MAGNETIC STIRRERS

MAGNETIC STIRRERS

Specially designed for chemical, biotechnological, pharmaceutical, microbiological and medical applications such as growing microorganisms, dissolving nutrients and solids and preventing suspended matter from settling during titration. VELP Scientifica's magnetic stirrers offer solutions for diversified laboratory applications and the **highest safety standards** available on the market, with sample volumes ranging from 250 ml to 25 liters.

MST

The **MST** magnetic stirrer with ABS structure is a **small, simple** and **efficient** stirrer. Extremely useful where a small but **reliable** instrument is needed, the white surface makes it particularly suitable for microtitrations. The MST magnetic stirrer **remains cold** even after several days of continuous use, a feature that is highly appreciated in microbiology and biochemistry.

Electronic speed regulation: up to 1100 rpm
Stirring volume (H_2O): up to 5 L

UK and AU adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
MST	100÷240 V / 50-60 Hz	F203A0440

MST Digital

The **MST Digital** is a small magnetic stirrer equipped with a bright **digital display** to set the stirring speed. It has outstanding chemical resistance, is ideal for microtitration stirrings and is extremely useful in a great variety of application including microbiology, biochemistry and BOD analysis. The **SpeedServo™** ensures constant speed, counter reacting to viscosity changes, and the **auto-reverse** ensures enhanced mixing. The MST Digital remains cold even after several hours of continuous working. It is the perfect solution for every laboratory ensuring versatility and a compact design.

On board **timer** for unattended operations
Electronic speed regulation: up to 1500 rpm
Stirring volume (H_2O): up to 5 L

UK and AU adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
MST Digital	100÷240 V / 50-60 Hz	F203A0450

MICROSTIRRER

The **MICROSTIRRER** is a small and efficient magnetic stirrer specially designed for Microtitration with epoxy painted **metal structure** resistant to chemichals.

Electronic speed regulation: up to 1100 rpm
Stirring volume (H_2O): up to 5 L

INSTRUMENT	POWER SUPPLY	CODE No
MICROSTIRRER	100÷240 V / 50-60 Hz	F203A0161

ESP

The **ESP** is a **mantainance-free ultraflat** magnetic stirrer with no moving mechanical components. The stirring consist of coils that induce a rotating magnetic field. High resistance to chemicals.

Electronic speed regulation: up to 1100 rpm
Stirring volume (H_2O): up to 5 L

INSTRUMENT	POWER SUPPLY	CODE No
ESP	100÷240 V / 50-60 Hz	F206A0179

MULTISTIRRER

The **MULTISTIRRER** is multi-position magnetic stirrer available in 6 or 15 positions for beakers with a maximum diameter of 85 mm and 64 mm, respectively. The MULTISTIRRER **remains cold** even after several days of continuous operation and is ideal for thermostatting the samples when used with a recirculating water bath.

Electronic speed regulation: from 80 to 1500 rpm
SpeedServo™: constant speed even when the viscosity changes

MULTISTIRRER 6
Stirring volume (H_2O): up to 400 ml per position
Distance between stirring position centres: 100 mm

MULTISTIRRER 15
Stirring volume (H_2O): up to 250 ml per position
Distance between stirring position centres: 74 mm

UK and AU adapter adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
MULTISTIRRER 6	100÷240 V / 50-60 Hz	F203A0177
MULTISTIRRER 15	100÷240 V / 50-60 Hz	F203A0178

MULTISTIRRER DIGITAL

The **MULTISTIRRER Digital** provides synchronized stirring on 6 or 15 samples. A **digital display** ensures a precise setting of stirring speed, constantly. One of its most appreciated features, in microbiology and biochemistry, is that it **remains cold**. Its versatility is extended by the possibility to be combined with a recirculating water bath to thermostat the samples.

Electronic speed regulation: from 80 to 1500 rpm
SpeedServo™: constant speed even when the viscosity changes
Adjustable auto-reverse function ensures enhanced mixing
On board **timer** for unattended operations

MULTISTIRRER 6 Digital
Stirring volume (H_2O): up to 400 ml per position
Distance between stirring position centres: 100 mm

MULTISTIRRER 15 Digital
Stirring volume (H_2O): up to 250 ml per position
Distance between stirring position centres: 74 mm

UK and AU adapter adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
MULTISTIRRER 6 Digital	100÷240 V / 50-60 Hz	F203A0179
MULTISTIRRER 15 Digital	100÷240 V / 50-60 Hz	F203A0180

AGE AND ATE

AGE and **ATE** are **highly resistant** magnetic stirrers with epoxy painted metal structure.

Electronic speed regulation: up to 1200 rpm
Stirring volume (H_2O): up to 8 L

INSTRUMENT	POWER SUPPLY	CODE No
AGE	230 V / 50 Hz	F20320164
AGE	230 V / 60 Hz	F20330164
AGE	115 V / 60 Hz	F20340164

Electronic speed regulation: up to 1200 rpm
Stirring volume (H_2O): up to 25 L

INSTRUMENT	POWER SUPPLY	CODE No
ATE	230 V / 50-60 Hz	F20300165
ATE	115 V / 50-60 Hz	F20310165

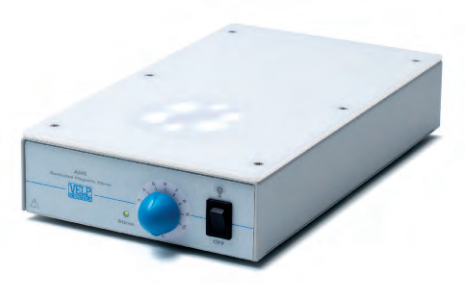
AMI

The **AMI** is an **illuminated** single-position magnetic stirrer particularly useful for titrations where **optimum lighting conditions** are needed in order to identify the colorimetric end point. It is especially recommended for titrations that have slight color changes.

