

PULSAFEEDER[®]

Systems & Accessories



Product

Effective 01/01/17

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Discount Structure Table	
1	Pump Accessory Discount
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5	Pulstron Pump Discount
6	Chem-Tech Pump Discount

Discount structure is noted on the bottom right of each table for that product.

IMPORTANT INFORMATION

WHEN PLACING AN ORDER

1. Fax, mail or telephone orders directly to the Customer Service Department:
 Pulsafeeder Incorporated—A Unit of IDEX Corporation
 Standard Product Operations Main Office & Manufacturing Facility
 27101 Airport Road, Punta Gorda, Florida, USA 33982-2462 E-Mail: ppgpulsaspo.cs@idexcorp.com
 Telephone: 800-333-6677 or 941-575-3800 Fax: 800-456-4085 or 941-575-4085
 www.pulsatron.com

2. Please have the following information available when placing an order:

Account Name	Special Tags or Marks (if needed)
Billing Zip Code	Item(s) Being Ordered
Purchase Order Number	Quantity of Each Item
Ship To Address	Pricing
Payment Terms	Shipping Information

3. Orders are entered upon receipt. Our ability to change in house orders is limited. Please be certain your orders are complete when placed. Any order cancellation or change request is subject to a cancelation fee.

4. Orders are assigned standard lead times based on the size of the order and product mix.
 Orders requiring expedited shipping (sooner than the standard lead times) are subject to a expedite charge.
 Unless the order clearly requests expedited shipping, the order will be treated as a routine order. When expedited shipping is requested a designated carrier must be selected. Orders that need to ship the same day must be received by 2:00 PM EST.
 Same day and next working day shipping is generally available for larger orders but not guaranteed, please verify with customer service. Pulsafeeder shall have no liability if it is unable to provide expedited shipping of an order.

5. Repairs and returns are coordinated through our Customer Service Department. All orders returned must have factory authorization and are subject to a 25% restocking charge for standard product

6. Other Locations:

PULSAFEEDER-Europe Via Kennedy, 12-20090 Segrate—Milano— Italy Tel: +0039 377 706 6300	Far East (Office Only) Room 3502-3504, Zhao Feng Plaza No. 1027 Changning Rd Shanghai 200050, China Tel: 86-2163906367 Fax: 86-2163863338
 	IDEX India Private Ltd. S14, First Floor Solitaire Corporate Park, 167, Guru Hargovindji Marg, Chakala Andheri (East) Mumbai 400 093, India Tel: 91-22-66435500 Fax: 91-22-66780055

- Prices are subject to change without notice and are effective when order is accepted and acknowledged at point of shipment.
- When ordering, specify your P.O. number, model number, quantity, price, shipping and/or billing address and order date.
- Standard terms are NET 30 days from date of invoice for approved domestic accounts on open account and NET 60 days from date of invoice for approved international accounts.
- WE ACCEPT VISA AND MASTERCARD.
- PAYMENT BY CREDIT CARD WILL NOT RECEIVE AN ADDITIONAL DISCOUNT.
- All prices are FCA, Shippers Dock, Punta Gorda, FL.
- Custom product sales are final.
- Charges for export documentation may apply an very by requirements.
- Expedite fees may apply. Orders requiring expedited shipping (sooner than the standard lead times) are subject to an expedite charge
- Fees for changes to or cancellation of orders may apply.
- Minimum factory order of \$30.
- Possession of price schedule does not guarantee right to purchase direct from factory.

Systems

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Polymer Makedown Systems

for Electronic Metering Pumps

Turn-Key Packages for Water Clarification Applications

The Pulsafeeder PULSAblend Polymer Makedown Systems feature a Proprietary 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.



Polymer Makedown Injection Guide

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
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Automatic PLC Control				
Part Number	Neat Polymer Injection Pump	Incoming Water Flow Rate	Tank Capacity - Makedown Polymer/ Mixer	Description
PESMAEVS9WC-XXX	10.0 GPH - LVH7 - 80 PSI Max	5 - 10 GPM	110 Gallon, Conical Bottom with Stand; Paddlewheel Mixer, VFD Motor (45-135)	Standard Multi-Point Level Control Sized to Tank Option
PESMANVSD3FC-XXX	Non-standard: See order for details	0 - 5 GPM	30 Gallon, Conical Bottom with Stand; Propeller Mixer, 75 RPM Fixed Speed	Includes Pressure Regulator; Multi-Point Level Control Sized to Tank Option
PESMANVSE8FC-XXX	Non-standard: See order for details	5 - 10 GPM	85 Gallon, Conical Bottom with Stand; Propeller Mixer, 75 RPM Fixed Speed	Includes Pressure Regulator; Multi-Point Level Control Sized to Tank Option
Manual Control				
Part Number	Neat Polymer Injection Pump	Incoming Water Flow Rate	Tank Capacity - Makedown Polymer	Options
PESMCAVSADNN-XXX	0.50 GPH - LVB3 - 150 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Standard
PESMCAVSDDNN-XXX	0.50 GPH - LVB3 - 150 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Includes Pressure Regulator; Standard
PESMCBVSADNN-XXX	1.00 GPH - LVF4 - 150 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Standard
PESMCCVSADNN-XXX	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Standard
PESMCNESBDNN-XXX	Non-standard: See order for details	5 - 10 GPM	Direct Feed, No Tank, No Mixer	Standard
PESMCNVSDNN-XXX	Non-standard: See order for details	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Includes Pressure Regulator; Standard
PESMCNVSEDNN-XXX	Non-standard: See order for details	5 - 10 GPM	Direct Feed, No Tank, No Mixer	Includes Pressure Regulator; Standard
Dry Contact Control				
Part Number	Neat Polymer Injection Pump	Incoming Water Flow Rate	Tank Capacity - Makedown Polymer	Options
PESMEAVSADNN-XXX	0.50 GPH - LVB3 - 150 PSI Max	0 - 5 GPM	Direct Feed, No Tank	Standard
PESMEAVSCDNN-FSW	0.50 GPH - LVB3 - 150 PSI Max	10+ GPM	Direct Feed, No Tank, No Mixer	Incoming Water Low Flow Cutoff Switch (<1 GPM Will Disable Neat Polymer Pump)
PESMECVSADNN-FSW	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Incoming Water Low Flow Cutoff Switch (<1 GPM Will Disable Neat Polymer Pump)
PESMECVSADNN-XXX	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Standard
PESMECVSDNN-FSW	2.00 GPH - LVG4 - 110 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Includes Pressure Regulator; Incoming Water Low Flow Cutoff Switch (<1 GPM Will Disable Neat Polymer Pump)
PESMEDVSADNN-XXX	4.00 GPH - LVG5 - 110 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Standard
PESMEDVSDDNN-FSW	4.00 GPH - LVG5 - 110 PSI Max	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Includes Pressure Regulator; Incoming Water Low Flow Cutoff Switch (<1 GPM Will Disable Neat Polymer Pump)
PESMENVSDNN-XXX	Non-standard: See order for details	0 - 5 GPM	Direct Feed, No Tank, No Mixer	Includes Pressure Regulator; Standard
PESMENVSEDNN-XXX	Non-standard: See order for details	5 - 10 GPM	Direct Feed, No Tank, No Mixer	Includes Pressure Regulator; Standard

Elastomer: Viton O-rings and Seats
For 230V Contact Factory

Systems Pre-Engineered Solutions

for Electronic Metering Pumps

Turn-Key Packages for Metering Applications

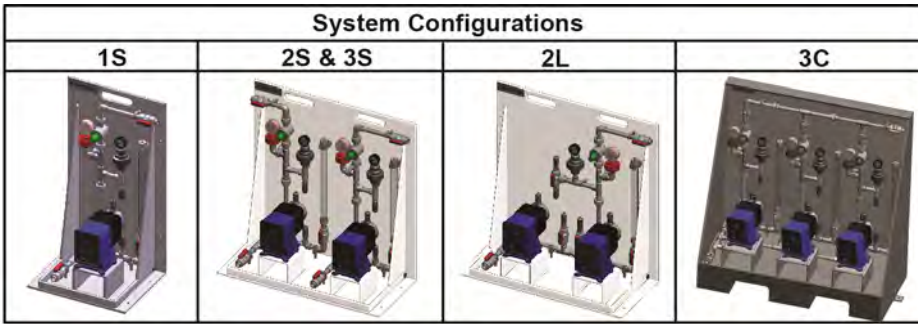
Pulsafeeder's Pre-Engineered Systems are designed to provide complete chemical feed solutions for all electronic metering applications. From stand alone simplex pH control applications to full-featured, redundant sodium hypochlorite disinfection metering, these rugged fabricated assemblies offer turn-key simplicity and industrial-grade durability.

The UV-stabilized, high-grade HDPE frame offers maximum chemical compatibility and structural rigidity.

Each system is factory assembled and hydrostatically tested prior to shipment.

Pre-Engineered Systems for PulsaTron metering pumps include a compact, rugged High Density Polyethylene frame providing structure for a single or dual metering pumps and inlet and discharge piping assemblies with full 1" drip rim perimeter. The piping assemblies utilize Schedule 80 piping, isolation ball valves and unions throughout. The inlet piping assembly includes a clear

Y-strainer and calibration column for easy maintenance and measurement. The discharge piping assemblies incorporate pulsation dampeners, pressure gauge with isolator and discrete back pressure and pressure-relief valves.



System Configurations																				
	1S	2S & 3S		2L		3C														
System Part Number	No. of Pumps	Maximum Pressure	Nominal Thickness	Containment Lip	Nominal Pipe Size	Inlet Valve	Y-Strainer	Calibration Column *	Pulsation Dampener	Pressure Gauge	Back Pressure Valve	Pressure Relief Valve	Interconnected Piping	Discharge Valve	3 Way Pump Select Valve	Height	Width	Depth	Approx. Wt (no Pumps & Plastic Pipe)	Approx. Wt (no Pumps & SS Pipe)
PES1S	1	150 psi	1/2"	√	1/2"	1	1	1	1	1	1	1	1	1	1	36"	20"	16"	32 lbs	38 lbs
PES2S	2	150 psi	1/2"	√	1/2"	2	2	2	2	2	2	2	2	2	2	36"	36"	16"	62 lbs	70 lbs
PES3S	3	150 psi	1/2"	√	1/2"	3	3	3	3	3	3	3	3	3	3	42"	46"	21.5"	100 lbs.	112 lbs
PES2C	2	150 psi	1/2"	√	1/2"	1	1	2	2	2	2	2	√	1	1	36"	36"	16"	62 lbs	70 lbs
PES3C	3	150 psi	1/2"	√	1/2"	1	1	3	3	3	3	3	√	1	1	42"	46"	21.5"	100 lbs.	112 lbs.
PES2L	2	150 psi	1/2"	√	1/2"	1	1	1	1	1	1	1	√	2	2	36"	36"	16"	65 lbs	72 lbs

* Note: Calibration column size is 200mL on standard systems and 1000mL on HF systems.

