

LABSOLUTIONS



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 AND MICROSTIRRER

The **MST** magnetic stirrer with ABS structure and **MICROSTIRRER** with epoxy painted metal structure ensure a **high resistance** to chemical agents. **Small, simple** and extremely useful where small but reliable instruments are needed, the white surface makes them particularly suitable for titration. The MST and MICROSTIRRER **remain cold** even after several days of continuous use, a feature that is very highly appreciated in microbiology and biochemistry.

Electronic speed regulation: up to 1100 rpm
Stirring volume (H₂O): up to 5 L

UK, AU and USA adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
MST	100÷240 V / 50-60 Hz	F203A0160
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 (H₂O): up to 5 L

UK, AU and USA adapter plugs are available on request.

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



AGE

The **AGE** magnetic stirrer has an epoxy painted metal structure that ensures a **high resistance** to chemical agents. It is suitable for the most common laboratory stirring requirements.

Electronic speed regulation: up to 1200 rpm
Stirring volume (H₂O): 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



ATE

The **ATE** is a **high power** magnetic stirrer suitable for medium-high volumes. It ensures a high resistance to chemicals agents.

Electronic speed regulation: up to 1200 rpm
Stirring volume (H₂O): up to 25 L

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



MULTISTIRRER 6 AND 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 (H₂O): up to 0.4 L per position
Distance between stirring position centres: 100 mm

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 (H₂O): up to 0.25 L per position
Distance between stirring position centres: 74 mm

UK, AU and USA 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



AMI AND 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 subtle color changes.

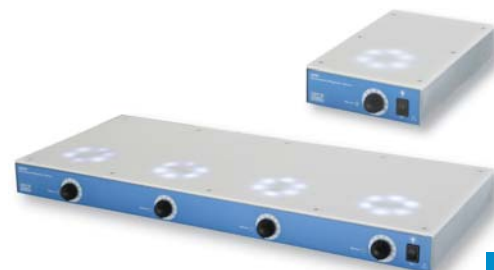
Electronic speed regulation: up to 1100 rpm
Stirring volume (H₂O): up to 5 L

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 subtle 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, AU and USA 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



	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 2.4	230x51.5x370 (9.0x2.0x14.5)	1.75 (3.8)	100÷240 V	3.6 W
MULTISTIRRER 15	from 50 to 850	up to 3.75	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 20	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
US plug	10003083 *
UK plug	10003084 *
Australian plug	10003085 *

* for MST, MICROSTIRRER, MULTISTIRRER 6, MULTISTIRRER 15, AMI, AMI 4 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, MICROSTIRRER, AGE, MULTISTIRRER 15, AMI and AMI 4

** for MST, MICROSTIRRER, AGE, MULTISTIRRER 6, MULTISTIRRER 15, AMI and AMI 4

*** ATE only

**** ESP only

***** for MULTISTIRRER 6 and MULTISTIRRER 15

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**.

ARE

The **ARE** is widely used in research and development, industrial and university laboratories worldwide. The ARE has an **aluminum alloy heating plate** coated with a special protective layer in order to ensure **uniform heat distribution** and **excellent resistance** to chemicals.

Electronic speed regulation: up to 1200 rpm
Stirring volume (H₂O): up to 15 L
Temperature: up to 370 °C

INSTRUMENT	POWER SUPPLY	CODE No
ARE	230 V / 50 Hz	F20520162
ARE	230 V / 60 Hz	F20530162
ARE	115 V / 60 Hz	F20540162



AREX

The **AREX** has an **aluminum alloy heating plate** to ensure **uniform heat distribution** over the entire surface, coated with a special protective layer that ensures **excellent resistance** to chemicals. This heating magnetic stirrer guarantees **precise thermoregulation** of the heating plate as well as a high degree of **reliability** and **safety**. 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 1200 rpm
Stirring volume (H₂O): up to 20 L
Temperature: up to 370 °C

INSTRUMENT	POWER SUPPLY	CODE No
AREX	230 V / 50 Hz	F20520163
AREX	230 V / 60 Hz	F20530163
AREX	115 V / 60 Hz	F20540163



ARED

The **ARED** is a high power heating magnetic stirrer for **medium/high volumes**. The **aluminum alloy heating plate** is coated with a special protective layer and ensures **uniform heat distribution** as well as **excellent resistance** to chemicals.

