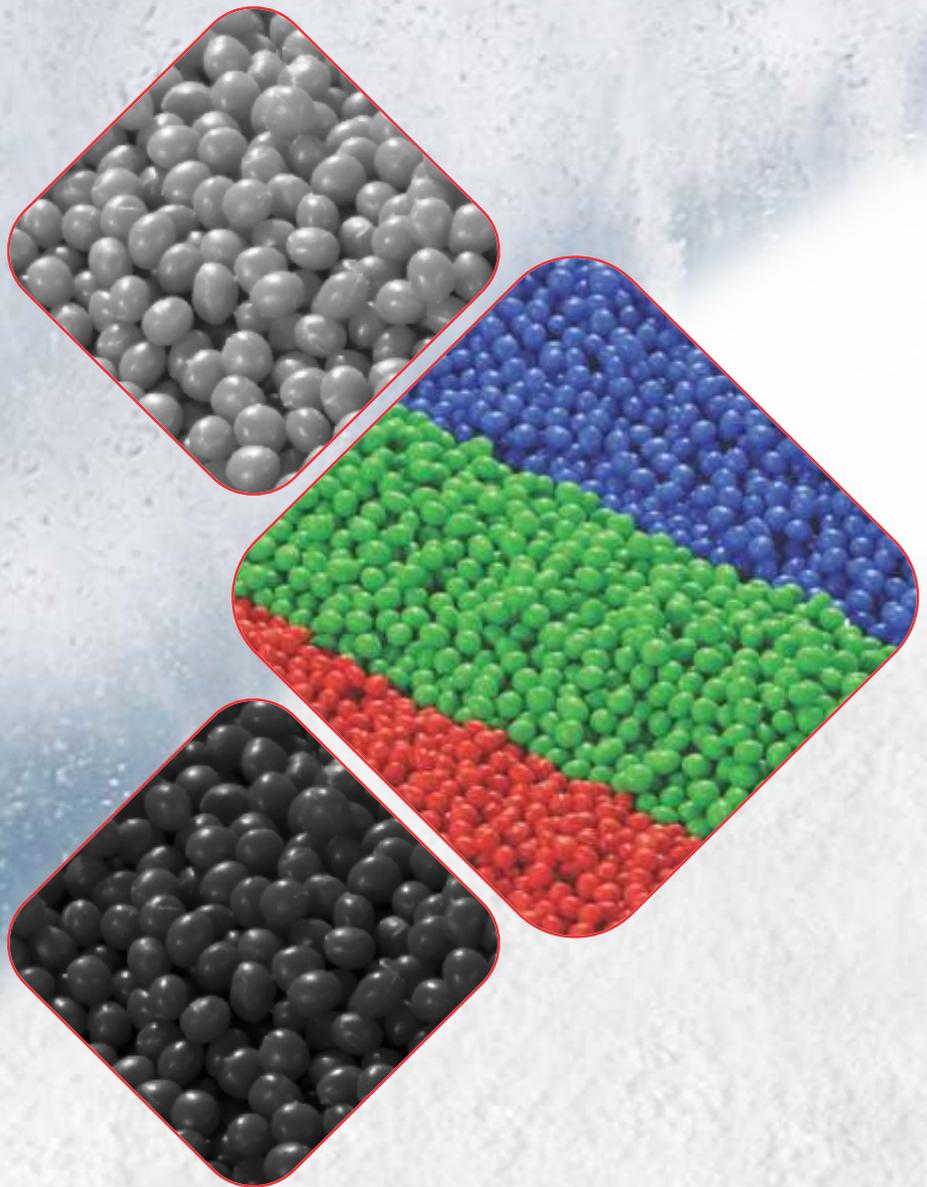


OBSESSED WITH QUALITY
SINCE
1973

UNDERWATER PELLETIZING SYSTEM



neoplast[®]

People you can believe



AN
ISO 9001 : 2000
CERTIFIED COMPANY

www.neoplastindia.com

neoplast ...the art of perfection since 1973

Since 1973, Neoplast is known as the reliable and efficient partner in plastic industry. What started as a small structured family-owned enterprise is now acknowledged as most renowned, reputed and reliable partner for the plastic processing machinery in Global market. Neoplast has won its customers continued trust by always providing them with a "perfect solution to their specific requirements", and this has helped Neoplast to emerge as a market leader.

