

STIRRING LINE

MAGNETIC STIRRERS

HEATING MAGNETIC STIRRERS ALUMINUM TOP CERAMIC TOP

THERMOREGULATOR

HEATING PLATES

ALUMINUM TOP CERAMIC TOP

OVERHEAD STIRRERS

VORTEX MIXERS/SHAKERS

HOMOGENIZER



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
MOT	100,040 \/ / 50,00 \/-	500040400
MST	100÷240 V / 50-60 Hz	F203A0160

MICROSTIRRER

The **MICROSTIRRER** is a magnetic stirrer with epoxy painted metal structure that ensures a **high resistance** to chemical agents. A **small, simple** and **efficient** stirrer specially designed for microtitrations. The MICROSTIRRER **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
MICROSTIRRER	100÷240 V / 50-60 Hz	F203A0161



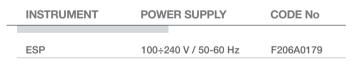
ESP

The **ESP** is an **ultraflat** magnetic stirrer with no moving mechanical components, it is therefore **maintenance-free**.

The stirring system consists of coils that induce a rotating magnetic field. A gentle start-up ensures optimum progression of the stirring speed whilst its **modern, ergonomic structure** is made of materials that ensure a **high resistance** to chemical reagents.

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.





MULTISTIRRER 6

MULTISTIRRER 15



The **MULTISTIRRER 6** is a 6-place magnetic stirrer for beakers with a maximum diameter of 85 mm. The MULTISTIRRER 6 **remains cold** even after several days of continuous operation, a feature that is highly appreciated in microbiology and biochemistry. It is possible to thermostat the samples using a recirculating water bath.

Electronic speed regulation: from 50 to 850 rpm Stirring volume (H_2O): up to 400 ml per position Distance between stirring position centres: 100 mm

UK and AU adapter adapter plugs are available on request.

The **MULTISTIRRER 15** is a 15-place magnetic stirrer for beakers with a maximum diameter of 64 mm. The MULTISTIRRER 15 **remains cold** even after several days of continuous operation, a feature that is highly appreciated in microbiology and biochemistry. It is possible to thermostat the samples using a recirculating water bath.

Electronic speed regulation: from 50 to 850 rpm 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	INSTRUMENT	POWER SUPPLY	CODE No
MULTISTIRRER 6	100÷240 V / 50-60 Hz	F203A0177	MULTISTIRRER 15	100÷240 V / 50-60 Hz	F203A0178





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	AMI 4		
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 ₂ O): up to 5 L	 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 (H₂O): 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	UK and AU adapter adapter plugs are available on request. INSTRUMENT POWER SUPPLY CODE No		
AMI 100÷240 V / 50-60 Hz F204A0167	AMI 4 100÷240 V / 50-60 Hz F204A0168		



(j		STIRRING SPEED rpm	STIRRING VOLUME L	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
	MST	up to 1100	up to 5	130x50x150 (5.1x2.0x5.9)	0.4 (0.9)	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 6	from 50 to 850	up to 0.4 (x 6 pos.)	230x51.5x370 (9.0x2.0x14.5)	1.75 (3.8)	100÷240 V	3.6 W
	MULTISTIRRER 15	from 50 to 850	up to 0.25 (x 15 pos.)	230x51.5x370 (9.0x2.0x14.5)	2.1 (4.6)	100÷240 V	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, MICROSTIRRER, ESP, AGE, ATE, MULTISTIRRER 6, MULTISTIRRER 15, AMI, AMI 4 ACCESSORIES

INTERCHANGEABLE PLUGS	CODE No	OPTIONAL ACCESSORIES	CODE No
UK plug	10003084 *	Magnetic stirring bar, 6x20 mm	A00001057 *
Australian plug	10003085 *	Magnetic stirring bar, 6x35 mm	A00001056 **
* for MST, MICROSTIRRER, MULTISTIRRER 6, MULTISTIRRER 15,		Magnetic stirring bar, 9.5x60 mm	A00001061 ***
AMI, AMI 4 and ESP		Magnetic stirring bar, 10x40 mm	A00001060 ****
		Thermostatic bath for samples, 408x240x85 mm	A00001055 *****
		* for MST, MICROSTIRRER, AGE, MULTISTIRRER 15, AMI ar ** for MST, MICROSTIRRER, AGE, ATE, MULTISTIRRER 6, M *** ATE only **** ESP only ***** for MULTISTIRRER 6 and MULTISTIRRER 15	

HEATING MAGNETIC STIRRERS



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 (H₂O): 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

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.