Electronic speed regulation: up to 1200 rpm
Stirring volume (H₂O): up to 25 L
Temperature: up to 370 °C

INSTRUMENT	POWER SUPPLY	CODE No
ARED	230 V / 50 Hz	F20520169
ARED	230 V / 60 Hz	F20530169
ARED	115 V / 60 Hz	F20540169



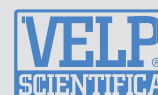
T.ARE

The **T.ARE** is suitable for **medium/high volumes**. The **aluminum alloy heating plate** is coated with a special protective layer in order to ensure **uniform heat distribution** and **excellent resistance** to chemicals. The instrument can run in continuous mode or the timer can be programmed with an operating time of up to 60 minutes with automatic switch-off.

Electronic speed regulation: up to 1200 rpm
 Stirring volume (H₂O): up to 25 L
 Temperature: up to 370 °C

INSTRUMENT	POWER SUPPLY	CODE No
T.ARE	230 V / 50 Hz	F20520170
T.ARE	230 V / 60 Hz	F20530170
T.ARE	115 V / 60 Hz	F20540170

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** over the entire surface as well as **excellent resistance** to chemicals.

Electronic speed regulation: up to 1200 rpm
 Stirring volume (H₂O): up to 5 L per position
 Temperature: up to 370 °C
 Distance between stirring position centres: 186 mm

INSTRUMENT	POWER SUPPLY	CODE No
AM4	230 V / 50 Hz	F20520166
AM4	230 V / 60 Hz	F20530166



	HEATING PLATE	HEATING PLATE DIMENSIONS mm (in)	STIRRING SPEED rpm	STIRRING VOLUME L	TEMPERATURE REGULATION °C	OVERTEMP. PROTECTION	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
ARE	Aluminum alloy	∅ 155 (6.1)	up to 1200	up to 15	Ambient to 370	•	165x115x280 (6.5x4.5x11.0)	2.6 (5.7)	115 or 230 V	630 W
AREX	Aluminum alloy	∅ 155 (6.1)	up to 1200	up to 20	Ambient to 370	•	165x115x280 (6.5x4.5x11.0)	2.6 (5.7)	115 or 230 V	630 W
ARED	Aluminum alloy	∅ 180 (7.1)	up to 1200	up to 25	Ambient to 370	•	190x110x245 (7.5x4.3x9.6)	3.1 (6.8)	115 or 230 V	900 W
T.ARE	Aluminum alloy	∅ 180 (7.1)	up to 1200	up to 25	Ambient to 370	•	190x110x245 (7.5x4.3x9.6)	3.1 (6.8)	115 or 230 V	900 W
AM4	Aluminum alloy	∅ 155 (6.1)	up to 1200	up to 20	Ambient to 370	•	715x115x220 (28.1x4.5x8.7)	8.3 (18.2)	230 V	2550 W

ARE, AREX, ARED, T.ARE, AM4 ACCESSORIES

OPTIONAL ACCESSORIES	CODE No
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
Magnetic stirring bar, 6x35 mm	A00001056
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 **

* AREX only
 ** supplied with AREX

HEATING MAGNETIC STIRRERS

CERAMIC TOP

VELP Scientifica offers a wide range of heating magnetic stirrers with ceramic top. Ceramic top ensures **excellent resistance to chemicals** and **scratches** and are **extremely easy to clean**. As always VELP Scientifica ensures the **most advanced safety standards**.

AREC

The **AREC** is a **digital heating magnetic stirrer** with a **white ceramic heating plate** extremely **resistant** to corrosion and **easy to clean**. It is suitable for observing colour changes (e.g. during titration, etc.). The control panel is separated from the heating plate, this feature increases the **safety** rating during use and the **durability** of the instrument. The inclination of the knobs has been carefully studied to facilitate use. A microprocessor ensures **constant speed** even when the viscosity changes (**counter-reaction**). The AREC has an ergonomic and innovative design with a **clear and bright digital display**. Metal vessels can be used.