Electronic speed regulation: up to 1100 rpm
Stirring volume (H_2O): up to 5 L

UK and AU adapter adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
AMI	100÷240 V / 50-60 Hz	F204A0167



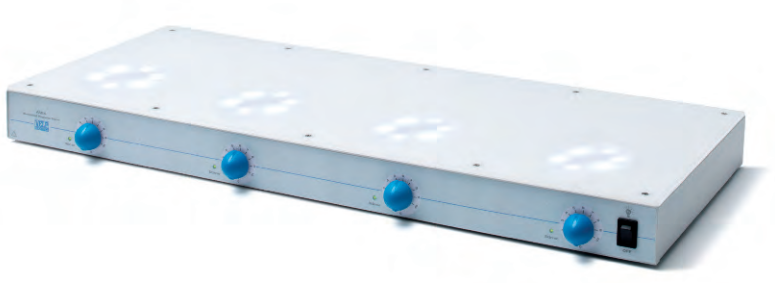
AMI 4

The **AMI 4** is an **illuminated** magnetic stirrer with 4 separately controlled positions. It is particularly useful for titrations where **optimum lighting conditions** are needed in order to identify the colorimetric end point. It is especially recommended for titrations that have slight color changes.

Electronic speed regulation: up to 1100 rpm
Stirring volume (H_2O): up to 5 L per position
Distance between stirring position centres: 150 mm

UK and AU adapter adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
AMI 4	100÷240 V / 50-60 Hz	F204A0168



	STIRRING SPEED rpm	STIRRING VOLUME L	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
MST	up to 1100	up to 5	120x50x145 (4.7x1.97x5.7)	0.4 (0.9)	100÷240 V	0.6 W
MST Digital	up to 1500	up to 5	120x50x145 (4.7x1.97x5.7)	0.6 (1.3)	100÷240 V	0.6 W
MICROSTIRRER	up to 1100	up to 5	120x48x128 (4.7x1.9x5.0)	0.55 (1.1)	100÷240 V	0.6 W
ESP	up to 1100	up to 5	160x33x230 (6.3x1.3x9.0)	0.9 (2.0)	100÷240 V	5 W
AGE	up to 1200	up to 8	171x75x190 (6.7x2.9x7.5)	1.8 (4.0)	115 or 230 V	40 W
ATE	up to 1200	up to 25	250x120x285 (9.8x4.7x11.2)	3.7 (8.1)	115 or 230 V	15 W
MULTISTIRRER	from 80 to 1500	up to 0.4 (x 6) / 0.25 (x 15)	230x51.5x370 (9.0x2.0x14.5)	1.75 (3.8) / 2.1 (4.6)	100÷240 V	3.6 / 9 W
MULTISTIRRER Digital	from 80 to 1500	up to 0.4 (x 6) / 0.25 (x 15)	230x51.5x370 (9.0x2.0x14.5)	1.75 (3.8) / 2.1 (4.6)	100÷240 V	3.6 / 9 W
AMI	up to 1100	up to 5	150x55x270 (5.9x2.2x10.6)	1.2 (2.6)	100÷240 V	1.2 W
AMI 4	up to 1100	up to 5 (x 4 pos.)	600x55x270 (23.6x2.2x10.6)	4 (8.8)	100÷240 V	4.8 W

MST, MST DIGITAL, MICROSTIRRER, ESP, AGE, ATE, MULTISTIRRER, MULTISTIRRER DIGITAL, AMI, AMI4 ACCESSORIES

INTERCHANGEABLE PLUGS	CODE No
UK plug	10003084 *
Australian plug	10003085 *

* for MST, MST Digital, MICROSTIRRER, MULTISTIRRER, MULTISTIRRER Digital, AMI, AMI4 and ESP

OPTIONAL ACCESSORIES	CODE No
Magnetic stirring bar, 6x20 mm	A00001057 *
Magnetic stirring bar, 6x35 mm	A00001056 **
Magnetic stirring bar, 9.5x60 mm	A00001061 ***
Magnetic stirring bar, 10x40 mm	A00001060 ****
Thermostatic bath for samples, 408x240x85 mm	A00001055 *****

* for MST, MST Digital, MICROSTIRRER, AGE, MULTISTIRRER, MULTISTIRRER Digital, AMI and AMI4
** for MST, MST Digital, MICROSTIRRER, AGE, ATE, MULTISTIRRER, MULTISTIRRER Digital, AMI and AMI4
*** ATE only
**** ESP only
***** for MULTISTIRRER, MULTISTIRRER Digital

HEATING MAGNETIC STIRRERS

ALUMINUM TOP

VELP Scientifica offers a wide range of heating magnetic stirrers with aluminum top. Aluminum top ensures **excellent conductivity** and **temperature homogeneity** and **good resistance to chemicals**. As always VELP Scientifica ensures the **most advanced safety standards**.

Optimum Heat Transfer, Premium Homogeneity
Aluminum alloy top plate ensures outstanding temperature homogeneity and optimum heat transfer across the entire surface.

Intuitive Front Panel
With temperature and speed selector; the inclination of the front panel has been carefully studied to facilitate use.

Maximum Protection
High safety standard according to IP 42; overtemperature protection and dedicated run-off groove for leakages.

