

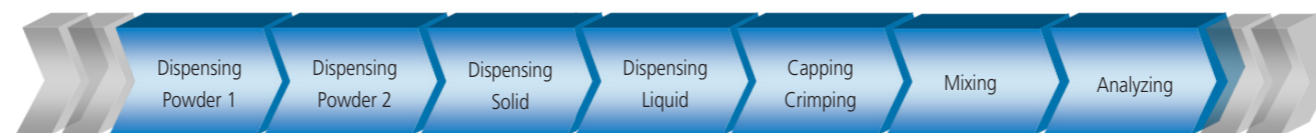
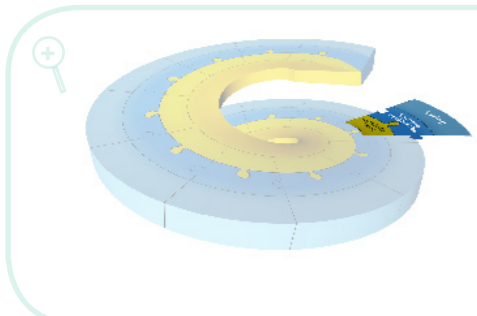
SWING POWDERDOSE

from concepts to success

- Automated Powder Dispensing -
Precision, Accuracy, Speed, Traceability (21 CFR part 11 compliant)



from concepts to success



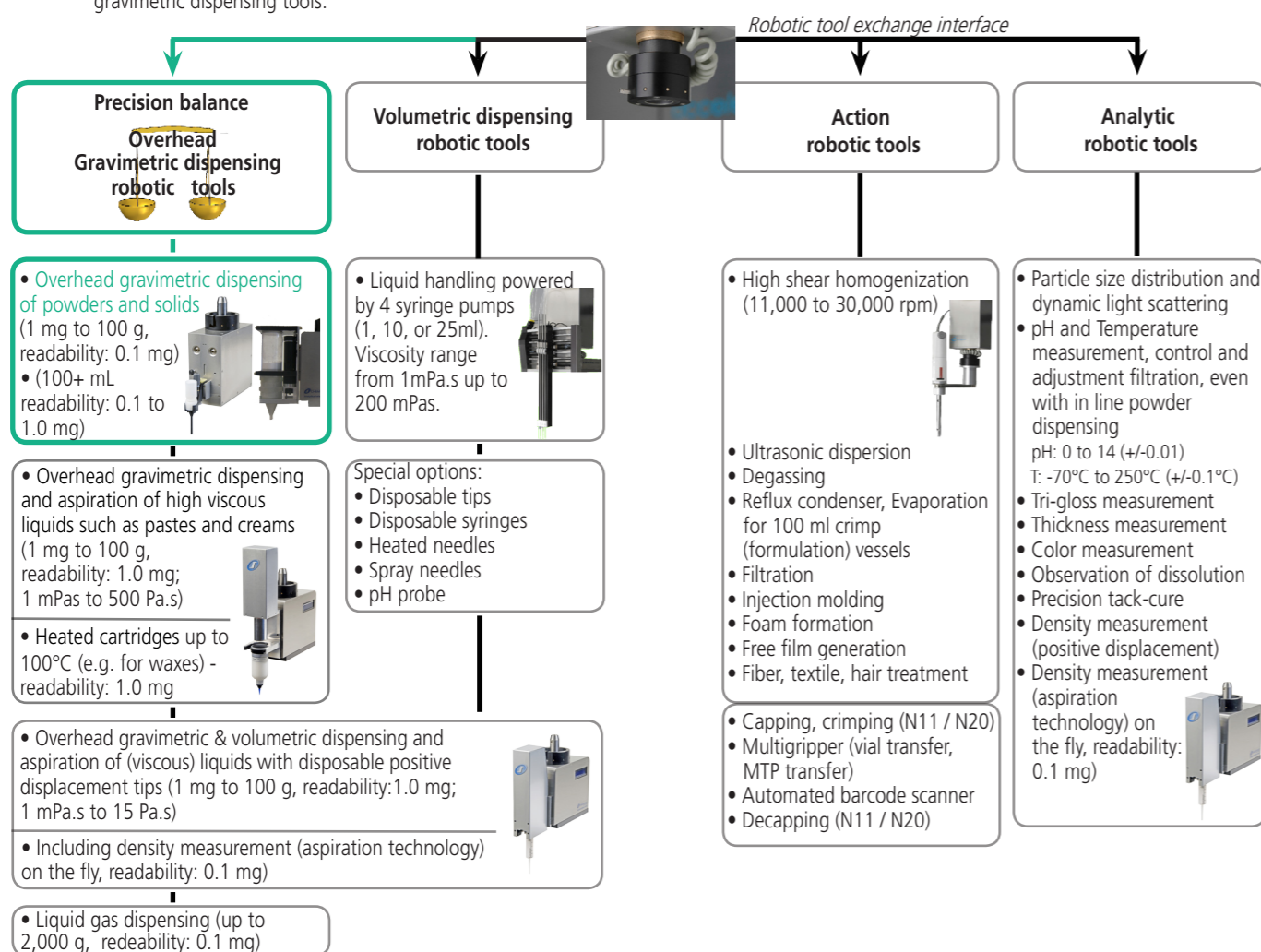
SWING POWDERDOSE, a modular robotic platform for automated and traceable powder dispensing tasks with a variety of further options

