

HYDRAMAX

DRY POLYMER WETTING TECHNOLOGIES & HYDRATION SYSTEMS

The result of over 20 years pursuing
optimum polymer performance
& system reliability.

The logo features a stylized 'V' shape composed of two overlapping, curved lines in dark blue and light blue. To the right of the 'V' is the word 'VELOCITY' in a bold, dark blue, sans-serif font. Below 'VELOCITY' is the word 'DYNAMICS' in a smaller, dark blue, sans-serif font. Below 'DYNAMICS' is the text 'VELOCITY DYNAMICS, INC.' in an even smaller, dark blue, sans-serif font.**VELOCITY**
DYNAMICS
VELOCITY DYNAMICS, INC.

OPTIMIZING DRY POLYMER PERFORMANCE

THE ART OF THE SCIENCE

1. EFFECTIVE POLYMER PARTICLE WETTING

Optimizing dry polymer performance starts with effectively wetting each individual polymer particle. Metering polymer directly from a volumetric feeder into a "wetting bowl" fails to disperse the polymer. The HydraMax pneumatic conveyance system is designed to thoroughly disperse the polymer prior to wetting in order to minimize polymer hydration time.

2. PROPER SOLUTION CONCENTRATIONS

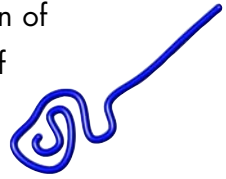
Cationic polymers are typically prepared at solution concentrations between 0.25% to 0.5%. Anionic polymers are typically prepared between 0.1% and 0.25% solution. The solution can then be further diluted after the solution metering pumps through a secondary dilution systems.

3. PROPER MIXING

When polymer is first wetted, the molecule is not susceptible to damaging shear induced by a tank mixing impeller. However, during the hydration process the polymer elongates and becomes susceptible



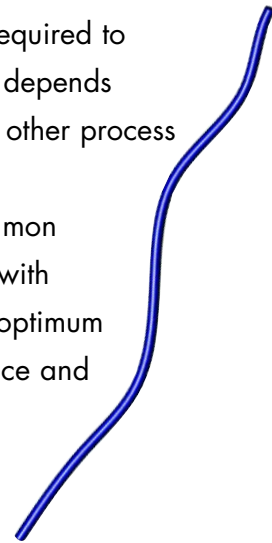
to shear, and possible degradation of polymer's effectiveness. Too low of mixing energy, or insufficient mix times will prevent the polymer from fully uncoiling. Too much mixing energy or mixing for too long will damage the polymer.



Inducing higher impeller speeds initially which then decrease as the polymer becomes more activated can result in higher polymer performance.