Eye-catching Design, Outstanding Comfort
Innovative low profile and attractive design for maximum comfort.

ARE

The **ARE** is widely used in research and development, industrial and university laboratories worldwide. It has an aluminum alloy heating plate coated with a protective coating in order to ensure **uniform heat distribution** and **excellent resistance** to chemicals.
The ARE is **designed to last** and equipped to ensure **maximum protection** against leakages with the elevated front panel and dedicated run-off grove.
The control panel is separated from the hot plate, this feature increases the **safety** rating during use and the **durability** of the instrument. The inclination of the front panel has been carefully studied to **facilitate use**.

Electronic speed regulation: up to 1500 rpm
Stirring volume (H_2O): up to 15 L
Temperature: up to 370 °C
SpeedServo™: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
ARE	230 V / 50-60 Hz	F20500162
ARE	115 V / 60 Hz	F20510162

AM4 AND AM4X

The **AM4** is a multiple-position heating magnetic stirrer with four separately controlled stirring plates. The **aluminum alloy heating plates** are coated with a special protective layer and ensure **uniform heat distribution** and **excellent resistance** to chemicals.

The **AM4X** is designed to be combined with **VTF Vertex digital thermoregulator**, with integrated **timer**, for a precise temperature control of the liquid up to 300 °C (± 0.5 °C).

Electronic speed regulation: up to 1500 rpm
Stirring volume (H_2O): up to 15 L per position
Temperature: up to 370 °C
Distance between stirring position centres: 186 mm
SpeedServo™: constant speed evenhen the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AM4	230 V / 50-60 Hz	F20500420
AM4X	230 V / 50-60 Hz	F20500421

AREX

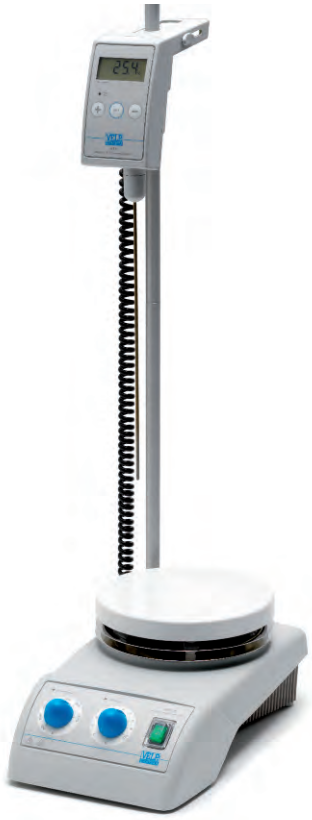
The **AREX** has an aluminum alloy heating plate to ensure **uniform heat distribution** over the entire surface, with a **special protective white ceramic coating** that ensures easiness of cleaning and excellent resistance to chemicals, scratches and surface abrasions. This hot plate stirrer ensures **precise thermoregulation** of the heating plate as well as a high degree of **reliability** and **safety**.
The AREX is **designed to last** and equipped to ensure **maximum protection** against leakages with the elevated front panel and dedicated run-off grove.
The control panel is separated from the hot plate, this feature increases the **safety** rating during use and the **durability** of the instrument.
The inclination of the front panel has been carefully studied to **facilitate use**.

The **AREX** has a socket for the connection of a **VTF** Vertex digital thermoregulator for direct temperature control of the liquid.

Electronic speed regulation: up to 1500 rpm
Stirring volume (H_2O): up to 20 L
Temperature: up to 370 °C
SpeedServo™ : constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AREX	230 V / 50-60 Hz	F20500413
AREX	115 V / 60 Hz	F20510413
AREX with VTF - Package	230 V / 50-60 Hz	SA20500413 *
AREX with VTF - Package	115 V / 60 Hz	SA20510413 *

* Support rod included



ALUBLOCKS™

AluBlocks™ can be mixed and matched to get any combination of vessel:
use different vessel types and sizes at the same time for clean, safe and reliable synthesis.

OPTIONAL ACCESSORIES	CODE No
Green AluBlock™, 4 pos., Ø 28 x h 30 mm	A00000230
Red AluBlock™, 4 pos., Ø 21.6 x h 31.7 mm	A00000232
Black AluBlock™, 4 pos., Ø 28 x h 24 mm	A00000231
Orange AluBlock™, 4 pos., Ø 24 x h 43 mm	A00000229
Blue AluBlock™, 6 pos., Ø 17.8 x h 26 mm	A00000233
Gold AluBlock™, 11 pos., Ø 15.2 x h 20 mm	A00000234
AluBlocks™ Base	A00000228

HEATING MAGNETIC STIRRERS

CERAMIC TOP

AREC Series is the first heating magnetic stirrer to have an innovative technopolymer body, ideal for **premium resistance to acids, bases and solvents**. AREC Series is **designed to last** and equipped to ensure **maximum protection** against leakages with the elevated front panel, dedicated run-off grove and the “Hot Plate Warning”. The control panel is separated from the hot plate, this feature increases the **safety** rating during use and the **durability** of the instrument. The inclination of the front panel has been carefully studied to **facilitate use**.

Powerful Motor, Counter-reaction
Able to stir volumes at very high speeds; counter-reaction technology provides constant speed even when the viscosity changes.

Innovative Technopolymer Body
Technopolymer structure ensures premium resistance to acids, bases and solvents. New premium materials for innovative solutions.

Remarkable Resistance, Extremely Easy to Clean
Ceramic, which is an inert and very hard material, offers outstanding resistance to almost any type of chemical or mechanical aggression.

