

# EXTRUDER

## FEATURES

- Live weight increase (as kg)
- Hygienic feed
- Increase the nutritional value and make the digestion easier
- Inhibitors, hurting nutritivity and growth such as trypsin, urease, lipoxidase are blocked
- Molding compatible
- Density can be controlled
- Increases barrel life
- Start up and final reworks are decreased to minimum levels
- Durable interior design
- Easy maintance with the help of modular cartridge
- Spare parts and customer service



LIVESTOCK



POULTRY

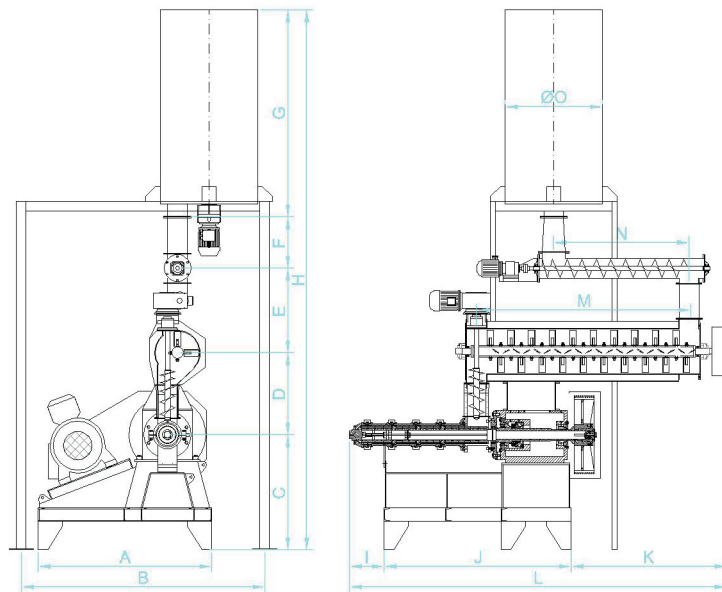
 **YEMMAK**

## EXTRUDER

- Vertical mixer or rotary feeder, scale enabled reserving bin
- Feeding screw
- Conditioner
- Extruder

## AREAS OF USAGE

- Poultry feed
- Bovine, goat and sheep feed
- Some herbal waste



Extrusion is employed for quick and economic way to cook, extrude, sterilize, shape, enlarge and mold nutritional products. Anti-metabolites in the oil bearing seeds are eliminated and their cells are lysed. Extrusion makes the starch compounds in the grains to be easily digestible. It stabilizes herbal and animal based oils.

It recycles some of the animal and vegetable wastes and makes them re-usable as feed additive.

**Wet Extrusion:** Feed which is homogenously blended with steam in the conditioner is being conveyed by screw system in the extruder's body. Pressure is increased by narrowing of the sections and friction. Extra heat can be added depending on preference. Thanks to high pressure and temperature, cooking is in process and the water is boiled. After this process stock material is enlarged and given shape while anti-metabolites are eliminated. Soybeans and meals have a trypsin inhibitor. This inhibitor mitigates the pancreatic trypsin enzyme and this very enzyme helps breaking down of proteins and resolving of amino-acids. Like the similar inhibitors,

its bad effects can be eliminated by cooking. Should the inhibitor is not exterminated, proteins and amino-acids will be of no use; leaving the feed unnutritional. As a result, decline in animal growth will be observable.

**Dry Extrusion:** Without using steam, the grinded material is conveyed through the screw system; pressure is increased via narrowing of sections and friction. Heat is produced in this process. Heat cooks the feed. Anti-metabolites are eliminated, fatty cells are lysed without harming the proteins in this short but effective cooking process. As a result, we reveal the oil compound in the feed. Whenever the free fats leave the extruder, the final produce will have a liquid-like look. For example, soy comes out from the extruder looking like liquid at 145°C (293°F). In a matter of seconds the produce absorbs the oil and oil stays stabilized, in high levels and digestible in the soybean flour.

| MODEL |               | CAPACITY (ton/h) |         | MOTOR (kW) | DIMENSIONS (mm) |      |      |     |     |     |      |      |     |      |      |      |      |      |      |
|-------|---------------|------------------|---------|------------|-----------------|------|------|-----|-----|-----|------|------|-----|------|------|------|------|------|------|
|       |               | DRY              | STEAMED |            | A               | B    | C    | D   | E   | F   | G    | H    | I   | J    | K    | L    | M    | N    | O    |
|       | EXT Ø170x1550 | 3                | 5       | 160        | 1780            | 2500 | 1180 | 850 | 870 | 530 | 2130 | 5560 | 620 | 1920 | 1300 | 4140 | 2200 | 1400 | 1000 |
|       | EXT Ø260x2250 | 4                | 8       | 250        | 1780            | -    | 1100 | 770 | 485 | 225 | -    | -    | -   | -    | -    | 4730 | 2185 | 1000 | -    |

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