Single Pump, Standard System		
Model Number	Nominal Elastomer for Components	Description
PES1S-VCF	Viton	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES1S-VHFCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES1S-ECF	EPDM	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES1S-EHFCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES1S-VKCF	Viton	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES1S-VHFKCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES1S-EKCF	EPDM	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES1S-EHFKCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column

Dual Pump, Redundant Piping, Not Connected		
Model Number	Nominal Elastomer for Components	Description
PES2S-VCF	Viton	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2S-VHFCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2S-ECF	EPDM	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2S-EHFCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2S-VKCF	Viton	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2S-VHFKCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2S-EKCF	EPDM	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2S-EHFKCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
Dual Pump, Redundant Piping, Connected, Common S & D		
Model Number	Nominal Elastomer for Components	Description
PES2C-VCF	Viton	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2C-VHFCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2C-ECF	EPDM	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2C-EHFCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2C-VKCF	Viton	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2C-VHFKCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2C-EKCF	EPDM	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2C-EHFKCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
Dual Pump, Lead/Backup, Single Pipe System		
Model Number	Nominal Elastomer for Components	Description
PES2L-VHFCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2L-ECF	EPDM	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2L-EHFCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2L-VKCF	Viton	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2L-VHFKCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES2L-EKCF	EPDM	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES2L-EHFKCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column

Three Pump, Redundant Piping, Not Connected		
Model Number	Nominal Elastomer for Components	Description
PES3S-VHFCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES3S-ECF	EPDM	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES3S-EHFCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES3S-VKCF	Viton	Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES3S-VHFKCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; Kynar - Auto Fill Calibration Column
PES3S-EKCF	EPDM	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES3S-EHFKCF	EPDM	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
Three Pump, Redundant Piping, Connected, Common S & D		
Model Number	Nominal Elastomer for Components	Description
PES3C-VCF	Viton	Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column
PES3C-VHFCF	Viton	High Flow, Required for H7, J7, K7 & H8 Pumps; Conduit Box for Power & Signal; PVC - Auto Fill Calibration Column

Pre-Engineered Systems for BLACKLINE Pumps

Pulsafeeder's Pre-Engineered Systems are designed to provide complete chemical feed solutions for a wide range of metering applications. From stand alone pH control applications to full-featured, sodium hypochlorite disinfection metering. These rugged fabricated assemblies offer installation simplicity and industrial-grade durability.

The UV-stabilized, high-grade HDPE frame offers maximum chemical compatibility and structural rigidity.

Each system is factory assembled and hydrostatically tested prior to shipment.

Pre-Engineered Systems for BLACKLINE metering pumps include single or dual metering pump configurations with inlet and discharge piping assemblies available in both 1/2" and 1" sizes. The piping assemblies utilize Schedule 80 PVC or UHP PVDF piping. Every system includes ball valves and unions throughout, suction side Y-strainers and calibration columns. The discharge piping assemblies incorporate pulsation dampeners, pressure gauge with isolators, and discrete back pressure and pressure-relief valves.



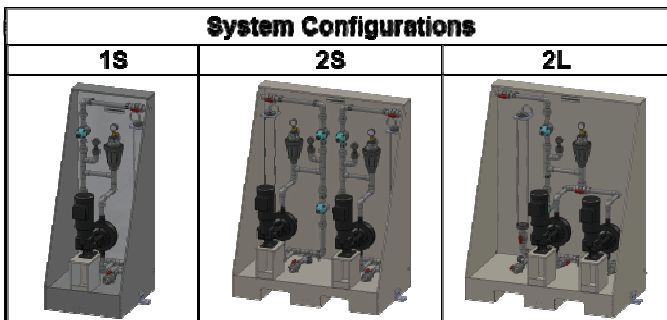
Key Features

Pre-Configured System: Rigid frame with pre-plumbed piping assemblies; schedule 80 PVC or UHP PVDF piping.

Easy to Install and Operate: All of the most common metering pump accessories are included.

Mounting flexibility: The rigid 1/2" frame incorporates mounting holes and brackets for anchoring to the floor.

Quick Delivery: Systems available within 2 weeks of order!



Applications

Municipal Water: Disinfection systems with Sodium Hypochlorite, pH Adjustment, Fluoride addition.

Municipal Wastewater: Fume Scrubbers, General Odor Control, pH adjustment, Residual Disinfectant Management

Food & Beverage: Clean-In-Place, Clean-Off-Line, Sterilizer Water Treatment

Institutional: Cooling Tower Water Treatment, Boiler Water Treatment, Closed Loop Systems

System Part Number	Nominal Pipe Size	Pump Mounts	Maximum Pressure	Containment Lip	Inlet Valve	Y-Strainer	Calibration Column *	Pulsation Dampener	Pressure Gauge	Back Pressure Valve	Pressure Relief Valve	Interconnected Piping	Discharge Valve	3 Way Pump Select Valve	Height inch	Width inch	Depth inch	Approx. Wt (no Pumps)
PES1S	1/2"	1	150 psi	√	1	1	1	1	1	1	1	1	1		47	21	24	79
PES2S	1/2"	2	150 psi	√	2	2	2	2	2	2	2	2	2		47	42	24	128
PES2L	1/2"	2	150 psi	√	1	1	1	1	1	1	1	√	2	√	47	42	24	111
PES1S	1"	1	150 psi	√	1	1	1	1	1	1	1	1	1		63	25	29	127
PES2S	1"	2	150 psi	√	2	2	2	2	2	2	2	2	2		63	49	29	210
PES2L	1"	2	150 psi	√	1	1	1	1	1	1	1	√	2	√	63	49	29	179

* Note: Calibration column size is 1000mL on standard systems and 4000mL on HF systems.

Single Pump, Standard System For BLACKLINE Pump			
Model Number	Nominal Elastomer for Components	Piping	Description
PES1S-VBLA	Viton	PVC ½"	Flow up to 35 gph
PES1S-VKBLA	Viton	PVDF ½"	Flow up to 35 gph
PES1S-EBLA	EPDM	PVC ½"	Flow up to 35 gph
PES1S-VBLHF	Viton	PVC 1"	High Flow, up to 132 gph
PES1S-VKBLHF	Viton	PVDF 1"	High Flow, up to 132 gph
PES1S-EBLHF	EPDM	PVC 1"	High Flow up to 132 gph
Dual Pump, Redundant Piping, Not Connected For BLACKLINE Pumps			
Model Number	Nominal Elastomer for Components	Description	Description
PES2S-VBLA	Viton	PVC ½"	Flow up to 35 gph
PES2S-VKBLA	Viton	PVDF ½"	Flow up to 35 gph
PES2S-EBLA	EPDM	PVC ½"	Flow up to 35 gph
PES2S-VBLHF	Viton	PVC 1"	High Flow, up to 132 gph
PES2S-VKBLHF	Viton	PVDF 1"	High Flow up to 132 gph
PES2S-EBLHF	EPDM	PVC 1"	High Flow up to 132 gph
Dual Pump, Lead/Backup, Single Pipe System For BLACKLINE Pumps			
Model Number	Nominal Elastomer for Components	Description	Description
PES2L-VBLA	Viton	PVC ½"	Flow up to 35 gph
PES2L-VKBLA	Viton	PVDF ½"	Flow up to 35 gph
PES2L-EBLA	EPDM	PVC ½"	Flow up to 35 gph
PES2L-VBLHF	Viton	PVC 1"	High Flow, up to 132 gph
PES2L-VKBLHF	Viton	PVDF 1"	High Flow, up to 132 gph
PES2L-EBLHF	EPDM	PVC 1"	High Flow up to 132 gph

Digital Glycol Feeders

Pulsafeeder's Digital Glycol Feeder provides a consistent operating pressure in closed loop systems. This allows a controlled percentage of glycol solution to be fed from the 55 gallon tank. The Digital Glycol Feeder is available in two models; the DGF1 for single loop and the DGF2 for dual loop systems. The control unit utilizes an 8-bit microcontroller for precise feed system control. The NEMA4X enclosure can be wired conduit or prewire for easy startup. The pre-plumbed assembly includes a pressure gauge, pressure switch, and pressure relief valve to prevent excessive pressure build up. A low liquid level switch with optional audible alarm prevents the gear pump from operating when the solution is low. Each Digital Glycol Feeder is fully piped and wired with the following components:

Suction Assembly includes:

- Schedule 80 PVC tubing and fittings
- PVC ball valve
- Clear poly bowl strainer

Discharge Assembly Includes:

- Schedule 80 PVC pipe and fittings
- PVC ball valve
- PVC check valve
- Pressure gauge
- Brass relief valve with return to tank tubing



DIGITAL GLYCOL FEEDER Selection Guide		DGF_	-	-	-	-	-	-
CLOSED LOOPS Position 4	1 = Single Loop 2 = Dual Loop							
CONDUIT / PREWIRE Position 5	A = Conduit B = Prewire							
AUDIBLE ALARM Position 6	A = without Audible Alarm B = with Audible Alarm							
ALARM OUTPUT OPTION Position 7	X = None A = Dry Contact, Single B = Dry Contact, Dual C = AC Output, Single D = AC Output, Dual E = Dry Contact, Single & AC Output, Single							
PRESSURE SWITCH OPTION Position 8	A = Standard pressure switch, 30 to 50 psi (adjustable to 80 psi) B = Low pressure switch, 5 to 10 psi (adjustable to 35 psi) C = One standard and one low pressure switch (DGF2 only)							
PUMP AND VOLTAGE RATING Position 9	A = 115VAC no pump C = 115VAC 60Hz 1.50GPM @ 100psi E = 115VAC 60Hz 3.75GPM @ 100 psi							
AGENCY APPROVAL Position 10	X = None							
PANEL ASSEMBLY Position 11	B = Assembled (must ship via freight)							

Pump Accessories

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Pulsation Dampeners

Pulsafeeder's Pulsation Dampeners improve pump system efficiency by removing pulsating flows from positive displacement pumps, insuring a smooth and continuous fluid flow and metering accuracy, eliminating pipe vibration and protecting gaskets and seals. The result is a longer lasting safer system.