Electronic speed regulation: up to 1300 rpm
 Stirring volume (H₂O): up to 15 L
 Temperature: up to 540 °C
 Counter-reaction: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AREC	230 V / 50-60 Hz	F20500010
AREC	115 V / 50-60 Hz	F20510010



AREC.X

The **AREC.X** has a **white ceramic heating plate**, extremely **resistant** to corrosion and **easy to clean**. It is suitable for observing colour changes (e.g. during titration, etc.). The control panel with its **clear and bright digital display** is separated from the heating plate, this feature increases the **safety** rating during use and the **durability** of the instrument. The inclination of the knobs has been carefully studied to facilitate use. A microprocessor ensures **constant speed** even when the viscosity changes (**counter-reaction**). The **digital** heating magnetic stirrer AREC.X has a socket for the connection of a **VTF Vertex** digital thermoregulator for direct temperature control of the liquid. Metal vessels can be used.

Electronic speed regulation: up to 1300 rpm
 Stirring volume (H₂O): up to 15 L
 Temperature: up to 540 °C
 Counter-reaction: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AREC.X	230 V / 50-60 Hz	F20500060
AREC.X	115 V / 50-60 Hz	F20510060



HSC

The **HSC** heating magnetic stirrer has a **white ceramic heating plate** extremely **resistant** to corrosion and **easy to clean**. It is suitable for observing changes of color (e.g. during titration, etc.). The control panel is separated from the heating plate, this feature increases the **safety** rating during use and the **durability** of the instrument. The inclination of the knobs has been carefully studied to facilitate use. A new "analogic" solution able to give the **best performance** at a **competitive price**. Metal vessels can be used.

Electronic speed regulation: up to 1300 rpm
 Stirring volume (H₂O): up to 15 L
 Temperature: up to 400 °C

INSTRUMENT	POWER SUPPLY	CODE No
HSC	230 V / 50-60 Hz	F20500100
HSC	115 V / 50-60 Hz	F20510100



AREC.T

The **AREC.T** has a **white ceramic heating**, extremely **resistant** to corrosion and **easy to clean**. It is suitable for observing colour changes (e.g. during titration, etc.). The control panel with its **clear and bright digital display** is separated from the heating plate, this feature increases the **safety** rating during use and the **durability** of the instrument. The inclination of the knobs has been carefully studied to facilitate use. A microprocessor ensures **constant speed** even when the viscosity changes (**counter-reaction**). The **digital** heating magnetic stirrer AREC.T has a built-in **programmable timer** up to 999 minutes with automatic switch off. Metal vessels can be used.

Electronic speed regulation: up to 1300 rpm
 Stirring volume (H₂O): up to 15 L
 Temperature: up to 540 °C
 Counter-reaction: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
AREC.T	230 V / 50-60 Hz	F20500050
AREC.T	115 V / 50-60 Hz	F20510050



SEPARATED FRONTAL PANEL

AREC, AREC.X, HSC, AREC.T



- **Long-Life**
Designed to last
- **Safe Working Conditions**
The user always remains far from the heating source and from the boiling liquids
- **Excellent engineering**
Improved comfort and low profile



DIGITAL DISPLAY

AREC, AREC.X, AREC.T

- **Easy to Read Temperature Display**
The bright display shows the set point temperature for repeatable and precise results
- **"Hot Plate" Warning**
It remains displayed while the instrument is in use at temperatures of above 50 °C. When the instrument is turned off it flashes until the temperature of the plate has cooled to below 50 °C
- **Timer (AREC.T only)**
It will automatically switch off both the heating and the stirring, being perfect for timed applications



①

	HEATING PLATE	HEATING PLATE DIMENSIONS mm (in)	STIRRING SPEED rpm	STIRRING VOLUME L	TEMPERATURE REGULATION °C	COUNTER REACTION	OVERTEMP. PROTECTION	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
AREC	Ceramic	180x180 (7.1x7.1)	up to 1300	up to 15	Ambient to 540	•	•	205x96x335 (8.0x3.7x13.2)	3.9 (8.6)	115 or 230 V	800 W
AREC.X	Ceramic	180x180 (7.1x7.1)	up to 1300	up to 15	Ambient to 540	•	•	205x96x335 (8.0x3.7x13.2)	3.9 (8.6)	115 or 230 V	800 W
HSC	Ceramic	180x180 (7.1x7.1)	up to 1300	up to 15	Ambient to 400	•	•	205x96x335 (8.0x3.7x13.2)	3.9 (8.6)	115 or 230 V	800 W
AREC.T	Ceramic	180x180 (7.1x7.1)	up to 1300	up to 15	Ambient to 540	•	•	205x96x335 (8.0x3.7x13.2)	3.9 (8.6)	115 or 230 V	800 W

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

OPTIONAL ACCESSORIES	CODE No
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
Magnetic stirring bar, 6x35 mm	A00001056
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 **

* AREC.X only
 ** supplied with AREC.X

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 heating magnetic 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 whilst an **in-built timer** means that the thermoregulation time can be pre-set.