Intuitive Front Panel, Bright Digital Display
Repeatable and precise results; the inclination of the front panel has been carefully studied to facilitate use.

Maximum Protection, "Hot Plate Warning"
High safety standard according to IP 42; dedicated run-off groove for leakages and high temperature digital warning, that remains displayed until the plate has cooled down to 50 °C.

Eye-catching Design, Outstanding Comfort
Highly innovative low profile and attractive design for maximum comfort.

HSC

The **HSC** is an **analog hot plate stirrer** with **white** a **ceramic heating plate**, that ensures **excellent resistance** to chemicals and scratches and is **extremely easy to clean**.

Electronic speed regulation: up to 1300 rpm
Stirring volume (H_2O): up to 15 L
Temperature: up to 400 °C

INSTRUMENT	POWER SUPPLY	CODE No
HSC	230 V / 50-60 Hz	F20500101
HSC	115 V / 60 Hz	F20510101

AREC

The **AREC** is a **digital heating magnetic stirrer** with a **white ceramic hot plate**, that ensures **excellent resistance** to chemicals and scratches and is **extremely easy to clean**.
A microprocessor ensures constant speed even when the viscosity changes **(counter-reaction)**. Microprocessor technology ensures **fast heating** and provides **precise speed and temperature setting**, as the digital display constantly shows set temperature.
The AREC has an **ergonomic and innovative design** with a **clear and bright digital display**.

Electronic speed regulation: up to 1500 rpm
Stirring volume (H_2O): up to 15 L
Temperature: up to 550 °C
SpeedServo™: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AREC	230 V / 50-60 Hz	F20500011
AREC	115 V / 60 Hz	F20510011

AREC.X

The **AREC.X** is a **digital heating magnetic stirrer** with a **white ceramic hot plate**, that ensures **excellent resistance** to chemicals and scratches and is **extremely easy to clean**.
A microprocessor ensures constant speed even when the viscosity changes (**counter-reaction**). Microprocessor technology ensures **fast heating** and provides **precise speed and temperature setting**, as the digital display constantly shows set temperature.
The AREC.X has an **ergonomic and innovative design with** a clear and **bright digital display**.

AREC.X can also be used **stand-alone**, or for precise thermoregulation of the liquid, it **can be connected** to **VTF** Vertex digital thermoregulator or to a temperature control probe.
VTF offers maximum performance for a **perfect and precise** thermoregulation up to 300 °C (± 0.5 °C) with an **integrated timer**, whilst with the external probe up to 250 °C (± 1.0 °C).

Electronic speed regulation: up to 1500 rpm
Stirring volume (H_2O): up to 15 L
Temperature: up to 550 °C
SpeedServo™: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AREC.X	230 V / 50-60 Hz	F20500061
AREC.X	115 V / 60 Hz	F20510061
AREC.X with Probe - Package	230 V / 50-60 Hz	SA20500061 *
AREC.X with Probe - Package	115 V / 60 Hz	SA20510061 *
AREC.X with VTF - Package	230 V / 50-60 Hz	SB20500061 **
AREC.X with VTF - Package	115 V / 60 Hz	SB20510061 **

* Support rod and clamp for Pt100 probe included
** Support rod included

AREC.X with support rod and external probe

AREC.X with support rod and VTF

AREC.T

The **AREC.T** is a **digital heating magnetic stirrer** with a **white ceramic hot plate**, that ensures **excellent resistance** to chemicals and scratches and is **extremely easy to clean**.
A microprocessor ensures constant speed even when the viscosity changes (**counter-reaction**).
Microprocessor technology ensures **fast heating** and provides **precise speed and temperature setting**, as the digital display constantly shows set temperature.
The AREC.T has an **ergonomic and innovative design** with a clear and **bright digital display**.

The digital heating magnetic stirrer AREC.T has an **integrated programmable timer** up to 999 minutes with **automatic switch off** of the heating and stirring phases.

Electronic speed regulation: up to 1500 rpm
Stirring volume (H_2O): up to 15 L
Temperature: up to 550 °C
SpeedServo™: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AREC.T	230 V / 50-60 Hz	F20500051
AREC.T	115 V / 60 Hz	F20510051

	HEATING PLATE	HEATING PLATE DIMENSIONS mm (in)	STIRRING SPEED rpm	STIRRING VOLUME L	TEMPERATURE REGULATION °C	SPEEDSERVO™	OVERTEMP. PROTECTION	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
AREC	Ceramic	180x180 (7.1x7.1)	up to 1500	up to 15	Ambient to 550	•	•	203x94x344 (8.0x3.7x13.5)	3.3 (7.3)	115 or 230 V	800 W
HSC	Ceramic	180x180 (7.1x7.1)	up to 1300	up to 15	Ambient to 400		•	203x94x344 (8.0x3.7x13.5)	3.3 (7.3)	115 or 230 V	800 W
AREC.X	Ceramic	180x180 (7.1x7.1)	up to 1500	up to 15	Ambient to 550	•	•	203x94x344 (8.0x3.7x13.5)	3.3 (7.3)	115 or 230 V	800 W
AREC.T	Ceramic	180x180 (7.1x7.1)	up to 1500	up to 15	Ambient to 550	•	•	203x94x344 (8.0x3.7x13.5)	3.3 (7.3)	115 or 230 V	800 W

