



PSU-10i ENHANCED

Extended Speed Range for Low-Shear Laboratory Workflows

Single change. Significant impact.

Minimum speed extended from 50 RPM to 20 RPM. Same 10 mm orbit. Same incubator and cold-room compatibility. Now covers the low-shear protocols your customers could not run before.

STANDARD
50-450 RPM

UPGRADE
20-500 RPM

Key highlights

- **Extended application range**, minimum speed of 20 RPM supports gentle agitation for applications that require lower mixing intensity.
- **Cold-room and incubator safe** – operates reliably at temperatures between +4°C and +40°C, making it suitable for temperature-sensitive protocols.
- **Quiet and balanced** due to the triple eccentric mechanism and long-life brushless motor.
- **6 available platforms** enable use with different laboratory vessels for varied applications.

Specifications

Speed Range:	20–500 RPM
Orbit:	10 mm
Max Load:	3 kg
Max Continuous Operation Time:	7 days
Operating temp range:	+4°C to +40°C
Power Consumption:	9,6 W
Motor:	Brushless DC, 12V ext.

APPLICATIONS UNLOCKED AT 20-50 RPM

All RPM values confirmed by peer-reviewed protocols or international standards

Tissue enzymatic digestion – corneal epithelium in a 24-well plate	33 RPM / 4°C	Setia et al., Flow cytometry protocol to quantify immune cells in the separated epithelium and stroma of herpes simplex virus-1-infected mouse cornea. STAR Protocols 4:102056 (2023).
Crosslinking reaction of chromatin – incubation of resuspended cells in 50ml tubes (cell resuspension must move gently inside the tube)	Low speed / 30min	Khanduja J.S. and Motamedi M., Protocol for chromatin immunoprecipitation of chromatin-binding proteins in Schizosaccharomyces pombe using a dual-crosslinking approach. STAR Protocols (2025) 6(1): 103695
Experiment on biofilm development – slower speed supports development, higher inhibits it	0–70 RPM	Zhang X., et al., Biofilm Formation and Methylene Blue-mediated Photodynamic Inactivation of Vibrio Parahaemolyticus in the Sea Food Industry. Nutri Food Sci Int J, 2020, 10(3): NFSIJ.MS.ID.555787
Washing steps during PC12 cell differentiation in 96-well plate	Low speed	Karliner J. and Merry D.E. Differentiating PC12 cells to evaluate neurite densities through live-cell imaging. STAR Protocols, 2023, 4(1):101993
Plant defense signaling assay of azelaic acid – leaf disc uptake in 6-well plate	Min. speed / 3 times for 10 min	Roychoudhry et al., Protocol for analyzing the movement and uptake of isotopically labeled signaling molecule azelaic acid in Arabidopsis. STAR Protocols, 2024, 5:102944
Hydrothermal carbonization filtrate sample shaking in self generated carbon formation study in 1,5L flasks	30 RPM	Aveling, A. (2024). Optimizing Self-Generated Carbon Yield and Morphology: Oxygen and Agitation Effects in HTC Filtrate [Master's thesis, Umea University].
RNA crosslinking in HeLa cells in a 15cm culture dish	Low speed / 10 min	Ye et al., CRIC-seq protocol for in situ profiling of proximal RNA-RNA contacts associated with RNA-binding proteins. STAR Protocols, 2023, 4 (3): 102401
Textile pH aqueous extraction – ISO compliance, mandatory mechanical agitation in 1L flasks	30 RPM / 2 h	ISO 3071:2020 (International Standard)