

# •• EXTRUDER & SPHERONIZER ••

## AXIAL EXTRUDER

Axial extruder is the new extrusion range that builds or the proven Umang technology and its benefits. Similar design of process screws, cams and meshes ensure right size of extrusion from 300 - 1500 microns



### STANDARD FEATURES :

Standard Axial extruder with NON SPILL type GMP feeder and hopper with safety grill.
Various mesh configuration with different perforation area / thickness for product suitability.
System components easily accessible for cleaning and maintenance.
Fully integrated with Allen Bradley controls & touch screen.
Standard set up with 1mm mesh.
Variable speed of extruder (20-100 rpm).
Stainless steel 316 GMP design with high polish finish.

### OPTIONAL FEATURES :

Axial extrusion head with various mesh size (0.3/0.4/0.5/0.6/0.8/1.0/1.2 /insulated / special size)
Jacketed / insulated extrusion chamber.

### THROUGHPUT / OUTPUT :

Model	USSE - 60	UTSE - 70	UTSE - 110	UTSE - 140
Capacity	1 - 10 kgs/hr	20 - 60 kgs/hr	80 - 150 kgs/hr	200 - 400 kgs/hr

## RADIAL EXTRUDER

Radial extruder is the new extrusion range that builds or the proven Umang technology and its benefits. Similar design of process screws, cams and meshes ensure right size of extrusion from 400 - 1500 microns. The design ensures low pressure extrusion for your products.



### STANDARD FEATURES :

Standard Radial extruder with with NON SPILL type GMP feeder and hopper with safety grill.
Various mesh configuration with different perforation area / thickness for product suitability.
System components easily accessible for cleaning and maintenance.
Fully integrated with Allen Bradley controls & touch screen.
Standard set up with 1mm mesh.
Variable speed of extruder (20 - 100 rpm).
Stainless steel 316 GMP design with high polish finish.

### OPTIONAL FEATURES :

Radial extrusion head with various mesh size (0.3/0.4/0.5/0.6/0.8/1.0/1.2 mm / special size)
Jacketed / insulated extrusion chamber

### THROUGHPUT / OUTPUT :

Model	USSE - 60	UTSE - 70	UTSE - 110	UTSE - 140
Capacity	1 - 10 kgs/hr	20 - 60 kgs/hr	80 - 150 kgs/hr	200 - 400 kgs/hr

## CONE EXTRUDER

Cone extruder is the new extrusion range that builds on the proven Umang technology and its benefits. Similar design of process screws, cams and meshes ensure right size of extrusion from 500 - 1500 microns



### STANDARD FEATURES :

Standard Cone extruder with NON SPILL type GMP feeder and hopper with safety grill.
Various mesh configuration with different perforation area for product suitability.
System components easily accessible for cleaning and maintenance.
Fully integrated with Allen Bradley controls & touch screen.
Standard set up with 1mm mesh.
Variable speed of extruder (20-100 rpm).
Stainless steel 316 GMP design with high polish finish.

### OPTIONAL FEATURES :

Cone extrusion head with various mesh size (0.5/0.6/0.8/1.0/1.2 mm / special size)
Jacketed / insulated extrusion chamber.

### THROUGHPUT / OUTPUT :

Model	USSE - 60	UTSE - 70	UTSE - 110	UTSE - 140
Capacity	1 - 10 kgs/hr	20 - 60 kgs/hr	80 - 150 kgs/hr	200 - 400 kgs/hr

## 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.



### STANDARD FEATURES :

Standard Die roller extruder with NON SPILL type GMP feeder and hopper with safety grill.
Various mesh configuration with different perforation area / thickness for product suitability.
System components easily accessible for cleaning and maintenance.
Fully integrated with Allen Bradley controls & touch screen.
Standard set up with 1mm Die roller.
Variable speed of extruder (20-100 rpm).
Stainless steel 316 GMP design with high polish finish.

### OPTIONAL FEATURES :

Various sizes of Die roller (1.0/1.2/1.5/2.0/3.0/5.0/7.5mm / special size).
Jacketed / insulated extrusion chamber. Chilled water through knurling roller.

### THROUGHPUT / OUTPUT :

Model	UDRE - 65	UDRE - 100	UDRE - 130	UDRE - 200
Capacity	0.1 - 15 kgs/hr	60 - 100 kgs/hr	200 - 300 kgs/hr	350 - 500 kgs/hr

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## BASKET EXTRUDER

Basket extruder is the new extruder range that builds on the proven Umang technology and its benefits. Similar design of Pressing blades and meshes ensures that process and validation so there is no difference to the extrusion from machine to machine. This design is the lowest extrusion pressure for your product.