Electronic speed regulation: up to 1500 rpm Stirring volume (H₂O): up to 15 L per position Temperature: up to 370 °C Distance between stirring position centres: 186 mm SpeedServo™ : constant speed even when the viscosity changes

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

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 (H₂O): up to 20 L Temperature: up to 370 °C SpeedServoTM: constant speed even when the viscosity changes



* 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	A0000230
Red AluBlock™, 4 pos., Ø 21.6 x h 31.7 mm	A0000232
Black AluBlock™, 4 pos., Ø 28 x h 24 mm	A0000231
Orange AluBlock™, 4 pos., Ø 28 x h 43 mm	A00000229
Blue AluBlock™, 6 pos., Ø 17.8 x h 26 mm	A0000233
Gold AluBlock™, 11 pos., Ø 15.2 x h 20 mm	A00000234
AluBlocks™ Base	A00000228

AREX DIGITAL AND AREX DIGITAL PRO



The AREX Digital and AREX Digital PRO offers the most advanced technology, as they are equipped with digital display to finely set and monitor the stirring speed and the temperature.

The aluminum alloy heating plate provides 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.

The AREX Digital is designed to be combined with external probe Pt100, whilst AREX Digital PRO can even support 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 (\pm 1.0 °C).

Electronic speed regulation: up to 1500 rpm Stirring volume (H₂O): up to 20 L Temperature: up to 370 °C SpeedServo™: constant speed even when the viscosity changes

AREX Digital with Probe

INSTRUMENT	POWER SUPPL	Y CODE No
AREX Digital with Probe - Package	230 V / 50-60 Hz	SA20500411
AREX Digital with Probe - Package	115 V / 60 Hz	SA20510411
AREX Digital PRO with VTF - Package	230 V / 50-60 Hz	SB20500410 *
AREX Digital PRO with VTF - Package	115 V / 60 Hz	SB20510410 *
* Support rod included		



AREX Digital PRO with VTF

(i) HEATING PLATE HEATING STIRRING STIRRING TEMPERATURE DIMENSIONS WEIGHT POWER POWER DIMENSIONS mm (in) REGULATION °C PLATE SPEED rpm **VOLUME L** (WxHxD) mm (in) Kg (lb) SUPPLY ARE Aluminum alloy Ø 155 (6.1) up to 1500 up to 15 Ambient to 370 165x115x280 (6.5x4.5x11.0) 2.6 (5.7) 115 or 230 V 630 W AREX Aluminum alloy with ceramic coating Ø 155 (6.1) up to 1500 Ambient to 370 165x115x280 (6.5x4.5x11.0) 2.6 (5.7) 115 or 230 V 630 W up to 20 **AREX Digital with PROBE** Aluminum alloy with ceramic coating Ø155 (6.1) up to 1500 up to 20 Ambient to 370 165x115x280 (6.5x4.5x11.0) 2.6 (5.7) 115 or 230 V 630 W AREX Digital PRO with VTF 165x630x280 (6.5x24.8x11.0) 2.6 (5.7) Aluminum alloy with ceramic coating Ø155 (6.1) up to 1500 up to 20 Ambient to 370 115 or 230 V 630 W AM4 Aluminum allov Ø 155 (6.1) up to 1500 up to 15 (x 4 pos.) Ambient to 370 715x115x246 (28.1x4.5x9.7) 8.3 (18.2) 230 V 2550 W

ARE, AREX, AREX Digital, AREX Digital PRO, AM4 ACCESSORIES CODE No

OPTIONAL ACCESSORIES

Hemispheric bowl for 100 ml flasks	A00000258
Hemispheric bowl for 250 ml flasks	A00001071
Ternispheric bowr for 250 mi llasks	A00001071
Hemispheric bowl for 500 ml flasks	A00001072
Level and a level fact 4000 real flacture	400004070
Hemispheric bowl for 1000 ml flasks	A00001073
Magnetic stirring bar, 6x35 mm	A00001056
o o ,	
Magnetic stirring bar, 9.5x60 mm	A00001061
AREX and AREX Digital PRO	

Magnetic stirring bar, 9.5x60 mm	A00001061
Magnetic stirring bar, 10x40 mm	A00001060
VTF Vertex, digital Thermoregulator	F208B0063 *
Spiral cable for other Thermoregulators	40000781 *
Support rod	A00001069
External probe for AREX Digital	A00000268

AREX and AREX Digital PRO

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 runoff 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 $_2$ O): 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 (H₂O): 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 (\pm 0.5 °C) with an **integrated timer**, whilst with the external probe up to 250 °C (\pm 1.0 °C).

