

## PULSAblend

### Polymer Makedown Systems

The Pulsafeeder PULSAblend Polymer Makedown Systems features a Static Blending System which provides excellent dilution without harming the polymer chains. These rugged fabricated assemblies offer turn-key simplicity and industrial-grade durability.

The UV-stabilized, high-grade HDPE frame is lightweight, corrosion resistant and offers structural rigidity. Each system is factory assembled and hydrostatically tested prior to shipment.

**A Wide Range of Dilution** Three different water flow rates (0-5, or 5-10 GPM) custom size the system to provide outstanding activation of all types of polymers, without the sometimes damaging effects of motorized mixing devices. 5 neat polymer pump flow rates ensure the right makedown for any application. The systems include an auto-fill calibration column for easy verification of the exact neat polymer injection rate and an adjustable flow meter for incoming water, enabling exact proportion control. Each system also comes standard with a neat polymer back pressure regulator to maintain a consistent final product.

**Manual & Dry Contact System Features** A single three position control switch provides for polymer makedown in "Run" mode and allows the operator select "Flush" mode to run only clean water, along with the "Off" position. A "Prime" button activates only the neat polymer pump. The Dry Contact remote control option allows for Run/Stop function with automatic flush cycle from a simple contact closure.

**Automatic Features** Controls include main power "On/Off" and "HOA" switches for the neat polymer feed pump and the inlet water solenoid valve. Optional controls for mixer "HOA" and mixer timing included with the mixer option. Day tank "Batch" level control has level sensors.

#### Features

- Open Access System: Rigid, unitized frame with schedule 80 PVC piping & Viton elastomers; great system visibility and open layout means easy servicing.
- Easy to Install and Operate
- Proportion Control: Two different water flow rates to choose from along with five neat polymer pump flow rates for exact application fit.
- Proprietary Mixing: The Static Blending System is customized providing outstanding activation of all types of liquid polymers.
- Consistent Control: Pulsatron neat polymer pump for up to 20,000 CPS, solenoid valve and adjustable flow meter for incoming water, auto-fill calibration column and back pressure control give you consistent, repeatable makedown control.
- Optional Equipment: Incoming water pressures regulator and low flow kill switch give foolproof operation.

#### Applications

- Water Clarification: A wide variety of polymers can be used for clarification flocculants. Used in applications from direct filtering to DAF system skimming, the Pulsafeeder Polymer Makedown System will fit almost any application:
- Wastewater Treatment
- Food & Beverage
- Paint Overspray Water Systems
- Industrial Process Water Treatment



#### System Configuration Options

- Neat Polymer Injection Pumps, five sizes from 0.5 to 10 GPH; 20,000 CPS.
- Viton Elastomers.
- Static Blending System, in two sizes for incoming water flow rate
- Conical Bottom Tanks from 15-110 gallon.
- Tank Mixers with propeller or paddlewheel ends; fixed speed or VFD configuration.
- Low flow switch will disable the neat polymer pump.
- Pressure regulator allows flow control where inconsistent feed water pressure is an issue.

# PULSAbblend Polymer Makedown Systems

## Specifications and Model Selection

Automatic PLC Control							
Part Number	Neat Polymer Injection Pump	Incoming Water Flow	Pressure Regulator	Tank <sup>1</sup>	Tank Mixer	Multi Point Level Control <sup>2</sup>	Description
PESMAAVSD8FC-XXX	0.50 GPH - LVB3 - 150 PSI Max	0 - 5 GPM	Yes	85 Gallon	Propeller Mixer <sup>4</sup>	Yes	Standard
PESMAEVSB9WC-XXX	10.0 GPH - LVH7 - 80 PSI Max	5 - 10 GPM	No	110 Gallon	Paddlewheel Mixer <sup>3</sup>	Yes	Standard
PESMANVSD3FC-XXX	Non-standard: See order for details	0 - 5 GPM	Yes	30 Gallon	Propeller Mixer <sup>4</sup>	Yes	Standard
PESMANVSE8FC-XXX	Non-standard: See order for details	5 - 10 GPM	Yes	85 Gallon	Propeller Mixer <sup>4</sup>	Yes	Standard