AREC, HSC, AREC.X, AREC.T ACCESSORIES

OPTIONAL ACCESSORIES	CODE No
Hemispheric bowl for 50 ml flask	A00000273
Hemispheric bowl for 100 ml flasks	A00000258
Hemispheric bowl for 250 ml flasks	A00001071
Hemispheric bowl for 500 ml flasks	A00001072
Hemispheric bowl for 1000 ml flasks	A00001073
Magnetic stirring bar, 6x35 mm	A00001056
Magnetic stirring bar, 9.5x60 mm	A00001061
Magnetic stirring bar, 10x40 mm	A00001060

OPTIONAL ACCESSORIES	CODE No
VTF Vertex, digital Thermoregulator	F208B0063 *
Spiral cable for other Thermoregulators	40000781 *
Support rod	A00001069
Clamp for PT100 probe	A00000280 *
External probe for AREC.X	A00000268 *

* AREC.X only

HEATING PLATES
ALUMINUM AND CERAMIC TOP

RC AND RC2

Single **(RC)** and double **(RC2)** heating plates with **temperature regulation**. The **aluminum alloy heating plates** are coated with a special protective layer that ensures **uniform heat distribution** over the entire surface and **excellent resistance** to chemicals.

Temperature: up to 370 °C
Distance between stirring position centres (RC2): 186 mm

INSTRUMENT	POWER SUPPLY	CODE No
RC	230 V / 50-60 Hz	F20700431
RC	115 V / 50-60 Hz	F20710431
RC2	230 V / 50-60 Hz	F20700430
RC2	115 V / 50-60 Hz	F20710430

REC

The **REC** is a **digital hot plate** with **white ceramic heating plate**, that ensures **excellent resistance** to chemicals and scratches and is **extremely easy to clean**. REC has an innovative technopolymer body, ideal for **premium resistance to acids, bases and solvents**. The REC is **designed to last** and equipped to ensure **maximum protection** against leakages with the elevated front panel, dedicated run-off grove and "**Hot Plate Warning**".
Microprocessor technology ensures **fast heating** and provides **precise temperature setting**.

Temperature: up to 550 °C

INSTRUMENT	POWER SUPPLY	CODE No
REC	230 V / 50-60 Hz	F20700081
REC	115 V / 50-60 Hz	F20710081

RC, RC2, REC ACCESSORIES

OPTIONAL ACCESSORIES	CODE No
Hemispheric bowl for 50 ml flasks	A00000273
Hemispheric bowl for 100 ml flasks	A00000258
Hemispheric bowl for 250 ml flasks	A00001071
Hemispheric bowl for 500 ml flasks	A00001072
Hemispheric bowl for 1000 ml flasks	A00001073

OPTIONAL ACCESSORIES	CODE No
Support rod	A00001069 *

* for REC and RC

THERMOREGULATOR

VTF
VERTEX DIGITAL THERMOREGULATOR

The **VTF** uses **Fuzzy Logic technology** and is suitable for many applications where precise thermoregulation is required.
A **user-friendly** probe positioning system allows the operator to adjust the position of the probe **easily** and **quickly**. Thanks to the derivation element PW 10, the VTF can be used with all types of heating devices such as water and oil baths, heating plates, etc.
The VTF Vertex comes complete with temperature probe and power cable for direct connection to the hot plate stirrers **AREX** and **AREC.X**.
VTF offers the **highest standards on the market**, in terms of accuracy and performance: **perfect and precise thermoregulation** up to 300°C, with premium accuracy of ± 0.5 °C, and **exclusive timer**, which means that the thermoregulation time can be pre-set.

INSTRUMENT	POWER SUPPLY	CODE No
VTF	12 V dc	F208B0063

GENERAL FEATURES AND PERFORMANCE

THERMOREGULATION RANGE °C	from -10 to +300°
RESOLUTION °C	0.2
ACCURACY °C	± 0.5
TIMER HH:MM	from 00:00 to 24:59
PROTECTION RATING CEI EN 60529	IP54
DIMENSIONS (WxHxD)	75x145x120 mm (3.0x5.7x4.7 in)
WEIGHT Kg (lb)	0.3 (0.7)

OPTIONAL ACCESSORIES	CODE No
Derivation element PW 10	A00000001
Probe extension cable, 1 m	A00000002
Glass probe	A00000003
Clamp for PT100 probe	A00000280
TEMPSoft™ *	A00000244

* only for **VTF EVO**, including Wireless DataBox™ and cable

VTF EVO
WI-FI DIGITAL THERMOREGULATOR

The **VTF EVO** is a unique wireless temperature **data logging** system offering state-of-the-art technology, reliability and flexibility. Thanks to the **Wi-Fi connection** of the Vertex and the **TEMPSoft**™ software is now possible to control the temperature of the sample and adjust all the temperature parameters **directly from the computer**. The operator can easily set working ramps (different time and temperature) and the desired set points with the possibility of minimum and maximum temperature alarm thresholds along with **data collection** and **monitoring**. The VTF EVO sends the data to the Wireless **DataBox**™ that allows the communication between the VTF EVO and the PC allowing unattended operations and increasing the productivity. The VTF EVO is equipped with the VELP unique integrated system to simplify the installation on the support rod and can be used combined with the most common heating magnetic stirrers for unparalleled performance.