Electronic speed regulation: up to 1500 rpm Stirring volume (H₂O): 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 - Pacl	kage 230 V / 50-60 Hz	SA20500061 *
AREC.X with Probe - Pacl	kage 115 V / 60 Hz	SA20510061 *
AREC.X with VTF - Pack	age 230 V / 50-60 Hz	SB20500061 **
AREC.X with VTF - Pack	age 115 V / 60 Hz	SB20510061 **
* Support rod and clamp for F	t100 probe included	

** Support rod included



AREC.X with support rod and external probe



AREC.X with support rod and VTF

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



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**.

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 (H₂O): up to 15 L Temperature: up to 550 °C SpeedServo™: constant speed even when the viscosity changes



(i)			HEATING PLATE DIMENSIONS mm (in)	STIRRING SPEED rpm	STIRRING VOLUME L	TEMPERATURE SPE REGULATION °C	EEDSERVO™	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

CODE No

OPTIONAL ACCESSORIES

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 A00000004 *	
External probe for AREC.X A00000268 *	

* AREC.X only



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 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



THERMOREGULATOR

The VELP Scientifica thermoregulator uses electronic "Fuzzy Logic" meaning that thermoregulation is automatically adapted to various factors such as power, load and thermal dispersion.

VTF VERTEX DIGITAL THERMOREGULATOR WITH FUZZY LOGIC TECHNOLOGY

The VTF uses Fuzzy Logic technology and is suitable for many applications where precise thermoregulation is required.

The instrument can be combined with the most common hot plate stirrers and is ready for use.

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 350 °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



(i) 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	A0000001
Probe extension cable, 1 m	A0000002
Glass probe	A0000003
Probe clamp	A0000004

AREX with VTF







AREX Digital PRO with VTF

A0000003



AREC.X with VTF



11 **STIRRING LINE**

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 $_2$ O): 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, dou and stirring shaft with fixed		
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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

DLH



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 (H₂O): 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





CODE No

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 (H₂O): up to 40 L Viscosity: up to 50,000 mPa*s SpeedServoTM: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
DLU	80×000 V / 50 00 U	E001 4 01 57
DLH	80÷260 V / 50-60 Hz	F201A0157



(j)		STIRRING SPEED rpm		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)		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

A00001300
A00001301
A00001302





STIRRING SHAFTS

Stirring shaft with floating blades

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.



Code No A00001304

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 occurrence of shearing forces.



Stirring shaft with 6-hole paddleCode No A00001308Characteristics:It generates a tangential flow with reducedturbulence and with gentle mixing of the product.



Stirring shaft with turbine bladeCode No A00001309Characteristics:It generates a radial flow with suction of the productfrom the top towards the bottom, with high turbulence and high shearingforces.



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 (SHAFT m		
Stirring shaft with floating blades, stainless s	steel	A00001304	2	93	7	400	M-H	VL-L
Stirring shaft with folding blade, stainless ste	eel	A00001305	1	60	7	400	M-H	VL-L
Stirring shaft with fixed blade, stainless stee	el	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	s 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 s	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	SPE	ED RANGE	rpm	VISCOSITY RANGE	mPa*s		VISCOSITY mPa*s	SUBSTANCE
bearing in mind the stirrer power, ⁻ the volume of substances to be	Low	(L)	< 250	Very low (VL)	0 – 100		1	Water
stirred and its viscosity. The	Med	ium (M)	250 - 800	Low (L)	100 – 1,00	0	5	Milk
technical features and the	High	(H)	> 800	Medium (M)	1,000 – 10	,000	10	Kerosene
application fields of the stirring				High (H)	10,000 - 1	00,000	100	Lubricating oil
shafts are summarized in the							1,000	Castor oil, Glicerin
following tables:							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

ZX3

INSTRUMENT

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.

POWER SUPPLY

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

INSTRUMENT	POWER SUPPLY	CODE No
RX3	100÷240 V / 50-60 Hz	F202A0171
100	100.240 07 00 00 112	
	-	
	-	
	Res .	