150 PSI Pulsation Dampeners - Chargeable				
Volume	Body	Bladder	Connection	Part Number
10 cubic inches	POLY	EPDM	3/8" FNPT	NA601038-FPPE
		CSPE	3/8" FNPT	NA601038-FPPC
		TFE	3/8" FNPT	NA601038-FPPT
		Viton	3/8" FNPT	NA601038-FPPV
		CSPE	1/2" FNPT	NA601050-FPPC
		TFE	1/2" FNPT	NA601050-FPPT
	PVC	Viton	1/2" FNPT	NA601050-FPPV
		CSPE	1/2" FNPT	NA601050-PVCC
		TFE	1/2" FNPT	NA601050-PVCT
	PVDF	Viton	1/2" FNPT	NA601050-PVCV
		EPDM	3/8" FNPT	NA601038-PVDE
		CSPE	3/8" FNPT	NA601038-PVDC
		TFE	3/8" FNPT	NA601038-PVDT
	316 SS	Viton	3/8" FNPT	NA601038-PVDV
		EPDM	3/8" FNPT	NA601038-316E
		CSPE	3/8" FNPT	NA601038-316C
TFE		3/8" FNPT	NA601038-316T	
85 cubic inches	POLY	Viton	3/8" FNPT	NA601038-316V
		EPDM	3/4" FNPT	NA608575-FPPE
		CSPE	3/4" FNPT	NA608575-FPPC
		TFE	3/4" FNPT	NA608575-FPPT
	PVDF	Viton	3/4" FNPT	NA608575-FPPV
		EPDM	3/4" FNPT	NA608575-PVDE
		CSPE	3/4" FNPT	NA608575-PVDC
		TFE	3/4" FNPT	NA608575-PVDT
	316 SS	Viton	3/4" FNPT	NA608575-PVDV
		EPDM	3/4" FNPT	NA608575-316E
		CSPE	3/4" FNPT	NA608575-316C
		TFE	3/4" FNPT	NA608575-316T
Viton	3/4" FNPT	NA608575-316V		

150 PSI Pulsation Dampeners - Chargeable				
Volume	Body	Bladder	Connection	Part Number
370 cubic inches	POLY	EPDM	2" FNPT	NA637020-FPPE
		CSPE	2" FNPT	NA637020-FPPC
		TFE	2" FNPT	NA637020-FPPT
		Viton	2" FNPT	NA637020-FPPV
	PVDF	EPDM	2" FNPT	NA637020-PVDE
		CSPE	2" FNPT	NA637020-PVDC
		TFE	2" FNPT	NA637020-PVDT
		Viton	2" FNPT	NA637020-PVDV
	316 SS	EPDM	2" FNPT	NA637020-316E
		CSPE	2" FNPT	NA637020-316C
		TFE	2" FNPT	NA637020-316T
		Viton	2" FNPT	NA637020-316V
36 cubic inches	POLY	EPDM	3/4" FNPT	NA603675-FPPE
		CSPE	3/4" FNPT	NA603675-FPPC
		TFE	3/4" FNPT	NA603675-FPPT
		Viton	3/4" FNPT	NA603675-FPPV
	PVDF	EPDM	3/4" FNPT	NA603675-PVDE
		CSPE	3/4" FNPT	NA603675-PVDC
		TFE	3/4" FNPT	NA603675-PVDT
		Viton	3/4" FNPT	NA603675-PVDV
	316 SS	EPDM	3/4" FNPT	NA603675-316E
		CSPE	3/4" FNPT	NA603675-316C
		TFE	3/4" FNPT	NA603675-316T
		Viton	3/4" FNPT	NA603675-316V
175 cubic inches	POLY	EPDM	2" FNPT	NA617520-FPPE
		CSPE	2" FNPT	NA617520-FPPC
		TFE	2" FNPT	NA617520-FPPT
		Viton	2" FNPT	NA617520-FPPV
	PVDF	EPDM	2" FNPT	NA617520-PVDE
		CSPE	2" FNPT	NA617520-PVDC
		TFE	2" FNPT	NA617520-PVDT
		Viton	2" FNPT	NA617520-PVDV
	316 SS	EPDM	2" FNPT	NA617520-316E
		CSPE	2" FNPT	NA617520-316C
		TFE	2" FNPT	NA617520-316T
		Viton	2" FNPT	NA617520-316V

Specifications: 150 PSI Maximum Pressure

Water Meters - Contacting Head Water Meters

Multi-Jet Meters:

3/4 in. to 2 in., are designed for use in conjunction with a pulse timer to proportionally control pumps, valves etc. Typical applications include water treatment in cooling tower and boiler systems, water chlorination, car washes and other industrial processes which require proportional control. The Multi-Jet chamber of the water meter assures accuracy over a wide range of flows with low head loss. To prevent wear and maintain accuracy the load is equally distributed on the impeller.

Turbine Meters:

3 inch to 6 inch operate continuously with exceptional accuracy. Each meter incorporates a highly efficient horizontal turbine that essentially floats on the water. The turbine is attached to a Tungsten steel shaft riding in Jewel bearings. The rotation of the turbine is transmitted through a magnetic drive to a sealed odometer register.



Lead Free Brass Contacting Water Meters - Cold Water			
Part Number	Rating	Size	Gallons Per Contact (GPC)
MTR100-G	.25 - 20 GPM	.625" x .75"	Less Reed
MTR101-G	.25 - 20 GPM	.625" x .75"	0.1 GPC
MTR102-G	.25 - 20 GPM	.625" x .75"	0.25 GPC
MTR103-G	.25 - 20 GPM	.625" x .75"	0.5 GPC
MTR104-G	.25 - 20 GPM	.625" x .75"	1 GPC
MTR107-G	.25 - 20 GPM	.625" x .75"	10 GPC
MTR300-G	.75 - 50 GPM	1" NPT	Less Reed
MTR301-G	.75 - 50 GPM	1" NPT	0.1 GPC
MTR302-G	.75 - 50 GPM	1" NPT	0.25 GPC
MTR304-G	.75 - 50 GPM	1" NPT	1 GPC
MTR307-G	.75 - 50 GPM	1" NPT	10 GPC
MTR400-G	1.5 - 100 GPM	1.5" NPT	Less Reed
MTR402-G	1.5 - 100 GPM	1.5" NPT	0.25 GPC
MTR404-G	1.5 - 100 GPM	1.5" NPT	1 GPC
MTR407-G	1.5 - 100 GPM	1.5" NPT	10 GPC
MTR504-G	2 - 160 GPM	2" NPT	1 GPC
MTR507-G	2 - 160 GPM	2" NPT	10 GPC

3/4" - 2" Meters have male Epoxy Coated NPT Bronze Bodies with unions, rated for 150 PSI max, 105 F max.

Brass Contacting Water Meters - Cold Water			
Part Number	Rating	Size	Gallons Per Contact (GPC)
MTR200-A	.5 - 30 GPM	.75" NPT	Less Reed
MTR201-A	.5 - 30 GPM	.75" NPT	0.1 GPC
MTR203-A	.5 - 30 GPM	.75" NPT	0.5 GPC
MTR204-A	.5 - 30 GPM	.75" NPT	1 GPC
MTR207-A	.5 - 30 GPM	.75" NPT	10 GPC

3/4" - 2" Meters have male Epoxy Coated NPT Bronze Bodies with unions, rated for 150 PSI max, 105 F max.

Turbine Contacting Water Meters - Cold Water			
Part Number	Rating	Size	Gallons Per Contact (GPC)
MTR610	440 GPM	3" Flanged	100 GPC
MTR613	440 GPM	3" Flanged	1,000 GPC
MTR710	660 GPM	4" Flanged	100 GPC
MTR810	1650 GPM	6" Flanged	100 GPC
MTR813	1650 GPM	6" Flanged	1,000 GPC

3", 4" & 6" Meters have Epoxy Coated Ductile Iron Flanged Bodies, rated for 200 PSI max, 105 F max.

Mixers

Mounts

Bracket Mount: two rugged steel brackets with four stainless steel bolts for mounting on a flat surface.

Thread Mount: provides a 2" threaded nipple for direct mounting on the bung of a supply drum or other threaded connector.

Flange Mount: a steel flange with four stainless steel bolts for mounting the mixer directly over the shaft hole.

Horsepower and Motor Types

Open: 1/3 and 1/2 horsepower motors are 1725 rpm, 115 volt, 60 cycle, split phase, sleeve bearing. 1 horsepower motors are 1725 rpm, 115/230 volt, 60 cycle, capacitor start, sleeve bearing.

Totally Enclosed: 1/20 horsepower motors are 1500 rpm, 115 volt, 60 cycle, ball bearing, shaded pole, totally enclosed air open.

Prewired: 6', 3 wire 18 gauge SJ cord and plug installed at factory

Vinyl Coated: Special vinyl corrosion resistant coating for stainless steel impeller and shaft required for sodium hypochlorite.

Optional Features

Suction Tube Shield Assembly: 1" PVC tube. Prevents pump suction tubing from entangling with mixer blade.

Part Number

28655 = 29" - 55 gal. (See page 19 for table)

28656 = 20" - 35 gal. (See page 19 for table)



Mixers					
Mount	Motor Type	Model Number	Description	HP	Shaft Length
Bracket Mount	Totally Enclosed Air Open	42747	115V ONLY	1/20	28"
		42844	115V / Prewired	1/3	36"
		J42872	230V/60Hz / Prewired	1/3	36"
		J64080	230V/50Hz / Vinyl Coated	1/2	36"
		42779	115V/230V/60Hz / Vinyl Coated	1/2	44"
		42733	115V	1	48"
Flange Mount	Totally* Enclosed Air Open	J64013	115V / Prewired	1/20	24"
		J64027	115V / Vinyl Coated & Prewired	1/20	24"
		42748	115V	1/20	28"
		42753	115V / Prewired	1/20	28"
		42827	230V/50Hz / Prewired	1/20	28"
		42821	115V / Vinyl Coated & Prewired	1/20	28"
		J64017	230V/50Hz / Vinyl Coated & Prewired	1/20	28"
		J42887	230V/60Hz / Vinyl Coated & Prewired	1/20	28"
Thread Mount	Open	42729	115V / Prewired	1/3	36"
	Totally Enclosed Air Open	42739	115V	1/20	28"

All Mixers are equipped with 316SS impeller
WHEN MIXING SODIUM HYPOCHLORITE, ORDER VINYL SHAFT COATING.
 No Mixer on 15 gallon Tank. Mixer shafts will be cut to length on request.
 For explosion proof motor consult factory.
 * Use only Tank Model 40365 or J40366 with 1/20 hp Mixers.

Material Specifications	Description
Shaft Materials	316 Stainless Steel
Standard Shaft O.D. and Length	1/20 horsepower 5/16" x 28"
	1/4 horsepower 1/2" x 34"
	1/3 horsepower 1/2" x 36"
	1/2 horsepower 1/2" x 44"
	1 horsepower 5/8" x 48"
Shaft Motor/Coupling Mounts	Brass with Stainless Steel set screws. All mounts are steel with corrosion resistant paint. All bolts are 18/8 Stainless Steel.
Impellers	Impeller sizes vary with each horsepower motor to provide maximum mixing action with each motor. 316 Stainless Steel recommended for non abrasive solutions that accept 316 Stainless Steel.

Solution Tanks

Tank Systems are a rugged line of tanks designed to fit most solution handling needs. All tanks are constructed of polyethylene (PE) and come in a variety of sizes.

Light Duty Linear Tanks

Our Light Duty Linear Tanks come in sizes from 15 to 75 gallons. The 15 gallon tanks are translucent with 5 gallon increments and feature child resistant black caps. 30 gallon tanks are HDPE Cream and 40 gallon tanks are HDPE White. The 75 gallon tanks are HDPE Black and feature a integral molded top with a 4 inch diameter opening.

