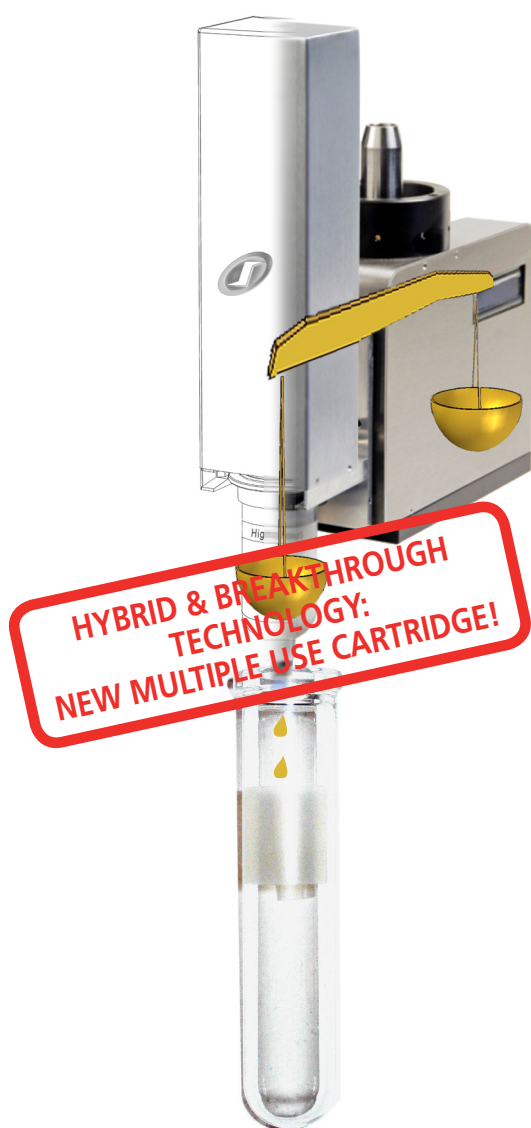


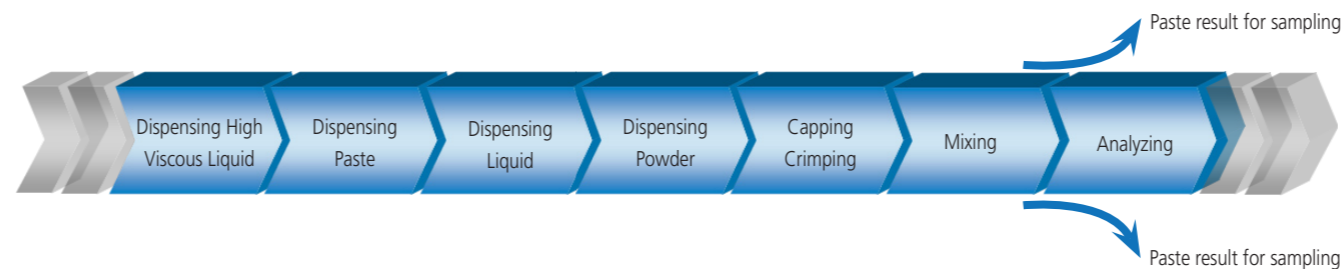
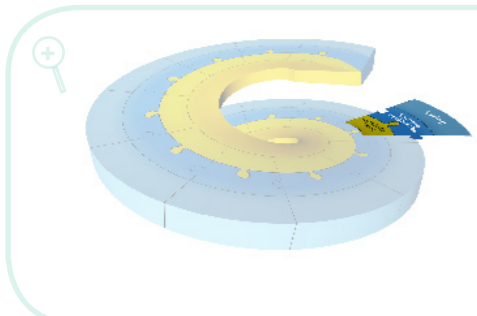
SWING VISCODOSE

from concepts to success

- Automated Viscous Liquids Dispensing -
Precision, Accuracy, Speed, Traceability