1. Conical Bottom with Stand

2. Multi-Point Level Control Sized to Tank Option

3. VFD Motor (45-135 RPM)

4. 90 RPM Fixed Speed Motor

Manual Control						
Part Number	Neat Polymer Injection Pump	Incoming Water Flow	Pressure Regulator	Tank <sup>1</sup>	Tank Mixer	Options
PESMCAVSADNN-XXX	0.50 GPH - LVB3 - 150 PSI Max	0 - 5 GPM	No	Direct Feed	No	Standard
PESMCAVSDDNN-XXX	0.50 GPH - LVB3 - 150 PSI Max	0 - 5 GPM	Yes	Direct Feed	No	Standard
PESMCBVSADNN-XXX	1.00 GPH - LVF4 - 150 PSI Max	0 - 5 GPM	No	Direct Feed	No	Standard
PESMCCVSADNN-XXX	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	No	Direct Feed	No	Standard
PESMCNVSDNN-XXX	Non-standard: See order for details	0 - 5 GPM	Yes	Direct Feed	No	Standard
PESMCNVSEDNN-XXX	Non-standard: See order for details	5 - 10 GPM	Yes	Direct Feed	No	Standard

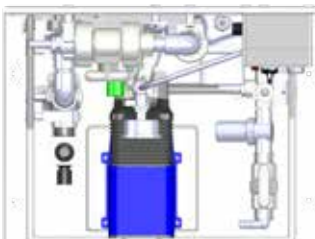
Dry Contact Control						
Part Number	Neat Polymer Injection Pump	Incoming Water Flow	Pressure Regulator	Tank <sup>1</sup>	Tank Mixer	Options
PESMEAVSADNN-XXX	0.50 GPH - LVB3 - 150 PSI Max	0 - 5 GPM	No	Direct Feed	No	Standard
PESMEAVSCDNN-FSW	0.50 GPH - LVB3 - 150 PSI Max	10+ GPM	No	Direct Feed	No	Incoming Water Low Flow Cutoff Switch
PESMECVSADNN-FSW	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	No	Direct Feed	No	Incoming Water Low Flow Cutoff Switch
PESMECVSADNN-XXX	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	No	Direct Feed	No	Standard
PESMECVSD1NN-FSW	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	Yes	15 Gallon	No	Incoming Water Low Flow Cutoff Switch
PESMEDVSADNN-XXX	4.00 GPH - LVG5 - 110 PSI Max	0 - 5 GPM	No	Direct Feed	No	Standard
PESMEDVSDDNN-FSW	4.00 GPH - LVG5 - 110 PSI Max	0 - 5 GPM	Yes	Direct Feed	No	Incoming Water Low Flow Cutoff Switch
PESMEEVSBDNN-XXX	10.00 GPH - LVH7 - 80 PSI Max	5 - 10 GPM	No	Direct Feed	No	Standard
PESMENVSDDNN-XXX	Non-standard: See order for details	0 - 5 GPM	Yes	Direct Feed	No	Standard
PESMENVSEDNN-XXX	Non-standard: See order for details	5 - 10 GPM	Yes	Direct Feed	No	Standard