Heavy Duty Tapered Tanks

Tapered HDPE tanks feature rigid covers which allow the top mounting of Chem-Tech 100, 200 and most PULSAtron pump models. 1/20 HP Flange Mount Mixers may also be mounted on the cover. Tanks available in 35 and 50 gallon capacities are translucent with 5 gallon graduations. (Not suitable for use with 1/3 HP Flange Mount Mixers.)

Industrial Duty Tank Systems

Tanks and covers are constructed of translucent PE with tank stands constructed of heavy gauge steel with a black corrosion resistant finish. The space conserving base for pump mounting under tank prevents loss of prime by maintaining a flooded suction. Industrial Duty Tank Systems come completely piped with PVC bulkhead, ball valve, Y strainer and suction tubing. Tank features graduated increments in both U.S. gallons and liters.



			Stand Options			
	Size Gallons	Wall	Tank Model	Series 100	Series C, C+, A+ & E*	Series E+ & E (LE33, LE34 & LE44)
Light Duty	15	0.078"	40375	39320	J39373	J39378
	30	0.094"	J40360	39322	J39374	J39379
	40	0.094"	J40361			
	75	0.125"	J40362	39324	J39377	J39382
Heavy Duty	35	0.125"	40365	39323	J39375	J39380
	50	0.125"	J40366	39321	J39376	J39379

* Note: All Series E pumps except (LE33, LE34 & LE44)

	Size Gallons	Height Tank Only	Dia at Base	Dia at Top	Wall Thk.	Material	Lid / Cover Type	Pump Mounting Options	Part Number
Heavy Wall	30	21.75"	21"	24.5"	0.25"	PE Translucent	Rigid PE Cover	Cover Mount	42400
	55	33.75"	21"	24.5"	0.25"				42401
Industrial	30	32"	18"	21"	0.25"	PE Translucent	FRP w/ White Gelcoat	Base Mount	42402
	55	32"	24"	27"	0.25"				42396
	100	37"	30"	33"	0.31"				42397
	150	54"	30"	33"	0.31"				42398
	200	56"	34"	37"	0.31"				42399

Double Wall Containment Tanks

Dual Containment Tank Systems are designed for chemical feed and water treatment applications. All prices include standard access openings and threaded connections making these tanks ready to place in service as equipped. All of our tanks meet or exceed the EPA's requirements for secondary containment under 40-CFR 264.175. Standard Openings— 8" (16" on 300 gal.-up) Twist Lid, 2" & 1" female NPT top connections (plugged).



Double Wall Containment Tank							
Item Type	Size Gallons	Height	Diameter	Material	Lid / Cover Type	Pump Mounting Options	Part Number
Dual Wall w/ Fill Top & Pump Mount Pad	15	25.25"	19.5"	Blue PE	4" Fill Cap	None	42403
	20	23"	23.25"				42404
	40	40.5"	23.25"				42405
	62	38.25"	25"		8" Fill Cap		42406
	120	47"	32"				42407
	220	47"	48"				42408
	300	60"	48"				42409
	500	61"	60"		16" Fill Cap		42410

Integrated Tank Systems

The ITS System is a completely integrated tank system constructed of high density UV resistant polyethylene (PE) with a 15 gallon capacity. This tank system is translucent with 5 gallon increments and the tank's low level indicator allows visual monitoring of chemicals without opening the tank. The tight fitting child proof lid keeps the chemical free of contaminants and protects the surrounding area from chemical fumes.

The ITS System also allows for easy access to the liquid end and control panel of the mounted pump.

A system consists of a chemical tank with lid and bulkhead fittings, a liquid level indicator, float assembly and feeder mounting hardware.



ITS Tank Systems					
Size Gallons	Pump Type	Pump Series	Housing	Tube Conn. Size	System Part No.
15	Chem-Tech	XP	N/A	1/4"	J63063
		Series 100		3/8"	J40489
				1/2"	J40490
	PULSAtron	"1" or "J" conn.	Series A+, C, C+, E (except below)	3/8"	J40492
		"A" conn.		1/2"	J40493
		"1" or "J" conn. #3 conn.	E (LE33-44) and E+	3/8"	J40495
			1/2"	J40496	

1

Tank, Stand & Feed Pump Tank Systems

The TSF System is a complete compact feed system with from 7.5 up to 15 gallon capacity. The chemical storage tank and metering pump both mount on a common, fitted base for a precise, secure installation. The 15 gallon tank has a low level indicator that allows visual monitoring of supply without opening the tank.



TSF Selection Table				
Size Gallons	Pump Type	Pump Series	Tube Conn. Size	System Part No.
15	Chem-Tech	Series 100	1/2"	J40442
			3/8"	J40443
	PULSAtron	"A" conn.	1/2"	J40444
		#1 conn.	3/8"	J40445
		"J" conn.	5/16"	J40482

1

PVC Tank Accessories

PVC Tank Accessories		
Tube Size	Component	Part Number
1/2"	Y - Strainer	40085
	Shut-Off Valve	41558
	Bulkhead Assembly	26861

1

Spill Containment - Pallet & Accessories

Safely store your Chemical Drums on our 1, 2 or 4 Drum Spill Containment Pallets. These rugged polyethylene pallets are available with or without covers and exceed the EPA's requirements for secondary containment in 40-CFR 264.175.



Spill Containment	
Part Number	Description
42420	1 Drum Containment Pallet, 12" x 40" x 40", PE
42421	1 Drum Spill Containment Unit with Hardtop, 66" x 36" x 36"
42422	2 Drum Containment Pallet, 8.75" x 40" x 65.5"
42423	2 Drum Spill Containment Unit with Hardtop, 74" x 41.25" x 67.25"
42424	4 Drum Containment Pallet, 11.75" x 53" x 53"
42426	Loading ramp for 1 and 4 drum spill pallets w/o cover
42427	Caster dolly for 1 drum unit with cover

1

Pump Containment Shelf

The Pump Containment Shelf is designed to safely and securely mount your metering pumps on a wall or level surface and contain any potential spills caused by pump or tubing leaks. The Pump Containment Shelf has a 1/4" FPT drain connection on the base that can be connected to a drum or other container to automatically catch any potential leaks that may occur. The pump base is elevated and removable for the easy installation and servicing of your pumps. The cover protects your equipment from the elements and tampering by unauthorized personnel. The view window allows visual inspection of the enclosures interior while the lid is secured. Designed for up to 2 standard Pulsatron or Chem-Tech metering pumps.



1 or 2 Pump Containment Shelf - PE	
Part Number	Description
42411	Pump Containment Shelf with Cover - 22"H x 19"W x 19"D

1

Static Inline Mixer

The inline static mixer uses ordinary line pressure to create turbulence which provides good chemical mixing in the process line.

PVC construction

Accommodates flow rates from 3 to 25 GPM

1" NPT inlet and outlet

1/2" diameter chemical port inlet

140 psi

Weight: 1 lb.

10.0" long, 2.8" OD



Static Inline Mixer	
Part Number	Description
STM100-PVC	Static Inline Mixer

1

Bulkhead Fitting Assemblies

Installation of a metering pump in a flooded suction installation requires the installation of a bulkhead fitting through the side wall of the tank in order to connect the suction and bleed valve to the return tubing. The 3/8" bulkhead is typically used for the bleed valve return line which is why it is supplied without a strainer.



Bulkhead Fitting Assemblies			
Tube Size	Strainer	Part Number (Kit Only)	Part Number (Assembled in Tank)**
5/16"	Yes	J26906	
3/8"		26860	26860AT
	No	J26885	J26885AT
1/2"	Yes	26859	26859AT

1

** Fitting will be pre-assembled when ordered with this part number and a 15 - 75 gallon tank.

Flow Meter

Easy to install, easy to maintain flow meters. Calibrated in GPM/LPM with easy to read numbering. Available 1" to 4" pipe size. Durable acrylic construction at economical prices. Rated at 120 PSI max.



Visual Flow Meters				
Part Number	Description	GPM	LPM	Accuracy
U8800424	1" Flowmeter	5-35 GPM	20-130 LPM	5-10%
U8800438	1 1/4" Flowmeter	10-60 GPM	40-220 LPM	5-10%
U8800439	1-1/2" Flowmeter	20-80 GPM	80-300 LPM	5-10%
U8800440	2" Flowmeter	30-140 GPM	120-550 LPM	5-10%
U8800441	2-1/2" Flowmeter	40-200 GPM	160-750 LPM	5-10%
U8800442	3" Flowmeter	80-350 GPM	300-1300 LPM	5-10%
U8800443	4" Flowmeter	150-600 GPM	600-2200 LPM	5-10%

1

Liquid Level Wands

The Level Wand is designed to be inserted into a chemical container with a 2" bung hole. The wand can then be adjusted to the proper level and secured in place. A low voltage cable connects the control box to the level wand. When a low level condition occurs the monitor deactivates the metering pump control relay and at the same time activates the alarm output relay.

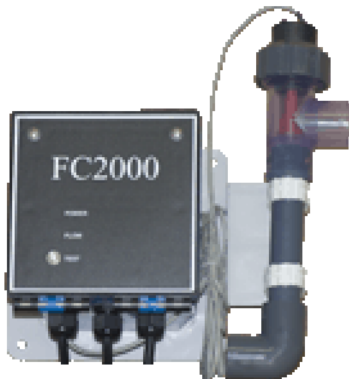


Liquid Level Wands	
Part Number	Description
16-171-81-4	Level Wand - Level adjustable up to 60". Switch contacts 28 VDC 50 mA. Order 16-171-81-3 when using PULSAtron Pumps with the Stop Function Feature.
16-171-81-1	Level Wand - Level adjustable up to 42". Switch contacts 28 VDC 50 mA. Order 16-171-81-3 when using PULSAtron Pumps with the Stop Function Feature.
16-171-81-2	Level Wand - Level adjustable up to 26". Switch contacts 28 VDC 50 mA. Order 16-171-81-3 when using PULSAtron Pumps with the Stop Function Feature.
16-171-81-3	10' cable w/ connector for 16-171-81-1, 16-171-81-2 & 16-171-81-4 to use w/ PULSAtron Pumps with the Stop Function Feature

NOTE: When utilizing a Pump Model w/ external/stop feature, order 16-171-81-4, 16-171-81-1 or 16-171-81-2 in addition to 16-171-81-3.

Flow Controller

The versatile Flow Controller may be used to establish flow/no-flow control of metering pumps in various applications. Each unit comes prewired with an eight-foot, three-wire power cord for easy installation. A test switch is also provided for manual circuit tests.



Flow Controllers	
Model No.	Description
FC2000	Flow Controller - Standard flow controller has 3/4" PVC threaded connections with 3/4" PVC slip adaptors to use if needed. 1 GPM minimum flow required for activation
FC2000C	Flow Controller - Standard flow controller w/ 1" PVC slip connectors; 1 GPM min. flow required for activation.
Available options for FC2000 & FC2000C:	
Receptacle functions (Standard--both on with flow)	
1	Both on with no flow
2	One on with flow, other on no flow
3	One on with flow, other service
4	One on with no flow, other service

Adjustable Back Pressure & Pressure Relief Valves

Back Pressure valves provide positive back pressure for systems with less than the minimum required pressure difference between the discharge and suction side of the metering pump to assure best metering performance. Select to match the pumps' discharge connection size. In installations where the injection point is lower than the level of chemical in the supply tank the potential for gravity feeding of chemical is a possible concern. Back Pressure valves prevent this from occurring and can be easily added to most chemical feed pumps.