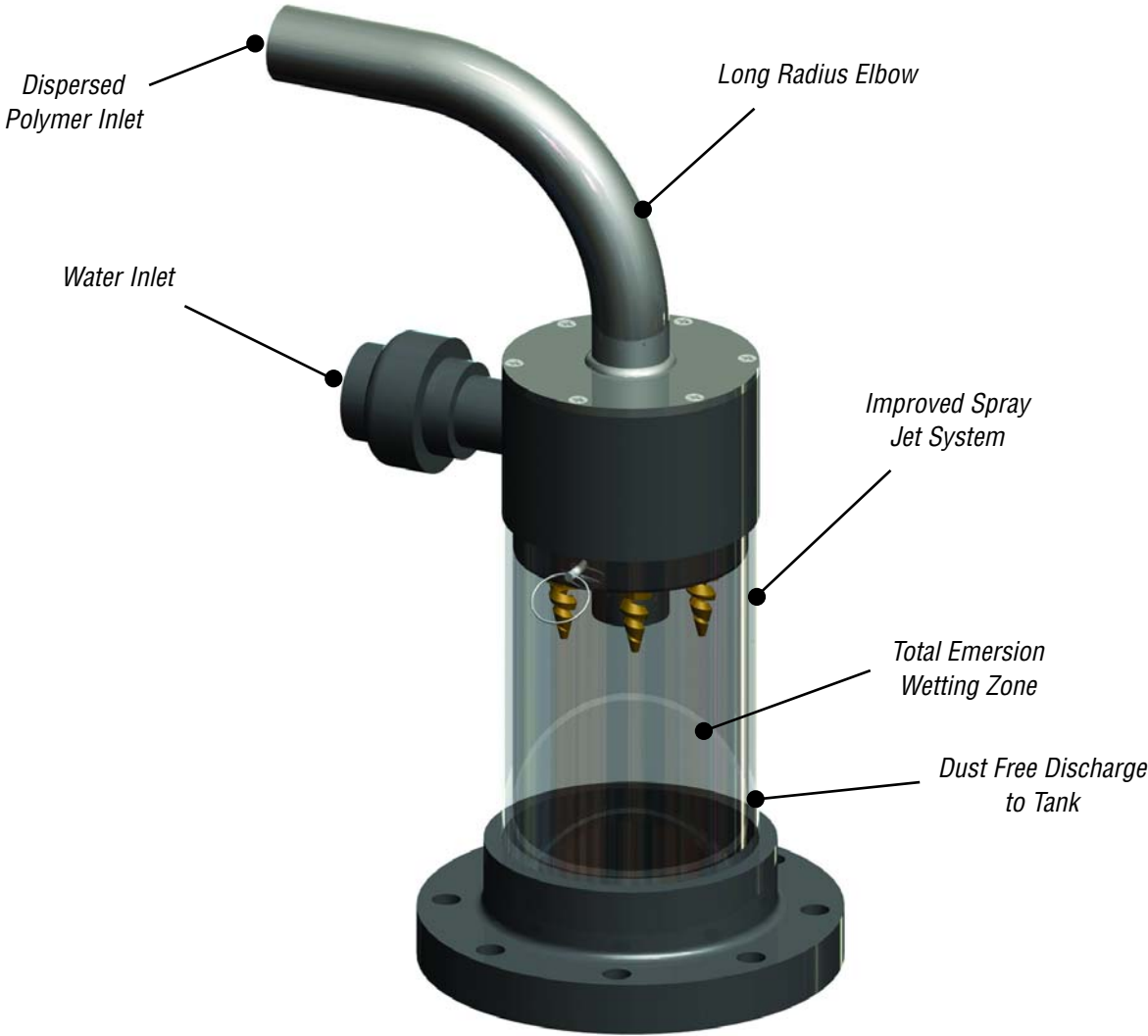
4. SUFFICIENT POLYMER AGING

The amount of aging time required to reach optimal performance depends on the type of polymer and other process variables, such as water temperature. It is not uncommon for systems to be designed with insufficient aging time. For optimum system flexibility, performance and with proper preparation as described above, it is recommended that cationic polymer systems be designed with 45 to 60 minutes of aging. Anionic polymer systems should be designed for up to 120 minutes of aging.