from concepts to success



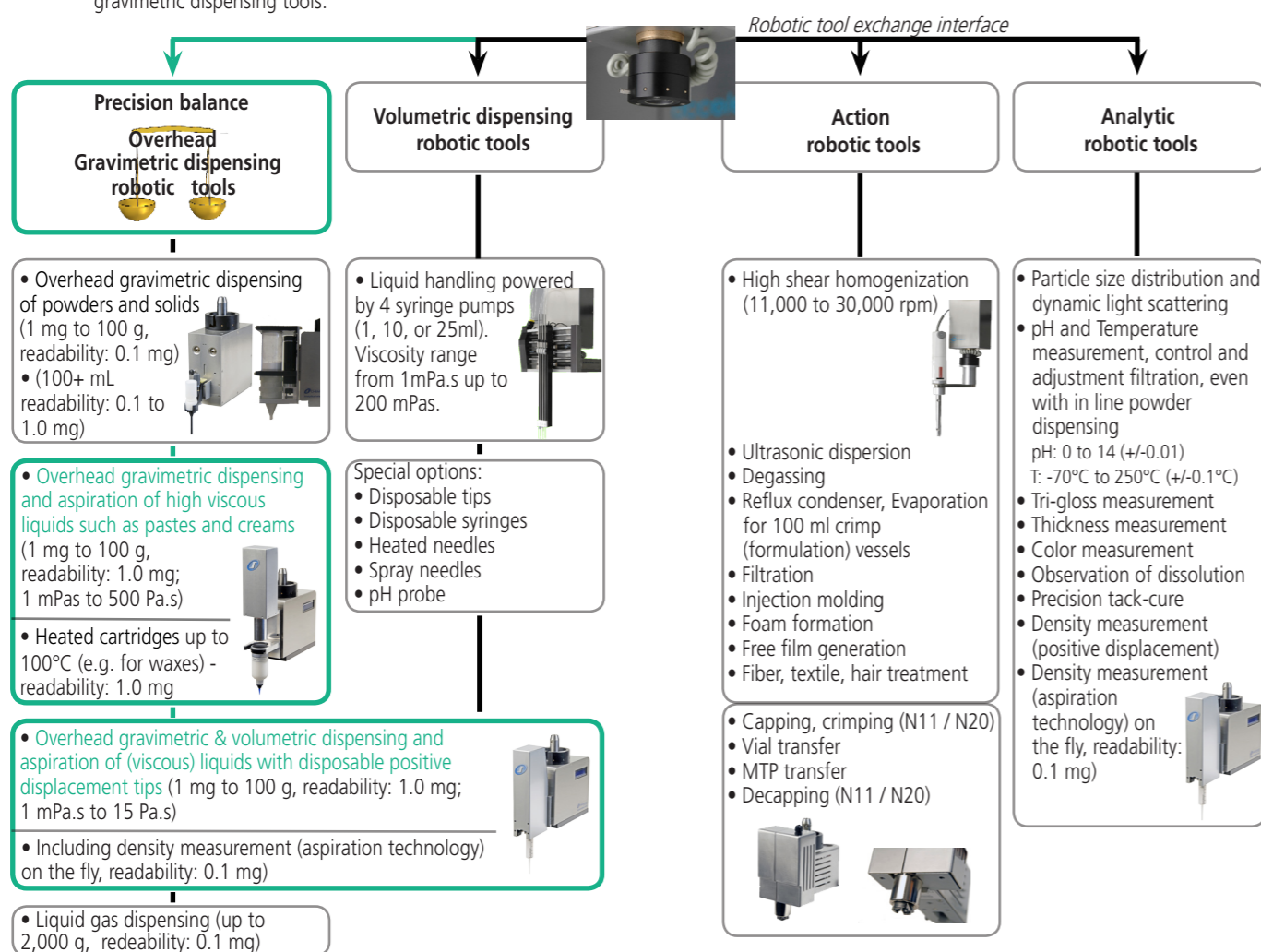
SWING VISCODOSE, a modular robotic platform for automated viscous liquids dispensing tasks with a variety of further options

SWING VISCODOSE is a software-driven robotic platform designed for high throughput viscous materials 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 type of viscous liquids (from milligrams to multigrams) into any type of containers such as vials, microtiter plates, bottles, beverages, tubes, reactor blocks, formulation vessels etc.

- **SWING VISCODOSE** brings paradigm shifting modularity enabling an easy to use workflow task driven software
- Exchangeable robotic tools
- Unrivaled gravimetric dispensing technology directly 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
- From low viscous (e.g. water) to highly viscous materials (500 Pa.s)
- (also available!) Simultaneous double check of every dispense with **two independent analytical balances**

Unrivaled gravimetric dispensing of powders and other exchangeables robotic tools

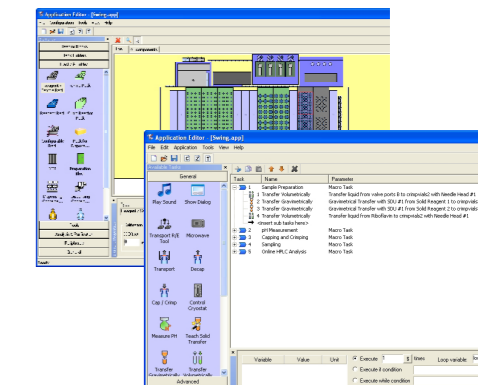
More than 30 features can be delivered with Chemspeed's unique robotic tool exchange technology, including unrivaled overhead gravimetric dispensing tools.



Powered by **AutoSuite SWING VISCODOSE** user interface

AutoSuite SWING VISCODOSE 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 viscous liquid (oils, pastes, creams, 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.



