

ACHIEVER™ 5000 Overhead Stirrers



Reliable Overhead Stirrers with Excellent Performance for Everyday Use

OHAUS Achiever 5000[™] Overhead Stirrers are designed for powerful, precise stirring, safety and simplicity in all applications. The sealed design has an IP54 rating and ensures safe mixing performance even in the most demanding applications. The keyless chuck and software controlled speed ramping provide easy set up and safe stirring to protect the sample and user. Select from five models with up to 200 Ncm torque and up to 100 L volume capacity.

Unique Features:

- Powerful mixing and constant speed is assured with the brushless motor and torque compensation technology - delivering accurate, controlled stirring of viscous liquids with quiet operation.
- Simplify set up with the Keyless Chuck no tools required. Change shafts quickly and easily with one handed operation. This unique design will save time and effort for everyone in the lab.
- Designed for safety. The lock button prevents accidental speed changes and the motor's overload sensing technology simply shuts off stirring before an overload condition occurs to protect the sample.
- Compact and easy to use. Simple knob control combined with the bright digital display allows for precise setting and monitoring. Customize for your application with over 12 accessories.

ACHIEVER™5000 Stirring Shafts



ACHIEVER™ 5000 *Stirring Shafts*



PROPELLER

30586780

Can be used at high speed with medium or high viscosity materials. Excellent mixing properties for homogenization and suspensions.

| Flow | Stir Spe | ed RPM | Viscosity | / | Blade | |
|---------|----------|---------|--------------|----|----------|--|
| Axial | 250 – Ma | x | 0 - 10,000 (| :Р | 60 x 9 m | |
| Overall | Length | Shaft D | iameter | Ma | aterial | |

7 mm

Overall Length 400 mm



TURBO PROPELLER

30586782

Ring protects dip tubes or sensors in vessel

Blade Flow Stir Speed RPM Viscosity 1,000 - 100,000 cP 46 x 14 mm Axial 250 – Max

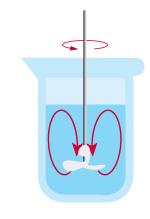
Overall Length 400 mm

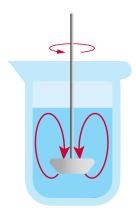
Shaft Diameter 7 mm

Material 316 Stainless Steel

x 9 mm

316 Stainless Steel







PADDLE, 6 Holes

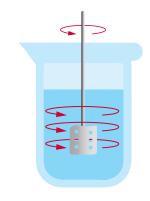
30586779

For use at low to medium speeds. Ideal for gentle mixing.

Stir Speed RPM Viscosity Blade Flow 0 - 10.000 cP 69 x 75 mm Tangential Up to 800

Overall Length Shaft Diameter 510 mm 7 mm

Material 316 Stainless Steel



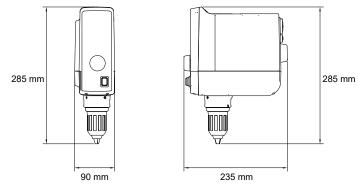


Achiever™5000

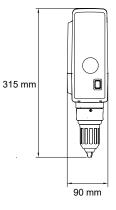
| Model | e-A51ST020 | e-A51ST040 | e-A51ST060 | e-A51ST100 | e-A51ST200 | | | | | |
|------------------------------------|------------|-----------------------------------|---------------------------|------------|----------------------|--|--|--|--|--|
| Part Number | 30586763 | 30586764 | 30586765 | 30586766 | 30586767 | | | | | |
| Stirring Speed Range | | 6-400 rpm (l) 30-2000 rpm (ll) | | | | | | | | |
| Stirring Volume (H2O) | up to | o 25L | up to 40L | up to 1 | 00L | | | | | |
| Maximum Viscosity (cP or mPa's) | 10,000 | 10,000 25,000 | | 70,000 | 100,000 | | | | | |
| Maximum Torque (Ncm) | 20 | 40 | 60 | 100 | 200 | | | | | |
| Speed Gears | | | 1 | | 2 | | | | | |
| Speed Accuracy | | | 1 rpm | | | | | | | |
| Speed Control | | Digital | | | | | | | | |
| Display | | LED | | | | | | | | |
| Timer | | Yes | | | | | | | | |
| Lock Button | | | Yes | | | | | | | |
| Chuck Range (Diameter) | | | 1 - 13 mm | | | | | | | |
| Shaft Pass Through (Diameter) | | | up to 8.5 mm | | | | | | | |
| Ingress Protection | | | IP54 | | | | | | | |
| Dimensions (H x L x W) | | 28.5 x 23 | 5 x 9.0 cm | | 31.5 x 23.5 x 9.0 cm | | | | | |
| Net Weight | | 4.1 | kg | | 4.6 kg | | | | | |
| Power Supply | | | 230V, 50/60Hz | | | | | | | |
| Power Input | | | 190W (230V) | | | | | | | |
| Working Environment | | 5 °C – 4 | 0 °C, 80 % RH, non-conder | ising | | | | | | |

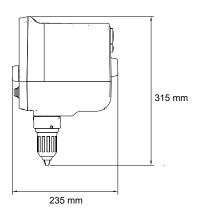
Dimensional Drawings

e-A51ST020, e-A51ST040, e-A51ST060, e-A51ST100



e-A51ST200





Other Standard Features & Equipment

Speed accuracy of 1 rpm, sealed housing with IP54 rating, digital display, timer, torque tendency LED indicator, digital speed control, chuck range 1 to 13 mm, pass through shaft diameter up to 8.5 mm, support stand and clamp required for set up (sold separately).