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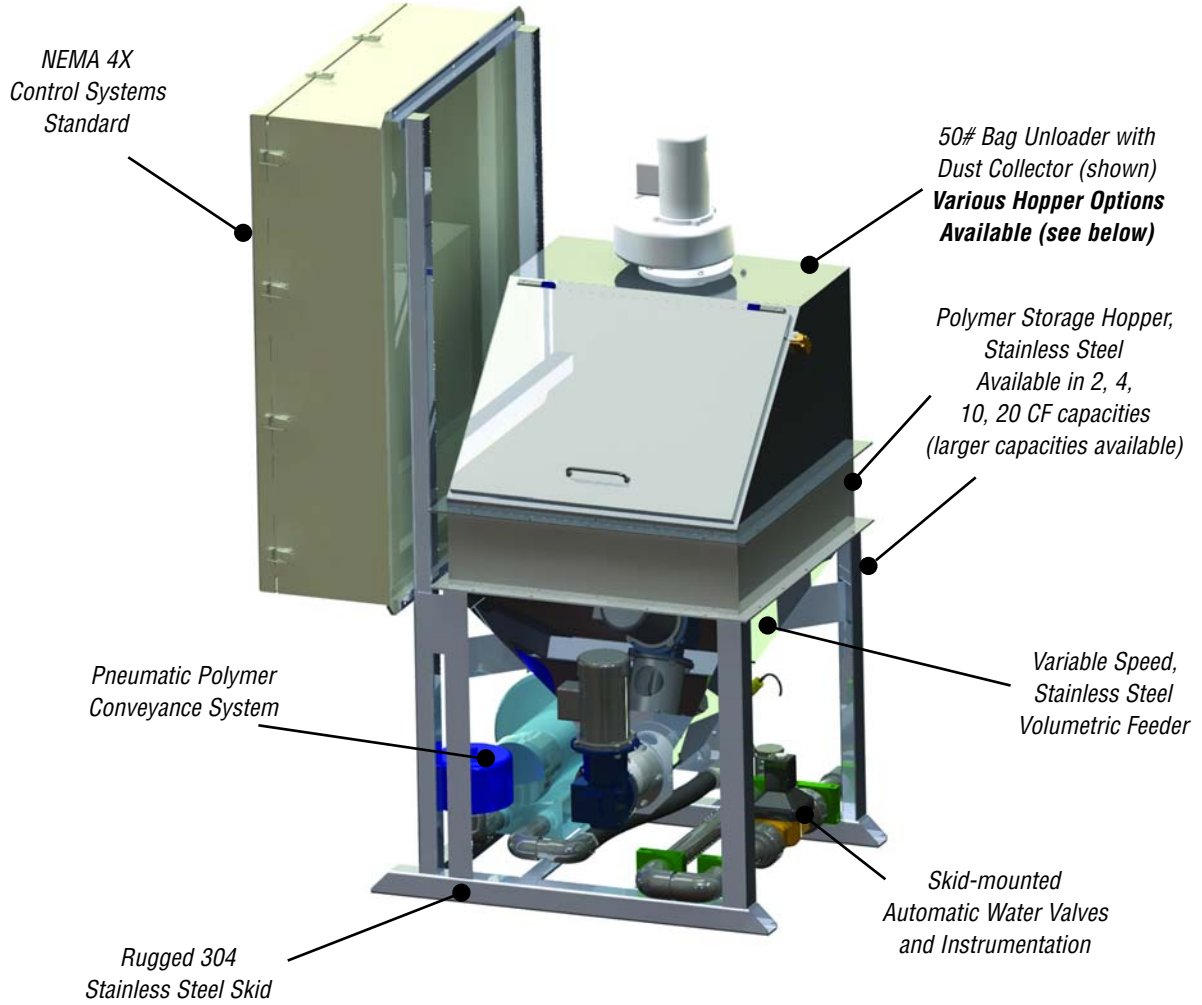
DRY POLYMER WETTING TECHNOLOGY



Typical Hydramax Side-By-Side System Installation

THE MODULAR HYDRAMAX SYSTEM

ENGINEERED TO MEET YOUR SPECIFIC NEEDS



Additional Hopper Cover Options:



Super-Sack Adapter



Hinged Lid



50# Bag/2000# Super-Sack Combo

SIZING

MIX TANK CAPACITY	PRODUCTION RATE @ 0.5%		WATER REQUIREMENTS		TRANSFER RATE
	30 min. Age Time	60 min. Age Time	GPM	Pressure	
200	12.0	7.0	30	50psi	40
400	20.0	12.5	40		40
500	23.8	15.2	50		40
750	29.4	20.0	50		40
1000	45.0	29.2	100		100
2000	69.9	49.3	150		150
3000	81.2	61.3	150		150

The above table provides information for standard systems. Capacities may be modified based on water rate, solution concentration, aging time, transfer time and process type. Consult factory for additional information. Lower and higher capacity systems available - consult factory.

		EXAMPLE:	LD	3000F	A/10	3
SERIES						
	D	DRY POLYMER ONLY				
	LD	LIQUID OR DRY POLYMER				
MIX TANK CAPACITY / CONSTRUCTION						
(S=STAINLESS STEEL, F = FIBERGLASS)						
STAINLESS STEEL TANK CAPACITIES:						
	100S					
	200S					
	400S					
	750S					
FRP TANK CAPACITIES:						
	500F					
	750F					
	1000F					
	2000F					
	3000F					
HOPPER STYLE						
	A	HINGED COVER				
	B	50# BAG UNLOADER				
	C	SUPER SACK				
	D	UNIVERSAL (50# BAG / SUPER SACK)				
HOPPER CAPACITY (FT3) (larger hopper available, consult factory)						
	2					
	4					
	10					
	20					
CONTROL SYSTEM						
	1	DISCRETE				
	2	MICROCONTROLLER WITH ALPHA-NUMERIC HMI				
	3	PLC WITH COLOR TOUCH SCREEN HMI				

An "X" following the control series indicates a modification to that control series

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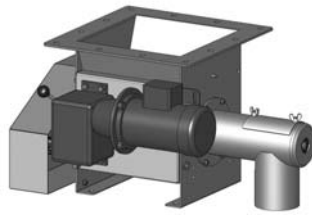


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