

Crysta'days | November 8 2023

Introduction to the new SCT-LAB

**Secoya**  
FLUIDIFY PHARMA



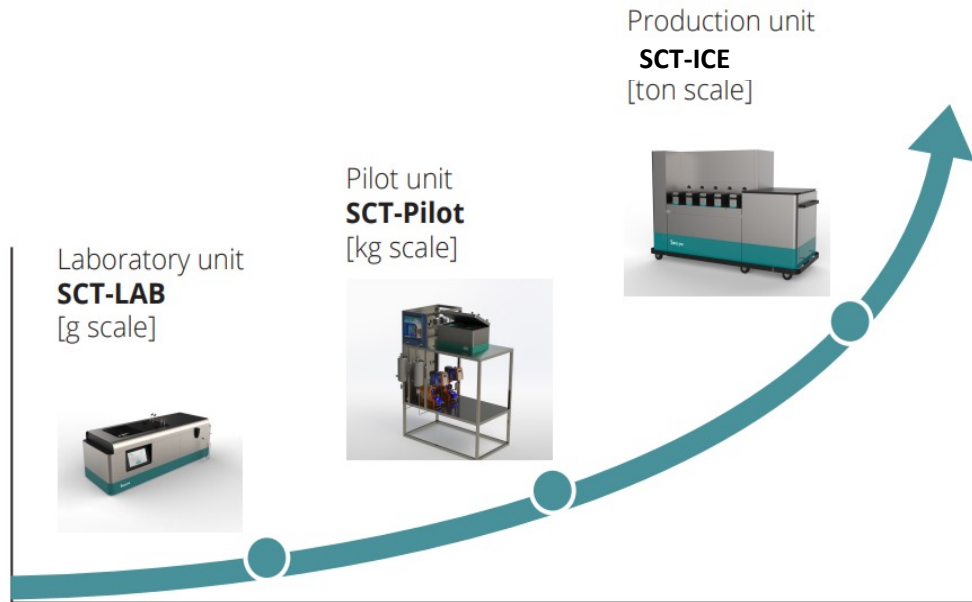


# Secoya Crystallization Technology

Our instruments

## Technology specifications:

- 3 temperature zones:
  - Solution: RT to 85°C
  - Antisolvent: 5 to 85°C
  - Reactor: 0 to 70°C
- Delivered with dedicated cooling/heating thermostat
- Single use inserts and reactors
  - 6 different inserts for cooling and antisolvent crystallization
  - 6 different integrated reactors with different volumes: 1 to 7mL
  - 1 specific reactor execution for highly viscous solutions
- Pump flow rates 1 to 60 mL/min
- Simplified collection of slurries
- Stand-alone 21 CFR part 11 software



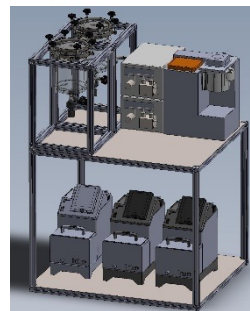


# Secoya Crystallization Technology

Changes are made

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Production unit  
**SCT-ICE**  
[ton scale]





# Secoya Crystallization Technology

Changes are made

## Why make the changes:

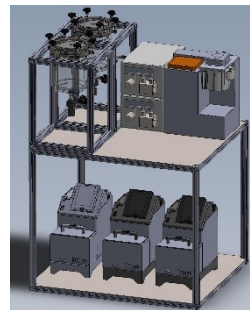
« Not always very user friendly: lots of screws, blocking syringes, not very happy with thermal properties overall design »

« takes up a lot of space in the fume hood »

« external bottles with own heating make it difficult with space in the fume hood »

« cannot reach well the back side and replacing the reactor and insert is difficult »

« once the user gets to know the philosophy behind the system, the user increase development speed »



Production unit  
**SCT-ICE**  
[ton scale]



**The PID and philosophy is OK, execution and customer experience needs to be increased**

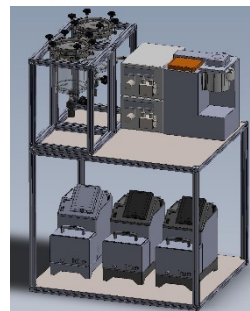


# Secoya Crystallization Technology

New features

## Technology specifications:

- On-site mixing and dissolution
- « No screw fixing » and unfixing syringe
- Homing device for syringes
- No hustle in changing the reactor and insert
- New reactor design with other way of homogenizing the temperature
- No more closing the reactor chamber with screws
- Software controlled temperature of stock solution, syringe, and reactor (by thermostat)
- Stand-alone instrument, no PC needed



Production unit  
**SCT-ICE**  
[ton scale]





# Secoya Crystallization Technology

The SCT-LAB instrument data structure

## Technology specifications:

- specifications



|  |   |
|--|---|
| Temperature antisolvent  | from 5 to 85 °C (antisolvent precooled in fridge)     |
| Temperature solution   | from 25 to 85 °C                                      |
| Temperature reactor  | from 0 to 75 °C, agitated                             |
| Volume stock solution  | 100 mL, agitated and heated in place                  |
| Volume stock antisolvent   | 250 mL, agitated and heated in place                  |
| Volume solution per test   | from 1 to 20 mL, syringes are preheated and precooled |
| Flow rate solution and antisolvent                               | from 1 to 50 mL/min                                   |
| 6 mixing inserts for cooling and antisolvent crystallization     |   |
| 7 different reactors for cooling and antisolvent crystallization |   |
| Unit dimensions  | 45 x 45 x 45 cm (L x W x H)                           |
| Weight   | 28 kg   |



# Secoya Crystallization Technology

The SCT-LAB instrument data structure

## Technology specifications:

- Stand-alone 21 CFR part 11 software
- Data structure: data integrity is key





# Secoya Crystallization Technology

The SCT-LAB instrument data structure

## Technology specifications:

- Stand-alone 21 CFR part 11 software
- Data structure



|                                |                                |
|--------------------------------|--------------------------------|
| <b>UserID</b>                  | <b>Temperature solution</b>    |
| <b>Project name</b>            | <b>Temperature antisolvent</b> |
| <b>Series number</b>           | <b>Insert</b>                  |
| <b>Sample number</b>           | <b>reactor</b>                 |
| <b>Molecule name</b>           | <b>Solution flow rate</b>      |
| <b>Acronym</b>                 | <b>Solution volume</b>         |
| <b>Solvent</b>                 | <b>Antisolvent flow rate</b>   |
| <b>concentration</b>           | <b>Antisolvent volume</b>      |
| <b>Concentration unit</b>      | <b>Reactor temperature</b>     |
| <b>Antisolvent</b>             | <b>Sample posttreatment</b>    |
| <b>Temperature solution</b>    |                                |
| <b>Temperature antisolvent</b> |                                |