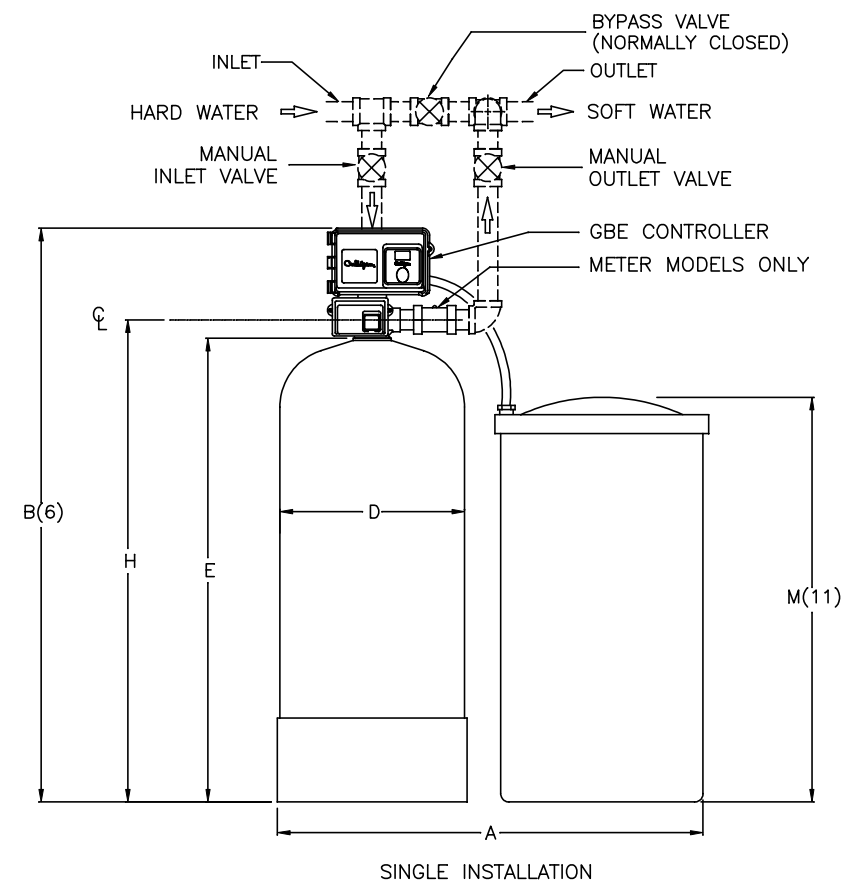
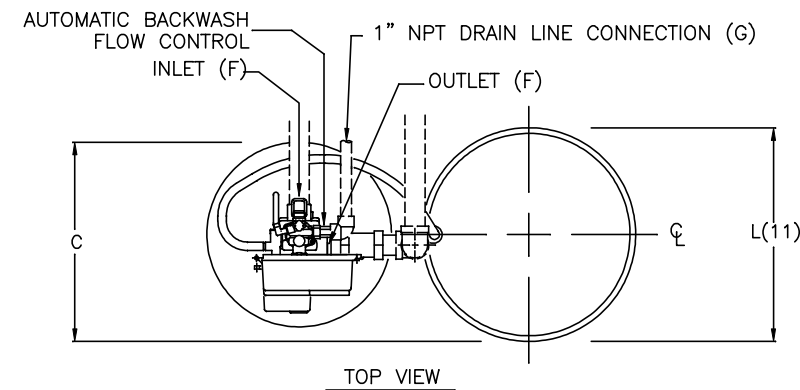


NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF CONTROL VALVE TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM, THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) TO PERMIT THE OBSERVATION OF THE DRAIN FLOW DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECT TO A VACCUM.
- (10) FOR MAXIMUM PROTECTION OF THE CONTROLLER, IT IS RECOMMENDED THAT A DEDICATED 120 VOLT CIRCUIT IS PROVIDED.
- (11) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM.

MODEL	DIMENSIONS (INCHES)									UNIT DATA PER TANK								
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(11)	BRINE TANK HEIGHT M(11)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	SIMPLEX OPER. WT. lbs.	SIMPLEX SHIP. WT. lbs.
HCE-120-2	46	78	20	16	65.2	2.0	1.0	67.4	24	50	120 @ 60	4	45	60	8	1.0	1630	465
HCE-150-2	48	79	21	18	66.3	2.0	1.0	68.5	24	50	150 @ 75	5	60	78	8	1.0	1810	555
HCE-210-2	51	80	22.5	21	67.1	2.0	1.0	69.3	24	50	210 @ 105	7	58	76	8	1.0	1970	680
HCE-300-2	60	87	27	24	74.7	2.0	1.0	76.9	30	50	300 @ 150	10	65	85	15	1.25	2775	935
HCE-450-2	66	92	30	30	78.9	2.0	1.0	81.1	30	50	450 @ 225	15	75	100	25	1.5	3580	1420



DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED				
Let.	Change	By	App	Date

Culligan®
ENGINEERED SYSTEMS
 ROSEMONT, ILLINOIS

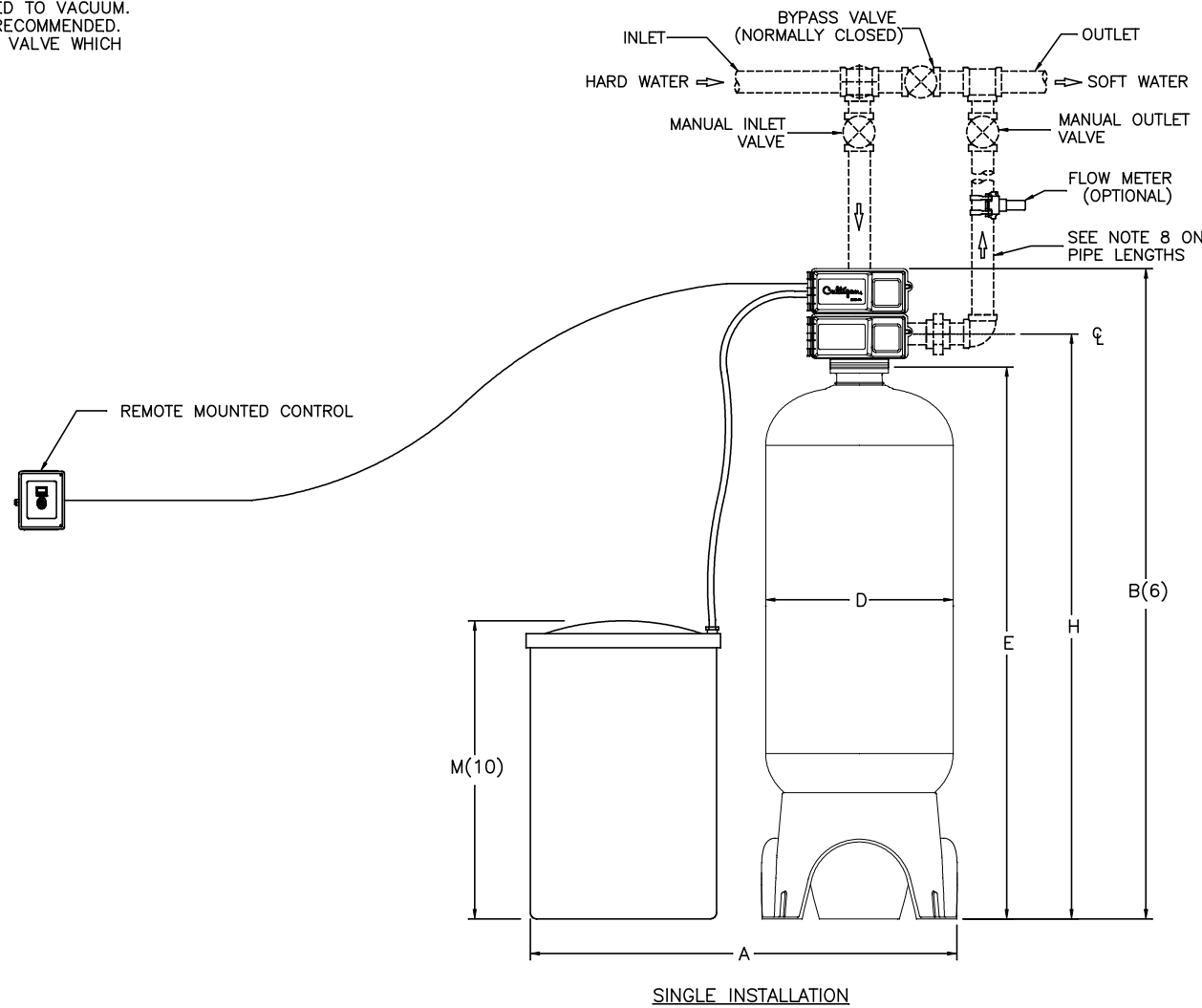
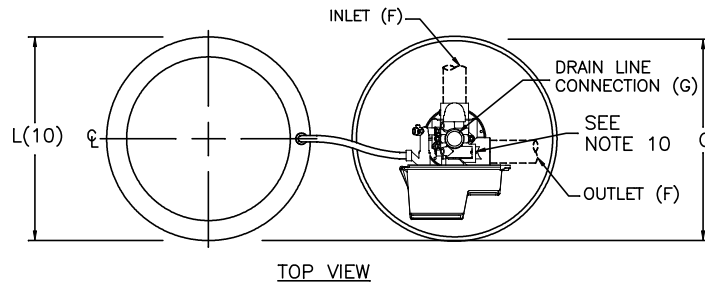
PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.

