# GEMStar XT™ ARR-850950 Slow Pump PR™

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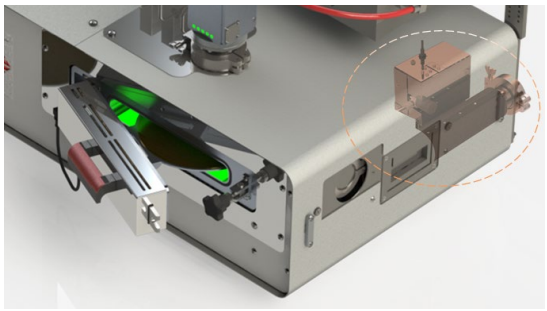
Molecular Innovation™



*Increasing the configurability and capability of GEMStar XT Systems, Arradiance offers a Slow Pump PR™ (Particle Retention) upgrade to further enable Customers focused on Nano Technologies.*

Surface modification processing of <1 µm particles, and even >1 µm hydrophilic particles, presents specific challenges as it relates to substrate retention and chamber contamination. When pressure and temperature are not well controlled during the chamber pump down process, turbulence produced from the release of trapped gas/molecules within the particle bed results in particles losses and a contaminated chamber.

This recommended particle coating upgrade, along with the particle rotational door, significantly increases substrate retention and keeps your process chamber clean. With complete control via the GEMFlow™ software recipe program, you will spend less time cleaning and retain more of your loaded particle volume. Additionally, this is a great option for your lighter substrates, like foils.

## Ease of Operation

- Completely integrated into GEMFlow™ software with fully automated operation and intuitive GUI
- Full recipe control including customizable pressure profiles (pre-sets included)
- Contained within the XT™ system
- No additional facility requirements
- Available from the factory and as a field upgrade

| Slow Pump Option Specifications | |
|---|---|
| Compatibility | XT™ Systems Manufactured after July 2019 |
| Flow Control | Recipe Integrated |
| Flow Setting | 0 – 100% Full Scale |
| Microparticle Retention (>1 µm) | 100% W/W *(weight / weight)* |
| Nanoparticle Retention (<1 µm) | ~99.5% W/W - as tested [a] |

[a] *as tested - 10 mL volume of <40 nm Al2O3 particles processed utilizing the **ARR-850600-SR XT Particle Coating Door**.*

Particle retention depends on characteristics (e.g. size, shape, density) and recipe parameters (bakeout, temperature, pump down speed etc.). In most cases, 100% retention is achievable with optimization. For additional information, contact Arradiance Technical Support via our website.