Elastomer: Viton O-rings and Seats

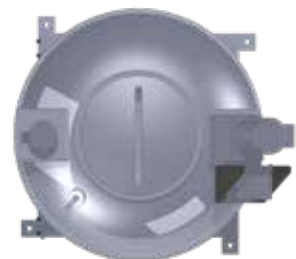
For 230V Contact Factory

## Top View

### Manual Dry Contact



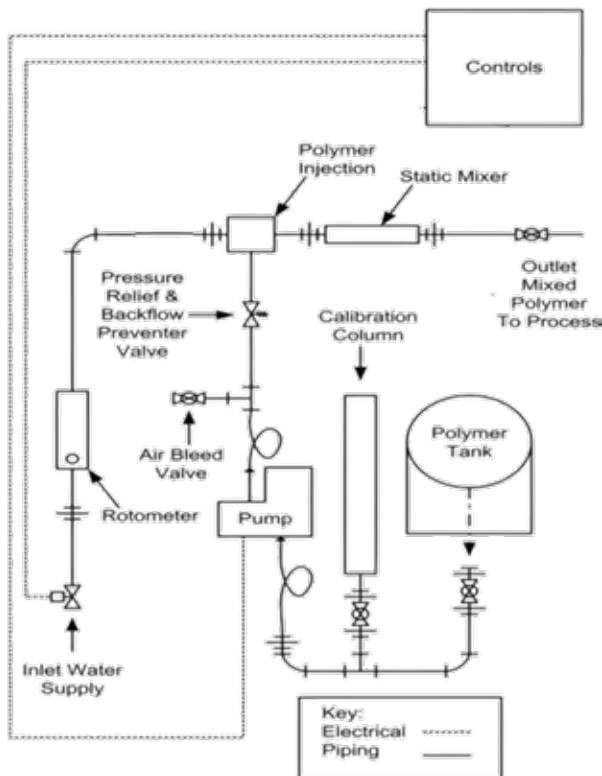
### Automatic



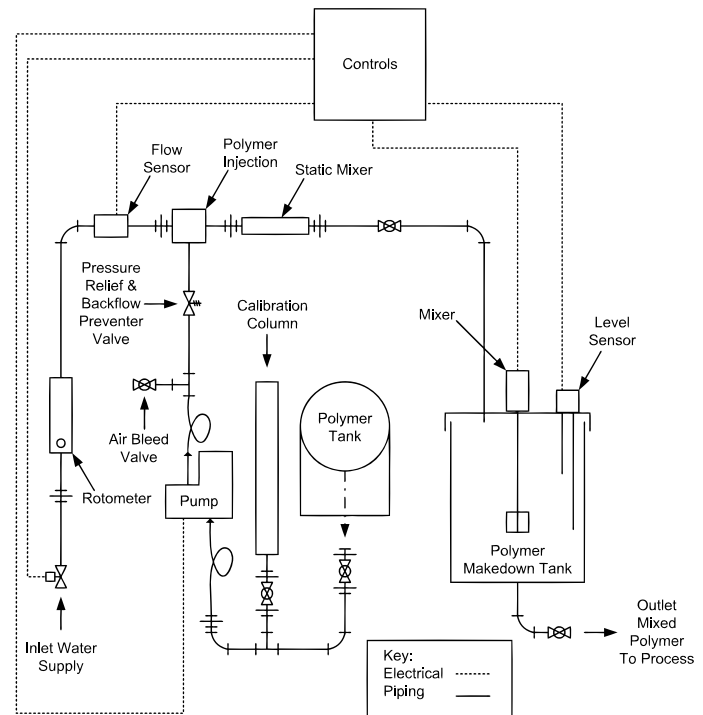
Water Flow Rate (GPM)	Neat Polymer Injection Pump Flow Rate (GPH) to Reach Percent Makedown																			
	0.2%	0.4%	0.6%	0.8%	1.0%	1.2%	1.4%	1.6%	1.8%	2.0%	2.2%	2.4%	2.6%	2.8%	3.0%	3.2%	3.4%	3.6%	3.8%	4.0%
0.2	0.02	0.05	0.07	0.10	0.12	0.14	0.17	0.19	0.22	0.24	0.26	0.29	0.31	0.34	0.36	0.38	0.41	0.43	0.46	0.48
0.4	0.05	0.10	0.14	0.19	0.24	0.29	0.34	0.38	0.43	0.48	0.53	0.58	0.62	0.67	0.72	0.77	0.82	0.86	0.91	0.96
0.6	0.07	0.14	0.22	0.29	0.36	0.43	0.50	0.58	0.65	0.72	0.79	0.86	0.94	1.01	1.08	1.15	1.22	1.30	1.37	1.44
0.8	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77	0.86	0.96	1.06	1.15	1.25	1.34	1.44	1.54	1.63	1.73	1.82	1.92
1.0	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96	1.08	1.20	1.32	1.44	1.56	1.68	1.80	1.92	2.04	2.16	2.28	2.40
1.2	0.14	0.29	0.43	0.58	0.72	0.86	1.01	1.15	1.30	1.44	1.58	1.73	1.87	2.02	2.16	2.30	2.45	2.59	2.74	2.88
1.4	0.17	0.34	0.50	0.67	0.84	1.01	1.18	1.34	1.51	1.68	1.85	2.02	2.18	2.35	2.52	2.69	2.86	3.02	3.19	3.36
1.6	0.19	0.38	0.58	0.77	0.96	1.15	1.34	1.54	1.73	1.92	2.11	2.30	2.50	2.69	2.88	3.07	3.26	3.46	3.65	3.84
1.8	0.22	0.43	0.65	0.86	1.08	1.30	1.51	1.73	1.94	2.16	2.38	2.59	2.81	3.02	3.24	3.46	3.67	3.89	4.10	4.32
2.0	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92	2.16	2.40	2.64	2.88	3.12	3.36	3.60	3.84	4.08	4.32	4.56	4.80
2.2	0.26	0.53	0.79	1.06	1.32	1.58	1.85	2.11	2.38	2.64	2.90	3.17	3.43	3.70	3.96	4.22	4.49	4.75	5.02	5.28
2.4	0.29	0.58	0.86	1.15	1.44	1.73	2.02	2.30	2.59	2.88	3.17	3.46	3.74	4.03	4.32	4.61	4.90	5.18	5.47	5.76
2.6	0.31	0.62	0.94	1.25	1.56	1.87	2.18	2.50	2.81	3.12	3.43	3.74	4.06	4.37	4.68	4.99	5.30	5.62	5.93	6.24
2.8	0.34	0.67	1.01	1.34	1.68	2.02	2.35	2.69	3.02	3.36	3.70	4.03	4.37	4.70	5.04	5.38	5.71	6.05	6.38	6.72
3.0	0.36	0.72	1.08	1.44	1.80	2.16	2.52	2.88	3.24	3.60	3.96	4.32	4.68	5.04	5.40	5.76	6.12	6.48	6.84	7.20
