

# Stirring Tools

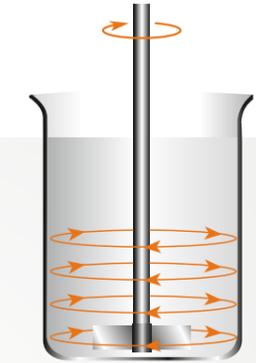
Precise working with an overhead stirrer critically depends on the right choice of stirring tool. These stirring tools differ in the type of flow they cause in the medium, in the speed-dependent field of application and in their design to suit different viscosities.

For each application the correct stirring tool

Gassing of liquids	Homogenizing, emulsifying, suspending	Stirring of viscous media
Radial-Flow Impellers	Propeller-Type or Blade Impellers	Anchor-Type Impeller Propeller-Type Impeller PR 39 VISCO JET®

The following applies to all stirring tools: optimum mixing results are achieved if the vessel size and positioning of the stirring tool are perfectly matched.

# Blade / Half-Moon Impellers



- Primary flow direction is tangential
- These impellers are particularly recommended for applications which require average to high speeds
- For mixing tasks with low to medium viscosity



### BR 10 Cross-Blade Impellers

Blade size	Material	Length	Ø stirrer shaft	Speed	P/N
50 × 12 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-10000-00



### BR 11 Straight-Blade Impellers

Blade size	Material	Length	Ø stirrer shaft	Speed	P/N
50 × 12 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-11000-00



### BR 12 Pivoting-Blade Impellers

With tilting blades for narrow neck vessels

Blade size	Material	Length	Ø stirrer shaft	Speed	P/N
60 × 15 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-12000-00



### BR 13 Square-Blade Impellers

Blade size	Material	Length	Ø stirrer shaft	Speed	P/N
70 × 70 mm	Stainless steel (V4A/AISI 316L)	450 mm	8 mm	800 rpm	509-13000-00



### BR 14 Collapsible-Blade Impellers

With collapsible blade for narrow neck vessels

Blade size	Material	Length	Ø stirrer shaft	Speed	P/N
90 × 10 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	800 rpm	509-14000-00



### HR 18 Half-Moon Impellers

With tilting blades for narrow neck vessels, ideally suited for stirring in round bottom flasks

Blade size	Material	Length	Ø stirrer shaft	Speed	P/N
65 × 18 × 3 mm	PTFE	350 mm	8 mm	800 rpm	509-18000-10

## Propeller-Type Impellers

- Primary flow direction is axial
- These impellers are particularly recommended for applications which require average to high speeds
- For mixing tasks with low to high viscosity
- Excellent mixing properties for homogenization and suspensions



### PR 30 Pitched-Blade Propeller

<b>Ø propeller</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>max. rpm</b>	<b>P/N</b>
58 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-30000-00



### PR 31 Ringed Propeller

<b>Ø propeller</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>max. rpm</b>	<b>P/N</b>
33 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-31000-00



### PR 32 Ringed Propeller

<b>Ø propeller</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>max. rpm</b>	<b>P/N</b>
45 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-32000-00



### PR 33 Ringed Propeller

<b>Ø propeller</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>max. rpm</b>	<b>P/N</b>
66 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	800 rpm	509-33000-00



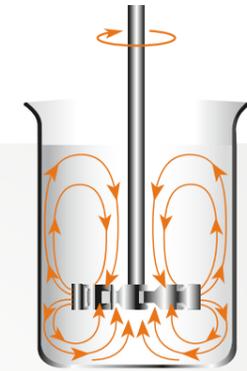
### PR 39 Pitched-Blade Impeller

Perfect mixing results even at high viscosities

<b>Ø propeller</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>max. rpm</b>	<b>P/N</b>
75 mm	PTFE	350 mm	8 mm	800 rpm	509-39000-10

## Radial-Flow Impellers

- Primary flow direction is radial
- These impellers are particularly recommended for applications which require average to high speeds
- For mixing tasks with low to average viscosity
- Ideal for gassing of liquids and for emulsifying



### TR 20 Radial-Flow Impeller

<b>Ø turbine</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>Speed</b>	<b>P/N</b>
28 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-20000-00

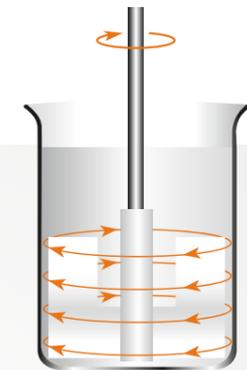


### TR 21 Radial-Flow Impeller

<b>Ø turbine</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>Speed</b>	<b>P/N</b>
50 mm	Stainless steel (V4A/AISI 316L)	400 mm	8 mm	2,000 rpm	509-21000-00

## Anchor-Type Impeller

- Primary flow direction is tangential
- This impeller is particularly recommended for applications which require a low to average speed
- For mixing tasks with high viscosity