Compliance

- Product Safety: CAN/CSA C22.2 No. 61010-1, CAN/ CSA C22.2 No. 61010-2-051, EN 61010-1, EN 61010-2-051, IEC 61010-1, IEC 61010-2-051, UL 61010-1, UL 61010-2-051
- Electromagnetic Compatibility: EN 61326-1: 2013 Class A Industrial Environment; Canada ICES-003 Class A; FCC Part 15 Class A
- Compliance Marks: CE; RCM; cNus; WEEE; CN RoHS

Accessories

| Support Stand Universal-H | | | | | | |
|----------------------------|----------|--|--|--|--|--|
| Support Stand Telescopic-H | 30586772 | | | | | |
| Clamp Double | 30586773 | | | | | |
| Clamp Ribbon | 30586774 | | | | | |
| Chuck Cover e-A51 | 30586842 | | | | | |

A new set up requires: an Achiever unit, a Support Stand, a Clamp Double to secure the unit to the stand, and the appropriate Stirring Shaft that suits the application.





ACHIEVER[®] **5000** Overhead Stirrer Selector Guide

Choose the Best Overhead Stirrer for Your Application

Choosing the Achiever 5000 Overhead Stirrer:

| | Achiever 020 | Achiever 040 | Achiever 060 | Achiever 100 | Achiever 200 |
|-------------------------------------|--------------|--------------|--------------|--------------|---------------------------|
| Trade name | e-A51ST020 | e-A51ST040 | e-A51ST060 | e-A51ST100 | e-A51ST200 |
| Max Torque (Ncm) | 20 | 40 | 60 | 100 | 200 |
| Capacity (H ₂ 0) | Up to 25 L | Up to 25 L | Up to 40 L | Up to 100 L | Up to 100 L |
| Max Viscosity (mPa \times s = cP) | 10,000 | 25,000 | 50,000 | 70,000 | 100,000 |
| Speed Range | 30–2,000 rpm | 30–2,000 rpm | 30–2,000 rpm | 30–1,300 rpm | 6–400 rpm 30–2,000 rpm |

-5 Questions to Ask -

- 1. Sample Type
- 2. Sample Viscosity
- 3. Sample Volume
- 4. Speed Range
- 5. Mixing Preference

Choosing Stirring Shaft Accessory:

| Stirring Shafts | | | | | | | | | | |
|---------------------|--|---|--|--|--|--|---|---|--|--|
| Shape | | | | 9 | | | | | | |
| Flow Diagram | 63 | 83 | CC CC CC | 8 | | | | | | |
| Stirring Shaft with | Floating Blades | Fixed Blade | Folding Blade | Turbine | Propeller | Turbo Propeller | Paddle, 6 Holes | Anchor | | |
| Item Number | 30586777 | 30586776 | 30586778 | 30586781 | 30586780 | 30586782 | 30586779 | 30586775 | | |
| Blade (mm) | 93 × 11 | 50 × 10 | 60 × 15 | 49×10 | 60 × 9 | 46 × 14 | 69 × 75 | 45 × 54 | | |
| Shaft Ø (mm) | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| Shaft Length (mm) | 400 | 400 | 400 | 400 | 400 | 400 | 510 | 400 | | |
| Speed Range | 250 – Max | 250 – Max | 250 – Max | 250 – Max | 250 – Max | 250 – Max | Up to 800 | All Speeds | | |
| Viscosity Range* | ♦ – ♦ | • - • • - • • • | ♦ – ♦ | . | • - • • - • • • | . | ♦ ♦ − ♦ ♦ ♦ | . | | |
| Flow Pattern | Radial | Radial | Radial | Radial | Axial | Axial | Tangential | Tangential | | |
| Description | Floating Blades align during stirring and create radial flow from top to bottom in the vessel. This blade is ideal for stirring in narrow neck vessels such as flasks. | Fixed Blade creates radial flow from top to bottom in the vessel. Ideal for use at medium to high speeds for stirring light solids, mixing thickening materials, flocculation, etc. | Folding Blade aligns during stirring and creates radial flow from top to bottom in the vessel. This blade is used for stirring in narrow neck vessels. | Turbine creates a high shear, high turbulence radial flow in the vessel. This flow is from top to bottom. | Propeller creates axial flow with limited shearing forces. This flow pulls the sample from top to bottom in the vessel. | Turbo Propeller creates a low shearing axial flow in the vessel. This flow pulls the sample from top to bottom and the ring limits the contact of the blade with walls of the vessel or probes. | Paddle creates a reduced turbulence radial flow in the vessel producing gentle mixing of the sample. | Anchor creates tangential flow with high shearing forces on the ends. This flow can prevent sedimentation on the walls of the vessel. | | |

*Consult the Viscosity Range table (below) for values.

| Viscosity Range | Very Low | Low | Medium | High | |
|-----------------|----------|-----------|--------------|----------------|--|
| cP Range | 0–100 | 100–1,000 | 1,000–10,000 | 10,000-100,000 | |
| Symbol | 6 | ۸. | | | |

Viscosity of Common Materials:

| | | | V | | CASTOR | 6 | • | CHECKLATE EVENING | | | Lard | | |
|----------|-------|-------|---------------|----------------|---------------|---------|----------|----------------------|-----------|------------------|-----------------|---------------------|-----------------|
| Material | Water | Blood | Corn Syrup | Maple Syrup | Castor Oil | Honey | Molasses | Chocolate Syrup | Ketchup | Peanut Butter | Crisco/ Lard | Silicone Sealant | Window Putty |
| cP Range | 1–5 | 10 | 50–100 | 150–200 | 250–500 | 2–3,000 | 5–10,000 | 10–25,000 | 50–70,000 | 150–200,000 | 1–2,000,000 | 5–10,000,000 | 100,000,000 |



Pricing on any accessories shown can be found by keying the part number into the search box on our website. The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.