

# LCI Dome Extruder & Spheronizer for Pharmaceutical Production

LCI's Dome Extruder (Twin Dome Granulator™) and Spheronizer (Marumerizer™) convert drug formulations into free flowing spheres (beadlets) of a controlled shape and size.

The wet mixture is typically prepared in a high shear granulator. The LCI Dome Extruder then forms the wet mass into cylindrical extrudates which are then rounded in the LCI Spheronizer to form spheres. These spheres are subsequently coated with a controlled release matrix and dried in a fluid bed coater. The spheres are then encapsulated to form the final Controlled Release Capsule.

Benefits of LCI's Dome Extruder:

- Dome design maximizes product uniformity
- Low pressure extrusion preserves efficacy of heat sensitive products
- Quick change of extrusion screen
- Clamshell design allows easy access to process parts
- 0.5-1.5 mm extrudates
- Integrated control panel

Benefits of LCI's Spheronizer:

- Friction plates with 2-8 mm pitch
- Easy disassembly and cleaning of process parts
- Variable plate speeds
- Jacketed bowl for heating/cooling
- Integrated control panel

*LCI Corporation is the exclusive distributor for Fuji Paudal Comp. Ltd. in the Americas.*



*The Twin Dome Granulator's clam shell design allows quick, easy cleaning of the extrusion chamber.*

*The dome extruder's hemispherical shaped dies result in evenly distributed extrusion forces.*



*Spheronization produces a smooth particle surface suitable for thin layer coating*