

PELLETIZING SYSTEMS >

> UNDERWATER PELLETIZING



PURO®

Tempered Process Water Systems



PURO® is an efficient water system technology for any application. The energy-efficient compact systems require minimal space and are suitable for use with both PEARLO® underwater pelletizing systems, M-USG and P-USG underwater strand pelletizing systems. Well thought-out and highly accessible components serve to provide excellent operating characteristics and efficient servicing.

Your benefits

- Compact and modular design
- High flexibility
- Easy access and ease of cleaning
- Small footprint
- Low noise emissions
- Thermal insulation available
- Low energy consumption
- Brought product range
- Closed loop system
- Several filtration options

Functioning of the PURO® water systems:

The PURO® tempered water systems are an integral part of a pelletizing system. They convey and cool pellets from the pelletizer cutting chamber to the resin outlet of the centrifugal dryer. The PURO® is a closed loop system. The individual components relevant for the process are selected according to the specific application requirements. PURO® tempered water systems are typically used in pelletizing process at rates up to 42.000 kg/h.

Technical data

PURO®	Pellet rate [kg/h]	Water flow rate [m³/h]
LPU	70	9
10	500	15
20	1,000 - 1,500	20
30	2,200	30
40	2,500	40
50	3,300	50
70	4,000 - 6,000	70
100	8,000 - 12,000	100
120	10,000 - 18,000	120
140	12,000 - 22,000	140
200	15,000 - 25,000	200
260	18,000 - 26,000	260
350	22,000 - 30,000	350
500	36,000 - 42,000	500

PURO® Featuring:

- Field proved design
- Compact and modular design
- Small footprint
- Easy to clean and use
- Low noise emission
- Low energy consumption
- Closed loop water system
- Insulated tank
- Centrifugal dryer CYCLO® integrable
- Other dryers possible
- Various water filtrations
- Continuous band filtration (CBF) integrable

Range of applications

The PURO® water systems are well-suited for the processing of raw materials as well as for the manufacture of compounds, blends, masterbatches, and recyclates based on:

- Polyolefins, e.g. LDPE, HDPE, PP
 - Styrene polymers, e.g. PS, SAN, ABS
 - Acrylic resins, e.g. PMMA, PAN
 - Polyacetals, e.g. POM
 - Polycarbonates, e.g. PC
 - Polyesters, e.g. PET, PBT, PEN
 - Polyamides, e.g. PA 6, PA 6.6, PA 11, PA 12
 - Thermoplastic elastomers, e.g. TPE-S, TPE-E
 - Polyurethanes, e.g. TPU
 - Hot-melt adhesives
 - Rubber
 - Natural and synthetic resins
 - Biopolymers, e.g. PLA, PHA, Bio-PA, Bio-PET, Bio-PP
- Other plastics available upon request



Clean process water is the key to eliminate any contamination of processed materials as well as machine components. Thus it is ensured, that the pellets can be packed in most cases dust free. As a standard the IS (Integrated Sieve) solution, a static water filtration, is installed into all PURO® process water tanks. PURO® uses the integrated water filtration solutions known for functionality which offer a high degree of process stability. This is especially resulted by the fact, that the complete water flow is filtered.

With the installation of the continuous band filter CBF, the operator does not have to monitor the system anymore. The advance of the filter media is continuous and does not need any activation in order to catch fines larger than 150 µm. The process water contamination is in most cases eliminated. The fines are continuously separated from the process water and collected in a mud cart.