3.2	0.38	0.77	1.15	1.54	1.92	2.30	2.69	3.07	3.46	3.84	4.22	4.61	4.99	5.38	5.76	6.14	6.53	6.91	7.30	7.68
3.4	0.41	0.82	1.22	1.63	2.04	2.45	2.86	3.26	3.67	4.08	4.49	4.90	5.30	5.71	6.12	6.53	6.94	7.34	7.75	8.16
3.6	0.43	0.86	1.30	1.73	2.16	2.59	3.02	3.46	3.89	4.32	4.75	5.18	5.62	6.05	6.48	6.91	7.34	7.78	8.21	8.64
3.8	0.46	0.91	1.37	1.82	2.28	2.74	3.19	3.65	4.10	4.56	5.02	5.47	5.93	6.38	6.84	7.30	7.75	8.21	8.66	9.12
4.0	0.48	0.96	1.44	1.92	2.40	2.88	3.36	3.84	4.32	4.80	5.28	5.76	6.24	6.72	7.20	7.68	8.16	8.64	9.12	9.60
4.2	0.50	1.01	1.51	2.02	2.52	3.02	3.53	4.03	4.54	5.04	5.54	6.05	6.55	7.06	7.56	8.06	8.57	9.07	9.58	10.08
4.4	0.53	1.06	1.58	2.11	2.64	3.17	3.70	4.22	4.75	5.28	5.81	6.34	6.86	7.39	7.92	8.45	8.98	9.50	10.03	10.56
4.6	0.55	1.10	1.66	2.21	2.76	3.31	3.86	4.42	4.97	5.52	6.07	6.62	7.18	7.73	8.28	8.83	9.38	9.94	10.49	11.04
4.8	0.58	1.15	1.73	2.30	2.88	3.46	4.03	4.61	5.18	5.76	6.34	6.91	7.49	8.06	8.64	9.22	9.79	10.37	10.94	11.52
5.0	0.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80	5.40	6.00	6.60	7.20	7.80	8.40	9.00	9.60	10.20	10.80	11.40	12.00
5.2	0.62	1.25	1.87	2.50	3.12	3.74	4.37	4.99	5.62	6.24	6.86	7.49	8.11	8.74	9.36	9.98	10.61	11.23	11.86	12.48
5.4	0.65	1.30	1.94	2.59	3.24	3.89	4.54	5.18	5.83	6.48	7.13	7.78	8.42	9.07	9.72	10.37	11.02	11.66	12.31	12.96
5.6	0.67	1.34	2.02	2.69	3.36	4.03	4.70	5.38	6.05	6.72	7.39	8.06	8.74	9.41	10.08	10.75	11.42	12.10	12.77	13.44
5.8	0.70	1.39	2.09	2.78	3.48	4.18	4.87	5.57	6.26	6.96	7.66	8.35	9.05	9.74	10.44	11.14	11.83	12.53	13.22	13.92
6.0	0.72	1.44	2.16	2.88	3.60	4.32	5.04	5.76	6.48	7.20	7.92	8.64	9.36	10.08	10.80	11.52	12.24	12.96	13.68	14.40
6.2	0.74	1.49	2.23	2.98	3.72	4.46	5.21	5.95	6.70	7.44	8.18	8.93	9.67	10.42	11.16	11.90	12.65	13.39	14.14	14.88
6.4	0.77	1.54	2.30	3.07	3.84	4.61	5.38	6.14	6.91	7.68	8.45	9.22	9.98	10.75	11.52	12.29	13.06	13.82	14.59	15.36
6.6	0.79	1.58	2.38	3.17	3.96	4.75	5.54	6.34	7.13	7.92	8.71	9.50	10.30	11.09	11.88	12.67	13.46	14.26	15.05	15.84
6.8	0.82	1.63	2.45	3.26	4.08	4.90	5.71	6.53	7.34	8.16	8.98	9.79	10.61	11.42	12.24	13.06	13.87	14.69	15.50	16.32
