

Selection parameters

Precise working with an overhead stirrer depends on the right choice of the stirrer tool. When choosing a stirrer tool you have to consider its different characteristics and their effects. For example, the flow which the tool causes in the medium, the tool's adequate field of application depending on the speed range, and the execution of the tool according to the viscosity it is destined for.







Application examples:

- Gassing of liquids < 500 mPa s; Radial-Flow Impeller
- Homogenizing and suspending in liquids < 500 mPa s; Propeller-Type or Blade Impeller
- Medium with a viscosity > 500 mPa s; Anchor-Type Impeller, Blade Impeller BR 13, VISCO JET®
- Stirring of gel; VISCO JET®

Please ensure that for radial flow, blade, half-moon and VISCO JET® impellers the beaker size and position of your impeller complies with the shown guideline to achieve superior mixing results

Blade and Half-Moon Impeller

- These impellers are recommended for applications which require average speed
- For mixing tasks with little or average viscosity
- Models BR 12, BR 14 and HR 18 come with collapsible blade for narrow neck vessels

Type	Blade size (mm)	Material	Length (mm)	Shaft dia. (mm)	Max. rpm	P/N
 BR 10 Cross-Blade Impeller	50 x 12	stainless steel AISI 316Ti	400	8	2,000	509-10000-00
 BR 11 Straight-Blade Impeller	50 x 12	stainless steel AISI 316Ti	400	8	2,000	509-11000-00
 BR 12 Pivoting-Blade Impeller	60 x 15	stainless steel AISI 316Ti	400	8	2,000	509-12000-00
 BR 13 Square-Blade Impeller	70 x 70	stainless steel AISI 316Ti	450	8	800	509-13000-00
 BR 14 Collapsible-Blade Impeller	90 x 10	stainless steel AISI 316Ti	400	8	800	509-14000-00
 HR 18 Half-Moon Impeller	65 x 18 x 3	PTFE	350	8	800	509-18000-00

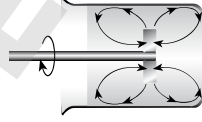
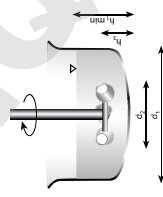
Operational guidelines

Position of the stirring tool

- In center
- Distance to the bottom (h_3/d_3): 0.3
- Diameter vessel (h_1/d_1): 1
- VISCO JET® diameter ratio (d_2/d_1): 0.4 - 0.6

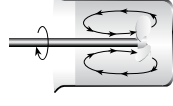
Circumferential speed






- 3 - 15 m/sec: Radial-Flow Impeller
- 2 - 5 m/sec: VISCO JET®, Blade and Anchor-Type Impeller



Propeller-Type Impeller

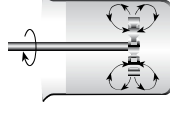
- These impellers are recommended for applications which require average or high speed
- For mixing tasks with medium or high viscosity
- Excellent mixing properties for homogenization and suspensions
- These models create an axial flow



Type	Prop. dia. (mm)	Material	Length (mm)	Shaft dia. (mm)	Max. rpm	P/N
 PR 39 Pitched-Blade Impeller	75	PTFE	350	8	800	509-39000-00
 PR 30 Pitched-Blade Impeller	58	stainless steel AISI 316Ti	400	8	2,000	509-30000-00
 PR 31 Ringed Propeller	33	stainless steel	400	8	2,000	509-31000-00
 PR 32 Ringed Propeller	45	stainless steel AISI 316Ti	400	8	2,000	509-32000-00
 PR 33 Ringed Propeller	66	stainless steel	400	8	800	509-33000-00

Radial-Flow Impeller

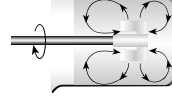
- These impellers are recommended for applications which require average speed
- For mixing tasks with little or average viscosity up to < 500 mPa s
- Ideal for gassing of liquids
- These impellers create a radial flow




Type	Ø Turbine size (mm)	Material	Length (mm)	Shaft dia. (mm)	Max. rpm	P/N
 TR 20 Radial-Flow Impeller	28	stainless steel AISI 316Ti	400	8	2,000	509-20000-00
 TR 21 Radial-Flow Impeller	50	stainless steel AISI 316Ti	400	8	2,000	509-21000-00

Anchor-Type Impeller

- These impellers are recommended for applications which require a low speed
- For mixing tasks with medium or high viscosity



Type	Blade size (mm)	Material	Length (mm)	Shaft dia. (mm)	Max. rpm	P/N
 AR 19 Anchor-Type Impeller	60 x 40 x 5	PTFE	350	8	800	509-19000-00