

PolyBlend® DP2000 Dry / Liquid Polymer Feed System

Product Sheet

SIEMENS

The PolyBlend® DP2000 is a member of the family of reliable dry polymer feed systems for use in water and wastewater applications. The DP2000 is an integrated equipment package capable of automatically preparing a homogeneous polymer solution.

The DP2000 consists of the DD4 dry polymer disperser, and two stainless steel mix tanks, operating in an alternate sequence.

The DP2000 is specifically designed to provide uniform mixing. Dry polymer and water are initially mixed in the DD4 polymer disperser exposing the solution to a high shear agitation via mechanical mixing. The high shear agitation ensures proper activation of the polymer and prevents unwanted agglomerations. After brief exposure, the solution exits the high shear mixer and flows into the mix tanks.

The second stage mix is a longer, low shear mix. The rotating impeller in the secondary mix tank is a patented "hollow-wing" design and covers over half the width of the tank. The low shear mixing continuously and uniformly moves the solution vertically and horizontally resulting in no agglomerations or broken polymer chains.

When a low level is sensed in one of the mix tanks, a three-way valve directs flow to the empty tank and the empty tank discharge valve closes simultaneously to isolate the empty tank from the polymer solution

The DD4 disperser begins a makedown sequence and fills the empty tank. After the tank fill and mixing sequence is complete and the alternate tank reaches low level, the full tank discharge valve is opened and flow is directed to the polymer solution feed pumps. The three-way valve then directs flow

to the empty tank, the discharge valve on the empty tank closes and the sequence repeats.

The DP2000 is controlled through an easy-to-use microprocessor-based operator interface. The LCD display enables complete operation of all functions including component status, timers, counters, etc.

Specifications

Electrical	480VAC/ 50-60 Hz/ 3 Ph 575VAC/ 50-60 Hz/ 3 Ph
Water Supply	30 GPM (113.6 LPM)
Tank Size	750 USG (2839.1 L)
*Polymer Feed	Up to 31lbs (14.1 kg)/hr dry polymer based on a 0.5% solution
Control Panel	NEMA 4X PLC Based
Options	See Back

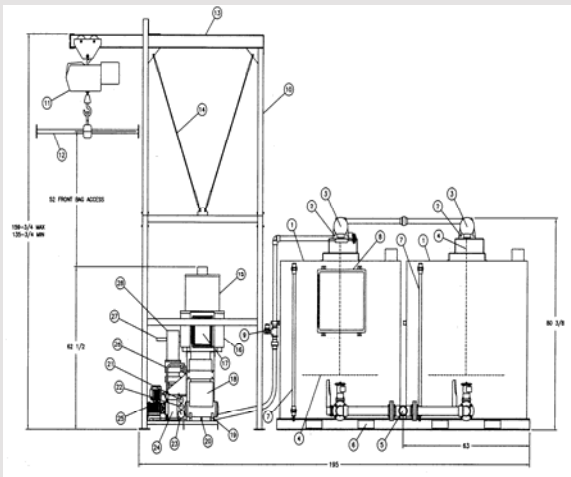
***Note:** Consult Siemens Water Technologies with regards to dosing amount and your application.



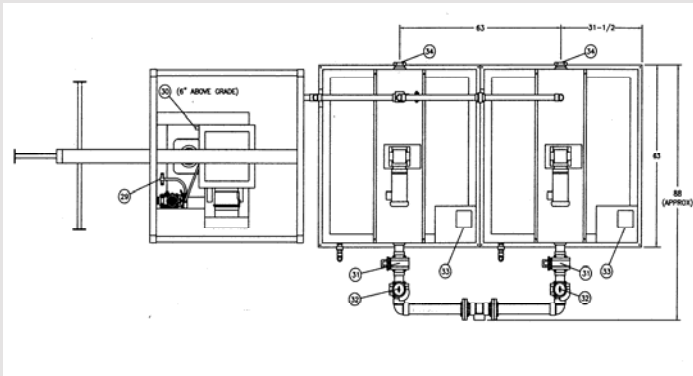
Benefits of the PolyBlend® DP2000:

- Reliable Performance
- Field Proven
- Reduced Polymer Consumption
- Fully Automated Operation
- Operator Interface Controls
- Improved Safety Features
- Easy to Operate

General Layout



Front View



Top View

NOTE: Drawings are shown with optional liquid polymer pump and 2.5 cu/ft (0.07 cu/m) hopper. Contact Siemens Water Technologies to select proper options to meet your process requirements.

Available Options

- Diaphragm Metering Pump
- Progressing Cavity Metering Pump
- Batch Tanks/ Single or Tandem
- Integral Compressor
- 2.5 ft³ (0.07 m³) Hopper
- 20 ft³ (0.57 m³) Hopper
- Bulk Bag Frame
- Bulk Bag Frame with Hoist
- Bag Dump Hopper
- Low Powder Level Indication
- Supply Water Pressure Reducing Valve
- Final Feed Pumps
- Final Feed Post Dilution
- Large Hold Tanks
- Transfer Pumps

Key	Description	Material
1	Mix Tank, 750 USG (2839.1 L)	304 SS
2	Speed Reducer, Worm Gear, 30:1	
3	Motor-Tank Mixer, 2.0HP, 1725 RPM, TEFC	
4	Impeller—Mix Tank, 60 RPM	
5	Tank Discharge, 3" NPT (76.2mm)	
6	Fork Truck Cutout	
7	Sight Tube, Level Indication	Clear PVC
8	System Control Panel	
9	Solution Inlet, Backflow Drain, 1/2" NPT (12.7mm)	
10	Bulk Bag Frame	
11	Hoist Motor/Trolley	
12	Bag Holder	
13	Mono Rail	
14	Structure Cable	
15	Hopper w/Collar	
16	Powder Feeder	
17	Junction Box, Interconnections	
18	Air Compressor w/Tank	
19	Solution Discharge, Wetting Device, 1-1/2" NPT (38.1mm)	
20	Condensate Drain	
21	Pressure Gauge, Compressed Air	
22	Pressure Gauge—Supply Water	
23	Pressure Gauge—Differential Water	
24	Motor—Impeller, 1.0 HP, 3450 RPM	
25	Pump, (Diaphragm)	
26	Wetting Impeller Housing	316 SS
27	Pneumatic Cylinder, Isolation Plunger Actuator	316 SS
28	Wetting Bowl	Acrylic
29	Emulsion Polymer Inlet, 1/2" NPT (Optional) (12.7mm)	
30	Supply Water Inlet, 1-1/2" NPT (38.1)	
31	Shutoff Valve, (Manual)	
32	Valve, Pneumatic Ball, Supply Water	
33	Level Control, Switch Assembly	
34	Tank Drain, 3" (F) NPT (76.2mm), (Capped)	
35	Flow Control Valve, Water Supply	

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The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of the contract.

Siemens
 Water Technologies
 595 Industrial Drive
 Bradley, IL 60915, USA
 800.809.0971 phone
 www.usfilter.com
 stranco.water@siemens.com

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