7.0	0.84	1.68	2.52	3.36	4.20	5.04	5.88	6.72	7.56	8.40	9.24	10.08	10.92	11.76	12.60	13.44	14.28	15.12	15.96	16.80
7.2	0.86	1.73	2.59	3.46	4.32	5.18	6.05	6.91	7.78	8.64	9.50	10.37	11.23	12.10	12.96	13.82	14.69	15.55	16.42	17.28
7.4	0.89	1.78	2.66	3.55	4.44	5.33	6.22	7.10	7.99	8.88	9.77	10.66	11.54	12.43	13.32	14.21	15.10	15.98	16.87	17.76
7.6	0.91	1.82	2.74	3.65	4.56	5.47	6.38	7.30	8.21	9.12	10.03	10.94	11.86	12.77	13.68	14.59	15.50	16.42	17.33	18.24
7.8	0.94	1.87	2.81	3.74	4.68	5.62	6.55	7.49	8.42	9.36	10.30	11.23	12.17	13.10	14.04	14.98	15.91	16.85	17.78	18.72
8.0	0.96	1.92	2.88	3.84	4.80	5.76	6.72	7.68	8.64	9.60	10.56	11.52	12.48	13.44	14.40	15.36	16.32	17.28	18.24	19.20
8.2	0.98	1.97	2.95	3.94	4.92	5.90	6.89	7.87	8.86	9.84	10.82	11.81	12.79	13.78	14.76	15.74	16.73	17.71	18.70	19.68
8.4	1.01	2.02	3.02	4.03	5.04	6.05	7.06	8.06	9.07	10.08	11.09	12.10	13.10	14.11	15.12	16.13	17.14	18.14	19.15	20.16
8.6	1.03	2.06	3.10	4.13	5.16	6.19	7.22	8.26	9.29	10.32	11.35	12.38	13.42	14.45	15.48	16.51	17.54	18.58	19.61	20.64
8.8	1.06	2.11	3.17	4.22	5.28	6.34	7.39	8.45	9.50	10.56	11.62	12.67	13.73	14.78	15.84	16.90	17.95	19.01	20.06	21.12
9.0	1.08	2.16	3.24	4.32	5.40	6.48	7.56	8.64	9.72	10.80	11.88	12.96	14.04	15.12	16.20	17.28	18.36	19.44	20.52	21.60
9.2	1.10	2.21	3.31	4.42	5.52	6.62	7.73	8.83	9.94	11.04	12.14	13.25	14.35	15.46	16.56	17.66	18.77	19.87	20.98	22.08
9.4	1.13	2.26	3.38	4.51	5.64	6.77	7.90	9.02	10.15	11.28	12.41	13.54	14.66	15.79	16.92	18.05	19.18	20.30	21.43	22.56
9.6	1.15	2.30	3.46	4.61	5.76	6.91	8.06	9.22	10.37	11.52	12.67	13.82	14.98	16.13	17.28	18.43	19.58	20.74	21.89	23.04
9.8	1.176	2.352	3.528	4.704	5.88	7.056	8.232	9.408	10.584	11.76	12.936	14.112	15.288	16.464	17.64	18.816	19.992	21.168	22.344	23.52
10.0	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	10.8	12	13.2	14.4	15.6	16.8	18	19.2	20.4	21.6	22.8	24
Guide	LVB3		LVF4		LVG4		LVG5		LVH7		Not Covered by HV Pumps									



## Manual

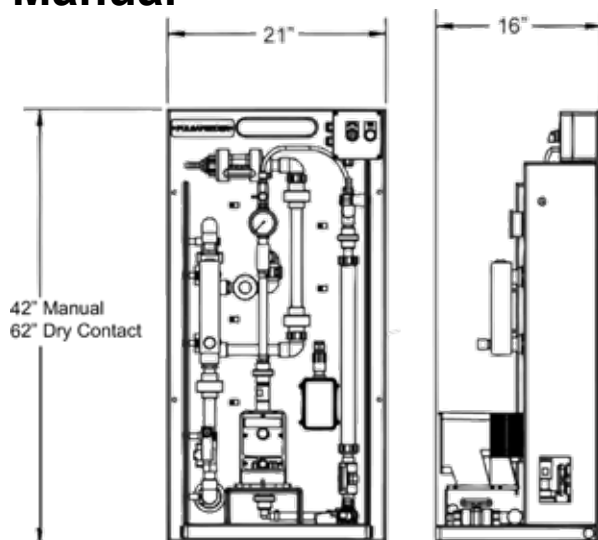


## Automatic



## Dimensions

### Manual



### Automatic

