

CONTINUOUS MANUFACTURING FOR FORMULATION DEVELOPMENT

Continuous manufacturing of pharmaceuticals oral solid dosage forms (OSD) improves product quality, reduces drug shortages and allows for shorter development times with reduced API consumption. But every new drug starts at a small scale. Test your product on a Gericke system and learn about its advantages hands-on.

To support our customers during their important first steps into the field of continuous feeding and blending, we have developed a wide range of lab sized equipment. Available as standalone machines or rental units our portfolio will allow a fast and agile integration of this new technology into your environment.

- Modular: full- and semi-continuous (Mini Blend), interchangeable feeders
- Flexible: operated standalone or integrated with into other equipment
- Portable: compact design
- Efficient: minimal API consumption (few grams)
- · Capable: no scale up to commercial equipment
- Compliant: Code 21 Part 11 compliant data acquisition



COMPACT SIZE — HUGE PERFORMANCE

GERICKE FORMULATION SKID GFS LAB

The Gericke Formulation Skid is a fully automated continuous manufacturing, dry/wet granulation, capsule filling or as standalone unit operation method for blending excipients and API upstream compaction, dry/wet granulation, capsule filling or as standalone unit. It is available in two versions: Continuous and Mini-Blending. High precision loss-in-weight feeders connect to scientifically designed compact blenders and integrated PAT solutions.

The GFS at a glance:

- · 2- 4 Loss in Weight Feeders
- · Continuous or Mini Blender
- Simple integration
- Fully automated
- Minimal API consumption (few grams)
- Low investment cost
- Results are transferable to commercial sized equipment
- · Optimized process and recipe development
- Fast and efficient Design of Experiments
- Available as rental unit



The Gericke Mini Blender is a semi-continuous in-line approach to make continuous manufacturing suitable for low dosage, low volume, highly potent products. It combines advantages of the traditional batch and of a fully continuous manufacturing processes into a simplified and highly innovative system.

Choose between the integrated Gericke Formulation Skid GFS or standalone equipment for early phase development.

Your advantages:

- Maximal mixing homogeneity (even below 1% API concentrations)
- Minimum batch sizes < 1 kg
- No start-up losses
- Simple feeder start up
- Suitable for 0 40 kg/h without scale up

GERICKE MINI BLENDER GBM

- Simple material tracking; no RTD modelling
- Simple Integration of PAT; also Raman feasible
- Simple control strategy



GERICKE CONTINUOUS MIXER GCM

Gericke Continuous Mixers offer the optimum combination of radial and axial mixing (dispersion), ensuring highest homogeneity with low RSD. The shape, layout and adjustment of the Gericke mixing tools have been developed based on upon 50 years of experience in continuous mixing and in collaboration with universities. The residence time and the energy input can be adjusted easily, allowing to fine-tune all parameters to your product needs.



Your advantages:

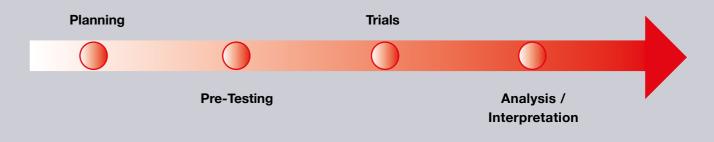
- Suitable for 10 100 kg/h
- Maximal mixing homogeneity (even with very low ingredient concentrations)
- Minimal start-up losses
- Interchangeable housing and mixing tools
- Minimal product residue at the end of the process, with good residue discharge
- Low space (consider GMP footprint) requirements even with large throughputs

GERICKE CONSULTING

We plan and perform trials with and for you: whether it is our mini-blend system or our fully continuous Gericke formulation skid. We can even integrate any process analytical tool or a downstream equipment of your choice (e.g. tablet press or granulator).

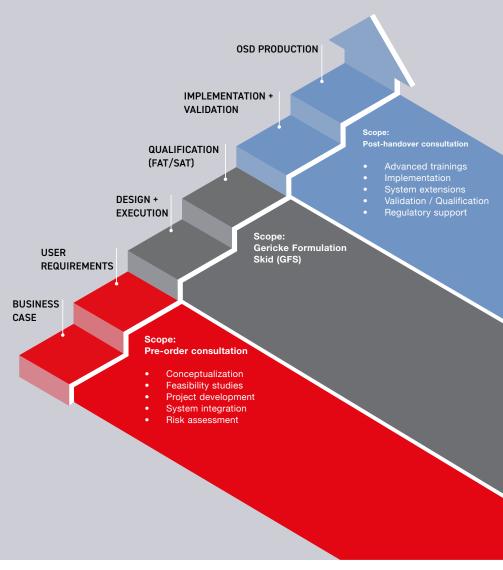
Your trials can be either organised at a Gericke test centre or at your own facilities using our fully equipped and shippable test rig GFS LAB.

With extensive knowledge in powder handling, feeding, and blending, our process experts will guide and assist you all the way:









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