

# **FLOQUIP**<sup>®</sup>

## Polymer Preparation and Feed Systems

Maximize Efficiency with Custom-Engineered Solutions







www.floquipinc.com

#### SNF THE WORLD'S BEST POLYMER AND EQUIPMENT

SNF FLOQUIP® is the global engineering and equipment division of SNF. SNF is not only the world's leading manufacturer of water-soluble polymers, but also the provider of top-of-the-line related engineering, equipment, and support services. FLOQUIP supports SNF's core polymer manufacturing, sales, and marketing objectives. That service and support centers around SNF's world-class manufacturing of organic coagulants and polyacrylamide (PAM) based flocculants used in a variety of industrial applications. FLOQUIP is committed to being the industry leader in the design, fabrication, and installation of polymer storage, makedown, feed, and dosage control equipment. FLOQUIP supplies standard, as well as custom-built systems to supplement our powder, emulsion, solution, and mannich-grade polymers.

and salkant

With more than 50 years of engineering experience in virtually every market that demands polymer, it is FLOQUIP's goal to incorporate that experience and applications expertise into every system we offer. Our equipment is designed and manufactured by our in-house engineers and technicians to meet the important needs of our customers while satisfying critical regulatory, mechanical, electrical, product, and performance requirements.

# **FLOQUIP® PROVIDES:**

#### **ENGINEERING AND DESIGN**

FLOQUIP's staff has many years of polymer preparation expertise. We understand all aspects of polymer applications, from bulk storage through polymer application. Standard equipment is designed to meet the majority of application needs using your chemicals. We can provide site surveys, design engineering, and CAD drawing support for custom systems as well.







#### FABRICATION AND ASSEMBLY

Each system component is selected only after extensive field testing. The result is the most durable, efficient, and easily-operated system for your application. All systems are fabricated and assembled at our 160,000 square foot facility in Midway, GA.

#### **TECHNICAL SERVICE AND FIELD SUPPORT**

FLOQUIP provides in-house or field training for the operation and maintenance of each piece of equipment. All system components in our inventory are ready for immediate shipment. Contract technical field support is available. Each FLOQUIP dry polymer preparation system features simplicity and low maintenance. We incorporate our experience into every one of these designs.

FLOQUIP's D Series dry polymer systems readily store, convey, and hydrate dry powder and bead-grade polymers for the creation of "fish-eye-free" solutions used in a variety of treatment applications. These systems can accommodate bags of dry polymer that range between 55 and 1,800 lbs. A volumetric feeder is used to meter the dry polymer into the polymer wetting assembly, where the proper proportion of water and polymer is mixed to a preset concentration. This mixing allows the polymer to begin to hydrate. The solution is discharged into a mixing and aging tank batching system (with level controls) to complete the hydration before injection of the polymer solution into the treatment stream.

The DH-300 series has a 300 lb. hopper for smaller applications with customers that require 55 lb. bags. For larger applications, FLOQUIP offers two different DB series units: The DBF unit has a bulk bag support frame that requires a forklift for bulk bag movement and placement. The DBH unit is similar to the DBF but includes an integral hoist and gantry assembly for bulk bag movement and placement.

# THE D SERIES

MAKEDOWN SYSTEMS



#### **SPECIFICATIONS**

	MODEL DH-300	MODEL DBF	MODEL DBH
Dry Polymer Storage	300 lbs.	1,200-1,800 lbs.	1,200-1,800 lbs.
Polymer Package	55 lb. bags	Bulk bags	Bulk bags
Max. Water Flow	100 gpm	100 gpm	100 gpm
Inlet Size	1.50 in. NPT	1.50 in. NPT	1.50 in. NPT
Outlet Size	2.00 in. NPT	2.00 in. NPT	2.00 in. NPT
Dimensions	48″L X 48″W X 53″H	60″L X 60″W X 132″H	60″L X 60″W X 174″H
Weight	450 lbs.	1,370 lbs.	2,020 lbs.









**MODEL DBH** 

#### **FEATURES**

- Simple installation and operation
- Dust-free polymer wetting assembly
- Low water flow protection
- Manual and automatic operation
- Automatic rinse cycle
- Water booster pump (optional)
- Touchscreen controller
- Pneumatic ball valve
- Air compressor

#### UTILITY REQUIREMENTS

- Water: 60-100 gpm and 40-70 psi
- Power: 480 VAC / 3 phase / 60 Hz\*
- Air: 80 psi / 30 scfm

\*Non-standard power requirements available upon request.