NAME HI-FLO® 3e AUTOMATIC SOFTENER SINGLE TECHNICAL DATA SHEET		
DETAILED BY: KMR 5/03/05	APP. BY: KSR 01/19/10	SHEET 1 OF 1
REF. NO.	PART NO. S3e_1_MVP	

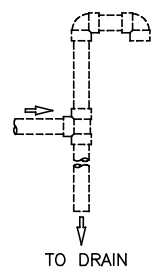
NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF HARNESS TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM, THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES. A SIPHON BREAK SHOULD ALSO BE INSTALLED ON THE DRAIN LINE. SEE DETAIL BELOW FOR RECOMMENDED DRAIN CONFIGURATION.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM
- (10) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALLATION OF VACUUM BREAKERS ON EACH TANK IS RECOMMENDED. THESE SYSTEMS PROVIDE A CONNECTION ON THE SIDE OF VALVE WHICH CAN BE USED TO MOUNT VACUUM BREAKER.

MODEL	DIMENSIONS (INCHES)									UNIT DATA PER TANK								
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(10)	BRINE TANK HEIGHT M(10)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	SINGLE OPER. WT. lbs.	SINGLE SHIP. WT. lbs.
HCE-450-3	68.7	104.7	31.5	30	88.9	3.0	2.0	94.2	30	48	450 @ 150	15	160	210	20	1.25	4112	1548
HCE-600-3	85.4	106.2	38.9	36	90.4	3.0	2.0	95.7	39	48	600 @ 200	20	185	250	30	1.25	5731	1976
HCE-900-3	93.5	105.9	44.6	42	90.1	3.0	2.0	95.4	42	48	900 @ 300	30	200	270	35	2	8008	3103
HCE-1200-3	105.6	108.7	50.8	48	92.9	3.0	2.0	98.2	48	60	1200 @ 400	40	215	280	45	2	10352	4052



