

SER 158

Automatic Solvent Extractor

Versatile, fully automatic, hot solvent extractor for safe and rapid solid-liquid extractions.

velp®

Driven by curiosity



SER 158 Automatic Solvent Extractor

The SER 158 performs solid-liquid extraction for the determination of extractable matter across a wide range of food matrices, environmental samples, pulp, paper, textiles, and chemicals. It is also ideal for sample preparation and works in full compliance with AOAC, ISO, EPA, APHA, and UNI standards.

Fast Extraction

- Fully automated Randall extraction – up to 5x faster than traditional Soxhlet
- Glass-ceramic heating plates for rapid solvent boiling
- Titanium condensers (patent pending) ensure >90% solvent recovery
- Solvent collected in a cooled recovery tank for safe reuse

High Productivity & Versatility

- Control up to 4 SER 158 units (3 or 6 positions) independently with one ControlPad
- Scalable setup based on throughput requirements
- Ideal for labs needing flexibility and efficiency in extraction workflows

Maximum Safety & Operator Protection

- SolventXpress™ ensures zero exposure to solvents during operations
- SafeEnd™ prevents overheating or burning of soluble matter
- Remote interruption and real-time alerts via Velp Ermes Cloud Platform

Smart, Easy & Connected

- Load&Go technology for 24/7 unattended operation
- Preset method library, plus option to add and mark favorite methods
- Multilingual interface and barcode reader to reduce user errors
- Balance connection for automatic result calculation
- Velp Ermes connectivity for remote monitoring, alerts, and support anytime, anywhere

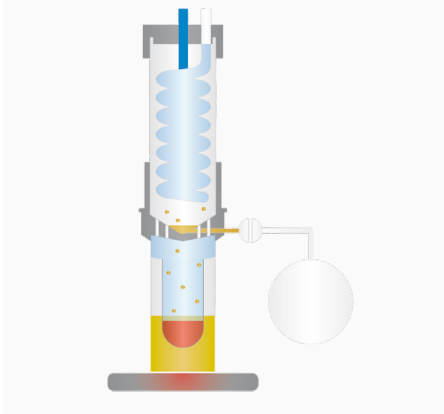


Configurations



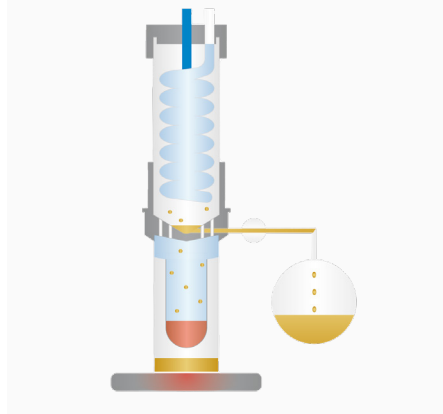
Fully Automatic Extraction Process

Immersion



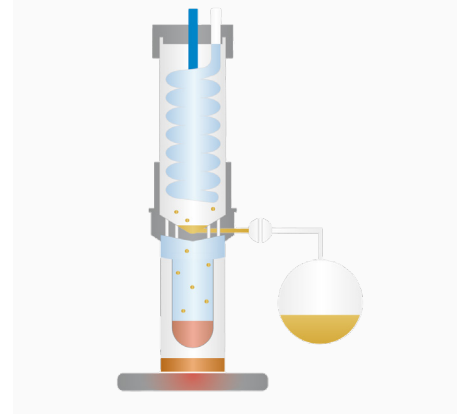
The sample is immersed in boiling solvent for an effective defatting action.

Removing



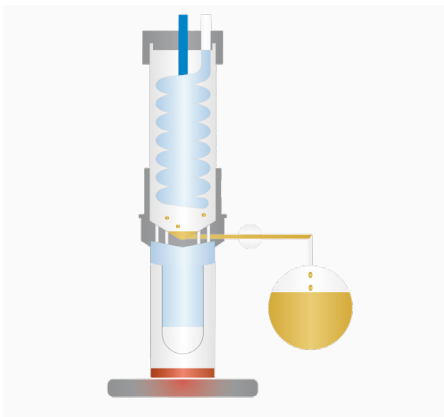
The level of solvent is automatically lowered below the extraction thimble. Part of the solvent is collected in the recovery tank, the rest continues to flow through the sample.

Washing



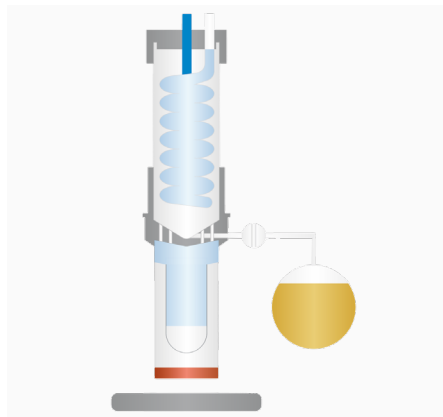
The condensed solvent flows over the sample and through the thimble to complete the extraction process.

Recovery



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

Cooling



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

Fields of Application

The SER 158 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.



Food, Feed & Beverage

Meat, Fish, Poultry, Cereals, Bakery products, Milk, Dairy, Oils, Fats, Brewery, Oils Seeds, Pet food



Cosmetics & Personal Care

Creams, Lotions, Powders



Environmental & Agro

Soils, Plants, Fertilizers, Waste, Wastewater, Water, Sludges, Sediments



Pulp, Paper & Textile

Testing of raw materials, Textile fiber, Cellulose



Chemical & Petrochemical

Rubber, Plastic, Lubricants, Petroleum products, fuels

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 Connection 1/4NPT-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

Instrument - Code

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

Supplied with

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.



A00000286
ControlPad



A00000298
Grey butyl seal SER158 3pcs/box



A00000297
Green viton seal SER158 3pcs/box



A00000290
Extraction cup Ø 56x120mm 3pcs/box



A00000312
Extraction thimbles holder Ø 33mm



A00000305
Boiling stones, 30g



A00000295
Cellulose thimbles 33x80mm, 25pcs/box



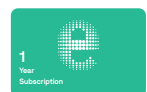
10000280
Inlet water tube



10002866
Teflon tube Ø 4x6mm



10006054
Connection 1/8 NPT - tube 6x4



E00010012
Velp Ermes 1 Year Connection

GLP Good Laboratory Practice

AOAC

ISO

EPA

APHA

UNI

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 service support
- 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



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 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:

- Help-desk and Remote support
- Technical Assistance
- Analytical Support

We reserve the right to make technical alterations
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