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*
* A0000012 A0000013 A	00000016 included	





CODE No



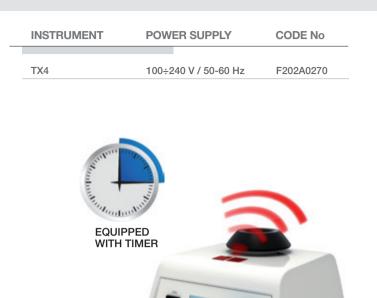
TX4

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





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



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.

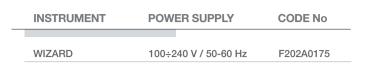
Thanks to the **revolutionary IR sensor mode**, an infrared system (IR) detects the presence of the test tube and the instrument automatically starts vibrating!

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







A0000012

CLASSIC,

WIZARD



A0000013

CLASSIC

WIZARD



CLASSIC,

WIZARD

A0000016

CLASSIC,

WIZARD



CLASSIC, WIZARD

OPERATING OPERATING OPERATING DIGITAL DISPLAY, PROTECTION SUPPORT WEIGHT POWER SUPPLY STIRRING ORBITAL DIMENSIONS POWFR DIAMETER MODE SPEED rpm MODE MODE RATING CEI SYSTEM (WxHxD) mm (in) Kg (lb) Touch Continuous IR Sensor TIMER EN 60529 mm RX3 IP 42 4 anti-sliding feet 150x130x165 (5.9x5.1x6.5) 2.7 (5.9) 3000 45 100-240 V 15 W IP // 2 **7X**3 $0 \div 3000$ 15 4 anti-sliding feet 150x130x165 (5.9x5.1x6.5) 27(59) 100÷240 V . ZX4 0÷3000 4.5 IP 42 4 anti-sliding feet 150x130x165 (5.9x5.1x6.5) 2.7 (5.9) 100÷240 V IP 42 4 anti-sliding feet 150x130x165 (5.9x5.1x6.5) TX4 0÷3000 4.5 2.7 (5.9) 100÷240 V CLASSIC 0÷3000 IP 42 3 anti-sliding feet 180x70x220 (7.1x2.8x8.7) 100÷240 V 4.5 . 2.2 (4.9) 15 W • WIZARD 0÷3000 3 anti-sliding feet 180x70x220 (7,1x2.8x8.7) 45 IP 42 22(49) 100÷240 V 15 W

CLASSIC

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

INTERCHANGEABLE PLUG

UK plug	
Australian plug	

10003084 10003085

CODE No

A0000015

CLASSIC,

WIZARD

OPTIONAL ACCESSORIES **CODE No** Foam stand for 19 microvials Eppendorf, 1.5 ml A0000012* A0000013 * Customizable soft foam top Foam stand for 5 test tubes Ø 16 mm A0000014 * Foam stand for microtiter A0000015 * A0000019 * Foam stand for 4 tubes Ø 29 mm A0000016 ** Small rubber supporting plate Ø 50 mm A0000017 ***

Rubber supporting plate Ø 94 mm

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

^{***} for ZX3 and CLASSIC

HOMOGENIZER

OV5

The **OV5** homogenizer is the ideal solution for dispersing, homogenizing, mixing and grinding biological tissue samples (cells, animal and plant tissues), pharmaceutical products, cosmetics and food products. The OV5 is characterized by a **high versatility** that makes it unique on the market. A single shaft can be combined with a wide selection of stator and rotor configurations according to the specific application for which it is to be used. **Flexible**, **easy-to-use**, **rapid** and **user-friendly** stator and rotor **interchangeability**: a single instrument for a wide range of uses that ensures **excellent performance** and **safety**.

The OV5 homogenizer has an **ergonomic design** for simple handling. A built-in electronic motor control offers the possibility to adjust the speed from 10,000 to **30,000 rpm**. The **soft start** prevents spillage whilst the automatic overload protection increases the life-span of the instrument.

The OV5 homogenizer has one shaft for all applications, simply configure it with the most suitable rotor and stator. The shaft ensures **high strength** and **excellent durability**. It connects easily and quickly to the drive body through a snap hook. The rotor/stator configuration can also be assembled in a few seconds and without the use of tools, consisting of a high-speed rotor with sharp blades lodged within a stationary stator with openings. The OV5 is suitable for the most diverse applications thanks to the wide range of rotor/stator configurations available.