DRAIN SIPHON BREAK DETAIL
SEE NOTE 7



DO NOT SCALE DRAWING
TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED

Let.	Change	By	App	Date

Culligan®
ENGINEERED SYSTEMS
ROSEMONT, ILLINOIS

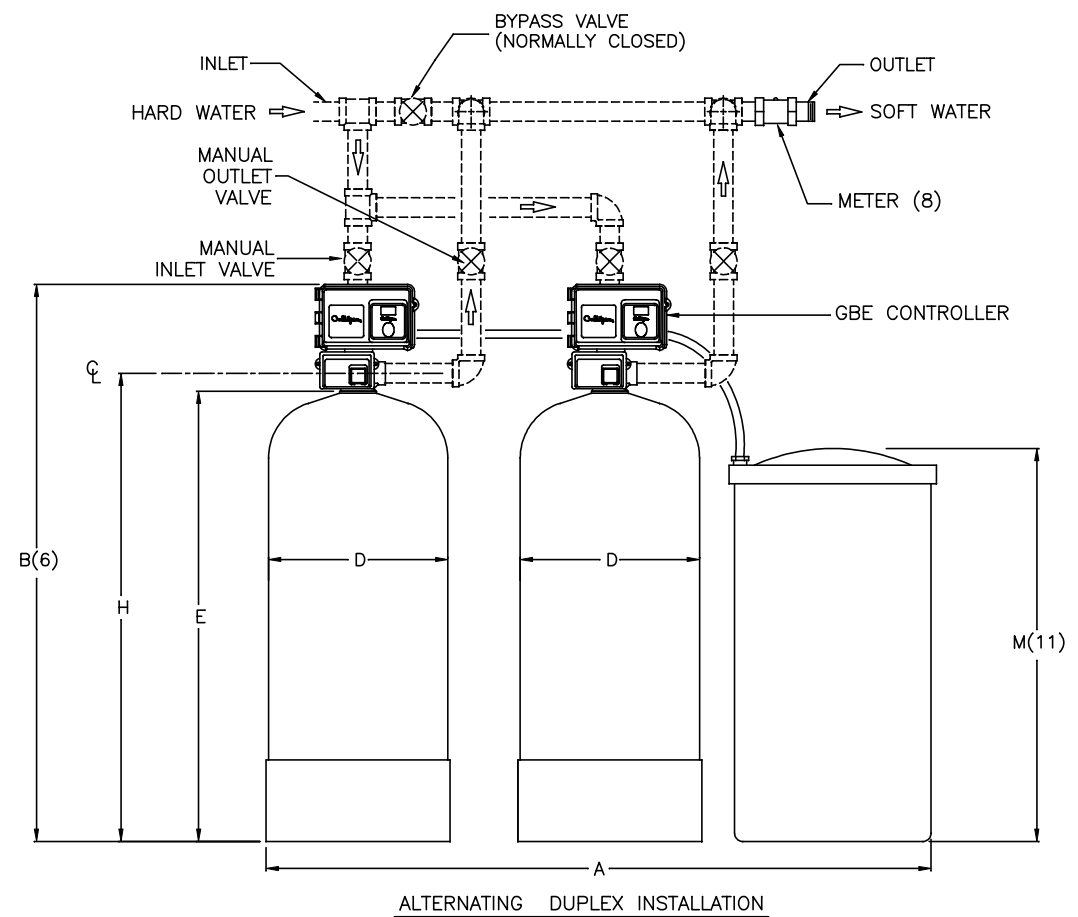
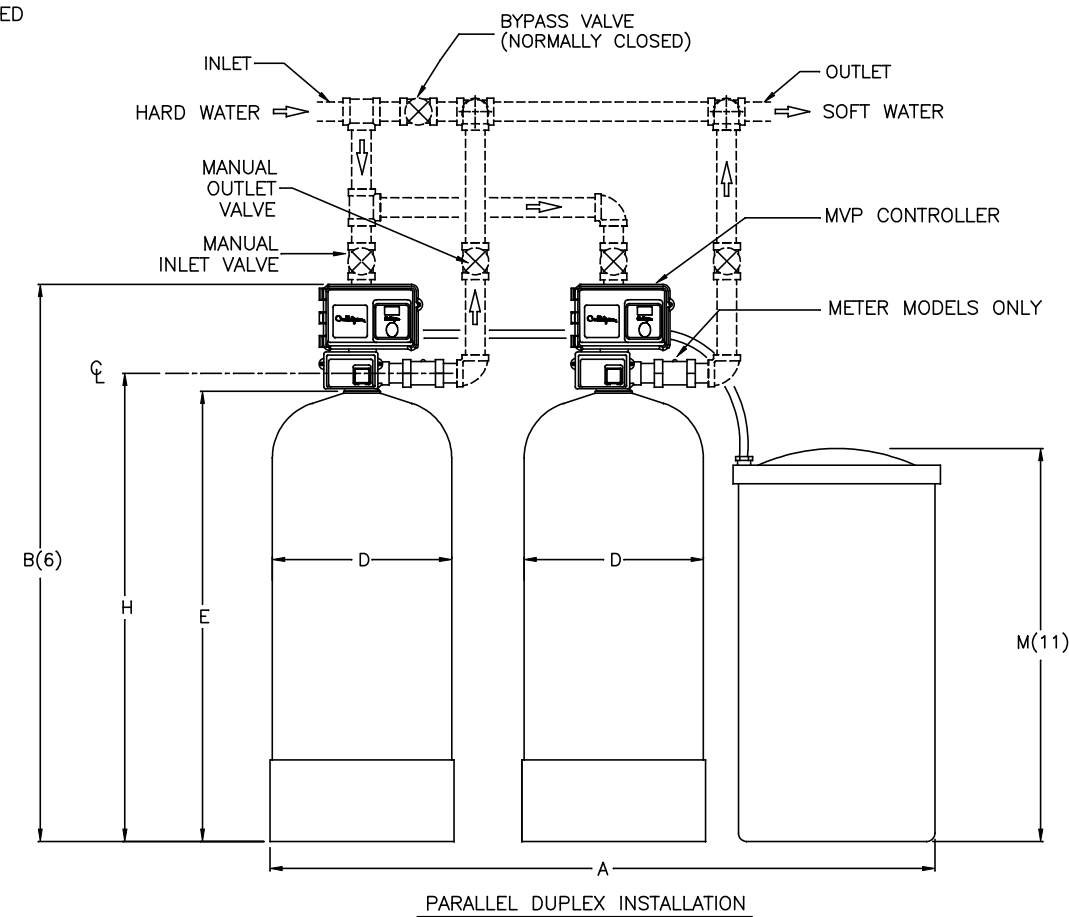
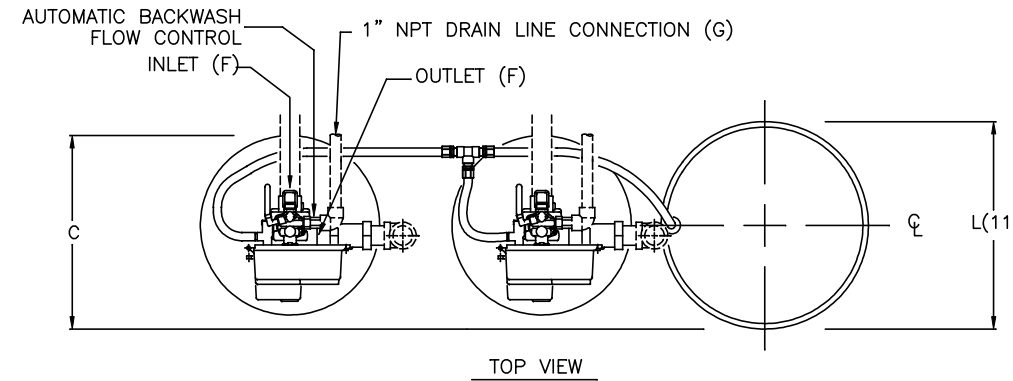
PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.

