PLEVNIK

# Processing stirring tanks PST250–3000

Produce with ease

Milk
Whey
Yogurts

Lactic
cheese
Creams

Chocolates
Marmalades
Pudding

Ketchup
Sauces
Panna cotta

Rice Milk
Creamy cheese and
much more ...

As food producer I can make a lot of different foods with the same setup.

## STIRRING PROCESS:

| Stirrers — Your products | Viscosity (Cps) | Helical TYPE 1 R 25–70 rpm 30–160 m/min | Helical TYPE 2 R 17–50 rpm 21–120 m/min | + scraper | Helical TYPE 3 R 25–70 rpm 25–160 m/min | Helical TYPE 4 R 25–70 rpm 30–160 m/min | Propeller TYPE 1 R 19–37 rpm 20–150 m/min | Propeller TYPE 2 R 20–200 rpm | Propeller TYPE 3 R 450–1800 rpm | Propeller TYPE 4 R 60–300 rpm |
|---|---|---|---|---|---|---|---|---|---|---|
| Milk | 3 | | | | | ▬▬▬ | | ▬▬▬ | ▬ | |
| Guar gum 0.5% | 130 | | | | | ▬▬▬ | | ▬▬▬ | ▬ | |
| Sweet cream | 200 | | | | | | ▬▬▬ | | | ▬▬▬ |
| Whey | 500 | | | | | ▬▬▬ | | ▬ | ▬ | |
| Lactic cheese | 500 | | | | | | ▬ | | | |
| Liquid yogurt | 1000 | | ▬ | | ▬▬▬ | ▬▬ | ▬▬▬ | | ▬ | |
| Ketchup | 1000 | | ▬ | | ▬▬▬ | ▬ | | | | |
| Stirred yogurt | 2200 | | ▬▬▬ | | ▬▬▬ | | | | | |
| Yogurt | 2600 | ▬ | ▬▬▬ | | ▬▬ | | | | | |
| Tomato sauce | 2600 | ▬ | ▬▬▬ | | ▬▬ | | | | | |
| Chocolate | 2800 | ▬▬ | ▬▬▬ | ✚ | | | | | | |
| Greek yogurt | 3500 | ▬▬ | ▬▬▬ | | | | | | | |
| Guar gum 1% | 4000 | ▬▬ | ▬▬▬ | | | | | | | |
| Marmalade | 8500 | ▬▬ | ▬▬▬ | ✚ | | | | | | |
| Pudding | 9000 | | | ✚ | | | | | | |
| Rice pudding | 10000 | | ▬▬ | ✚ | | | | | | |
| Spreads | 15200 | | ▬▬▬ | ✚ | | | | | | |
| Guar gum 2% | 16000 | ▬▬▬ | ▬▬▬ | | | | | | | |

**The helical type 1 stirrer** is the best stirrer for **mixing liquid products** with solids, or **simply granulated solids**. The design of the stirrer provides gentle but effective mixing without damaging the solids.

**The helical type 2 stirrer** is a universal stirrer. Its design provides a **gentle mixing** of the product and an **effective pumping effect**. The stirrer is capable of strong **displacement** of the product from the **top to bottom** of the tank.

The stirrer **acts as a helical type 2 stirrer** when rotating clockwise. When rotating counter-clockwise **the stirrer acts as a scraper.**

**The helical type 3 stirrer** provides a good pumping effect. Its design (like the letter T) provide a flow in a shape of a spiral which enables a quite **gentle mixing** of the product and a good pumping effect for semi-viscous products.

**The helical type 4 stirrer** provides a good pumping effect. Its design (like the letter L) provide a flow which enables a quite **gentle mixing** of the product and a good pumping effect for **low viscous** products.The stirrer is positioned from the center.

**The propeller type 1 stirrer** provides a good pumping effect.
Its centered position and the design of the shovels in one/two or more rows ensure the mixing of product **from the top to the bottom** of the tank.