SWING POWDERDOSE is a software-driven robotic platform designed for high throughput powder dispensing tasks. It increases versatility, improves R&D costs savings, avoids tedious and repetitive tasks in production facilities, and significantly increases the level of performance. You are able to dispense any powder with virtually any flow properties (e.g. sticky powders from milligrams to multigrams) into any type of containers such as vials, microtiter plates, bottles, beverages, tubes, reactor blocks, formulation vessels etc.

- **SWING POWDERDOSE** brings paradigm shifting modularity enabling an easy to use workflow task driven software
- Exchangeable robotic tools (21 CFR part 11 compliant)
- Compatible with any powder flow properties: from low-density to free-flowing
- Unrivaled gravimetric dispensing technology **directly immersing into the target** including an **anti-drip system** which avoids cross contamination!
- Designed to be used with any type of containers such as vials, MTP microplates, bottles, tubes, reactor blocks etc.
- A large choice of hardware and software tools allow fine tuned adaptation to your workflow
- (also available!) Simultaneous double check of every dispense with **two independent analytical balances**

Unrivaled gravimetric dispensing of powders and other exchangeables robotic tools

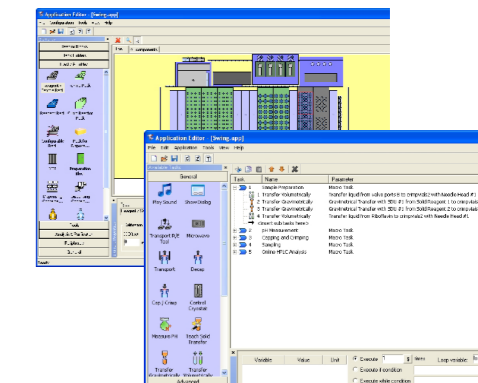
More than 30 features can be delivered with Chemspeed's unique robotic tool exchange technology, including unrivaled overhead gravimetric dispensing tools.



Powered by **AutoSuite SWING POWDERDOSE** user interface

AutoSuite SWING POWDERDOSE is an intuitive user interface software which allows easy workflow orientated programming. Many features such as the gravimetric dispensing steps are automatically calibrated, eliminating tedious optimisation steps.

- The **AutoTeaching** tool simplifies the use of the powder (as well for viscous liquids, waxes, etc.) dispensing task, eliminating the need for manual optimization
- Easy programming: drag-and-drop of formulation workflow steps
- Barcode tracking
- Smooth integration into Chemspeed's workflow management software (see reverse)
- AutoSuite Application Programming Interface (API): for 3rd party software and hardware integration, and standard integration of Spotfire, JMP, VirtualLab etc.



Modular platform: accurate & fast overhead gravimetric dispensing of powders

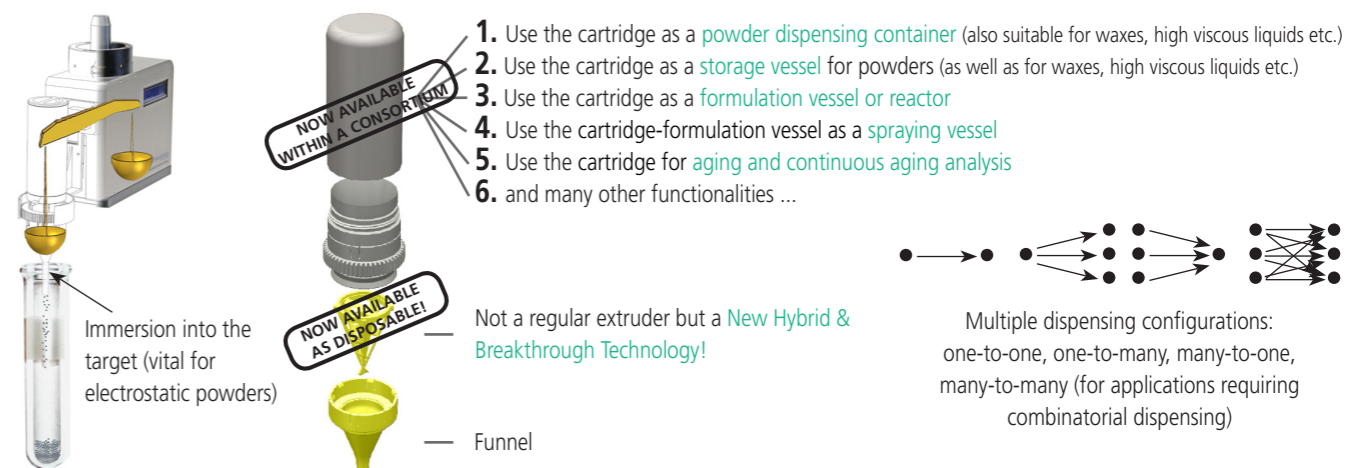
Chemspeed is able to dispense any type of compound into any type of container (vial, microtiter plates, bottles, reactors, formulation vessels etc.) (Please refer to other Workflow Brochures)