Back Pressure & Pressure Relief Valves - 150 PSI			
Component	Size NPT	Material	Part Number
Pressure Relief Valves	1/2"	PVC/TFE	NA100001-PVC
	1/2"	PVDF/TFE	NA100001-PVD
	1/2"	SS/TFE	NA100001-316
	1"	PVC/TFE	NA100002-PVC
	1"	PVDF/TFE	NA100002-PVD
	1"	SS/TFE	NA100002-316
	1.5"	PVC/TFE	NA100003-PVC
	1.5"	PVDF/TFE	NA100003-PVD
Back Pressure Valves	1/2"	PVC/TFE	NA200001-PVC
	1/2"	PVDF/TFE	NA200001-PVD
	1/2"	SS/TFE	NA200001-316
	1"	PVC/TFE	NA200002-PVC
	1"	PVDF/TFE	NA200002-PVD
	1"	SS/TFE	NA200002-316
	1.5"	PVC/TFE	NA200003-PVC
1.5"	PVDF/TFE	NA200003-PVD	

PULSAtron 1" Flow Meters

Pulsafeeder's PULSAtron 1" Flow Meter without the controller shown on pg can be used as a standalone Hall effect meter for use with XPV Series and MicroVision Series products as well as any product that has a Hall effect input. The meter is available with a controller that has a 4-20mA output.



PULSAtron 1" Flow Meter	
Part Number	Description
04-610-10	1" Flow Meter 28" Cord
04-610-11	1" Flow Meter 15" Cord

PULSAtron 1" Flow Meter with Controller	
Part Number	Description
04-610-12	1" Flow Meter with Controller 28" Cord
04-610-13	1" Flow Meter with Controller 15" Cord

1

Flow Indicator

The Pulsafeeder flow indicator meets the revised NSF standard requirement for a visual signal to determine that a pump is delivering a solution. The indicator is easily attached to the supply line or discharge line and a ball visually indicates that the solution is being delivered by its position in the indicator. The flow indicator is reliable, easily observed and virtually nonsusceptible to functional failures.



Flow Indicators	
Part Number	Description
U7012309	Flow Indicator 1/4" x 3/8" Acrylic Body (100 PSI max)
U7012383	Flow Indicator 1/8" x 1/4" Acrylic Body (100 PSI max)

1

Tube Shield

The Suction tubing shield protects the metering pumps suction line from tank mounted mixer impellers and also insures the tubing remain vertical in the tank.



Tube Shield	
Model Number	Description
28655 29" - 55 gal.	Suction Tube Shield Assembly. 1" PVC tube. Prevents pump suction tubing from entangling with mixer blade.
28656 20" - 35 gal.	

1

Strainer Assembly



Strainer Assembly	
Part Number	Description
J60576	Strainer Assembly FPP/TFE/C 1/2"OD
J60716	Strainer Assembly PVD/TFE/C 3/8"OD
J60728	Strainer Assembly PVD/TFE/C 1/2"OD

1

Calibration Columns & Kits



Calibration columns are used on the supply side of the pump to permit flow calibration. Never subject the column to vacuum or pressure. The calibration kits includes compression fittings for connecting them to pumps with tubing connections, and isolation valves. To determine the minimum column capacity (mL); Multiply the pumps' rated flow rate, GPH x draw down time, sec. x 0.00028 x 3785.

Calibration Kits		
Size	Column	Assembled Part Number
3/8" OD	200 mL	L9908502-001
1/2" OD		L9908503-001

Calibration Columns		
Size	Column	Part Number
1/2"	PVC 100mL	NA300001-PVC
1/2"	PVC 200mL	NA300002-PVC
3/4"	PVC 500mL	NA300003-PVC
3/4"	PVC 1000mL	NA300004-PVC
1"	PVC 2000mL	NA300005-PVC
1"	PVC 4000mL	NA300006-PVC
2"	PVC 10,000mL	NA300007-PVC
2"	PVC 20,000mL	NA300008-PVC
1/2"	Glass/PVD 100mL	NA300009-PVD
1/2"	Glass/PVD 200mL	NA300010-PVD
3/4"	Glass/PVD 500mL	NA300011-PVD
3/4"	Glass/PVD 1000mL	NA300012-PVD
1"	Glass/PVD 2000mL	NA300013-PVD
1"	Glass/PVD 4000mL	NA300014-PVD

Five Function Valve

This easily installed valve allows simple, one-handed operation. Upgrades Chem-Tech Series 100 and Series 200 metering pumps, plus all pulsatron models up to 240 GPD

- Relieves Pressure
- Aids Priming
- Drains Discharge Line
- Controls Back Pressure
- Prevents Siphoning



Five Function Valve Selection Guide		L380
Five Function Valve	L380 = Five Function Valve	
Max Pressure Rating	B = 50 PSI D = 100 PSI F = 150 PSI K = 250 PSI	
O-Ring Material	T = TFE	
Connection Size	01 = 3/8" (0.95 cm) OD Tubing Connection 02 = 1/4" (0.635 cm) Male MNPT Connection 03 = 1/2" (1.27 cm) OD Tubing Connection 0P = 4 x 6 mm 0N = 4 x 10 mm 0S = 6 x 10 mm 0Y = 6 x 12 mm 0Q = 10 x 14 mm	
Body Materials	PVD = Polyvinylidene Fluoride (PVDF or Kynar)	

Five Function Degas Valve

With the Five function De-Gas valve you don't have to give up the accuracy and control of a solenoid metering pump in order to pump gaseous solutions.

- Degassing
- Aids Priming
- Drains Discharge Line
- Controls Back Pressure
- Prevents Siphoning



Five Function/Degas Valve Selection Guide		L385
Five Function Valve	L385 = Five Function Degas Valve	
Max Pressure Rating	K = 250 PSI	
O-Ring Material	V = Viton H = CSPE	
Connection Size	01 = 3/8" (0.95 cm) OD Tubing Connection 02 = 1/4" (0.635 cm) Male MNPT Connection 03 = 1/2" (1.27 cm) OD Tubing Connection 0P = 4 x 6 mm 0N = 4 x 10 mm 0S = 6 x 10 mm 0Y = 6 x 12 mm 0Q = 10 x 14 mm	
Body Materials	PVD = Polyvinylidene Fluoride (PVDF or Kynar)	

6" Injectors

When injecting into a water line, its desirable to have the tip of the injection valve close to the center of flow to ensure adequate chemical dispersion. Pulsafeeder 6" injectors can be trimmed to accommodate various pipe sizes. Another alternative is to use a Pulsafeeder corporation stop assembly see page 22.



6" Injectors		
Size	Material	Part Number
3/8" OD	PVC-CSPE-C w/ Ball Check Assy	41705
1/2" OD		41698
3/8" OD	PVC-Viton-C w/ Ball Check Assy	41699
1/2" OD		41700
3/8" OD	FPP-Viton-C w/ Ball Check Assy	41701
1/2" OD		41702

1

In-line Anti-siphon Valve

In installations where the injection point is lower that the level of chemical in the supply tank the potential for gravity feeding of chemical is a possible concern. The inline anti-siphon valves prevent this from occurring and can be easily added to most chemical feed pumps.



In-Line Anti-Siphon Valve	
Part Number	Description
U8800406	In-Line Anti-Siphon Valve 3/8" OD PVC
U8800489	In-Line Anti-Siphon Valve 1/4" OD PVC
U8801263	In-Line Check Valve PVC/Viton 1/4"OD

1

Tubing - 100 Foot Rolls

Periodic replacement of a metering pumps suction tubing is recommended to ensure optimum system performance. Easily stock extra tubing with these convenient 100 foot rolls. Clear PVC tubing is used on the suction side and is rated up to 50 PSI, PE tubing can be used on the discharge and return lines and is rated up to 150 PSI. Other tubing materials are also available, consult the factory for more information.



Tubing - 100 Ft. Rolls		
Tube Size	Description	Part Number
3/8" OD	Clear PVC Suction	J41444
1/2" OD		J41445
3/8" OD	Translucent PE Discharge	J41447
1/2" OD		J41448
1/4" OD	Black PE - Disc.	J41452
	White PE - Disc.	U0811307

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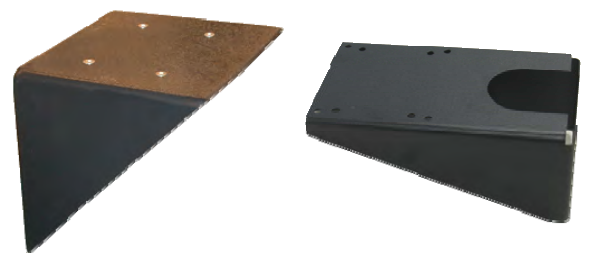
Wall Mounting Bracket

The rugged, Pulsafeeder wall mounting brackets provide for easy, secure installation of the metering pump in a variety of environments. Pulsafeeder has two types of materials for wall mount brackets available to suit your needs. Brackets are available in either plastic or steel. These wall mount brackets will provide a stable mounting surface for your pump with mounting hardware included, making installation simple.

Side Mount Bracket: For pumps that need to be side mounted the plastic wall mount bracket will hold a pump up to 22 pounds and Pulsafeeder's 12 gauge stainless steel wall mount bracket can hold a pump up to 50 pounds.

Forward Mount Bracket: For pumps requiring forward mount position Pulsafeeder's 14 gauge steel with black epoxy coat finish will support Pulsatron pumps with the #1 or #2 size housings.*

Pulsations with a #3 size housing are the Series MP, E+, E series models (H4, H5, H6, H7, H8, K7, J7).



Wall Mounting Bracket Assemblies		
Mount	Material - Max Pump Wt.	Part Number
Side	Plastic, 22 lbs	L9908200-000
	12 Ga. SS, 50 lbs	L9902700-000
Forward	*14 Ga. Stl, 50 lbs	L9911600-STL

1

*14 Gauge steel w/ black epoxy coat finish. Cannot be used w/ Series MP, E+, E series models (H4, H5, H6, H7, H8, K7, J7)

Corporation Stop

Pulsafeeder's high quality brass corporation stop and nozzle assembly disperses chemical into the center of a line for even mixing. The Corporation Stop also permits removal of the nozzle assembly and the corporation stop closed without shutting down the line that's being treated. Available in PVC or CPVC nozzles with a 7.75" nozzle insertion depth with a rated pressure of 150 psi maximum.