At Neoplast quality and innovation is a way of life and thus the R&D is given a much due importance. The company has a dedicated team of professionals that has been instrumental in this success. However, it is Neoplast's customers, who have the greatest share in its success. Their trust in getting the perfect solution for their specific requirements and their confidence in Neoplast's state-of-the-art technology has made Neoplast what it is today.

Last but not the least...Neoplast is committed to work towards its goal, that of attaining global leadership in the manufacturing of machinery and equipment for the plastic industry.



Why Underwater Pelletizer !!

In strand pelletizing system, the pellets are not consistent in dimensions and having inclination to carry moisture. The process wastage is also very high.

In water ring pelletizing system, the material tends to smear over the die plate and cutting blades, due to dry cutting at the die face.

In underwater pelletizing system, the molten polymer emerges from the die holes is cut into pellets by the rotating blades under water of controlled temperature. Hence, the cut pellets are immediately quenched and gets solidified. In turn, water transports the pellets to a centrifugal dryer where pellets are dried and discharged to classifier.

The process water coming out from the drier is passed through the fines removal sieve to make the system free from impurities. The process water is circulated in a closed loop, so there is minimum water loss and very little housekeeping involved.

Spring Loaded Pelletizer



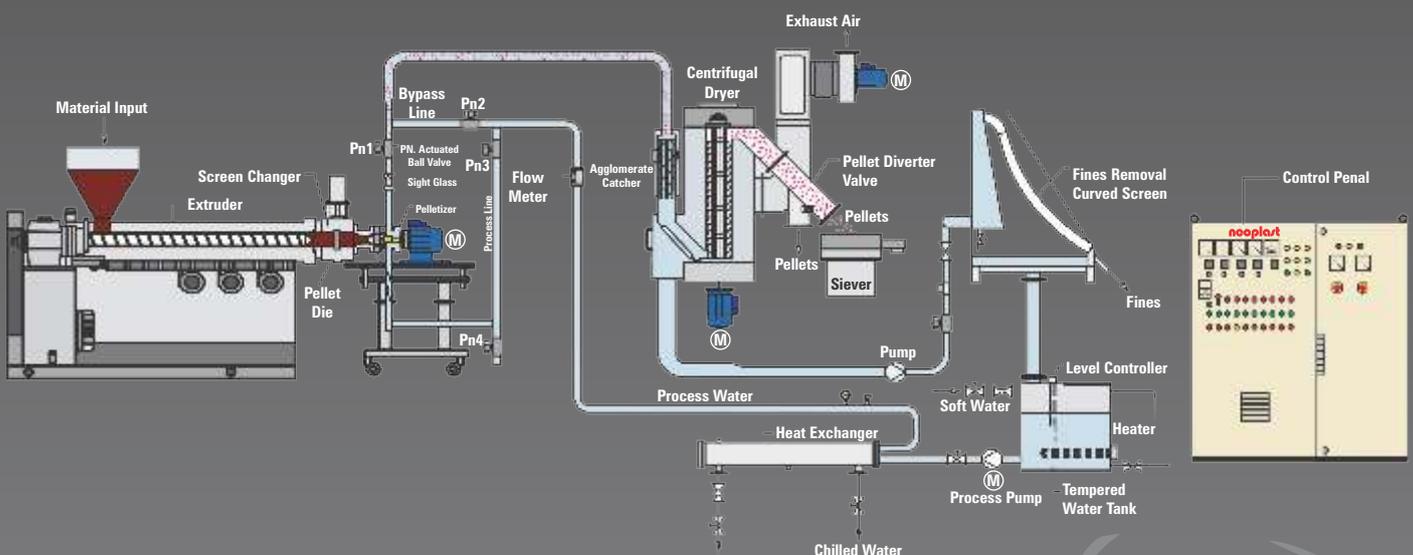
- Neoplast's pelletizer is designed with a spring-loaded cutter to adjust blades against the die face.
- Different springs are provided in order to properly match blade, die and polymer combinations.
- The blades are made from special steel.
- Hardness of the blade is 45-50 HRC.
- The Cutter Blade RPM can be 100 to 3600, controlled through AC Variable Frequency Drive.
- Die and cutter blades are provided with specially treated material to ensure long life.
- All water contact parts made from SS 304 to ensure corrosion and contamination free end products.
- Ideal horizontal melt flow ensures no dead areas & simple access to die plate and cutter hub, so replacement is possible with lowest down time.
- The proven design of pelletizer guarantees the best quality of pellets, lowest energy cost and easy maintenance.

