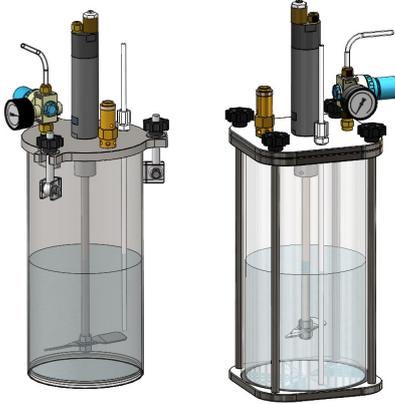


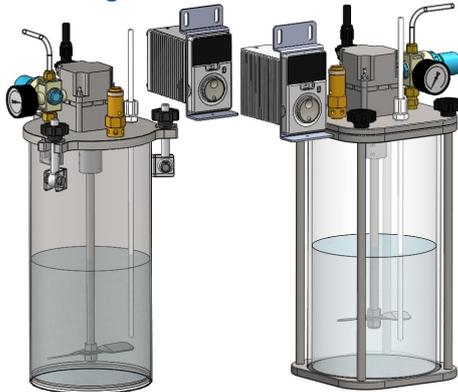
The information listed on this document gives an overview of the 2 different types of agitation technology SR-TEK can offer and how it integrates with our products. The information listed below can assist you with choosing the most suitable agitation technology and mixing element design for your application and requirements. If you are unsure or require a specific study for your application, please contact us direct and we will be happy to assist.

Agitation with Air Motor



Technology type:	Pneumatic motor
Description:	Available on both the ST and CT range. Suitable for extreme operating conditions, specifically ATEX and explosive atmospheres. Resistant to high temperature environments. Constructed out of stainless-steel.
Power:	0.25kW for 1 to 5L tanks and 0.38kW for 10 and 25L tanks.
Speed:	30rpm to 450rpm
Advantages:	Robust, easy to use and control, low maintenance, long lasting, no overload damage, high starting torque, no sparks.
Drawbacks:	Uses high volume of compressed air, noisy, hard to control at low speed, require lubrication, not reversible.
Capabilities:	Compatible with most applications and fluids, adjustable speed
Application:	Best to use in applications requiring high torque, with high viscosity fluids and hazardous or flammable materials.

Agitation with Electric Motor



Technology type:	Electric motor
Description:	Available on both the ST and CT range. Suitable for applications where electric motors can be used, requiring automation or programmable mixing.
Power:	30W for 1 to 5L and 250W for 10L and 25L tanks.
Speed:	25rpm to 800rpm
Advantages:	Easy to teach, reliable, low maintenance, flexible, reversible, good for low speed and very low speed agitations. ATEX.
Drawbacks:	Not always recommended for hazardous atmospheres, require time to learn programming. Not good with very thick materials.
Capabilities:	Compatible with most applications and fluids, easy PLC interface, adjustable speed, pattern control and programmable.
Application:	Best to use in applications requiring variable speeds with low to medium viscosity fluids. Recommended for automation.

Mixing Elements



Single Blade

Dual Blade



Tri-Blade

Anchor Blade

Standard Mixing Elements: 4 Standard design made out of Stainless steel 316
Other mixing element and customer designs also available on request.

Description & Applications: Single & Dual blade mixing element provide simplicity, ease of maintenance and speed. Best for low and medium viscosity fluids with no exothermic reactions. Use in applications where mixing at random speed is no issue.

Anchor mixing element provides a more consistent stir throughout the Height. Best for medium to high viscosity fluids and thixotropic fluids. Use in applications where a stir is necessary to provide homogeneity.

Tri-blade mixing element provides speed, particularly suited for low viscosity fluids in bio and medical applications. Easy to maintain, the round paddles are designed to minimize inertia with fluids and homogeny mix throughout the vessel volume.

Fluid motion Simulation: The perspectives below show fluid movements according to the design of the mixing element rotating at the 200rpm in a 5L vessel filled with water.



Fluid rotation speed in m/s



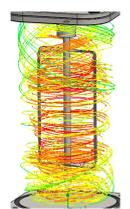
Single Blade



Dual Blade



Tri-Blade



Anchor Blade

For more information or any questions, please contact us at technical@sr-tek.com