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 heating magnetic stirrers AREX and AREC.X.

INSTRUMENT	POWER SUPPLY	CODE No
VTF	12 V cc	F208B0063



GENERAL FEATURES AND PERFORMANCE

THERMOREGULATION RANGE °C	from -10 to +300
RESOLUTION °C	0.2
PRECISION °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

OPTIONAL ACCESSORIES	CODE No
Derivation element PW 10	A00000001
Probe extension cable, 1 m	A00000002
Glass probe	A00000003
Probe clamp	A00000004

HEATING PLATES

ALUMINUM AND CERAMIC TOP



HEATING PLATES

VELP Scientifica's heating plates are extremely **safe, simple** and **affordable** instruments with a **long life-span**. They are designed for every day laboratory requirements where the heating of liquid samples is required.

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): 180 mm

INSTRUMENT	POWER SUPPLY	CODE No
RC	230 V / 50-60 Hz	F20700174
RC	115 V / 50-60 Hz	F20710174
RC2	230 V / 50-60 Hz	F20700172
RC2	115 V / 50-60 Hz	F20710172

REC

The **REC** is a **white ceramic heating plate** that is **highly resistant** to corrosion, **very easy to clean** and excellent for observing colour changes (e.g. during titration, etc.). A **bright display** allows constant monitoring of the temperature. The control panel is completely separate from the heating plate, this feature increases the **safety** rating during use as well as the **durability** of the instrument. The electronic control board activates a high temperature warning that remains displayed while the instrument is in use at temperatures of above 50 °C. When the instrument is turned off the high-temperature warning flashes until the temperature of the plate has cooled to below 50 °C.

Temperature: up to 540 °C

INSTRUMENT	POWER SUPPLY	CODE No
REC	230 V / 50-60 Hz	F20700080
REC	115 V / 50-60 Hz	F20710080



	HEATING PLATE	HEATING PLATE DIMENSIONS mm (in)	TEMPERATURE REGULATION °C	OVERTEMP. PROTECTION	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
RC	Aluminum alloy	∅ 155 (6.1)	Ambient to 370	•	165x115x280 (6.5x4.5x11.0)	1.4 (3.1)	115 or 230 V	600 W
RC2	Aluminum alloy	∅ 155 (6.1)	Ambient to 370	•	340x90x190 (13.4x3.5x7.5)	3.3 (7.3)	115 or 230 V	1200 W
REC	Ceramic	180 x 180 (7.1 x 7.1)	Ambient to 540	•	205x96x335 (8.0x3.7x13.2)	3.15 (7.0)	115 or 230 V	800 W

RC, RC2, REC ACCESSORIES

OPTIONAL ACCESSORIES	CODE No
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

OVERHEAD STIRRERS

OVERHEAD STIRRERS

Overhead stirrers are commonly used during solubilization, mixing, emulsification and homogenization. VELP Scientifica offers a complete range of overhead stirrers with electronic adjustment for a variety of needs in terms of viscosity and volume. The **self-locking chuck** 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

The **ES** is an economic overhead stirrer for **low/medium viscosity** liquids. A special system blocks the stirrer in case of incorrect functioning thus ensuring **safe operation**. The ES is fitted with a **user-friendly self-locking chuck**.

Electronic speed regulation: up to 1300 rpm
 Stirring volume (H₂O): up to 15 L
 Viscosity: up to 1,000 mPa*s

INSTRUMENT	POWER SUPPLY	CODE No
ES	230 V / 50-60 Hz	F20100152
ES	115 V / 50-60 Hz	F20110152



BS

The **BS** is suitable for use with **low/medium viscosity** liquids. A special system blocks the stirrer in case of incorrect functioning thus ensuring **safe operation**. The BS is fitted with a **user-friendly self-locking chuck**.