Centrifugal Dryer

- The centrifugal dryer is provided with agglomerate catcher, exhaust blower & diverter valves.
- A counter airflow current generated by an external fan removes residual surface moisture and produces slight vacuum to prevent humid air from pellets. The residual surface moisture would be 0.05 PPM or less by virtue of specially developed design of dryer.
- Rotor is dynamically balanced and hence vibration free performance.
- All water contact parts are made from SS 304.
- All process valves are pneumatically actuated and hence ease of operation.
- Hinged doors, leak proof screens, pellet free rotor, and precisely fabricated components are some of the standard features.
- An agglomerate catcher is included to remove oversized lumps of polymer before they enter the dryer.
- Agglomerates fall into the fines removal waste tray from the slurry inlet.

Fines Removal Sieve (FRS)

- Fines Removal Sieve is included for collection and disposal of fines during process.
- The FRS remove all the fine particles higher than 0.15 mm in size. Neat & clean way of collecting fines & impurities from process water.
- The Contaminated with particles is first collected into a collection chamber and then flows evenly on the curved screen.
- The fines are separated and collected.



Tempered Water System (TWS)

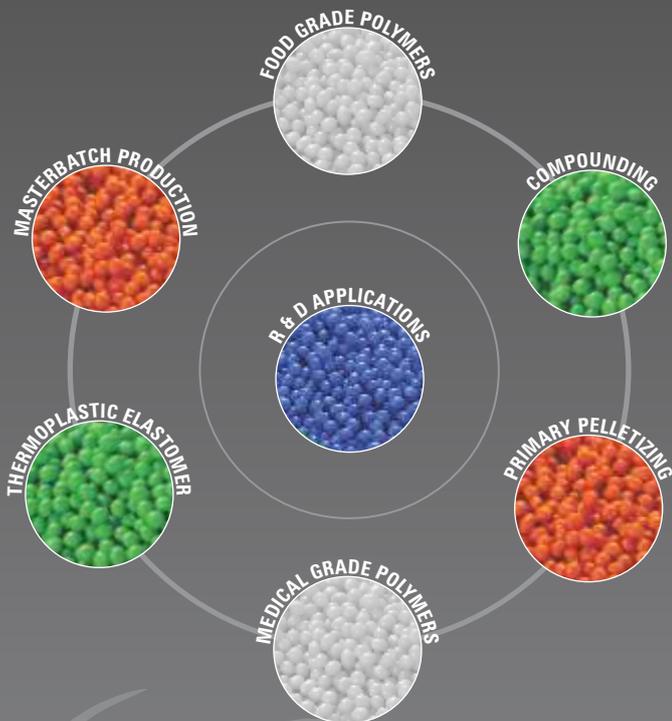


- The Tempered Water System is the internal conveying system of the pelletizing process and consists of centrifugal dryer, agglomerate catcher, water tank with heater, heat exchanger and exhaust fan.
- Heat exchanger of adequate capacity with automatic control enables a constant and desired process water temperature.
- SS water tank with heater & temperature controller.
- Automatic water level controller with solenoid valve.
- Digital flow meter is also incorporated.
- TWS system is supplied with by-pass line to avoid freezing of die.
- All process ball valves incorporated in the system are pneumatically actuated & controlled by PLC.

Advantages of Underwater Pelletizing System

- Suitable for Polymers like LDPE, XLPE, PP, TPE, Pa6, Pa66, PS, PVC, Engineering Plastics, Filled Materials etc.
- Underwater Pelletizers are Designed to Produce Pellets from a wide Range of Thermoplastics and Elastomers, Partially Filled Plastics, Virgin Resins, Low Viscous Polymers, Hot Melt etc.
- Moisture Content Would be as Low as 0.05 PPM or Less.
- Uniform Pellets of 2mm To 3.8mm with Smooth Surface.
- Fully Automatic and Close Loop System.
- Thermoplastic melt is cut under the water in Semi-Molten Condition.
- Simple Startup-Our System Starts just by Push of a single button.
- Low Tooling Cost, Variable Tool Speed & Automatic Tool Readjustment.
- Low Scrap due to Automation & Clean Operation.
- Low Noise.

Applications



Sr. No.	Model	Connected Load (kW)	Output capacity (Kg/Hr)
1	NLC - 06	22	upto 250
2	NLC - 10	30	upto 600
3	NLC - 12	42	upto 1500

- Specifications are indicative and as a part of our continuous R & D, we reserve right to change specification without prior notice.
- For Customised application the specifications can be altered.
- Output depends on type of polymer, processing technique or ambient conditions.

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