INSTRUMENT	POWER SUPPLY	CODE No
VTF EVO	12 V dc	F208B0064

GENERAL FEATURES AND PERFORMANCE

THERMOREGULATION RANGE °C	from -10 to +400°
RESOLUTION °C	0.2
ACCURACY °C	± 0.5
TIMER HH:MM	from 00:00 to 24:59
PROTECTION RATING CEI EN 60529	IP54
DIMENSIONS (WxHxD)	75x145x120 mm (3.0x5.7x4.7 in)
WEIGHT Kg (lb)	0.3 (0.7)


A00000001


A00000002


A00000003


A00000280

OVERHEAD STIRRERS

VELP Scientifica offers a complete range of overhead stirrers with a technopolymer structure, ideal for premium resistance to acids, bases and solvents. **Many reliable solutions are available, according to different requirements in terms of viscosity and volume.** All the models are equipped with a **user-friendly self-locking chuck**, that simplifies assembly and the gentle start-up ensures **optimum progression of the stirring speed**. As always VELP Scientifica ensures the **most advanced safety standards**.

ES

ES is the entry-level solution, ideal **for low volumes and low/medium viscosity.**

Electronic speed regulation: from 50 up to 1300 rpm
Stirring volume (H_2O): up to 15 L
Viscosity: up to 1,000 mPa*s

INSTRUMENT	POWER SUPPLY	CODE No
ES	80÷260 V / 50-60 Hz	F201A0152

LS

LS offers reliable performance on **medium viscosity and low volumes.**

Electronic speed regulation: from 50 up to 2000 rpm
Stirring volume (H_2O): up to 25 L
Viscosity: up to 25,000 mPa*s

INSTRUMENT	POWER SUPPLY	CODE No
LS	80÷260 V / 50-60 Hz	F201A0151
LS - Package	80÷260 V / 50-60 Hz	SA201A0151*

* Support rod and base, double clamp and stirring shaft with fixed blade included

LH

LH offers excellent performance on **medium viscosity liquids and medium volumes.**

Electronic speed regulation: from 50 to 2000 rpm
Stirring volume (H_2O): up to 40 L
Viscosity: up to 50,000 mPa*s

INSTRUMENT	POWER SUPPLY	CODE No
LH	80÷260 V / 50-60 Hz	F201A0156

PW

PW is suggested for **high viscosity** and it is able to process **high volumes.**

Electronic speed regulation: from 20 to 1200 rpm
Stirring volume (H_2O): up to 70 L
Viscosity: up to 100,000 mPa*s

INSTRUMENT	POWER SUPPLY	CODE No
PW	80÷260 V / 50-60 Hz	F201A0150

DLS

The **DLS** is a digital overhead stirrer for **medium viscosity** liquids.

A bright and easy-to-read display shows current speed set speed, torque and time.

The **digital timer** offers the possibility of unattended operation.

Electronic speed regulation: from 50 up to 2000 rpm
Stirring volume (H_2O): up to 25 L
Viscosity: up to 25,000 mPa*s
SpeedServo™: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
DLS	80÷260 V / 50-60 Hz	F201A0155
DLS - Package	80÷260 V / 50-60 Hz	SA201A0155*

* Support rod and base, double clamp and stirring shaft with propeller included

DLH

The **DLH** is a digital overhead stirrer for **medium viscosity** liquids.

A bright and easy-to-read display shows current speed set speed, torque and time.

The **digital timer** offers the possibility of unattended operation.

Electronic speed regulation: from 50 up to 2000 rpm
Stirring volume (H_2O): up to 40 L
Viscosity: up to 50,000 mPa*s
SpeedServo™: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
DLH	80÷260 V / 50-60 Hz	F201A0157

	STIRRING SPEED rpm	STIRRING VOLUME L	MAXIMUM VISCOSITY mPa*s	MAXIMUM TORQUE Ncm	MAX. SHAFT Ø THROUGH MEMBRANE mm	MAX. SHAFT Ø CHUCK mm	DIGITAL TIMER	SPEEDSERVO™	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
ES	from 50 to 1300	up to 15	1,000	15	8	10			80x160x200 (3.1x6.3x7.9)	1.3 (2.8)	80 ÷ 260 V	30 W
LS	from 50 to 2000	up to 25	25,000	40	8	10			80x215x196 (3.1x8.5x7.7)	2.3 (5.0)	80 ÷ 260 V	120 W
DLS	from 50 to 2000	up to 25	25,000	40	8	10	•	•	80x215x196 (3.1x8.5x7.7)	2.5 (5.5)	80 ÷ 260 V	120 W
LH	from 50 to 2000	up to 40	50,000	80	8	10			80x230x196 (3.1x9.0x7.7)	2.9 (6.4)	80 ÷ 260 V	190 W
DLH	from 50 to 2000	up to 40	50,000	80	8	10	•	•	80x230x196 (3.1x9.0x7.7)	3.0 (6.6)	80 ÷ 260 V	190 W
PW	from 20 to 1200	up to 70	100,000	120	8	10			80x230x196 (3.1x9.0x7.7)	2.9 (6.4)	80 ÷ 260 V	190 W

ES, LS, DLS, LH, DLH, PW ACCESSORIES

OPTIONAL ACCESSORIES	CODE No
Support rod and base	A00001300
Double clamp	A00001301
Ribbon clamp	A00001302
H-stand with strap clamp, bosshead clam	A00000045


A00001300


A00001301


A00001302


A00000045

STIRRING SHAFTS

Stirring shaft with floating blades **Code No A00001304**
Characteristics: The two blades that open as the speed rises generate an axial flow in the container, from the top towards the bottom. Particularly recommended for stirring in narrow-neck containers, e.g. flasks.

Stirring shaft with folding blade **Code No A00001305**
Characteristics: The blade that automatically falls into line during rotation generates an axial flow in the container, from the top towards the bottom. Particularly recommended for stirring in narrow-neck containers.