Electronic speed regulation: from 50 to 2000 rpm
 Stirring volume (H₂O): up to 25 L
 Viscosity: up to 10,000 mPa*s

INSTRUMENT	POWER SUPPLY	CODE No
BS	230 V / 50-60 Hz	F20100151
BS	115 V / 50-60 Hz	F20110151



DLS

The **DLS** is a digital overhead stirrer for **medium viscosity** liquids. A microprocessor ensures **constant speed** even when the viscosity changes (**counter-reaction**). A special system blocks the stirrer in case of incorrect functioning thus ensuring **safe operation**. The DLS is fitted with a **user-friendly self-locking chuck**.

Two clear, easy-to-read displays show the current speed and the set speed.

Electronic speed regulation: from 50 to 2000 rpm
 Stirring volume (H₂O): up to 25 L
 Viscosity: up to 25,000 mPa*s
 Counter-reaction: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
DLS	230 V / 50-60 Hz	F20100155
DLS	115 V / 50-60 Hz	F20110155



LH AND DLH

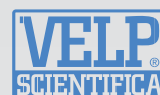
The **LH** and **DLH** are the ideal solution for **high viscosity** liquids. A microprocessor ensures **constant speed** even when the viscosity changes (**counter-reaction**). A special system blocks the stirrer in case of incorrect functioning thus ensuring **safe operation**. The LH and DLH are fitted with **user-friendly self-locking chucks**. The DLH has **two clear, easy-to-read displays** showing the current speed and the set speed.

Electronic speed regulation: from 50 to 2000 rpm
 Stirring volume (H₂O): up to 40 L
 Viscosity: up to 50,000 mPa*s
 Counter-reaction: constant speed even when the viscosity changes

INSTRUMENT	POWER SUPPLY	CODE No
LH	230 V / 50-60 Hz	F20100156
LH	115 V / 50-60 Hz	F20110156
DLH	230 V / 50-60 Hz	F20100157
DLH	115 V / 50-60 Hz	F20110157



PW



The **PW** is the optimum solution for stirring **high viscosity** liquids. A special system blocks the stirrer in case of incorrect functioning thus ensuring **safe operation**. The PW is fitted with a **user-friendly self-locking chuck**.

Electronic speed regulation: from 20 to 1200 rpm
 Stirring volume (H₂O): up to 70 L
 Viscosity: up to 100,000 mPa*s

INSTRUMENT	POWER SUPPLY	CODE No
PW	230 V / 50-60 Hz	F20100150
PW	115 V / 50-60 Hz	F20110150



i

	STIRRING SPEED rpm	STIRRING VOLUME L	MAXIMUM VISCOSITY mPa*s	MAXIMUM TORQUE Ncm	MAXIMUM SHAFT DIAMETER mm	COUNTER-REACTION	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
ES	from 50 to 1300	up to 15	1,000	17	8.5		80x160x200 (3.1x6.3x7.9)	1.7 (3.7)	115 or 230 V	35 W
BS	from 50 to 2000	up to 25	10,000	75	8.5		80x215x196 (3.1x8.5x7.7)	2.8 (6.2)	115 or 230 V	60 W
DLS	from 50 to 2000	up to 25	25,000	45	8.5	•	80x215x196 (3.1x8.5x7.7)	3.0 (6.6)	115 or 230 V	60 W
LH	from 50 to 2000	up to 40	50,000	90	8.5	•	80x230x196 (3.1x9.0x7.7)	3.4 (7.5)	115 or 230 V	120 W
DLH	from 50 to 2000	up to 40	50,000	90	8.5	•	80x230x196 (3.1x9.0x7.7)	3.5 (7.7)	115 or 230 V	120 W
PW	from 20 to 1200	up to 70	100,000	135	8.5		80x230x196 (3.1x9.0x7.7)	3.4 (7.5)	115 or 230 V	120 W

ES, BS, DLS, LH, DLH, PW ACCESSORIES

OPTIONAL ACCESSORIES

CODE No

Support rod and base	A00001300
Double clamp	A00001301
Ribbon clamp	A00001302

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 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 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 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 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 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 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 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	VISCOSITY RANGE	mPa*s	VISCOSITY mPa*s	SUBSTANCE
Low (L)	< 250	Very low (VL)	0 – 100	1	Water
Medium (M)	250 – 800	Low (L)	100 – 1,000	5	Milk
High (H)	> 800	Medium (M)	1,000 – 10,000	10	Kerosene
		High (H)	10,000 – 100,000	100	Lubricating oil
				1,000	Castor oil, Glycerine
				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. The five models manufactured by VELP Scientifica offer **manual, continuous or infrared 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 system** to activate vibration **without the need to apply pressure**.

