

## Die Roller Extruder

Die roller extruder is the oldest extruder range that builds on the proven Umang technology and its benefits. We have a die roller and a pressing roller called as the knurling roller, the variety of designs ensures that process chosen for the product and process suits its application like high pressure extrusion giving dense pellets needed as per the fill weight of the capsules. This unique design of the machine makes it act as a wet granulator but also make the twin screw extruder a most preferable design for pharmaceutical pelletization or pharmaceutical granulation.

The outstanding feature of the Die roller extruder is the integrated, covered and sealed so the outside of the machine is smooth and very easy to clean. As a result of this the our die roller extruder is highly flexible, quick product changeover increases productivity and cost effectiveness.

The die roller extruder ranges from 5 to 600 Kgs/ hr. featuring through the wall design and movable head, allowing operation with platform and dust-free discharging via a linked mill directly into an IBC. The Die roller extruder can be stand-alone or linked to a high shear mixer for down stream integration or a spheroinizer or a Fluid Bed Wurster / fluid bed processor for up-stream integration.



### Standard Features for Die Roller Extruder :

- Variable meshes from 800 - 7000 microns available.
- Perfect cGMP-design: smooth covering, no external tubing and piping allowing easy cleaning
- Completely integrated full opening side discharge: perfect discharge of difficult products
- Through the wall installation: minimum space required in GMP area
- User-friendly operator-machine interaction via graphical operator panel 12" Industrial PC software with PROCESS + range of software which helps interlinking all plant equipments to a single system.
- Flexibility (processes and products) for wet granulation / wet extrusion for manufacturing pharmaceutical pellets.
- Feeders for feeding controlled rate of powder for extrusion.

### Optional Features for Die Roller Extruder :

- Explosion proof design
- 21 CFR part 11 certified controls.
- ADVANCE PROCESS + for easy and automated granulation control
- Jacketed / insulated extrusion chamber

- Different processing heads like radial extrusion, axial extrusion, cone and dome extrusion.
- Total containment through up- and downstream split valves and flexible isolation systems.
- Integration with mill and/or spheronizer or fluid bed possible: perfect closed link for dust-free operation
- Video monitoring of the process.
- Product feeding both by gravity or vacuum loading system directly from the containers
- Validation documentation and assistance based on GAMP

### Technical Specifications for Die Roller Extruder :

Model	Die Roller Extruder-65 L	Die Roller Extruder-65 R	Die Roller Extruder-65 E	Die Roller Extruder-100	Die Roller Extruder-130	Die Roller Extruder-200	Die Roller Extruder-270
Batch Cap./Kgs.	1-3kgs/hr	5-15kgs/hr	10-25kgs/hr	50-90kgs/hr	150-300kgs/hr	300-700kgs/hr	500-1500kgs/hr

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