Nalco Hybrid Polymer Feeder

Features

- Top performance, high reliability, easy operation and simple installation
- Ratio and flow control of water and polymer ensure accuracy and precision
- Optimum polymer make down without using failure prone motorized mixing chambers
- Rugged stainless steel construction for long-lasting, reliable operation
- Simplex, duplex and triplex configurations available in multiple flow ranges

Description

Nalco’s Hybrid Polymer Feeder is designed to blend neat polymers with dilution water using an innovative mixing system whereby a high activity homogenous solution is created and ready for injection into a process. This unique make down technology has no moving parts. Thus, only minimal maintenance is required. These are robust systems that are easy to use and resist fouling. Ample access to major components and critically placed pipe unions make this feeder truly maintenance-friendly. The vertical design makes for a smaller footprint.

An easy-to-use Human-Machine-Interface, or HMI, connects the operator to system information and allows for on-the-fly adjustments of total solution feed, chemistry feed, and solution concentration.

The polymer feed rate, the overall solution feed rate, as well as the solution concentration can be controlled via the HMI. In addition, the polymer feed rate can be adjusted manually or controlled remotely using a 4-20 mA signal. For instance, a solution concentration of 0.5% can be set in the HMI while the overall polymer flow can be controlled by a remote 4-20 mA from the plant DCS based on their process variables. The feed system will automatically adjust the water flow to maintain the 0.5% solution to match the variable polymer flow. There is a water bypass valve that allows you to manually adjust the % solution mixed vs. the % solution feed, allowing you to both mix and feed at the appropriate ratios.

Operation

The Hybrid Polymer Feeder operates by injecting neat polymer into a water stream flowing through a hydro-kinetic tee and static mixer. High-pressure water passing through the tee creates the turbulence needed to disperse and mix the polymer. The solution then passes through a static mixer. This simple yet very effective system produces high activity polymer solutions without the agglomerations often created in competitive feeders. Mixers have been sized to achieve optimum energy at each specified solution flow. The solution can also be further diluted prior to injection, if needed.
Support

If you have any questions, please contact your Nalco representative. In North America, you can contact the Nalco Global Equipment Solutions Help Desk at 1-800-323-8483.

To Order

Contact your local Nalco Sales Engineer.

Components

Key components of the system include:

- Programmable logic controller*
- Human-Machine-Interface*
- Netzsch neat chemical pump(s)**
- Hydro-kinetic mixing tee
- 12 element static mixer
- Mass flow meter for polymer flow*
- Magnetic flow meter for water flow
- Proportional water flow valve
- Water bypass valve

*Manual versions also available
** Seepepx option available on request

Specifications & Part Numbers

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System Requirements

- Electrical Supply: 460 VAC, 3 Ø, 60 Hz, 35 A
- Water Supply Pressure: 50 psi

Plumbing Connections

- Polymer Inlet: 1” FNPT
- Water Inlet: 1/2” FNPT
- Solution Outlet: 3/4” FNPT

Accessories

Water Booster Pump (Optional)

- 6017079: 5 gpm Booster Pump Package, 75 psi boost
- 6017080: 10 gpm Booster Pump Package, 75 psi boost
- 6018620: 30 gpm Booster Pump Package, 80 psi boost

Basket Strainers (Optional)

- 6015593: 1” Simplex Basket Strainer with 40 Mesh SS Basket
- 6015639: 1-1/2” Simplex Basket Strainer with 40 Mesh SS Basket
- 6015620: 2” Simplex Basket Strainer with 40 Mesh SS Basket
- 6015626: 1” Duplex Basket Strainer with 40 Mesh SS Basket
- 6015630: 2” Duplex Basket Strainer with 40 Mesh SS Basket
Figure 3 — 10 GPM Simplex Feeder
Figure 4 — 10 GPM Duplex Feeder

(OPTIONAL)
P1-P2
PUMP DETAILS:
SEEPEX PUMP MODEL # TBA
0.55 LPM @ 100 PSI @ TBA RPM

P1-P2
PUMP DETAILS:
NETZSCH MODEL NM0088Y93512B
0.56 LPM @ 100 PSI @ 600RPM

MAG FLOWMETER DETAILS:
IFM MODEL SM6001
RANGE: 0–6.6 GPM, 4–20mA

MASS FLOWMETER DETAILS:
E&H #33E08-2PL 8/70
RANGE: 0–150 ml/min