NAME HI-FLO @ 3e, 3900 AUTOMATIC SOFTENER SINGLE TECHNICAL DATA SHEET		
DETAILED BY: MKM 1/28/09	APP. BY:	SHEET 1 OF 1
REF. NO.	PART NO. HCE-SINGLE	

NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF CONTROL VALVE TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM. THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) TO PERMIT THE OBSERVATION OF THE DRAIN FLOW DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECT TO A VACCUUM.
- (10) FOR MAXIMUM PROTECTION OF THE CONTROLLER, IT IS RECOMMENDED THAT A DEDICATED 120 VOLT CIRCUIT IS PROVIDED.
- (11) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM.

MODEL	DIMENSIONS (INCHES)										UNIT DATA PER TANK							
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(11)	BRINE TANK HEIGHT M(11)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	DUPLEX OPER. WT. lbs.	DUPLEX SHIP. WT. lbs.
HCE-120-2	72	78	20	16	65.2	2.0	1.0	67.4	24	50	120 @ 60	4	45	60	8	1.0	2210	880
HCE-150-2	76	79	21	18	66.3	2.0	1.0	68.5	24	50	150 @ 75	5	60	78	8	1.0	2600	1060
HCE-210-2	82	80	22.5	21	67.1	2.0	1.0	69.3	24	50	210 @ 105	7	58	76	8	1.0	2950	1310
HCE-300-2	94	87	27	24	74.7	2.0	1.0	76.9	30	50	300 @ 150	10	65	85	15	1.25	4080	1800
HCE-450-2	106	92	30	30	78.9	2.0	1.0	81.1	30	50	450 @ 225	15	75	100	25	1.5	5590	2770

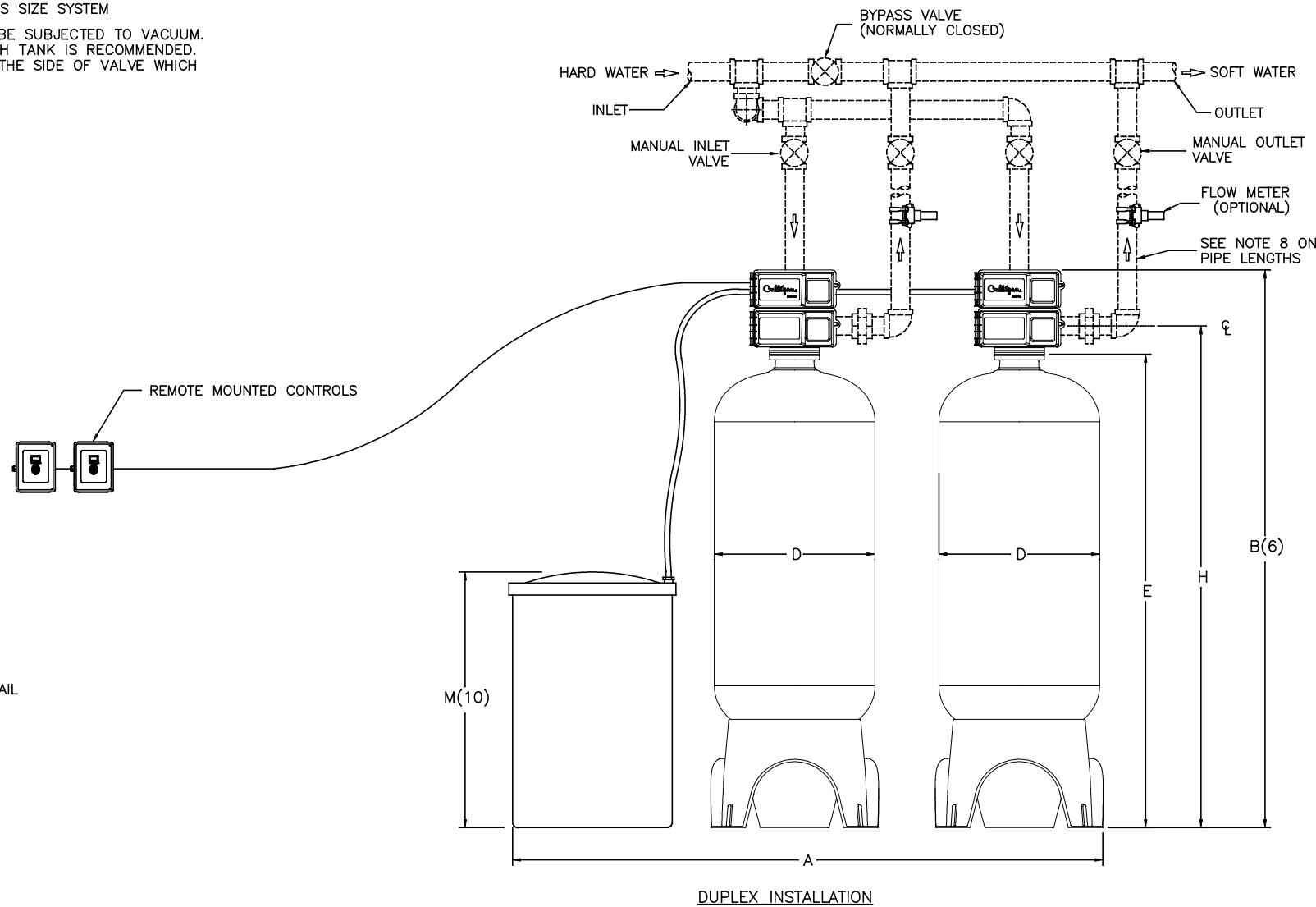
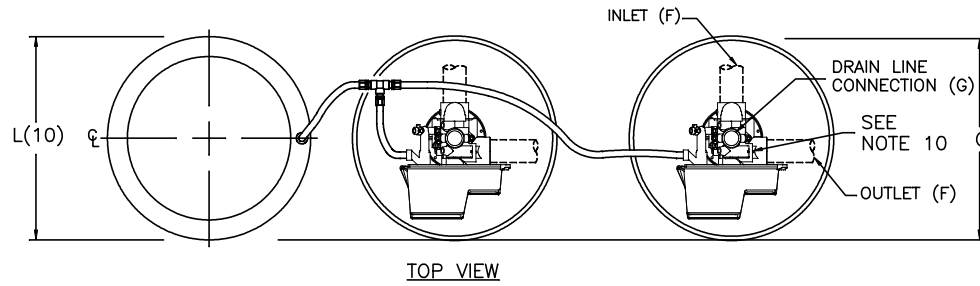


DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED					<p>ENGINEERED SYSTEMS ROSEMONT, ILLINOIS</p> <p>PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.</p>	NAME HI-FLO® 3e AUTOMATIC SOFTENER DUPLEX TECHNICAL DATA SHEET		
Let.	Change	By	App	Date		DETAILED BY: KMR 5/03/05	APP. BY: KSR 01/19/10	SHEET 1 OF 1
						REF. NO.	PART NO. S3e_2_MVP	

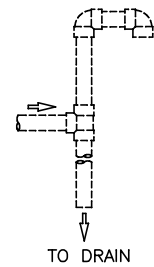
NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF HARNESS TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM, THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES. A SIPHON BREAK SHOULD ALSO BE INSTALLED ON THE DRAIN LINE. SEE DETAIL BELOW FOR RECOMMENDED DRAIN CONFIGURATION.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM
- (10) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALLATION OF VACUUM BREAKERS ON EACH TANK IS RECOMMENDED. THESE SYSTEMS PROVIDE A CONNECTION ON THE SIDE OF VALVE WHICH CAN BE USED TO MOUNT VACUUM BREAKER.

MODEL	DIMENSIONS (INCHES)									UNIT DATA PER TANK								
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(10)	BRINE TANK HEIGHT M(10)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	DUPLEX OPER. WT. lbs.	DUPLEX SHIP. WT. lbs.
HCE-450-3	110.9	104.7	31.5	30	88.9	3.0	2.0	94.2	30	48	450 @ 150	15	160	210	20	1.25	6207	3009
HCE-600-3	133.5	106.2	38.9	36	90.4	3.0	2.0	95.7	39	48	600 @ 200	20	185	250	30	1.25	8571	3861
HCE-900-3	147.7	105.9	44.6	42	90.1	3.0	2.0	95.4	42	48	900 @ 300	30	200	270	35	2	12006	6096
HCE-1200-3	165.9	108.7	50.8	48	92.9	3.0	2.0	98.2	48	60	1200 @ 400	40	215	280	45	2	15591	7924



