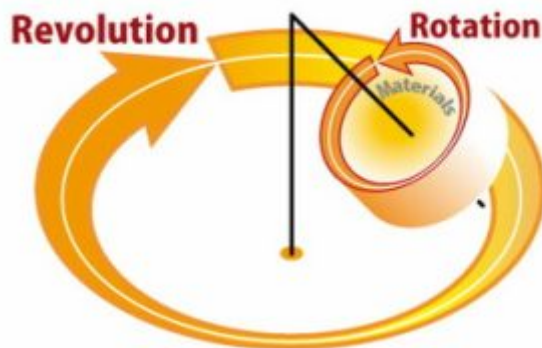


What is a planetary mixer?

THINKY Mixers are industrial non-contact “**planetary**” mixers for all liquids, pastes, powders and fillers – and any combination of liquids or liquids/solids. This includes engineering compounds, pharmaceutical or cosmetic formulations, and nano-particle dispersions. They mix, disperse and degas your materials in seconds to minutes, in a sealed or lid-less container such as a jar, beaker, syringe tube or cartridge. The non-contact mixing principle makes it possible to formulate or combine compounds from very small amounts such as 0.5ml to large production scales.

By means of both rotation and revolution of the material in a container, materials are mixed and degassed. The materials are under an acceleration of 400G, and even materials of very high viscosity can be mixed and deaerated or degassed at the same time.



Rotation and revolution

This video shows the principle in action – two slabs of modelling clay are completely mixed in a couple of minutes. The stages illustrate the mixing action imparted to the materials by the planetary

What is a planetary mixer?

forces. Lower viscosity materials can mix much faster. All sorts of powders or fillers can be mixed into liquids or pastes in the same way.

Video of very high viscosity mixing

What are the benefits of planetary mixing?

- The non-contact mixing methodology cuts down on cleaning – there are no mixing blades or other apparatus to deal with
- Non-contact mixing does not introduce air into the material
- Mixed materials are degassed or deaerated, either by the mixer's normal action, or by a special degassing program step, or by mixing under a vacuum (some mixers have an integral vacuum)
- Mixing is achieved in jars or other containers – they can be reusable or disposable, or can be in your own final packaging
- A homogeneous mix can be produced regardless of viscosity – up to several million mPa
- A program of speeds/times will give repeated uniform mixing results; programs are easily saved for a robust, repeatable procedure
- Different capacity containers allow mixing of specific quantities (as small as 0.5ml), resulting in reduced material waste

The outcomes for you are **air-free homogeneous mixes** – fast and repeatable, with simplicity and efficiency. If you would like to see if this leads you to **higher quality and lower costs**, then please get in touch for a demonstration. We have [**THINKY Mixers**](#) available in our [Technology Centre](#) for you to try.

What is a planetary mixer?

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Last updated: July 2019

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