

What types of chemical solutions does the HELIX work with?

In general, polypropylene has excellent compatibility with most life sciences ingredients. This makes the HELIX suitable for manufacturing use and storage with diluted and concentrated acids & bases, alcohols, aldehydes, and esters. It's also suitable for immediate use with oxidizing agents. The HELIX is not recommended for use with aromatic hydrocarbons, aromatic ketones, or halogenated hydrocarbons.

Outside of mixing and blending, are there any other key applications?

Absolutely! In addition to its core uses in buffer/media prep, formulation, and intermediary processing, the HELIX can also be used as a horizontal jar mill for wet powder size reduction and cell disruption, or as a classic carboy for filler staging, chemical/cell storage, pre-blends holding, and tissue cleaning.

What is the minimum mixing volume, and the minimum volume the HELIX can maintain as a homogeneous solution?

Unlike a stationary tank using a suspended mix blade, the entire HELIX is subjected to force. This means that the HELIX can maintain a theoretical agitation of any solution volume due to the indentations on the bottom surface. For practical purposes of blending components, we suggest a minimum working volume of 4 L to coincide with the start of the upward helical arc.

Does it work with viscous solutions?

The HELIX and its Turn Table excel mixing viscous solutions due to the efficient transfer of energy to the contents with a minimum amount of shear. We have mixed highly concentrated proteins, non-aqueous glycerin-based formulations, and hydrocolloid bases using the HELIX.

What temperature range can the HELIX carboy withstand?

The HELIX can be used to hold or transport solutions or cells at temperatures ranging from 0°C to 121°C.

How long will it hold resuspended material?

The HELIX will act like any other storage vessel when not under agitation. With the use of the mating Turn Table, you can apply the amount of energy needed to maintain suspension for as long as is necessary.

Is the HELIX gamma compatible?

The HELIX is produced from Class VI polypropylene and can be gamma irradiated with the expectation of some effects, such as slight yellowing and loss of tensile strength. We suggest the use of gamma radiation only as a single-use method of sterilization.



HELIX Oscillating Biomixer® and Turn Table

How do you weigh contents throughout the mixing process? Can a weight scale be integrated into the Turn Table?

The Turn Table was originally designed for maximum adaptability and mobility. Although a custom weight scale can be engineered, most users elect a system of progressive weighings or simply roll the HELIX with or without the Turn Table onto a weight platform.

What is the best way to dispense product from the HELIX?

The most direct is decantation, but that can be dangerous depending on weight and chemical characteristics. Conversely, a dip tube affixed to a hose will allow for pumping. The HELIX comes in two neck configurations: a 3" sanitary or an 83B screw thread. Porting accessories for either are readily available in the market.

Is the HELIX available in any sizes other than 50 L, or will it be in the future?

The HELIX was designed as a 50 L vessel to match the needs of most pilot plants and manufacturing facilities. Because of its unique design, the HELIX can accommodate any volume up to 50 L.

Are any customizations available to the molding, such as to ports or materials?

The HELIX was designed to be cost-effective. Any customization would be on a case-by-case basis.

Are demos of the HELIX available?

Yes! Please contact us at info@savillex.com and a Savillex team member will get back in touch as soon as possible to schedule a demonstration.

[Click here to learn more about the HELIX Oscillating Biomixer on the Savillex website.](#)

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GL038 010623