INSTRUMENT	POWER SUPPLY	CODE No
OV5	230 V / 50 Hz	R20900010
OV5 - Package	230 V / 50 Hz	SA20900010*
*]]		and the second second second second

* H-stand, strap clamp, bosshead clamp and VSS2CSR2 dispersing tool included



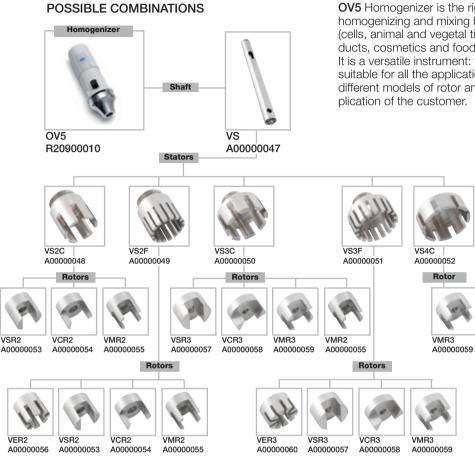


OPTIONAL ACCESSORIES	CODE No	
H-stand with strap clamp, bosshead clamp	A0000045	
Support rod and base	A00001300	
Double clamp	A00001301	
Strap clamp	A0000044	



A STAND ALONE SOLUTION FOR A WIDE **RANGE OF APPLICATIONS**

OV5 Homogenizer is the right solution for dispersing, homogenizing and mixing biological tissue samples (cells, animal and vegetal tissues), pharmaceutical products, cosmetics and food products. It is a versatile instrument: the same model of shaft suitable for all the applications and configurable with different models of rotor and stator, for the specific application of the customer.



CHOOSE THE MOST SUITABLE DISPERSING TOOL

(i) TREATABLE MODEL CODE No APPLICATION FIELDS *** FUNCTION MAX CIRCUM. Ø ROTOR Ø STATOR TOOL LENGHT MIN/MAX SUSPENSION EMULSION IMMERSION DEPTH mm SPEED m/s mm mm (WATER) ml mm *VSS2CSR2 CE.IF.PC.SI 100-5000 220 40/175 10 - 50 1-10 A0000026 20 А VSS2CCB2 A0000027 CT.IA.IT.M.SI В 100-5000 22.7 20 220 40/175 10 - 50 1-10 VSS2CMR2 A0000028 CF VF 100-5000 40/175 10 - 50 1-10 А CT, IF, SI, VE 100-5000 22,7 40/175 1- 10 *VSS2FER2 A0000029 10 - 50 VSS2FCR2 A0000031 BT,CT,IA,IT,M,SI В 100-5000 20 40/175 10 - 50 1- 10 1-10 CE.CT.IA.IC.PC.VE A 100-5000 20 40/175 10 - 50 VSS2FMR2 A0000032 *VSS3CSR3 A0000033 CT.IA.IF.M.SI A 100-8000 34.9 23 30 40/175 5 - 25 1 - 5 VSS3CCR3 A0000034 CT,IA,IF,M,SI В 100-8000 34,9 23 30 220 40/175 5 - 25 1 - 5 VSS3CMR3 A0000035 CE.VE А 100-8000 34,9 23 30 40/175 5 - 25 1 - 5 VSS3CMR2 A0000036 CE.IA.SI 250-20000 34.9 15 30 40/175 Hiah speed mixer 1 - 5 CT.IF.SI.VE 34.9 30 *VSS3FER3 A0000037 100-8000 23 40/175 5 - 25 VSS3FSR3 A0000038 CT, IF, SI, VE А 100-8000 34.9 23 30 220 40/175 5 - 25 1 - 5 VSS3FMR3 A00000040 CE,IA,IC,IF,IT А 100-8000 34,9 23 30 220 40/175 5 - 25 1 - 5 *VSS4CMR3 A00000041 CE.IA.SI D 1000-40000 34,9 23 40 40/175 High speed mixe **VSS5CSR4 A0000046 0.2-50 128 10/60 1-10 BT.M 6.3 4 5 10-50 А

Most used model

The dispersing tool works with Ø 4 mm rotor and Ø 5 mm stator for microbiological applications (e.g. suitable for Eppendorf, cuvettes,etc.)

*** BT = biotechnology, CE = ceramic industry, CT = paper & tissue industry, IA = food industry, IC = cosmetic industry, IF = pharmaceutical industry, IT = tobacco industry, M = medicine, PC = petrochemistry industry, SI = sewage pollution control, VE = paint industry

**** A = dispersing tool for solid/liquid media, B = dispersing tool with blades for fibrous/stringy materials, C = dispersing tool for water/oil or oil/water emulsions, D = stirring shaft

ULTIMATE FINENESS µm



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OTHER LAB EQUIPMENT

Constant Commitment to Knowledge Development

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