Stirring shaft with fixed blade **Code No A00001306**
Characteristics: It generates an axial flow in the container, from the top towards the bottom. Employment: Use at medium-high speed for whirling light solids, for flocculations, mixing thickening agents, stirring sludge, etc.

Stirring shaft with propeller **Code No A00001307**
Characteristics: Standard stirring shaft. It generates an axial flow in the container with suction of the substance from the bottom towards the top and localized occurence of shearing forces.

Stirring shaft with 6-hole paddle **Code No A00001308**
Characteristics: It generates a tangential flow with reduced turbulence and with gentle mixing of the product.

Stirring shaft with turbine blade **Code No A00001309**
Characteristics: It generates a radial flow with suction of the product from the top towards the bottom, with high turbulence and high shearing forces.

Stirring shaft with turbo propeller **Code No A00001310**
Characteristics: It generates an axial flow in the container with suction of the substance from the top towards the bottom with low shearing forces. Limited danger of any contact of the blade with the walls of the product's container.

Stirring shaft with anchor **Code No A00001311**
Characteristics: It generates a tangential flow with high shearing forces on the ends. The flow generated limits the possibility of sedimentation on the walls of the container.

DESCRIPTION	CODE No	BLADES NUMBER	BLADES Ø mm	SHAFT Ø mm	LENGHT OF SHAFT mm	SPEED RANGE	VISCOSITY RANGE
Stirring shaft with floating blades, stainless steel	A00001304	2	93	7	400	M-H	VL-L
Stirring shaft with folding blade, stainless steel	A00001305	1	60	7	400	M-H	VL-L
Stirring shaft with fixed blade, stainless steel	A00001306	1	50	7	400	M-H	VL-L-M
Stirring shaft with propeller, stainless steel	A00001307	3	60	7	400	M-H	VL-L-M
Stirring shaft with paddle,six holes, stainless steel	A00001308	1	69	7	450	L-M	L-M
Stirring shaft with turbine, stainless steel	A00001309	10	49	7	450	M-H	M-H
Stirring shaft with turbo propeller, stainless steel	A00001310	3	46	7	450	M-H	M-H
Stirring shaft with anchor, stainless steel	A00001311	2	45	8	450	L-M	M-H

Choosing the correct shaft
Stirring shafts must be chosen bearing in mind the stirrer power, the volume of substances to be stirred and its viscosity. The technical features and the application fields of the stirring shafts are summarized in the following tables:

SPEED RANGE	rpm
Low (L)	< 250
Medium (M)	250 – 800
High (H)	> 800

VISCOSITY RANGE	mPa*s
Very low (VL)	0 – 100
Low (L)	100 – 1,000
Medium (M)	1,000 – 10,000
High (H)	10,000 – 100,000

VISCOSITY mPa*s	SUBSTANCE
1	Water
5	Milk
10	Kerosene
100	Lubricating oil
1,000	Castor oil, Glicerine
7,000	Refined honey
25,000	Chocolate syrup
50,000	Ketchup
100,000	Molasses

VORTEX MIXERS/SHAKERS

Vortex mixers are suitable for mixing substances in any shape or size of test tube thanks to the orbital movement of the rubber cup **manual, continuous or IR sensor operating modes** in order to meet the multiple needs of every laboratory with **high safety standards**. VELP Scientifica is the first company in the world to manufacture and market the unique and **patented INFRARED vortex mixer** which uses a **special IR sensor system** to activate vibration **without the need to apply pressure**.
The ergonomic and highly innovative design along with the zinc base ensure an **excellent stability** on the bench, usable on many surfaces.

RX3

The **RX3** is a **modern basic vortex mixer** that runs at a **single, fixed stirring speed in touch mode**.
RX3, **a long-lasting mixer for basic mixing requirements**.

Electronic speed regulation: constant, 3000 rpm
Operating mode: touch

INSTRUMENT	POWER SUPPLY	CODE No
RX3	100÷240 V / 50-60 Hz	F202A0171

ZX3

The **ZX3** is a **modern and universal vortex mixer with variable stirring speed** and two operating modes, **touch or continuous**.
The **best-seller** ZX3 offers an **excellent flexibility**, thanks to the **broad range of accessories**.
Incredibly adjustable and **long-lasting**, ZX3 offers **the highest performance for an excellent mixing**.

Electronic speed regulation: up to 3000 rpm
Operating modes: touch, continuous

INSTRUMENT	POWER SUPPLY	CODE No
ZX3	100÷240 V / 50-60 Hz	F202A0176

ZX4

PATENTED

The **ZX4** is an **advanced vortex mixer with adjustable stirring speed** and two operating modes, **sensor or continuous**. Thanks to the revolutionary IR sensor mode, an **infrared system (IR) detects the presence of the test tube and the vortex mixer automatically starts vibrating! No press, No stress!**
Thanks to a **broad range of accessories**, ZX4 is ideal for many applications including mixing of many kind of tubes/containers.
Incredibly versatile, long-lasting and unique, ZX4 offers **the highest performance for an excellent mixing.**

Electronic speed regulation: up to 3000 rpm
Operating modes: IR sensor, continuous

INSTRUMENT	POWER SUPPLY	CODE No
ZX4	100÷240 V / 50-60 HZ	F202A0280
ZX4 - Package	80÷260 V / 50-60 Hz	SA202A0280*

* A00000012, A00000013, A00000016 included

TX4

PATENTED

The **TX4** is a **digital vortex mixer** with **adjustable stirring speed** and two operating modes, **sensor or continuous**, for an outstanding repeatability. Thanks to the revolutionary IR sensor mode, **an infrared system (IR) detects the presence of the test tube and the vortex mixer automatically starts vibrating! No press, No stress!**

Thanks to the **timer**, the user can set the operating time.
The **bright display** constantly shows the most important info and ensures a **simple setting** of different parameters, such as time and speed.