RX3

The **RX3** is a basic vortex mixer that runs at a single, **fixed stirring speed**.

Electronic speed regulation: constant, 2400 rpm
Operating modes: touch

INSTRUMENT	POWER SUPPLY	CODE No
RX3	230 V / 50 Hz	F20220171
RX3	230 V / 60 Hz	F20230171
RX3	115 V / 60 Hz	F20240171



ZX3

The **ZX3** is a basic vortex mixer with **adjustable stirring speed and two operating modes**.

Electronic speed regulation: from 50 to 2400 rpm
Operating modes: touch, continuous

INSTRUMENT	POWER SUPPLY	CODE No
ZX3	230 V / 50 Hz	F20220176
ZX3	230 V / 60 Hz	F20230176
ZX3	115 V / 60 Hz	F20240176



VORTEX CLASSIC

The **Classic** 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 the instrument the ideal solution for a **large variety of needs**.

Touch mode - shaking 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 this instrument the ideal solution for a **large variety of needs**.

A dedicated selector switch ensures **maximum stability** of the instrument for the operating mode selected.

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

UK, AU and USA adapter plugs are available on request.

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



VORTEX WX

PATENTED

The **Vortex WX** uses the **revolutionary IR system** to detect the presence of the test tube and **start vibrating automatically**. The Vortex WX features the **innovative** and **ergonomic** design which, combined with the special materials used, ensures **high stability** and **increased comfort**.

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

UK, AU and USA adapter plugs are available on request.

INSTRUMENT	POWER SUPPLY	CODE No
VORTEX WX	100÷240 V / 50-60 Hz	F202A0230



VORTEX WIZARD

PATENTED

The **Vortex 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 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 vibration so the laboratory technician does not have to apply any pressure!

Continuous mode - continuous operating mode can be used with a wide range of accessories.

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

UK, AU and USA adapter plugs are available on request.

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



i

	STIRRING SPEED rpm	ORBITAL DIAMETER mm	OPERATING MODE	OPERATING MODE	OPERATING MODE	PROTECTION RATING CEI EN 60529	SUPPORT SYSTEM	DIMENSIONS (WxHxD) mm (in)	WEIGHT Kg (lb)	POWER SUPPLY	POWER
RX3	2400	5	•	•	•	IP20	4 holdfast feet	150x134x150 (5.9x5.3x5.9)	2.0 (4.4)	115 or 230 V	45 W
ZX3	50÷2400	5	•	•	•	IP20	4 holdfast feet	150x134x150 (5.9x5.3x5.9)	2.0 (4.4)	115 or 230 V	45 W
CLASSIC	0÷3000	4.5	•	•	•	IP42	3 non-slip feet	180x70x220 (7.1x2.8x8.7)	2.2 (4.9)	100÷240 V	15 W
WX	0÷3000	4.5	•	•	•	IP42	3 non-slip feet	180x70x220 (7.1x2.8x8.7)	2.2 (4.9)	100÷240 V	15 W
WIZARD	0÷3000	4.5	•	•	•	IP42	3 non-slip feet	180x70x220 (7.1x2.8x8.7)	2.2 (4.9)	100÷240 V	15 W

CLASSIC, WIZARD ACCESSORIES

OPTIONAL ACCESSORIES	CODE No
Foam stand for 19 microvials Eppendorf, 1.5 ml	A0000012
Customizable soft foam top	A0000013
Foam stand for 5 test tubes Ø 16 mm	A0000014
Foam stand for 4 tubes Ø 29 mm	A0000019
Small rubber supporting plate Ø 50 mm	A0000016
Rubber supporting plate Ø 94 mm	A0000017

CLASSIC, WX, WIZARD ACCESSORIES

INTERCHANGEABLE PLUG	CODE No
US plug	10003083
UK plug	10003084
Australian plug	10003085

RX3, ZX3 ACCESSORIES

OPTIONAL ACCESSORIES	CODE No
Stand for microtiter	A00001047 *
Stand for 25 microvials Eppendorf -1.5 ml	A00001048 *
Supporting plate Ø 90 mm	A00001050

* ZX3 only

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.