### THE EA SERIES EMULSION POLYMER MAKEDOWN SYSTEMS

The EA Series systems readily invert and hydrate liquid emulsion-grade polymers for a variety of treatment applications. Consistent pre-set polymer solution concentrations are created using a programmable controller. Adjustments are made automatically to the speed of the neat polymer progressive cavity pump to match the flowrate of the incoming water. Rapid, multi-staged mixing is applied to facilitate activation of the polymer in the water solution. The resulting solution is transferred to a holding/aging tank (with level controls) before injection into the treatment stream, or it can be fed directly from the EA system.

The EA Series offers three models, depending upon process requirements. Each model varies based on the neat polymer and water flowrates available.

#### **SPECIFICATIONS**

	MODEL EA-70	MODEL EA-110	MODEL EA-200
Max. Neat Polymer Flow	0.70 gpm	1.10 gpm	2.00 gpm
Inlet Size	1.00 in.	1.00 in.	1.00 in.
Max. Water Flow	70 gpm	110 gpm	200 gpm
Inlet Size	1.50 in.	2.00 in.	2.00 in.
Max. Solution Flow	70 gpm	110 gpm	200 gpm
Outlet Size	1.50 in.	2.00 in.	2.00 in.
Dimensions	42″L X 36″W X 52″H	42″L X 36″W X 52″H	42″L X 36″W X 52″H
Weight	400 lbs.	430 lbs.	450 lbs.

#### **FEATURES**

- Simple installation and operation
- Self-cleaning check valve
- Low water flow protection
- Manual and automatic operation
- Included, neat polymer calibration cylinder

#### UTILITY REQUIREMENTS

- Water: 70-200 gpm and > 30 psi
- Power: 480 VAC / 3 phase / 60 Hz

## THE EM SERIES EMULSION POLYMER MAKEDOWN SYSTEMS



The EM Series systems feature a more lower-cost, simplified emulsion makedown system. Although the two EM Series models are similar in function to the EA Series, they do not include a PLC for automatic polymer solution concentration control.

The EM Series systems readily invert and hydrate liquid emulsion-grade polymers for a variety of treatment applications – all in simple and economical designs. A variable-speed progressive cavity pump is used to meter the neat polymer through a self-cleaning check valve. Static mixing then blends the polymer and primary dilution water together. The resulting solution is transferred to a holding/aging tank (with level controls) before injection into the treatment stream, or it can be fed directly from the EM system.

The EM Series offers two models, depending upon process requirements. Each model varies based on the neat polymer and water flowrates available.

#### **SPECIFICATIONS**

	MODEL EM-10	MODEL EM-30
Max. Neat Polymer Flow	0.10 gpm	0.70 gpm
Inlet Size	1.00 in.	1.00 in.
Max. Water Flow	10 gpm	30 gpm
Inlet Size	0.50 in.	1.00 in.
Max. Solution Flow	10 gpm	30 gpm
Outlet Size	0.50 in.	1.00 in.
Dimensions	32″L X 17″W X 30″H	32″L X 17″W X 30″H
Weight	93 lbs.	93 lbs.

#### **FEATURES**

- Simple installation and operation
- Self-cleaning check valve
- Low water flow protection
- Manual and batch operation
- Included, neat polymer calibration cylinder
- Optional post-dilution assembly

#### UTILITY REQUIREMENTS

- Water: 1-30 gpm and >30 psi
- Power: 120 VAC



# POLYMER INJECTION UNIT

For small or remote applications, FLOQUIP has designed the POLY DOLLY Polymer Injection Unit. Emulsions or solution-grade PAM products can be readily and consistently made down by the POLY DOLLY unit. It is also portable and capable of being used at various locations.

The POLY DOLLY has found use in different applications ranging from turf and crop irrigation to pilot-scale water or wastewater treatment. These units are:

- Lightweight and portable
- Reliable and cost-effective
- Capable of creating PAM solutions from 0.1 – 1.0%, at max. injection rate of 12 gpm
- Ruggedly constructed of stainless steel
- Equipped to operate with conventional 110, 220, or 480 VAC power
- Easy to set up, calibrate, and operate

Please contact your SNF Sales or FLOQUIP representative today to help determine the best engineering and equipment solution for your needs.

SNF FLOQUIP® 548 Industrial Boulevard Midway, GA 31320

Phone: 912.884.3366 Email: contact@floquipinc.com www.floquipinc.com

### **CORPORATE LOCATIONS**

SNF Holding Company 1 Chemical Plant Road Riceboro, GA 31323 Phone: 912.884.3366 Fax: 912.884.5031 www.snf.us



#### **SNF SAS**

ZAC de Milieux 42163 Andrézieux Cedex FRANCE Tel: + 33 (0)4 77 36 86 00 Fax: + 33 (0)4 77 36 86 96 www.snf-group.com

© SNF Holding Company 2015 1115