### STANDARD FEATURES :

Standard meshes from 500 - 1500 microns
Bottom driven Blades and gears rotating in counter directions.
System components easily accessible for cleaning and maintenance.
External blade for pushing the material out to a spheronizer or a fluid bed dryer bowl.
Variable speed of extruder (20 - 100 rpm). Standard set up 1mm mesh.
Fully integrated with Allen Bradley controls & touch screen.

### OPTIONAL FEATURES :

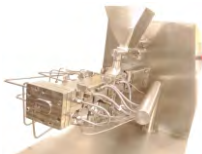
Scrapping attachment for extrudes to be collected at one exit point.
Extrusion various mesh size (0.5 / 0.6 / 0.8 / 1.0 / 1.2 / special size).

### THROUGHPUT / OUTPUT :

Model	UBRE - 75	UTSE - 150	UBRE - 300	UBRE - 450	UBRE - 600
Capacity	1 - 5 kg/hr	10 - 30 kg/hr	100 - 150 kg/hr	300 - 500 kg/hr	1000 - 1200 kg/hr

## HOT MELT EXTRUSION

Hot Melt Extrusion is the new mixer extrusion range that builds on the proven Umang technology and its benefits. Similar design of the twin screws, extrusion die and cutting mechanism in the process and validation, Complete process and product controls are achieved during processing.



### STANDARD FEATURES :

Twin segmented screws and barrels with heating and cooling arrangement till 145 deg. cen.
No seals in direct contact with the product / materials.
Perfect GMP, design, smooth covering, no external tubing and piping allowing easy cleaning.
Twin screw feeder (variable speed), Twin segmented screws (split barrels) with variable speed.
Control by touch screen [21" IP] or by a touch panel control with trends (21 CFR Part 11).
Down stream equipments like cutter and underwater are supplied as per project needs.

### OPTIONAL FEATURES :

Hot and chilled water equipments as per product / customer needs.
Down stream equipments as per customer / project needs.

### THROUGHPUT / OUTPUT :

Model	UHME - 16	UHME - 25	UHME - 40	UHME - 50	UHME - 60
Capacity	0.05 - 2 kg/hr	1 - 5 kg/hr	10 - 40 kg/hr	80 - 100 kg/hr	150 - 200 kg/hr

## MIXER EXTRUDER

Mixer extruder is the unique technology extruder range that builds on the proven Umang technology and its benefits. The machine has rotating sigma blades above and a screw cone extruder below, the blades and screw are carefully coordinated so that solvent based product extrusion can be done in this design due to its unique design.



### STANDARD FEATURES :

Explosion proof design.
System components easily accessible for cleaning and maintenance.
21 CFR part 11 certified controls and measurement of critical parameters.
ADVANCE PROCESS - for easy and automated plant control.
Jacketed / insulated bowl.
Variable speed for screw extruder and Variable speed for twin blade mixers.

### OPTIONAL FEATURES :

Various size of cone mesh size (0.5 / 0.6 / 0.8 / 1.0 / 1.2 mm / special size)
Torque and pressure measurement while extrusion, WIP / CIP of entire system.

### THROUGHPUT / OUTPUT :

Model	UCKM - 30	UCKM - 110	UCKM - 150	UCKM - 300
Capacity	1 - 5 kg/hr	30 - 70 kg/hr	100 - 150 kg/hr	300 - 400 kg/hr

## SPHERODIZER

Spheronizer is the new pelletization range that builds on the proven Umang technology and its benefits. The design of the plate and the chequered plate between the bowl and the chequered plate ensures that process and validation from equipment to equipment, our design ensures 300 micron pellets to be made on our spheronizer.



### STANDARD FEATURES :

Spheronizer with 3.2mm chequered plate and acrylic cover over drum.
Plate and shaft seals not in direct contact with the product.
Perfect GMP, design, smooth covering, no external tubing and piping allowing easy cleaning.
Completely integrated full opening side discharge, perfect discharge of effluent products.
Control by touch screen [21" IP] or by a touch panel control with trends (21 CFR Part 11).
Recording of critical parameters and process data in software.

### OPTIONAL FEATURES :

Jacketed drums for processing temperature sensitive materials.
Various sizes of Chequered plate (1 / 2 / 3.2 / 6.5mm / special sizes).

### THROUGHPUT / OUTPUT :

Model	USPH - 250	USPH - 380	USPH - 500	USPH - 700	USPH - 900
Capacity	0.2 - 1 kg/batch	1 - 3 kg/batch	3 - 7 kg/hr	5 - 15 kg/batch	20 - 40 kg/hr