Tempered Water Systems

Support

Supported by 24-hour Service Worldwide!

Technical Support:
Gala has earned its reputation for providing prompt, dependable service – before, during and after the sale. The mobile phone number of every technician is published on our website so they are available 24 hours a day. Every customer call is handled with priority.

Training:
Customers are able to order classroom and hands-on training for operators and maintenance personnel on all of our Gala-manufactured equipment, either at the customer’s facility or at Gala’s Technical Center.

Technical Centers:
Gala’s technical centers are available to customers who wish to evaluate the suitability of a Gala System for purchase, for assistance in product development, R&D, or for product market sampling.

Your Benefits

- Automated start-up & shutdown
- Redundant safety interlocks
- Operator comfort (sized for face protection)
- Clean operation with easy access
- Energy efficient circulation
- Efficient close loop filtered water system
- Low noise
- Suitable for various polymers
- Minimal floor space
- Minimal water consumption
- Low production costs

 CONTINUOUS BAND FILTRATION (CBF)

Gala’s Continuous Band Filtration (CBF) system is designed as a retrofit for the pellet production line where there are fines created regularly on some products and operator attendance would normally be required to clean the Gala’s (Integrated) sieve drawer frequently during production. After installation of the CBF, the operator does not need to monitor the system. The advance of the filter media is continuous and needs no activation to catch fines larger than 150 μm. Process water contamination is eliminated in most cases. The fines are continuously separated from the process water and collected in a mud cart.

Quick Spots:
- Quick and easy access for cleaning
- Fully enclosed system
- No hidden corner areas
- Integrated filtration
- Minimum floor space

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**TEMPERED WATER SYSTEMS**

**Function and Application**

INDUSTRIAL SYSTEM AND DRYING TECHNOLOGY – These modern water systems were upgraded especially for compounds and raw materials of customers performing frequent product changes. As polymers produced during the cutting or drying processes are filtered out, eliminating the need to change the process water after product or color change in most cases. This saves resources and energy consumption, reduces cleaning time and heat-up time for fresh process water.

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**The Tempered Water System**

(TWS) is the internal conveying system of the Gala underwater pelletizing system at rates up to 15,000 kg/h. The capacity of the TWS depends on the production volume and the product to be pelletized. Gala’s tempered water systems are typically used with the Gala pelletizing systems, but are also available for high-capacity pelletizing systems. Temperature, water flow rate and residence time of the pellets in the process water are the key factors for defining the TWS. The tempered water system is a compact unit including the following main components:

- Agglomerate catcher
- Centrifugal dryer
- Exchanger
- Water tank with heater and integrated sieve (IS) filtration
- Pump
- Heat exchanger

**Optional integration is possible for:**
- Continuous Band Filteration (CBF)
- Fines Removal Sieve (FRS)
- Dynamic Fines Removal Sieve (DFRS)
- Pellet Diverter Valve (PDV)

**Quick Specs:**
- Easy access for cleaning
- Fully enclosed system
- No hidden corner areas
- Pressure loss independent filtration method
- Integrated sieve (IS) design water filtration is standard
- Integrated secondary filter to collect fines during fines removal

**The Tempered Water System is a compact unit including the following main components:**

**Different systems to meet any challenge**

**MESIS® TEMPERED WATER SYSTEM**

For pellet rates up to 500 kg/h. The innovative MESIS™ is the first system specifically designed to permit fast product changes in masterbatch and compounding applications. This system is suitable for throughput up to 500 kg/h and is characterized by the easy access and simple cleaning of all system components.

The dryer is designed to be raised and rotated to the side for efficient cleaning using an electromechanically operated lifting design. This allows simple and easy removal of the dryer housing and one-piece screen, which exposes the rotor for easy cleaning. A filter removal valve is integrated in the system.

A high-efficiency blower is installed on the system to provide sufficient air flow for pellet drying. The dryer base section is lifted out of the two tanks (for quick, easy access for cleaning and service by simply raising the lid).

The MESIS System uses an easy-to-clean integrated sieve for water filtration with a 300 μm filter material, while the MESIS/DFRS System uses a band filter for fines removal down to 20 μm. Both systems have flat stainless steel designs with U-shaped bottom for easy cleaning. An agglomerate catcher is included to remove oversized clumps of polymer before they enter the dryer. Agglomerates fall into the fines waste tray from the dryer inlet.

- Easy to clean
- Energy efficient
- Compact, low space required
- Low maintenance
- Low production costs

**Dynamic Fines Removal Sieve (DFRS)**

Gala has developed dynamic fines removal for continuous cleansing of the entire water flow, removing particles down to 0.14 mm from the process water. Clean process water prevents product contamination and blockage of important line components. The fines are automatically separated from the water flow and are collected in a container outside the water tank. Water dripping from the container is recycled into the process by actuating a valve, the collecting screen can be bypassed in the process. The process water is then directly conveyed into the tank in the traditional way, safety, continuity and environmental (low-temperature protection during production) are key considerations driving the development of the DFRS. The system is suitable for a large variety of applications and can be fitted or retrofitted as a module for small but demanding pelletizing systems with low water volumes as well as for lines with the largest production rates and water volumes.

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