



ACHIEVER™ 5000 Overhead Stirrer Selector Guide

Choose the Best Overhead Stirrer for Your Application









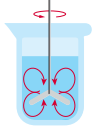
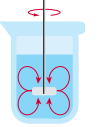
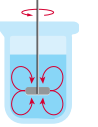
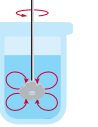
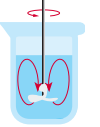
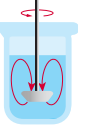
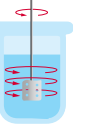

Choosing the Achiever 5000 Overhead Stirrer:

	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 O)	Up to 25 L	Up to 25 L	Up to 40 L	Up to 100 L	Up to 100 L
Max Viscosity (mPa × 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								
Flow Diagram								
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	●	●●	●●●	●●●●

Viscosity of Common Materials:



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