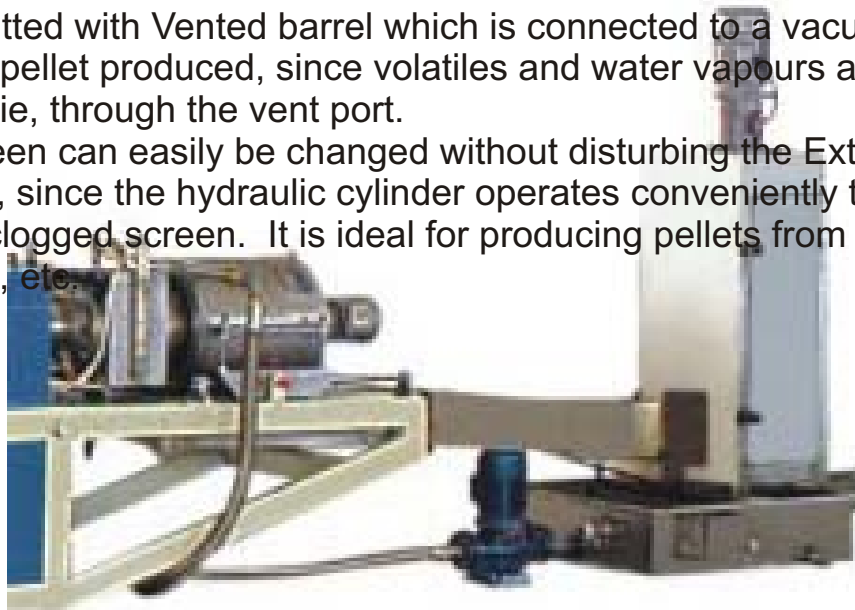


Underwater pelletizer utilises an Extruder for melting the plastic material, and a Die and rotary knife arrangement under water bath to cool and transport the pellets to a pellet dryer which removes water from the pellets which are ready for packing. Pellets produced on underwater pelletizers are recognized by their tear drop shape.

The unit includes Single screw Extruder with Nitrided Screw/Barrel set with suitable AC Motor Drive, Helical Gear Box, Heaters, Hydraulic screen changer, Diverter valve, Pelletizing Die, Rotary Knife cutter, Underwater pelletizer with open water trough and Pellet Dryer with controls.

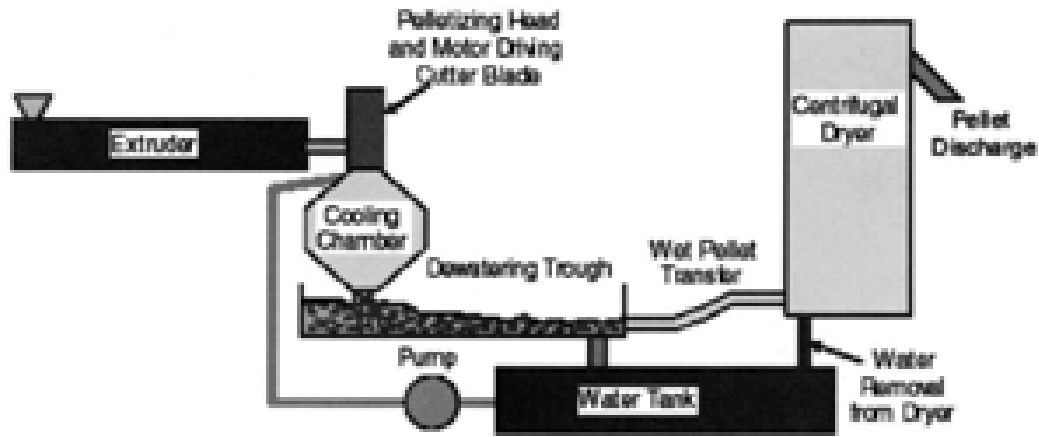
The Extruder is fitted with Vented barrel which is connected to a vacuum pump. This will ensure void-free pellet produced, since volatiles and water vapours are removed from the melt before the die, through the vent port.

The clogged screen can easily be changed without disturbing the Extrusion process or removing the die, since the hydraulic cylinder operates conveniently to load a fresh one by ejecting out the clogged screen. It is ideal for producing pellets from Nylon, Delrin, PC, PP, PS, PE, ABS, etc.



Advantages of Underwater pelletizer:

- Once a die face pelletizer is up and running, the process is self-contained from the entrance to the extruder to the pellets exiting the process.
- There is no possibility of dropping strands or having slow die holes interrupt the operation.
- Product changeover from one product to another is fairly rapid, Purge between items can be removed through the diverter valve at the end of the extruder.
- A tempered water system and dryer can be located away from the extruder, reducing the overall space needed for water baths and pelletizers.
- Minimal maintenance is needed. Preventive maintenance requires blade replacement and bearing lubrication.
- The noise level is low, even at high pelletizing speed.
- Small or large pellet sizes are possible.
- Start-up is simple using the automatic sequencing.
- The system has the flexibility to cut all types of products, ranging from hot melt adhesives to thermoplastics to thermoplastic rubber.



Schematic of Pelletising process using underwater pelletiser

Specification:

	MESS(UP)-90	MESS(UP)-120
1) Screw Diameter	90mm	120
2) Screw L/D	32/1	32/1
3) Main Drive AC	45 kw	75 kw
4) Vent port	single	single
5) Barrel heating app.	35 kw	58 kw
6) Output/hour	250	450
7) Materials processed	PA, PC,PP,ABS,PE,Delrin,etc.	

Underwater Pelletizer:

1) Water pump capacity	2 Hpx250lpm	3 Hpx400lpm
2) Knife drive AC	2 Hp	3 Hp
3) Spin Rotor drive AC	2 HP	3 HP

The output figure depends on material type and processing conditions

Manufacturers:

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