

OHS Digital & Advance Series Overhead Stirrers

VELP
SCIENTIFICA

Analytical Instruments
Raised To Excellence



The Best-In-Class Stirring Power

- ▶ Digital interfaces to precisely set and monitor the working parameters
- ▶ Leading Safety Standard (IP54 certified)
- ▶ Extremely Stable Stirring Speed available with single or double speed gear
- ▶ New SmartChuck™ for one-hand shaft accommodation without tools
- ▶ USB and Wi-Fi connection through VELP Ermes to monitor the instrument 24/7
- ▶ Real Time Torque Monitor for total control of your reactions
- ▶ Brushless motor for heavy-duty continuous operations
- ▶ Key lock function to prevent unintentional changes in working conditions
- ▶ SpeedServo™ torque compensation maintains rpm constant



Premium Technology and Durability

VELP takes Overhead Stirrer to the next level with the new OHS Series:

| OHS DIGITAL | OHS ADVANCE |
|---|---|
| <ul style="list-style-type: none"> Digital Display for precise setting and monitoring Timer for unattended operations Real Time Torque Tendencies indication Easy knob to navigate the menu and start/stop operations Brushless motor to ensure high efficiency and low maintenance SmartChuck™ system to change the shaft without any tool and with one hand only USB interface to document the processes Key lock function to avoid unintended parameters changes | <ul style="list-style-type: none"> TFT 3.5" Display encompassing a great set of information about the working conditions Timer for unattended operations Easy knob to navigate the menu and start/stop operations SmartChuck™ system to change the shaft without any tool and with one hand only Wi-Fi connection to VELP Ermes platform to monitor and control the instrument on cloud Key lock function to avoid unintended parameters changes Real Time Torque and Speed Graph Monitoring Probe connection for accurate Temperature control Programmable methods to set up to 4 Time/speed ramps State-of-the-art vibration sensor |

TECHNICAL SPECIFICATIONS

| | OHS 20 Digital | OHS 40 Digital | OHS 60 Digital | OHS 100 Digital | OHS 200 Digital | OHS 60 Advance | OHS 100 Advance | OHS 200 Advance |
|---------------------------------|----------------|----------------|----------------|-----------------|--------------------------|----------------|-----------------|--------------------------|
| DISPLAY | LED | LED | LED | LED | LED | Graphic TFT | Graphic TFT | Graphic TFT |
| DISPLAY SIZE | 7 Digits | 7 Digits | 7 Digits | 7 Digits | 7 Digits | 3.5" | 3.5" | 3.5" |
| USER INTERFACE | Digital | Digital | Digital | Digital | Digital | Digital | Digital | Digital |
| MOTOR | Brushless DC | Brushless DC | Brushless DC | Brushless DC | Brushless DC | Brushless DC | Brushless DC | Brushless DC |
| STIRRING VOL (H ₂ O) | Up to 25 L | Up to 25 L | Up to 40 L | Up to 100 L | Up to 100 L | Up to 40 L | Up to 100 L | Up to 100 L |
| SPEED GEARS | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| MAX TORQUE (Nm) | 20 | 40 | 60 | 100 | 200 | 60 | 100 | 200 |
| STIRRING SPEED RANGE | 30-2000 rpm | 30-2000 rpm | 30-2000 rpm | 30-1300 rpm | 6-400 rpm 30-2000 rpm | 30-2000 rpm | 30-1300 rpm | 6-400 rpm 30-2000 rpm |
| SPEED ACCURACY | 1 rpm | 1 rpm | 1 rpm | 1 rpm | 1 rpm | 1 rpm | 1 rpm | 1 rpm |
| SPEED CONTROL | Digital | Digital | Digital | Digital | Digital | Digital | Digital | Digital |
| MAX VISCOSITY (mPa*s) | 10.000 | 25.000 | 50.000 | 70.000 | 100.000 | 50.000 | 70.000 | 100.000 |
| TORQUE COMPENS. | SpeedServo™ | SpeedServo™ | SpeedServo™ | SpeedServo™ | SpeedServo™ | SpeedServo™ | SpeedServo™ | SpeedServo™ |
| CHUCK RANGE Ø | Up to 13 mm | Up to 13 mm | Up to 13 mm | Up to 13 mm | Up to 13 mm |
| SAFETY VIBR. SENS | - | - | - | - | - | Yes | Yes | Yes |
| TIMER | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| EXTERNAL PROBE CONNECTION | - | - | - | - | - | Pt 100 | Pt 100 | Pt 100 |
| TEMPERATURE MEASURING RANGE | - | - | - | - | - | -10 to 350 °C | -10 to 350 °C | -10 to 350 °C |
| TEMPERATURE RES. | - | - | - | - | - | 0.1 °C | 0.1 °C | 0.1 °C |
| INTERFACES | USB | USB | USB | USB | USB | USB / WiFi | USB / WiFi | USB / WiFi |
| DIMENSIONS (WxHxD) | 90x285x235 | 90x285x235 | 90x285x235 | 90x285x235 | 90x315x235 | 90x285x235 | 90x285x235 | 90x315x235 |
| WEIGHT (Kg) | 4,1 | 4,1 | 4,1 | 4,1 | 4,6 | 4,1 | 4,1 | 4,6 |
| PROTECTION CLASS DIN EN 60529 | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 |

Rev 0.9 12.2018



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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 | LENGTH 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 | 7 | 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, Glycerine |
| 7,000 | Refined honey |
| 25,000 | Chocolate syrup |
| 50,000 | Ketchup |
| 100,000 | Molasses |