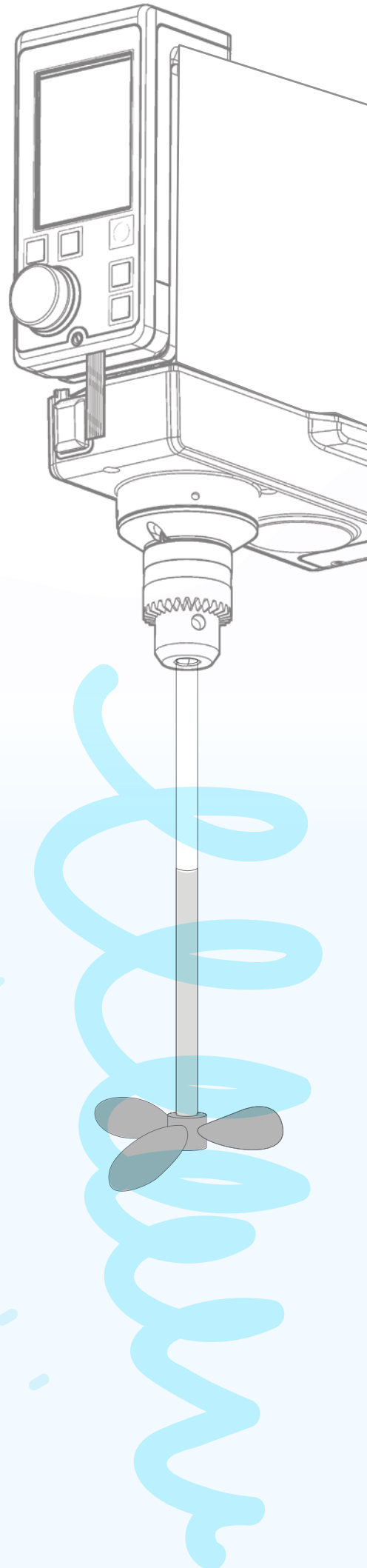
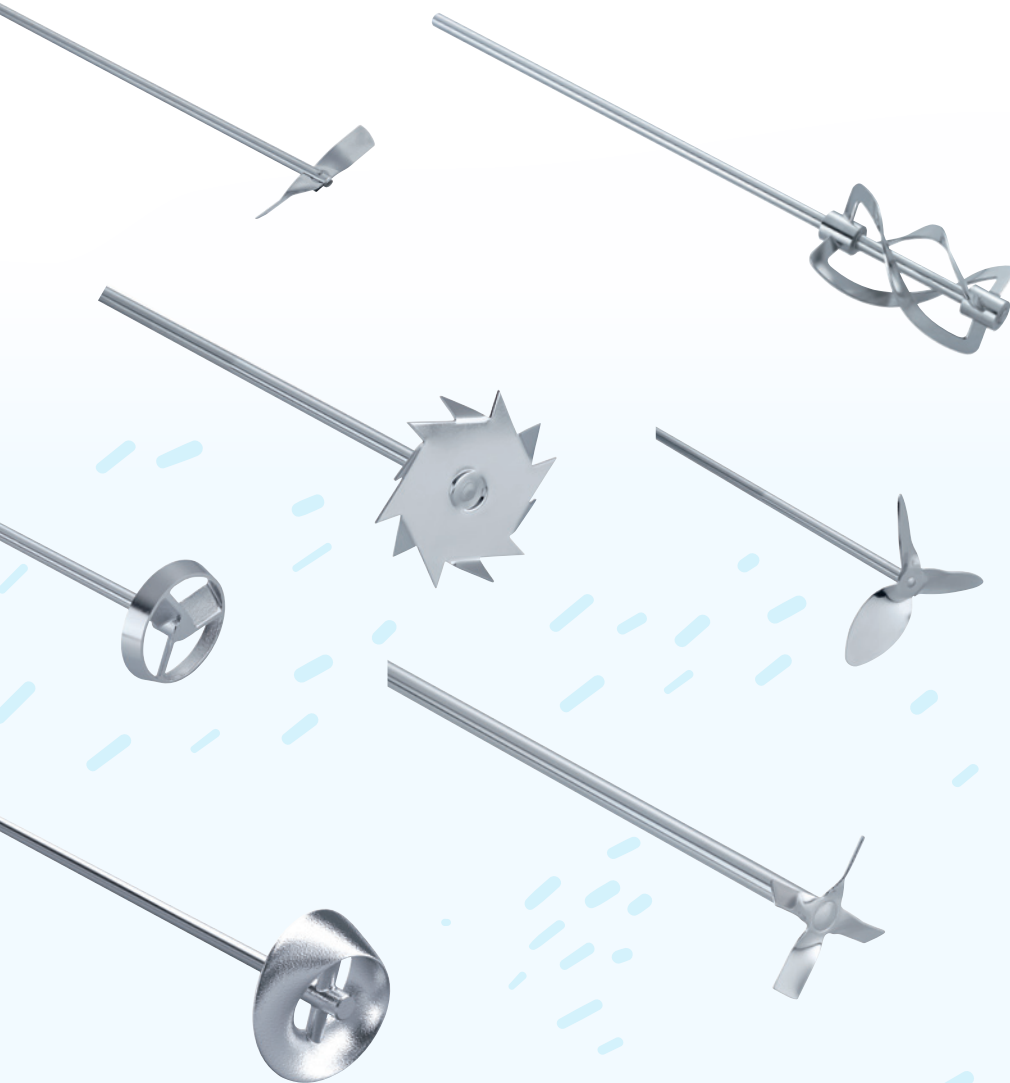


IKA

designed for scientists

Overview Stirrers / Geometry

/// The key to successful mixing





	STIRRER	PROPELLER 3-BLADED	PROPELLER 4-BLADED	DISSOLVER	ANCHOR	SPIRAL	RUSHTON/ TURBINE	PADDLE
Images								
Direction		axial	axial	radial	tangential	axial	radial	tangential
Flow pattern								
Tip Speed/ Circumferential Speed (m/s)		2 – 15	2 – 15	8 – 20	1 – 5	2	3 – 7	1 – 3
Viscosity range		low – medium	low – medium	low	high	high	low	medium – high
Shear Forces		low	medium	very high	low	low	high	low
Applications		Homogenize Suspend Disperse - High Shear Promote circulation	Homogenize Suspend Disperse - High Shear Promote circulation	Disperse - High Shear	Heat Exchange	Homogenize Heat Exchange	Disperse - very high Shear	Homogenize Heat Exchange
Preferred geom. dimension d_2/d_1		0,1 – 0,5	0,2 – 0,5	0,2 – 0,5	0,9 – 0,98	0,9 – 0,98	0,2 – 0,5	0,5 – 0,7
Preferred geom. dimension h_3/d_1		0,3 – 3	0,3 – 3	0,3 – 3	–	–	0,3 – 3	–
Preferred geom. dimension h_1/d_1		1,0	1,0	1,0	1,0	1,0	1,0	0,75

d_1 : container diameter
 d_2 : stirrer diameter
 h_1 : fill height
 h_3 : bottom distance

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