Corporation Stops		
Thread	Desc	Reduced Lead Compliant Part No.
3/4" AWWA	w/ PVC Nozzle Assy	J61462-LF
3/4" NPT		J61135-LF
1" AWWA		J61136-LF
1" NPT		J61191-LF
3/4" AWWA	w/ CPVC Nozzle Assy	J61462-C-LF
3/4" NPT		J61135-C-LF
1" AWWA		J61136-C-LF
1" NPT		J61191-C-LF

Controller Accessories

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Corrosion Coupon Racks

Our Corrosion Coupon Racks are hydrostatically tested for maximum system performance exceeding industry standards. These simple and reliable coupon test stations are typically installed on the side stream of re-circulating systems to allow for controlled testing of coupon samples. Samples are periodically removed and examined by a laboratory in order to calculate corrosion rates and other effects such as pitting and deposition.



Corrosion Coupon Racks				
Model Number	Stations	Mount	Piping	Description
CCR20	2 Station	.25" HDPE	3/4" PVC	3/4" PVC inlet ball valve
CCR20DF5	2 Station	Unistrut	3/4" black iron	Flow control valve 5 GPM (3/4" only)
CCR20DX7X8CF5	2 Station	Unistrut	3/4" black iron	3/4" brass gate valve 250 psi; Y strainer for 3/4" PVC; Flow control valve 5 GPM (3/4" only)
CCR20DXSX7	2 Station	Unistrut	3/4" black iron w/ SS Holder rod	3/4" brass gate valve 250 psi
CCR20X1X4X7	2 Station	.25" HDPE	3/4" PVC	Quick release coupon holders (PVC only); PVC outlet ball valve; 3/4" hot/cold water flow meter, Max. 100 psi (7 bar) @ 130°F (54°C).
CCR20X1X7F5	2 Station	.25" HDPE	3/4" PVC	Quick release coupon holders (PVC only); PVC outlet ball valve; Flow control valve 5 GPM (3/4" only)
CCR2D	2 Station	Unistrut	3/4" black iron	3/4" PVC inlet ball valve
CCR2X1X4X8A	2 Station	.25" HDPE	3/4" PVC	Quick release coupon holders (PVC only); Y Strainer for 3/4" PVC; 3/4" hot/cold water flow meter, Max. 100 psi (7 bar) @ 130°F (54°C).
CCR30	3 Station	.25" HDPE	3/4" PVC	3/4" PVC inlet ball valve
CCR40DXSX7	4 Station	Unistrut	3/4" black iron w/ SS Holder rod	3/4" brass gate valve 250 psi
CCR40X1X4X7	4 Station	.25" HDPE	3/4" PVC	Quick release coupon holders (PVC only); PVC outlet ball valve; 3/4" hot/cold water flow meter, Max. 100 psi (7 bar) @ 130°F (54°C).
CCR40X1X7F5	4 Station	.25" HDPE	3/4" PVC	Quick release coupon holders (PVC only); Flow control valve 5 GPM (3/4" only); PVC outlet ball valve
CCR4DX7X8C	4 Station	Unistrut	3/4" black iron	3/4" brass gate valve 250 psi; Y Strainer for 3/4" black iron

2

Coupon Rack Accessories



Coupon Rack Replacement Parts	
Part Number	Description
16-756-51-1	Quick Release coupon holder with hardware
16-756-50	PVC and CPVC holder with hardware
16-756-42	Steel on black iron holder with hardware
33-022-16	3/4" hot/cold water flow meter

2

Coupons for Corrosion Coupon Racks & Deposit Monitors	
Part Number	Description
03-220-10	Mild Steel
03-220-00	Copper
03-220-60	303 Stainless Steel
03-220-70	304 Stainless Steel
03-220-20	316 Stainless Steel
03-220-50	Nickel
03-221-30	Brass
03-221-40	Bronze
03-221-50	Aluminum

2

Hand Held Testers

The HJ series hand held testers provide reliable and accurate conductivity measurements. The easy to read dial and LED indicator make taking readings quick and simple. The HJ series also feature a low battery indicator, selectable ranges, and easy calibration. The package includes calibration solution and a 9 V battery.



Hand Held Conductivity Testers	
Model No.	Description
HJ6BC	0-100, 0-1000, 0-10,000 $\mu\text{S}/\text{cm}$
HJ7B	0-50, 0-500, 0-5,000 $\mu\text{S}/\text{cm}$

2

Bowl Strainer - Cooling Tower Applications

The polypropylene bowl strainers ensure the controller's sensors are protected from debris in the sample stream piping. Rated 100 psi at 70°F.



Bowl Strainers	
Part Number	Description
12-069-62	3/4" Bowl Strainer (50 MESH)
12-069-64	3/4" Bowl Strainer (80 MESH)
12-069-66	3/4" Bowl Strainer (100 MESH)

2

Calibration Solutions

Standard solutions are available for conductivity, pH and ORP instrumentation calibration.



Calibration Solutions	
Part No.	Description
Conductivity Solutions (500 ml bottles)	
20-016-26	2000 conductivity (6 pack)
20-016-28	5000 conductivity (6 pack)
20-016-00	500 conductivity (1 bottle)
20-016-02	2000 conductivity (1 bottle)
20-016-04	5000 conductivity (1 bottle)
pH Kit Solutions	
20-016-36	pH 4 buffer solution - 4 oz
20-016-37	pH 4 buffer solution - 32 oz
20-016-38	pH 7 buffer solution - 4 oz
20-016-39	pH 7 buffer solution - 32 oz
20-016-40	pH 10 buffer solution - 4 oz
20-016-41	pH 10 buffer solution - 32 oz
ORP Kit Solutions	
20-016-42	ORP 100 mV buffer solution - 4 oz
20-016-43	ORP 100 mV buffer solution - 32 oz
20-016-44	ORP 465 mV buffer solution - 4 oz
20-016-45	ORP 465 mV buffer solution - 32 oz
Calibration Kit / Tee	
12-043-58	Calibration Kit / Tee

2

Solenoid Valves - Cooling Tower Applications



Standard Solenoid Valve



High Temp Solenoid Valve

Standard Solenoid Valves	
Part Number	Description
12-072-62	2 Way N/C 1/4" Stainless Steel Body with tefon Seat. 150 psi MOPD at 160 ^o F. 120/60, 110/50 volt - ASCO vlv
12-072-53	2 Way N/C 1/2" NPT Brass Body. 0 psi min - 150 psi MOPD at 180 ^o F. 120/60, 110/50 volt - ASCO vlv
12-072-54	2 Way N/C 3/4" NPT Brass Body. 0 psi min - 150 psi MOPD at 180 ^o F. 120/60, 110/50 volt - ASCO vlv
12-072-55	2 Way N/C 1" NPT Brass Body. 0 psi min - 150 psi MOPD at 180 ^o F. 120/60 volt - ASCO vlv
12-072-56	2 Way N/C 1" NPT Brass Body. 5 psi min - 150 psi MOPD at 180 ^o F. 120/60, 110/50 volt - ASCO vlv
12-072-57	2 Way N/C 1 1/2" NPT Brass Body. 0 psi min - 150 psi MOPD at 180 ^o F. 120/60 volt - ASCO vlv
12-072-58	2 Way N/C 1 1/2" NPT Brass Body. 5 psi min - 150 psi MOPD at 180 ^o F. 120/60 volt - ASCO vlv
12-072-59	2 Way N/C 2" NPT Brass Body. 5 psi min - 150 psi MOPD at 180 ^o F. 120/60 volt - ASCO vlv
High Temp Solenoid Valves	
12-072-60	2 Way N/C 1/2" NPT Brass Body. 1 psi min - 125 psi MOPD at 353 ^o F. 120/60 volt - ASCO vlv
12-072-61	2 Way N/C 3/4" NPT Brass Body. 2 psi min - 125 psi MOPD at 353 ^o F. 120/60, 110/50 volt - ASCO vlv
12-048-00	2 Way N/C 1/2" Brass Body, PTFE. 0 psi differential, 100 psi @ 356 ^o F. 115 VAC.
12-056-00	2 Way N/C 3/4" Brass Body, PTFE. 0 psi differential, 100 psi @ 356 ^o F. 115 VAC.

2

2

Motorized Ball Valves



EC Series Motorized Valve

EC Series - Motorized Valves	
Part Number	Description
Motorized Valves for Cooling Tower Applications Low differential pressure applications. Brass bodies. Spring return.	
12-045-00	1/2" NPT (25 psi maximum)
12-054-10	3/4" NPT (25 psi maximum)
12-057-00	1" NPT (15 psi maximum)

2

Motorized Ball Valves & Valve Packages - Boiler Applications

Materials of construction: Solenoid Valves are bronze body with stainless steel pilot and valves; Motorized Ball Valves are carbon steel body with 316 stainless steel ball and stem; Throttling Valves are carbon steel body and valve; and Orifice Unions are carbon steel union with stainless steel plates.



Throttling Valve

Valve Packages	
Timed Sample Systems	
Part Number	Description
16-896-00	Up to 100 psi Package includes 1/2" solenoid valve (12-048-00) and 1" orifice union with 4 orifice plates (12-012-00 and 12-013-50).
16-896-04	Up to 300 psi Package includes 1/2" motorized ball valve with heavy duty 90 degree actuator (16-892-00) and 1/2" flow throttling valve (12-046-01).
16-896-08	Up to 450 psi Package includes 1/2" motorized ball valve with 360 degree actuator (16-892-02) and 1" orifice union with 4 orifice plates (12-012-00 and 12-013-50).
Valve Packages	
Continuous Sample Systems	
Part Number	Description
16-896-02	Up to 100 psi Package includes 3/4" solenoid valve (12-056-00) and two 1" orifice unions with 4 orifice plates each (12-012-00 and 12-013-50).
16-896-06	Up to 300 psi Package includes 3/4" motorized ball valve with 90 degree actuator (16-892-01), 3/4" flow throttling valve (12-055-01), and 1/2" flow throttling valve (12-046-01).
16-896-10	Up to 425 psi Package includes 3/4" motorized ball valve with 360 degree actuator (16-892-04) and two 1" orifice unions with 4 orifice plates each (12-012-00 and 12-013-50).
Available option:	
-2	230 VAC service

2

Note: Materials of construction: Solenoid Valves are bronze body with stainless steel pilot and valves; Motorized Ball Valves are carbon steel body with 316 stainless steel ball and stem; Throttling Valves are carbon steel body and valve; and Orifice Unions are carbon steel union with stainless steel plates.



Motorized Ball Valve

Motorized Ball Valves	
Part Number	Description
16-892-00	1/2" motorized ball valve (10-75 Worcester Actuator)
16-892-01	3/4" motorized ball valve (10-75 Worcester Actuator)
16-892-02	1/2" motorized ball valve (10-36 Worcester Actuator)
16-892-04	3/4" motorized ball valve (10-36 Worcester Actuator)
Available option:	
-2	230 VAC service
Part Number	Description
12-040-00	Worcester 10-75 actuator only
12-040-10	Worcester 10-36 actuator only

2

Motorized Ball Valve Parts	
Part Number	Description
12-043-00	Worcester 1/2" steam rated ball valve only
12-051-00	Worcester 3/4" steam rated ball valve only
12-049-00	Mounting kit for 12-051-00 & 12-040-00

2

Flow Control Valves - Boiler Applications

Flow control valves maintain sufficient back pressure in boiler blowdown lines in order to prevent flashing and to ensure adequate blowdown rates. The orifice union includes four plates, 1/16", 1/8", 1/4" and a 5/16". Flow control valves include an indexed position indicator.