### AR 19 Anchor-Type Impeller

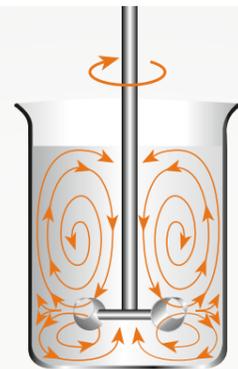
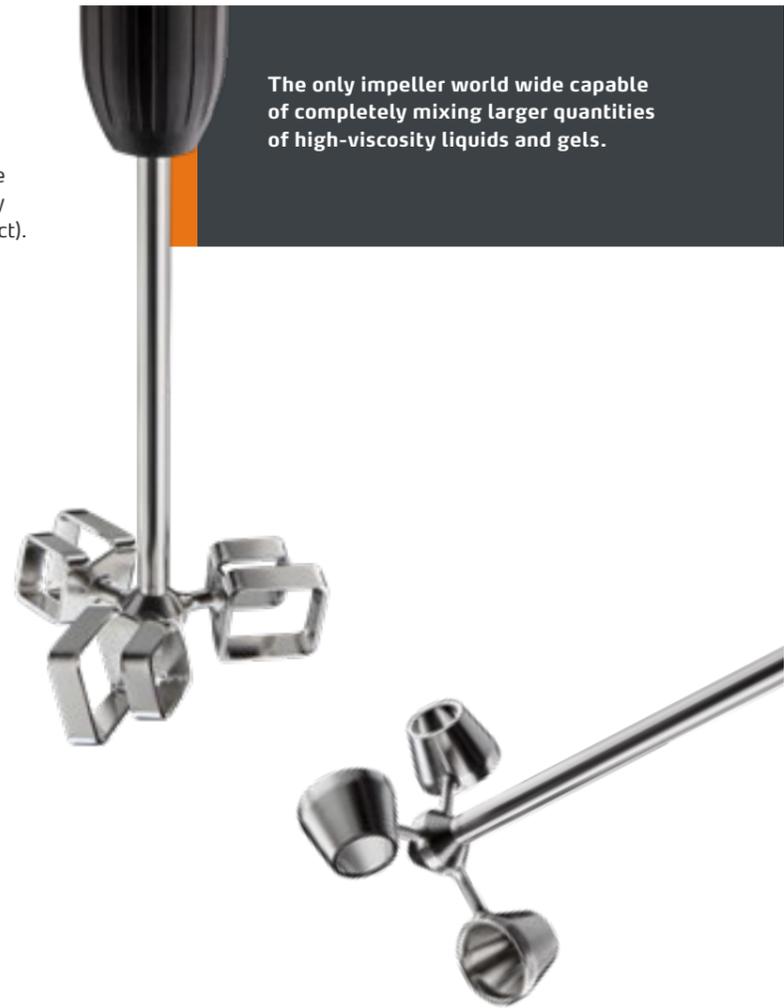
<b>Blade size</b>	<b>Material</b>	<b>Length</b>	<b>Ø stirrer shaft</b>	<b>Speed</b>	<b>P/N</b>
60 × 40 × 5 mm	PTFE	350 mm	8 mm	800 rpm	509-19000-10

# VISCO JET® Stirring System

## The all-rounder for thick and thin

The VISCO JET® stirring system from VISCO JET Rührsysteme GmbH is based on the so-called cone principle. Turbulences are generated by the dynamic pressure at the displacer inlet and by the accelerated flow within the displacer (so-called nozzle effect). These turbulences collide during the circular movement of the stirring tool and lead to the revolutionary mixing movement.

- Reduced process times with clearly improved mixing results
- The stirring principle achieves complete degassing of the medium – frothing and air ingress are effectively prevented
- Even with media that cannot be mixed with conventional impellers, complete circulation is achieved
- Even at low speeds, the special shape triggers a unique flow with its own inherent dynamics
- A system for virtually any stirring task involving low to high viscosity media
- Also compatible with the compact Hei-TORQUE Core, as it also features a large-diameter chuck (10 mm)



## Fields of use

- Beverage production, dairy products
- Food, sugar and confectionery production
- Chemistry, petrochemistry, ceramics, water treatment
- Pharmaceuticals, cosmetics production
- Paint and varnish production
- and many more

# VISCO JET® Stirrers



## VISCO JET® – 60 mm Ø

Material	Length	Ø stirrer shaft	Ø Vessel	Speed	P/N
Stainless steel (V4A/AISI 316L)	500 mm	10 mm	80–150 mm	200–800 rpm	509-16060-00



## VISCO JET® – 80 mm Ø

Material	Length	Ø stirrer shaft	Ø Vessel	Speed	P/N
Stainless steel (V4A/AISI 316L)	500 mm	10 mm	115–200 mm	200–700 rpm	509-16080-00



## VISCO JET® – 120 mm Ø

Material	Length	Ø stirrer shaft	Ø Vessel	Speed	P/N
Stainless steel (V4A/AISI 316L)	500 mm	10 mm	170–300 mm	120–500 rpm	509-16120-00



## VISCO JET® – 80 mm Ø (POM)

Material	Length	Ø stirrer shaft	Ø Vessel	Speed	P/N
POM*	500 mm	10 mm	115–200 mm	200–700 rpm	509-16081-00



## VISCO JET® – 120 mm Ø (POM) (without illustration)

Material	Length	Ø stirrer shaft	Ø Vessel	Speed	P/N
POM*	500 mm	10 mm	170–300 mm	120–500 rpm	509-16121-00

\* Stirring device: Plastic (POM), hub: brass, shaft: polyamide-coated



## VISCO JET® CRACK – 80 mm Ø

Material	Length	Ø stirrer shaft	Ø Vessel	Speed	P/N
Stainless steel (V4A/AISI 316L)	500 mm	10 mm	115–200 mm	200–700 rpm	509-17120-00



## VISCO JET® CRACK – 120 mm Ø (without illustration)

Material	Length	Ø stirrer shaft	Ø Vessel	Speed	P/N
Stainless steel (V4A/AISI 316L)	500 mm	10 mm	170–300 mm	120–500 rpm	509-17080-00

One stirrer shaft is always included in the scope of delivery