DRAIN SIPHON BREAK DETAIL
SEE NOTE 7



DO NOT SCALE DRAWING
TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED

Let.	Change	By	App	Date

Culligan®
ENGINEERED SYSTEMS
ROSEMONT, ILLINOIS

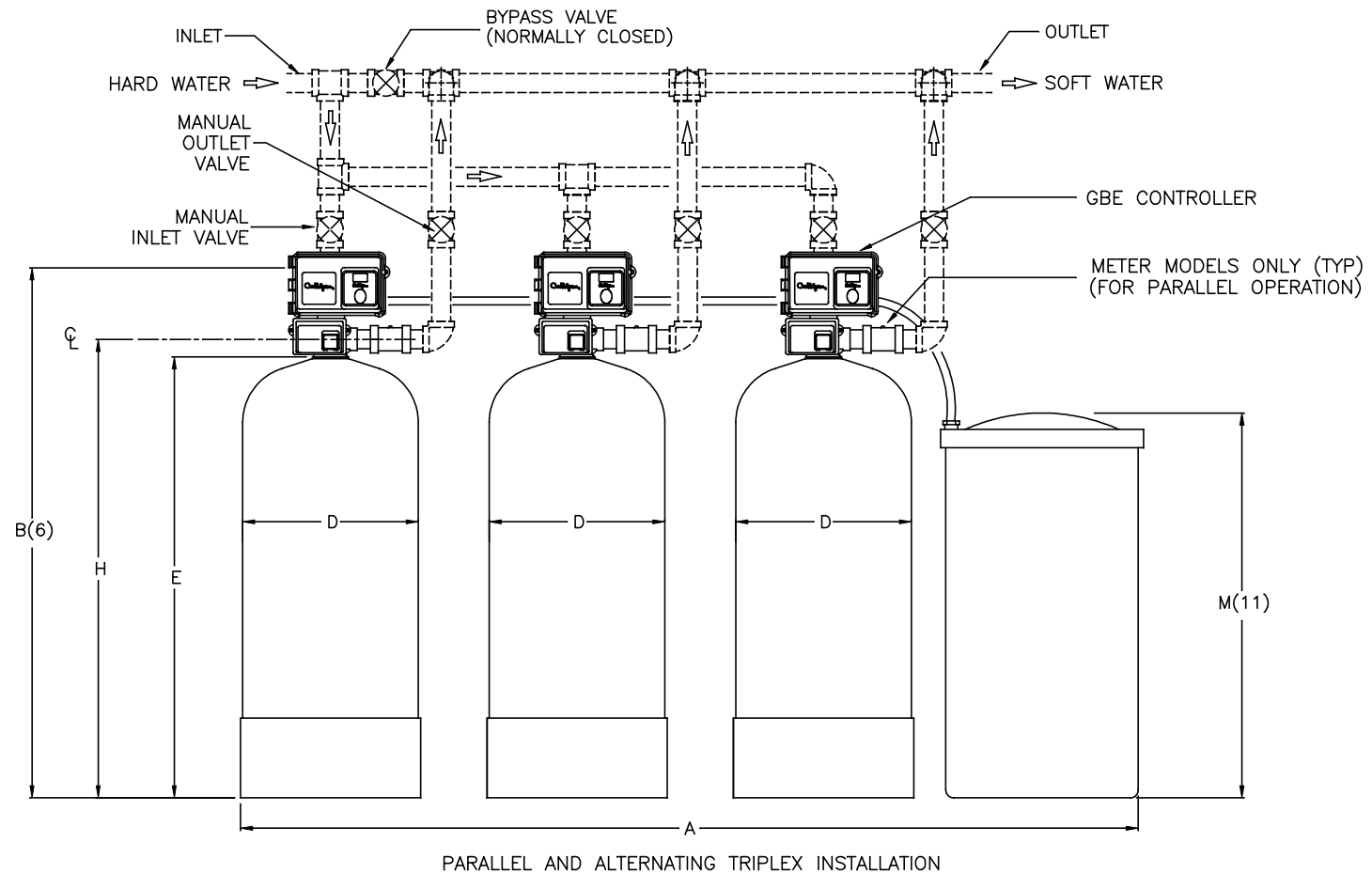
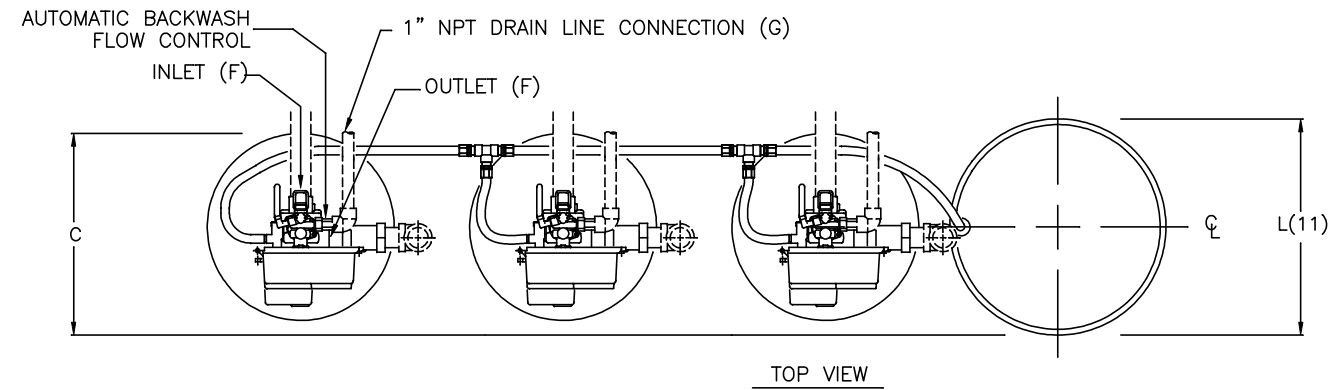
PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.