LEGEND

Example composition:
VSS2CSR2

VS	S2C	SR2
Shaft	Stator	Rotor
VS	VS2C	VSR2

INSTRUMENT	POWER SUPPLY	CODE No
OV5	230 V / 50 Hz	R20900010

OPTIONAL ACCESSORIES	CODE No
H-stand with strap clamp, bosshead clamp	A00000045
Support rod and base	A00001300
Double clamp	A00001301
Strap clamp	A00000044

CHOOSE THE MOST SUITABLE DISPERSING TOOL

i	MODEL	CODE No	APPLICATION FIELDS ***	FUNCTION ****	TREATABLE VOLUME (WATER) ml	MAX CIRCUM. SPEED m/s	Ø ROTOR mm	Ø STATOR mm	TOOL LENGTH mm	MIN/MAX EMERSION DEPTH mm	ULTIMATE FINENESS µm	
											SUSPENSION	EMULSION
	*VSS2CSR2	A00000026	CE,IF,PC,SI	A	10 - 5000	22,7	15	20	220	40/175	10 - 50	1 - 10
	VSS2CCR2	A00000027	CT,IA,IT,M,SI	B	10 - 5000	22,7	15	20	220	40/175	10 - 50	1 - 10
	VSS2CMR2	A00000028	CE,VE	A	10 - 5000	22,7	15	20	220	40/175	10 - 50	1 - 10
	*VSS2FER2	A00000029	CT,IF,SI,VE	C	10 - 5000	22,7	15	20	220	40/175	10 - 50	1 - 10
	VSS2FCR2	A00000031	BT,CT,IA,IT,M,SI	B	10 - 5000	22,7	15	20	220	40/175	10 - 50	1 - 10
	VSS2FMR2	A00000032	CE,CT,IA,IC,PC,VE	A	10 - 5000	22,7	15	20	220	40/175	10 - 50	1 - 10
	*VSS3CSR3	A00000033	CT,IA,IF,M,SI	A	100-8000	34,9	23	30	220	40/175	5 - 25	1 - 5
	VSS3CCR3	A00000034	CT,IA,IF,M,SI	B	100-8000	34,9	23	30	220	40/175	5 - 25	1 - 5
	VSS3CMR3	A00000035	CE,VE	A	100-8000	34,9	23	30	220	40/175	5 - 25	1 - 5
	VSS3CMR2	A00000036	CE,IA,SI	D	250-20000	34,9	15	30	220	40/175	High speed mixer	
	*VSS3FER3	A00000037	CT,IF,SI,VE	C	100-8000	34,9	23	30	220	40/175	5 - 25	1 - 5
	VSS3FSR3	A00000038	CT,IF,SI,VE	A	100-8000	34,9	23	30	220	40/175	5 - 25	1 - 5
	VSS3FMR3	A00000040	CE,IA,IC,IF,IT	A	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	220	40/175	High speed mixer	
	**VSS5CSR4	A00000046	BT,M	A	0,2-50	6,3	4	5	128	10/60	10-50	1-10

* Most used model

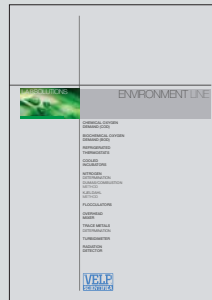
** The dispersing tool works with Ø 4 mm rotor and Ø 5 mm stator for microbiological applications (e.g. suitable for Eppendorf, cuvettes, etc.)

*** BT = biotechnology, CE = ceramic industry, CH = chemical 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



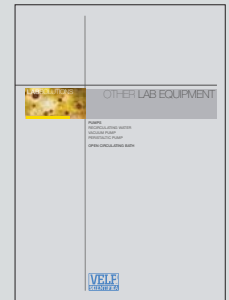
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