request.

FIELDS OF APPLICATION

The SER 158 Series is ideal for the determination of crude and total fat content and for sample preparation aimed at the extraction of pollutants and contaminants according to the Randall technique.

TECHNICAL DATA

	SER 158/3	SER 158/6
POSITIONS	3 positions	6 positions
MAXIMUM CAPACITY	21 samples/day/unit	42 samples/day/unit
SCALABILITY	12 positions (up to 4 units)	24 positions (up to 4 units)
SOLVENT VOLUME	up to 200 ml	up to 200 ml
DISPLAY	7" color touch screen - extractable ControlPad	7" color touch screen - extractable ControlPad
SOLVENTS ACCEPTED	Capable of being used with the majority of solvents	Capable of being used with the majority of solvents
SOLVENT RECOVERY	> 90%	> 90%
MEASURING RANGE	0.1 - 100%	0.1 - 100%
RSD	≤ 1%	≤ 1%
ACCURACY	According to officially approved methods	According to officially approved methods
AUTOMATION	Immersion, Removing, Washing, Recovery, Cooling	Immersion, Removing, Washing, Recovery, Cooling
LIGHTING	LED showing active positions	LED showing active positions
HEATING ELEMENT	Glass ceramic - positions independent switch on/off	Glass ceramic - positions independent switch on/off
TEMPERATURE RANGE	Room temperature - 300 °C	Room temperature - 300 °C
SAMPLE SIZE	0.5 to 15 g (generally 2-3 g in 33x80 mm thimbles)	0.5 to 15 g (generally 2-3 g in 33x80 mm thimbles)
SEALS	Viton, Butyl, and Vaflon	Viton, Butyl, and Vaflon
CONDENSERS	Titanium (VELP Patent Pending)	Titanium (VELP Patent Pending)
CONNECTIVITY	Cloud via LAN	Cloud via LAN
INTERFACES	3 x USB (balance, mouse, USB stick), Ethernet (Pc)	3 x USB (balance, mouse, USB stick), Ethernet (Pc),
BARCODE READER CONNECTION	Yes	Yes
RESULT CALCULATION	Automatic, archived on the ControlPad	Automatic, archived on the ControlPad
WATER CONSUMPTION	From 1.0 l/min	From 1.0 l/min
DIMENSIONS (WxHxD)	358x546x450 mm 14x21,5x17,7 in	546x546x450 mm 21,5x21,5x17,7 in
DIMENSIONS WITH CONTROLPAD	358x546x570 mm 14x21,5x22,4 in	546x546x570 mm 21,5x21,5x22,4 in
WEIGHT (SER 158/CONTROLPAD)	Kg 29 / 1 64 / 2,2 lb	Kg 36 / 1 80,3 / 2,2 lb
POWER SUPPLY	115/230 V - 50/60 Hz	115/230 V - 50/60 Hz
POWER CONSUMPTION	630/850 W	630/850 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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