Flow Control Valves



Orifice Union



Orifice Plates

Flow Control Valves	
Part Number	Description
12-075-01	3/8" valve (300 psi maximum)
12-046-01	1/2" valve (300 psi maximum)
12-055-01	3/4" valve (300 psi maximum)

2

Orifice Unions & Orifice Plates	
Part Number	Description
12-012-00-1	1" orifice union with set of (4) orifice plates
12-013-50	Set of four orifice plates

2

Sample Cooler

Pulsafeeder's Sample Cooler part number 12-066-00 is a safe method of withdrawing water from boilers, steam lines or tanks containing chemicals and for cooling the withdrawn liquid for subsequent chemical analysis.



Sample Coolers	
Part Number	Description
12-066-00	Sample Cooler

2

Bleed-Off Piping Assembly - Cooling Tower Applications

The pre-plumbed bleed-off assemblies make installation of a cooling tower bleed valve easy. The assemblies include a solenoid valve, Y strainer and a brass shutoff valve.



Bleed-off Piping Assembly	
Part Number	Description
Includes SVC solenoid valve, steel Y-strainer, and brass shutoff valve.	
16-900-18	3/4"
16-900-12	1"

2

NOTES

Policies and Procedures

1. **Manufacturer's Equipment Warranty**
 - a. Pulsafeeder warrants all pumps and controllers of its manufacture to be free of defects in material or workmanship. Liability under this policy extends for 24 months from the date of shipment. The manufacturer's liability is limited to repair or replacement of any failed equipment or part which is proven defective in material or workmanship upon manufacturer's examination. This warranty does not include removal or installation costs and in no event shall the manufacturer's liability exceed the selling price of such equipment or part.
 - b. The manufacturer disclaims all liability for damage to its products through improper installation, maintenance, use or attempts to operate such products beyond their functional capacity, intentionally or otherwise, or any other unauthorized repair. The manufacturer is not responsible for consequential or other damages, injuries or expense incurred through the use of its products.
 - c. The above warranty is in lieu of any other warranty, whether expressed or implied. The manufacturer makes no warranty of fitness or merchantability. No agent of ours is authorized to provide any warranty other than the above.
2. **Pulsafeeder's Parts and Accessory Warranty**
 - a. Pulsafeeder, Inc. warrants parts and accessories provided to be free of defects in material or workmanship. Unless otherwise noted below, liability under this policy extends for 90 days from date of shipment from the factory when sold as service parts. (Replaceable elastomeric parts (PTFE) are expendable and are not covered by any warranty either expressed or implied.)
 - b. This policy is extended to a full 12 months from the date of installation or 18 months from shipment from the factory whichever comes first on the following accessories:

Digital Glycol Feeders	Pre-Engineered Systems	Corrosion Coupon Racks
Analog Timers	Water Meters	Flow Controllers
 - c. MicroTrac and MicroVision toroidal probes are warranted for 24 months from date of shipment from the factory when purchased in conjunction with the controller.
All other electrodes/probes and sensors are considered maintenance items and such are warranted for six (6) months from the date of shipment when purchased in conjunction with the controller.
Any electrodes/probes other than toroidal and sensors purchased as spare parts are warranted for 90 days from date of shipment.
 - d. The manufacturer's liability is limited to repair or replacement of any failed equipment or part which is proven defective in material or workmanship upon manufacturer's examination. This warranty does not include removal or installation costs and in no event shall the manufacturer's liability exceed the selling price of such equipment or part.
 - e. The manufacturer disclaims all liability for damages to its products through improper installation, maintenance, use or attempts to operate such products beyond their functional capacity, intentionally or otherwise, or any unauthorized repair. The manufacturer is not responsible for consequential or other damages, injuries or expense incurred through the use of its products.
 - f. The above warranty is in lieu of any other warranty, whether expressed or implied. The manufacturer makes no warranty of fitness or merchantability. No agent of ours is authorized to provide any warranty other than the above.
3. **Process for All Returned Goods (Warranty Items)**
 - a. Please contact our Technical Service Department to request a RMA (Return Material Authorization) number prior to returning any goods. The following information will be required:
Billing and ship-to address
Model number and serial number
Contact name and phone number
Reason for return
Purchase order (where applicable)
A packing slip will be provided to the shipper and MUST accompany the product being returned. Packages received without our proper packing list will be refused by the receiver.
 - b. All material must be returned freight prepaid.
 - c. All material must be properly packaged to prevent damage in shipment.
 - d. All products used in a chemical application MUST accompany an MSDS
 - e. All products MUST be wiped and flushed clean of any and all chemicals, solvents or buffers and be warranted to be safe for handling. You will be requested to acknowledge the condition of the product being returned on our packing list. Any product received that is deemed to be unsafe for handling or without this acknowledgement will be refused by our receiver.
 - f. All warranty repairs will follow the 2 year warranty policy and will refer to the original purchase date.
4. **Non-Warranty Return Procedure (Charge Repair)**
 - a. If you are experiencing a concern with your Pulsafeeder product, first consult the distributor, dealer or Regional Sales Manager or the operation and maintenance manual for assistance. If service of your non-warranty unit is necessary, you must request a return material authorization. A RMA form will be issued and must be used as the packing list attached to the outside of the box. Please send the unit freight prepaid with the RMA number visibly displayed on the outside of the carton. All products MUST be wiped and flushed clean of any and all chemicals, solvents or buffers and be warranted to be safe for handling. You will be requested to acknowledge the condition of the product being returned on our packing list. Any product received that is deemed to be unsafe for handling or without this acknowledgement will be refused by our receiver.
 - b. All products used in a chemical application MUST accompany an MSDS
 - c. The charges listed in the following table will apply.

Product	Repair Cost
Pumps and Pump Accessories – within 5 years of sale date	Current List Price x .50 x Part Discount Multiplier
Controllers and Controller Accessories within 5 years of sale date	Current List Price x .50 x Part Discount Multiplier
Any item older than 5 years from date of sale	With purchase order, \$50 bench fee to evaluate. The \$50 bench fee may be applied towards repair cost of unit or towards a new controller

All Charge Repairs have a 90 day warranty from date of repair.

Policies and Procedures continued

5. Credit for Return of New, Unused Equipment

- a. No equipment will be accepted beyond six months after date of shipment from factory for credit.
- b. Only new, unused and undamaged standard equipment will be accepted for return to stock.
- c. All credits are based on evaluation and acceptance of material as new and unused by Pulsafeeder. You will be requested to acknowledge the condition of the product being returned on our packing list. Any product received that is deemed to be unsafe for handling or without this acknowledgement will be refused by our receiver.
- d. A restocking fee of 25% will apply to returned goods. When a PO is provided for a replacement item at the time of the return request the restocking fee will be 15%. Note: any product mounted on a panel or skid will be charged a 50% re-stocking fee.
- e. A request for a Returned Material Authorization (RMA) number must be made prior to returning product to Pulsafeeder.
- f. All equipment shall be returned with the RMA Packing List form attached to the outside of the box.
- g. If any chemical, solvent or buffer has been introduced into the product it must be wiped and flushed clean of any and all substances prior to returning to Pulsafeeder.
- h. All material shall be returned freight prepaid.
- i. Private label products or Engineered Panel Mount Systems are not returnable.

6. Pricing Errors

- a. Pulsafeeder does their very best to avoid errors in billing. You will receive a confirmation of your order within 24 hours of order entry. If upon review the customer feels there is a discrepancy, they should contact Pulsafeeder Customer Service as soon as possible to resolve.
- b. Should an invoice be received that the customer believes to have incorrect pricing, they should notify Pulsafeeder Customer Service to investigate.

7. Missing Items

- a. If a product is received by the customer with an item missing the customer must notify Pulsafeeder Customer Service within 7 days of receipt of the product by the end user. A replacement item will be sent at no charge as quickly as possible.
- b. If a shipment is received by the customer with a line item missing they must notify Pulsafeeder Customer Service within 7 days of receipt of the product by the end user. If the customer had been billed for that item, a credit will be issued against the original Sales Order and a new Sales Order will be created for the replacement product.

8. Damaged Items

- a. Should the customer receive an order that was damaged in transit, the customer must notify the carrier directly to initiate a claim on the day of delivery.
- b. Should the customer receive a product with damaged components due to improper packaging they should notify Pulsafeeder Customer Service within 7 days of receipt of product by end user. A replacement item will be sent at no charge as quickly as possible.

9. Technical Support Services Available

- a. Pulsafeeder's Sales Support team available all your and support. *The principle mission of this group is to sell and support our customer base in a timely and effective manner. This includes the ability to provide in-field service training, assistance in start-up of our products and perform field repair of goods when required.*
- b. Scope
Pulsafeeder, Inc. factory Field Service Technicians are available throughout the World for field services on all Pulsafeeder products. Services include:
 - i. Maintenance Training Seminars, including Classroom slide presentations and or Hands-on Training. The seminar will take approximately four to five hours, and if time permits minor repair and or adjustments may be made to the customer's pumps, controllers or accessories.
 - ii. Pre-start up inspections and start up testing/calibration of pumps, controllers and accessories.
 - iii. Field repairs of pumps controllers and accessories
 - iv. Diagnosing and recommending solutions to systems problems.

Fee Schedule	Service Rate (1)
Field Repairs and Start-Ups	
Normal 8 hour day	\$125.00 / hour
Overtime (in excess of 8 hrs each day)	\$175.00 / hour
Sundays, National Holiday	\$225.00 / hour
Travel time to job site and return	\$115.00 / hour
Travel expenses (air fare, hotel, car and meals)	Chargeable to customer at cost.
Minimum charge	4 hour labor, plus travel time and expenses
End User Training Seminars	
Normal work day	\$1000.00 / day plus expenses (air fare, car rental, hotel and meals at cost)
Sundays, National Holiday	\$1800.00 / day plus expenses (air fare, car rental, hotel and meals at cost)

⁽¹⁾ All rates listed in this section are actual hourly and daily rates, not reference rates

TERMS & CONDITIONS

1 . **AGREEMENT.** The contract of sale resulting from Seller's documentation together with these terms and conditions ("Contract") constitutes the entire agreement between the parties hereto, except as modified in writing signed by both the Seller and Purchaser. The Seller is Pulsafeeder, Inc. and the Purchaser is identified in the Contract. Any terms in a purchase order, irrespective of their materiality, which are either different from or additional to Seller's conditions of sale, are objected to and are excluded unless the Seller expressly agrees in writing to such terms. Execution of such forms by Seller to accommodate Purchaser's procurement or accounting procedures or to evidence agreed up on change orders shall not be construed as assent to Purchaser's terms. Acceptance of the goods shipped shall constitute assent to Seller's conditions of sale. This Contract shall be binding up on Purchaser and Seller, and on their successors and assigns.