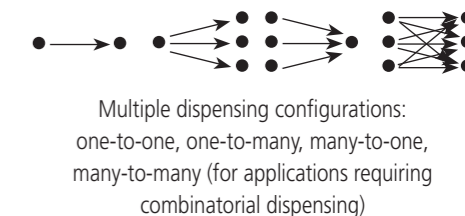
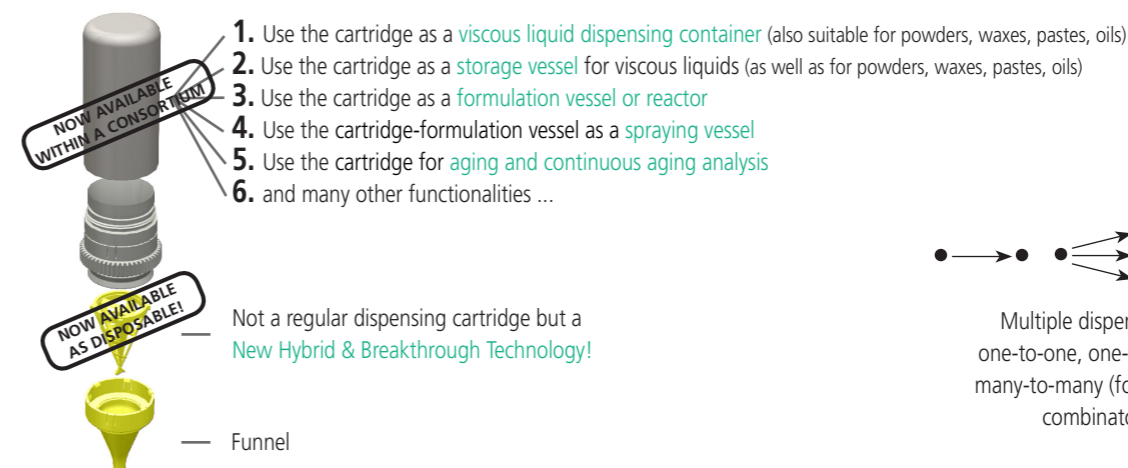
Modular platform deck: vial, microtiter plates, bottles, tubes etc.

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 viscous liquids (readability down to 1.0 mg):

- Dispensing range from milligrams to multigrams (container size up to 130 mL)
- Typical dispensing time: 1g in 20 sec (depending on requested accuracy and viscous liquid properties)
- Dispensing of any viscous liquid morphology: from oils, highli-viscous oils, pastes, even waxes, water
- Dispensing into any type of vial, bottle, 96 well-plates, tubes, fomulation vessels, reactors etc.
- Viscous liquid 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 viscous liquid 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 dispensing design and one AutoTeaching tool to cover all** your viscous liquid materials
- **Automatic exchange of a dispensing cartridge** if one is empty
- The software finds automatically the best conditions to dispense your viscous liquid





Accessories

All tools and accessories of Chemspeed's Sweigher, Swave, Synthesizer SLT II, AutoPlant, Formax, Applicator and Investigator are fully compatible with the **SWING VISCODOSE** 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

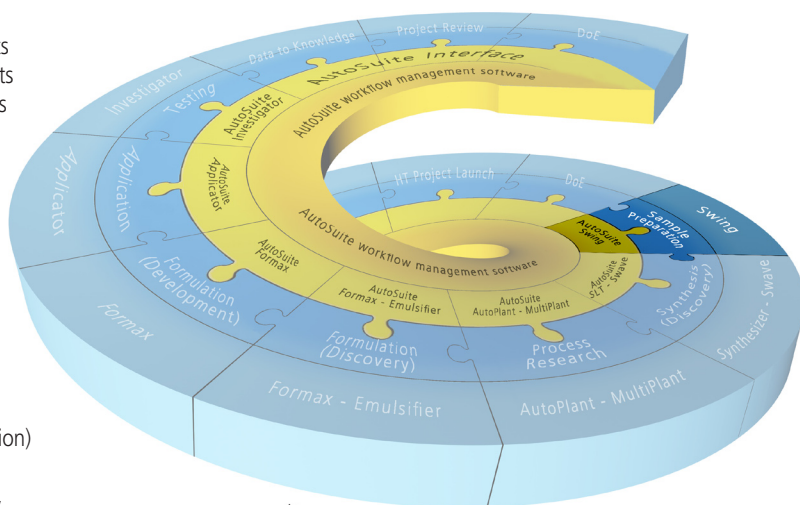
- Sample preparation workflows/ instruments
- Parallel array synthesis workflows/ instruments
- Parallel process research workflows/ instruments
- High output formulation workflows/ instruments
- High output application workflows/ instruments
- High output testing workflows/ instruments

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.

