



Single Screw Extruder

The extruder is widely used for making pellets of different sizes starting from a minimum of 400 microns to a maximum of 2000 microns. Extruder gives mild compaction and is ideal for most pharmaceutical formulations related to palletization. The function of a [spheronizer](#) is to convert extrudes into spheroids. Spheronization is the necessary second step of granulation by extrusion – spheronization process where pharmaceutical products are made into small spheres or spheroids. Activate the machine and load the pre-formulated wet mass into the feed funnel(Hopper). The material is forced through the extrusion chamber to cone mesh by axial force of Counter-rotating screws. Conical pressing roller forces the material through the perforations of Single cone mesh and the extrude formed.

Application:

- [Single Screw Extruder Machine](#) is widely used for making pellets of different sizes starting from a minimum of 400 microns to a maximum of 2000 microns.
- Extruder gives mild compaction and is ideal for most pharmaceutical formulations related to palletization.
- The extruder consists of Hopper for loading of wet mass, Hopper as internal blades connected to gear to rotate and systematically push the material into the feed hopper of Extruder Chamber, Extrusion the chamber is Jacketed from outside for circulation of cold water to maintain the temperature of the product in case the product is sensitive in nature.
- The extrusion chamber consists of a single screw that transfers the material towards the pressing cam and out from the perforation of the screen of the desired dia.
- [Single Screw Extruder Machine](#) is available from R&D batches with a minimum output of 250 gms.
- The extruder is cGMP complied equipment with self-standing Table Top Model for R&D scale which controls operation with built-in electrical panel for ease in maintenance.

Advantages:

- Pellets dosage forms have a distinct advantage in the pharmaceuticals industry.
- Having the flexibility of solution/ suspension layering and powder layering
- Minimal dust in the process environment

- Improved flow characteristics
- Improved solubility and dispersibility
- Improved Cosmetics.