2 . **PROPOSAL OR QUOTATION.** A proposal shall not become binding up on Seller until it has been executed and returned by Purchaser. An oral quotation shall not be considered an offer: only a written confirmation thereof incorporating Seller's terms and conditions shall constitute an offer. All quotations are valid for 30 days unless stated different on the written quotation.

3 . **ORDER PLACEMENT.** All orders shall be subject to acknowledgement by Pulsafeeders and shall be subject to Pulsafeeder's terms and conditions in effect on the date the order is accepted. No modifications to the terms and conditions referred to or contained in any request for proposal, order, or other document from a customer shall apply unless negotiated and approved via written documentation with Pulsafeeder SPO. Any order cancellation or change request is subject to a cancelation / change fee.

The minimum order amount is US\$30.00 net based on Pulsafeeders list prices in effect at the time the order is received.

All orders must be submitted with correct pricing and shipping information. Orders submitted without correct pricing and shipping information may be rejected or delayed.

4 . **CREDIT.** Credit terms of payment must have the approval of Seller's Credit Department and must be specified in writing on Seller's invoice or in the Contract. If Purchaser's credit is found by Seller to be unsatisfactory . Seller may rescind or terminate this contract. If at any time during the term of this contract purchaser's financial responsibility becomes impaired or unsatisfactory to Seller, Seller reserves the right to stop shipment on notification to Purchaser, project owner and surety with a demand for payment in advance or at time of delivery for future deliveries or to require other security satisfactory to Seller and in the absence thereof, to cancel the unfilled portion of the Contract. Seller will notify Purchaser promptly of its decision to stop shipments and give an advance notice to the extent this is possible. In the absence of credit terms, sales are for cash.

5 . **PAYMENT.** Specific terms of payment for this order shall be set forth on the reverse side of this Contract or identified and appended hereto. Purchaser agrees to make payment at Seller's location specified in this Contract in lawful money of the United States. Purchaser further agrees to make all payments when due to Seller in accordance with the agreed terms of payment in this Contract without reference to Purchaser's agreement with or payments by the owner and with no right of retention.

6 . **INTEREST AND COSTS.** Purchaser agrees to pay interest at 1.5% per month (to the extent permitted by law) on all delinquent balances if and when assessed by Seller, and any attorney's fees or court costs arising out of and made necessary in collection of its obligation to Seller created by this Contract.

7 . **TAXES.** Any federal, state or local tax assessment, fee, duty or charge hereafter imposed on or measured by the products purchased hereunder shall be for Purchaser's account unless Purchaser furnishes Seller an acceptable exemption certificate from such tax, fee, duty or charge prior to shipment.

8 . **FORCE MAJEURE.** Seller shall make delivery in accordance with the terms of this Contract or within a reasonable time in the absence of any commitment, but Seller shall not be liable for delays or defaults in delivery caused by floods, fires, storms, or other acts of God, by war or act of public enemy (or civil disturbance), strikes, lock outs, shortages of labor or raw materials and supplies (including fuel) or production facilities, transportation service or equipment shortages or failures, action of any governmental authority or other conditions beyond Seller's reasonable control.

9 . **CANCELLATION.** If Purchaser desires to cancel or change any portion of this Contract, the purchaser must make such request in writing to Seller. Seller may, in its sole discretion, accept or reject any such request. If accepted, the Purchaser nonetheless must take delivery and make payment to Seller for all material manufactured and in process of manufacture at time of notice, and all special materials ordered at time of notice and for which Seller must take delivery , unless otherwise agreed by Seller in writing. All such materials must be removed from Seller's premises within 30 days after payment and payment will due at time of notice. Seller also reserves the right to make a cancellation charge in the event of cancellation by the Purchaser of an order placed in Seller's shipping schedule and acknowledged by Seller. **Any order cancellation is subject to a cancelation fee.**

10 . **INSPECTION AND TESTING .** Seller's standard specifications and tests apply to all orders. All charges for inspections or tests not regularly furnished are for Purchaser's account and subject to prior negotiation. All inspections shall be conducted at Seller's plant, and failure of Purchaser to avail himself of inspection privileges shall be deemed a waiver of such privileges.

11 . **PRICES.** Prices are subject to change without notice. Orders based on published prices and accepted for scheduled shipment will be invoiced at Seller's applicable price in effect on the scheduled date of shipment, unless otherwise specifically noted on the order acknowledgment. All prices will be in accordance with applicable government regulations. Orders specifying palletizing or special packaging will involve special charges.

12 . **DELAYS.** All orders are accepted subject to Seller's ability to make delivery at the time and in the quantities specified, and Seller shall not be liable for damages for failure to make partial or complete shipment or for any delay in making shipments. Purchaser shall be liable for any added expenses incurred by Seller because of Purchaser's delay in furnishing requested information to Seller, delay resulting from order changes by Purchaser, or delay in unloading shipments at delivery point.

13 . **SHIPMENT.** Seller will select method of shipment and routing when transportation charges are for account of Seller. When shipping instructions are specified by the Purchaser, all costs will be for the account of the Purchaser. The foregoing includes, but is not limited to, carriers charges for notification prior to delivery, demurrage, delay in unloading, diversion, or reconsignment. All shipments are Free Carrier (FCA) or EX Works(EXW) (Incoterms 2010) shippers dock Punta Gorda FL.

On all customer arranged freight (will advise) the customer has 48 hours after Pulsafeeder has advised them that the shipment is complete and ready for shipment to arrange pickup. If the shipment has not left Pulsafeeder within the 48 hour period the customer will be charged 1% of the shipment invoice value for each 24 hour period that the shipment remains at the Pulsafeeder facility. Pulsafeeder may also place the shipment in a public storage at the customer's expense and without liability to Pulsafeeder.

Any expedited order will be subject to a expedite fee.

Unless the order clearly requests expedited shipping, the order will be treated as a routine order. When expedited shipping is requested a designated carrier must be selected. Orders that need to ship the same day must be received by 2:00 PM EST. Same day and next working day shipping is generally available for larger orders but not guaranteed, please verify with customer service. Pulsafeeder shall have no liability if it is unable to provide expedited shipping of an order.

14 . TITLE. Title to products transfers up on shipment from the Pulsafeeder facility according to FCA Shippers Dock or EXW Punta Gorda FL (Incoterms 2010). Purchaser is then responsible for proper protection of product, placement, compliance with all regulations and ordinances, and will indemnify Seller against all claims for personal injuries or property damage arising from the storage, use or handling of such products.

15 . IN TRANSIT CLAIMS. Claims for damage or shortage in transit must be made against the carrier by the owner of the shipment according to the FCA or EXW terms of the Contract. Purchaser has the responsibility to inspect shipments before or during unloading to identify any such damage or shortage and see that appropriate notation is made on the delivery tickets or an inspection report furnished by the local agent of the carrier in order to support a claim.

16 . CLAIMS. Notice of Claims against Seller hereunder for any reason, must be made to Seller in writing promptly after discovery and within any applicable warranty period. Failure to give such notice to Seller shall constitute a waiver by Purchaser of any right later to assert such a claim.

17 . RETURNS. Returned goods shall be accepted for credit only if in salable condition and only with evidence of Seller's prior written consent. Seller will assess charges for freight both ways and any costs necessary to restore such goods to the regular plant inventory . The amount of credit given will depend further up on the degree of salability of products accepted in opinion of Seller.

18 . PATENTS. Seller agrees to defend, and to protect Purchaser against loss or damage arising out of any legal action for patent infringement in connection with the manufacture of its products sold to Purchaser, provided Seller is notified promptly of any such action with complete information and is given an opportunity to defend.

19 . WARRANTY : LIMITATION OF LIABILITY. Seller warrants title to each individual product sold under this Contract and further warrants for a period of twenty four (24) months from ship date, but only to the extent and limit of the purchase price paid for such individual product, that such product conforms to the specifications set forth in the Contract and is free from defects in material and workmanship under normal service and use for which it was designed. Seller's sole obligation and Purchaser's exclusive remedy under this warranty shall be limited to one of the following, as selected by Seller: delivering to Purchaser a replacement for any product or part thereof determined by Seller to be defective, repairing such product or part, or refunding the purchase price (or an equitable portion thereof) paid for such product or part by Purchaser. SELLER MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY, AND NO OTHER WARRANTY, WHETHER EXPRESS OR ARISING BY OPERATION OF LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE IMPLIED SHALL EXIST IN CONNECTION WITH SELLER'S PRODUCTS OR ANY SALE OR USE THERE OF. Purchaser must notify Seller promptly and within the warranty period of any claim under this warranty. Seller's warranty extends only to the first purchaser of a product from Seller or Seller's authorized distributor. All goods not manufactured by Seller are warranted only to the extent of the warranties of the original manufacturer. Seller disclaims any liability arising from tort, including strict liability , and Seller further disclaims any liability (whether arising under this or any other provision of this Contract or otherwise) for any costs (including costs of removal or replacement), liabilities, lost profits, loss of good will or any other general, special, incidental or consequential damages incurred by Purchaser in connection with this Contract or any product purchased there under.

20 . LAW . This order shall be governed by and shall be construed by the law of the State of New York .

21 . GOVERNMENTAL REGULATIONS. Seller warrants that no code, law, regulation or ordinance of the United States, a state or any other governmental authority or agency or any applicable Executive Order has been violated in the manufacture or sale of the items covered by this Agreement and warrants that the equipment, supplies, and/or articles covered thereby conform with all such requirements.

22 . NUCLEAR FINANCIAL PROTECTION. Purchaser agrees to procure and maintain, as available to it, nuclear energy liability insurance, in a form of policy approved by the Nuclear Regulatory Commission, and protection, as available, against liability for nuclear incidents not covered by such insurance through an indemnity agreement, as provided in Section 170 of the Atomic Energy Act of 1954, as amended, or any succeeding comparable statutory provision, and the regulations there under. Such financial protection shall be effective prior to the time any equipment purchased from us is used or installed at or in connection with any nuclear facility and shall cover us an insured party . To the extent that such financial protection is not suitable to Purchaser. Purchaser agrees to use its best efforts to cause such financial protection to be obtained by eligible parties. We will cooperate with Purchaser and representatives of the nuclear energy insurance syndicates in complying with all underwriting requirements and with those insurance recommendations which may be mutually agreed up on. Notwithstanding any representations or warranties made by us elsewhere in these conditions of sale, we shall not be responsible for any bodily injury or property damage liability or any other public liability for any nuclear incidents, whether or not in respect of or arising in connection with use or installation of our equipment at any nuclear facility or in connection with any such facility . Purchaser hereby assumes any liability which might otherwise be imposed up on us and agrees to indemnify us and hold harmless from any such liability and costs or expenses in connection therewith.



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An ISO 9001 Certified Company

PLA001 J16
The logo for IBEX, consisting of the letters 'IBEX' in a bold, blue, sans-serif font with a stylized underline.