Thanks to a **broad range of accessories**, TX4 is ideal for many applications including mixing of many kind of tubes/containers.
Incredibly adjustable, long-lasting and unique, TX4 offers **the highest performance for an excellent and precise mixing.**
TX4**, the state of the art vortex mixer.**

Electronic speed regulation: up to 3000 rpm
Operating modes: IR sensor, continuous

INSTRUMENT	POWER SUPPLY	CODE No
TX4	100÷240 V / 50-60 Hz	F202A0270

A00000012
ZX3, ZX4, TX4

A00000013
ZX3, ZX4, TX4

A00000014
ZX3, ZX4, TX4

A00000015
ZX3, ZX4, TX4

A00000016
for all the models

A00000017
ZX3

A00000019
ZX3, ZX4, TX4

CLASSIC

The **CLASSIC** offers the ideal solution for different mixing requirements and combines the **highest performance** ratings in terms of speed with **excellent reliability** and **safety**.
The two operating modes, the possibility to change the vibration frequency and a wide range of accessories makes this laboratory mixer the ideal solution for a large variety of needs.

Touch mode - mixing starts when a small amount of pressure is applied to the rubber cup.
Continuous mode - a wide range of accessories are available for use in continuous mode making CLASSIC the ideal solution for a large variety of needs.

A dedicated selector switch ensures maximum stability of the vortex mixer for the operating mode selected.
Its advanced performance places this laboratory mixer at the high-end of the market.

Electronic speed regulation: from 0 to 3000 rpm
Operating modes: touch, continuous

INSTRUMENT	POWER SUPPLY	CODE No
CLASSIC	100÷240 V / 50-60 Hz	F202A0173

WIZARD

PATENTED

The **WIZARD** represents a **technological innovation** in the evolutionary process of vortex mixers. Optical technology provides an innovative operating mode that is **absolutely unique** on the laboratory mixer market.
Thanks to the **revolutionary IR sensor mode**, an infrared system (IR) detects the presence of the test tube and the instrument automatically starts vibrating!
The Wizard features a **highly innovative and ergonomic design** which, combined with the special materials used, ensures **high stability** and **increased user-comfort**. The instrument offers two operating modes as well as the possibility to regulate the speed of vibration:

Sensor mode - an infrared system automatically activates the vortex mixer so the laboratory technician does not have to apply any pressure!
Continuous mode - continuous operating mode that can be used with a wide range of accessories.

Electronic speed regulation: from 0 to 3000 rpm
Operating modes: continuous, IR sensor

INSTRUMENT	POWER SUPPLY	CODE No
WIZARD	100÷240 V / 50-60 Hz	F202A0175

A00000012
CLASSIC, WIZARD

A00000013
CLASSIC, WIZARD

A00000014
CLASSIC, WIZARD

A00000015
CLASSIC, WIZARD

A00000016
CLASSIC, WIZARD

A00000017
CLASSIC

A00000019
CLASSIC, WIZARD

	STIRRING SPEED rpm	ORBITAL DIAMETER mm	OPERATING MODE Touch	OPERATING MODE Continuous	OPERATING MODE IR Sensor	DIGITAL DISPLAY, TIMER	PROTECTION RATING CEI EN 60529	SUPPORT SYSTEM	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
RX3	3000	4.5	•				IP 42	4 anti-sliding feet	150x130x165 (5.9x5.1x6.5)	2.7 (5.9)	100÷240 V	15 W
ZX3	0÷3000	4.5	•	•			IP 42	4 anti-sliding feet	150x130x165 (5.9x5.1x6.5)	2.7 (5.9)	100÷240 V	15 W
ZX4	0÷3000	4.5		•	•		IP 42	4 anti-sliding feet	150x130x165 (5.9x5.1x6.5)	2.7 (5.9)	100÷240 V	15 W
TX4	0÷3000	4.5		•	•	•	IP 42	4 anti-sliding feet	150x130x165 (5.9x5.1x6.5)	2.7 (5.9)	100÷240 V	15 W
CLASSIC	0÷3000	4.5	•	•			IP 42	3 anti-sliding feet	180x70x220 (7.1x2.8x8.7)	2.2 (4.9)	100÷240 V	15 W
WIZARD	0÷3000	4.5		•	•		IP 42	3 anti-sliding feet	180x70x220 (7.1x2.8x8.7)	2.2 (4.9)	100÷240 V	15 W

RX3, ZX3, ZX4, TX4, CLASSIC, WIZARD ACCESSORIES

INTERCHANGEABLE PLUG	CODE No
UK plug	10003084
Australian plug	10003085

OPTIONAL ACCESSORIES	CODE No
Foam stand for 19 microvials Eppendorf, 1.5 ml	A00000012 *
Customizable soft foam top	A00000013 *
Foam stand for 5 test tubes Ø 16 mm	A00000014 *
Foam stand for microtiter	A00000015 *
Foam stand for 4 tubes Ø 29 mm	A00000019 *
Small rubber supporting plate Ø 50 mm	A00000016 **
Rubber supporting plate Ø 94 mm	A00000017 ***

* for ZX3, ZX4, TX4, CLASSIC and WIZARD
** for RX3, ZX3, ZX4, TX4, CLASSIC and WIZARD
*** for ZX3 and CLASSIC