**The propeller type 2 stirrer** provides an efficient pumping effect. The position and stirrer design ensure an efficient **pumping effect** in the **vertical direction** of the tank, which **prevents solid particles from depositing on the bottom.**

**The propeller type 3 stirrer** provides an efficient pumping effect. The position, design and **high speed of the stirrer** ensure the mixing of the product from the top to the bottom of the tank, which prevents solid particles from depositing on the bottom.

**The propeller type 4 stirrer** provides a good pumping effect.
The position and stirrer design ensure mixing of the product. **The stirrer is especially aggressive on hard solids in the product.**

## MIXING PROCESS:

| MIXING STIRRERS — Substance | Viscosity (Cps) | Dispersion LIGHT 500–1500 rpm | Dispersion PRO 600–3000 rpm | Dissolver 500–1500 rpm | Homogeni-zation 500–1500 rpm | Blender 100–400 rpm | Screw 30–120 rpm |
|---|---|---|---|---|---|---|---|
| Guar gum 0.5% | 130 | ▬▬▬ | | | | | |
| Sugar 20% | 500 | ▬▬▬ | ▬▬ | | ▬▬ | | |
| Sugar 40% | 1000 | ▬▬▬ | ▬ | | ▬▬ | | |
| Powders - type 1 | 1000 | ▬▬▬ | | | ▬▬ | | |
| Sugar 60% | 1500 | ▬▬ | ▬ | | ▬▬ | | |
| Sugar 80% | 2000 | ▬▬ | | | ▬▬ | | |
| Powders - type 2 | 3000 | | ▬▬▬▬ | | | | |
| Guar gum 1% | 4000 | | ▬▬▬▬ | ▬▬ | | | |
| Powders - type 3 | 4000 | | ▬▬▬▬ | ▬▬ | | ▬▬▬ | |
| Guar gum 2% | 16000 | | ▬▬ | ▬▬▬ | | ▬▬▬ | |
| Solid particles | 0.01–0.5 mm | ▬▬▬ | ▬▬▬▬ | ▬ | | ▬ | |
| | 0.5–2.0 mm | ▬▬ | ▬▬▬▬ | ▬ | | ▬ | |
| | 2.0–6,0 mm | ▬ | ▬▬▬ | ▬▬ | | ▬▬▬ | ▬ |
| | 6.0–… mm | ▬ | ▬▬ | ▬▬▬ | | ▬▬▬ | ▬▬▬▬ |

▬▬▬▬ Highly recommended

▬▬▬ Recommended

▬▬ Good

▬ Good with limitations

✚ Accessory

**The LIGHT dispersion stirrer** performs an **optimal mixing without air intake**. The stirrer can be used for **suspension, dispersion** and **homogenization processes of low viscosity products.** The dispersion head has custom made holes adapted to the process.

**The PRO dispersion stirrer** performs a **high-performance mixing** of content **in the micro and macro range without air intake**. It creates a controlled, wetting-out process by separating and breaking down the agglomerates. The stirrer can be used for suspension, dispersion and homogenization processes of semi-viscous products. The dispersion head has custom made slots adapted to the process.

**The dissolver stirrer** is used in **emulsification and dispersion processes**. It is designed for mixing liquid products with dispersed solids or **for very viscous products**.

**The homogenization stirrer** is used in **homogenization processes**. It is designed for **low viscous products.**

**The blender stirrer** is used for **blending, mixing,** and **emulsification** processes of semi-viscous products. The blender stirrer works in a **combination with the helical type 2 stirrer** which **continuously supplies unmixed product.**

**The screw stirrer** is used for mixing processes. It is designed to provide an efficient **vertical flow of semi-hard pieces without damaging them** and when **mixing high viscous products.** The screw stirrer works **in combination with** the **helical type 2** and **3** stirrers which continuously supplies unmixed product.

Note: Rotation speeds depend on the vessel dimensions.