Built-in balance in robotic tools - Allows accurate and precise gravimetric dispensing of powders (readability down to 0.1 mg, optional down to 0.01 mg):

- Dispensing range from milligrams to multigrams (container size up to 130 mL)
- Typical dispensing time: 1g in 20 sec (depending on powder flow properties)
- Dispensing of any solid morphology: from low-density to free flowing (even sticky powders)
- Dispensing into any type of vial, bottle, 96 well-plates, tubes, fomulation vessels, reactors etc.
- Powder dispensing robotic tool capacity: **up to 80 cartridges of 130 mL each**
- Reduced dispensing time: the balance moves from one target to the next, continuously dispensing and weighing without having to move the target to the balance. The **anti-drip system** avoids cross contamination and enables to add powder or any other material into any (fixed) formulation vessel, reactor, vial etc. wherever on the platform deck while stirring, heating, cooling etc.
- **New: Multiple cartridge functionalities according to your needs!** (dispensing container, storage vessel, formulation vessel, reactor etc.)
- **One extrusion design and one AutoTeaching tool to cover all your powders** (including sticky or electrostatic powders)
- **Automatic exchange of a dispensing cartridge** if one is empty
- The software finds automatically the best conditions to dispense your powder



Gravimetric dispensing of powders into a microtiter plate and/or vial





Accessories

All tools and accessories of Chemspeed's Sweigher, Swave, Synthesizer SLT II, AutoPlant, Formax, Applicator and Investigator are fully compatible with the **SWING POWDERDOSE** robotic platform and vice versa (see the high output product development spiral below). Please refer to Chemspeed's other workflow brochures for modularity examples.

Many upgrade options such as:

- High performance reactor array technology
- Analytical interfaces
- Automated tool heads (up to 36)
- Shakable and heatable racks
- High performance formulation vessels (even fully conditioned)



High output product development spiral

Chemspeed's AutoSuite workflow management software integrates with:

1. All of Chemspeed's robotic platforms such as

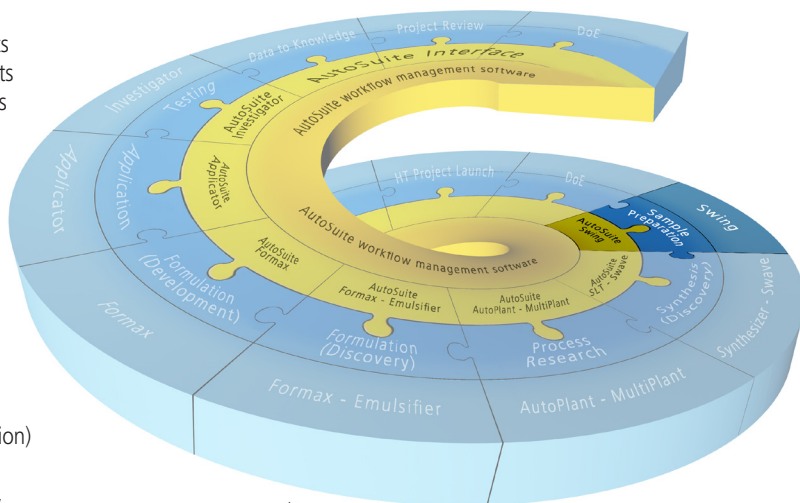
- Sample preparation workflows/ instruments
- Parallel array synthesis workflows/ instruments
- Parallel process research workflows/ instruments
- High output formulation workflows/ instruments
- High output application workflows/ instruments
- High output testing workflows/ instruments

2. Third party instruments

Chemspeed integrates a vast number of 3rd party components (e.g. in robotic tools). Please refer to Chemspeed's Workflow Portfolio brochure and/ or contact your Chemspeed's representative.

3. Third party software such as

- SpotFire (premium data visualization and selection)
- JMP (design of experiments - DoE)
- VirtualLab (lab journal, workflow management, instrument control)
- and many other laboratory software through industry standard languages (SQL, .net, C#, etc)



Hardware - Software - Logistics
Chemspeed Technologies offers all.