NAME HI-FLO @ 3e, 3900 AUTOMATIC SOFTENER DUPLEX TECHNICAL DATA SHEET		
DETAILED BY: MKM 1/28/09	APP. BY:	SHEET 1 OF 1
REF. NO.	PART NO. HCE-DUPLEX	

NOTES:

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- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
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- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECT TO A VACCUM.
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MODEL	DIMENSIONS (INCHES)										UNIT DATA PER TANK							
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(11)	BRINE TANK HEIGHT M(11)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	TRIPLEX OPER. WT. lbs.	TRIPLEX SHIP. WT. lbs.
HCE-120-2	98	78	20	16	65.2	2.0	1.0	67.4	24	50	120 @ 60	4	45	60	8	1.0	2790	1295
HCE-150-2	104	79	21	18	66.3	2.0	1.0	68.5	24	50	150 @ 75	5	60	78	8	1.0	3390	1565
HCE-210-2	113	80	22.5	21	67.1	2.0	1.0	69.3	24	50	210 @ 105	7	58	76	8	1.0	3930	1940
HCE-300-2	128	87	27	24	74.7	2.0	1.0	76.9	30	50	300 @ 150	10	65	85	15	1.25	5385	2665
HCE-450-2	146	92	30	30	78.9	2.0	1.0	81.1	30	50	450 @ 225	15	75	100	25	1.5	7600	4120

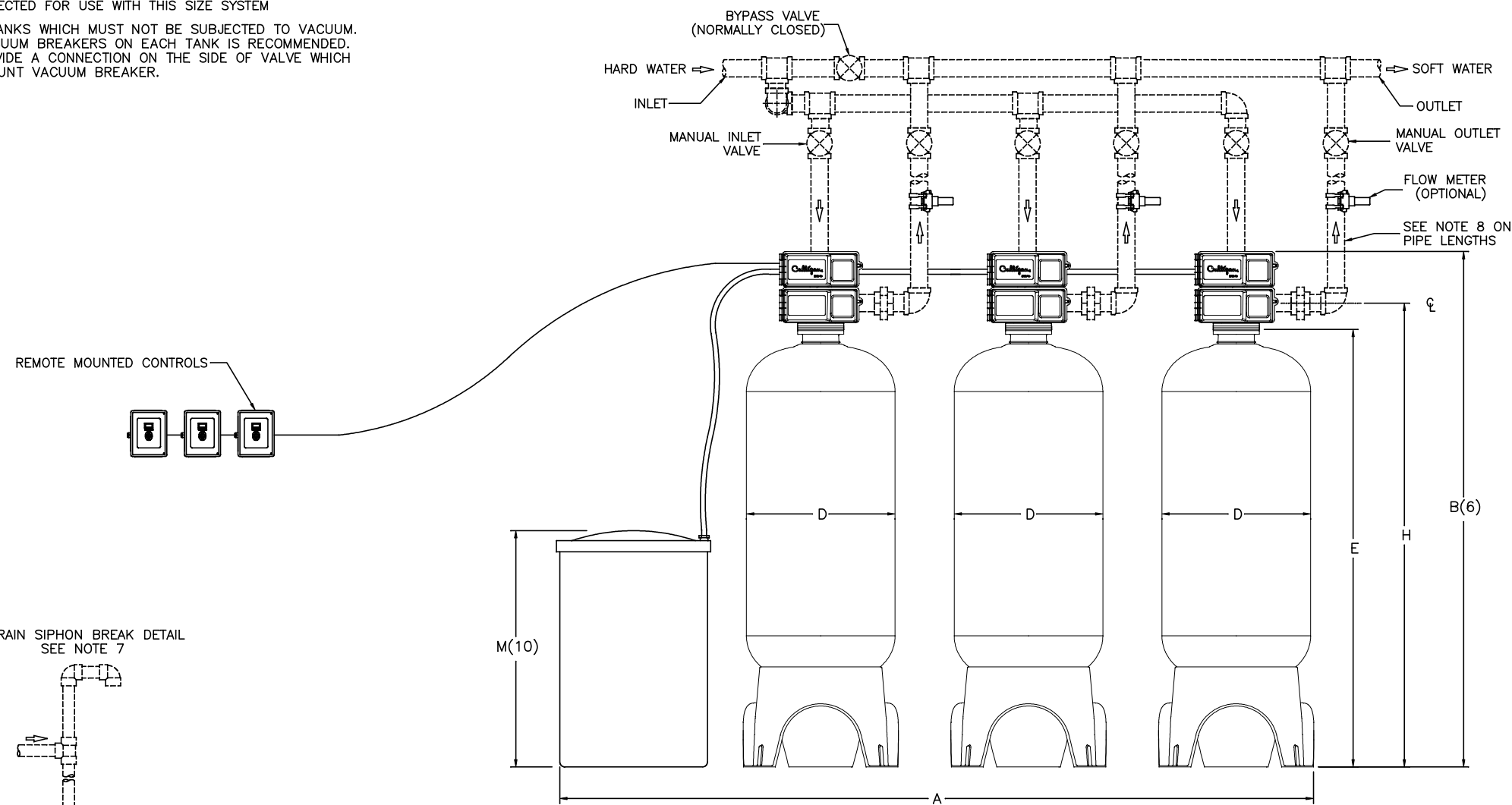
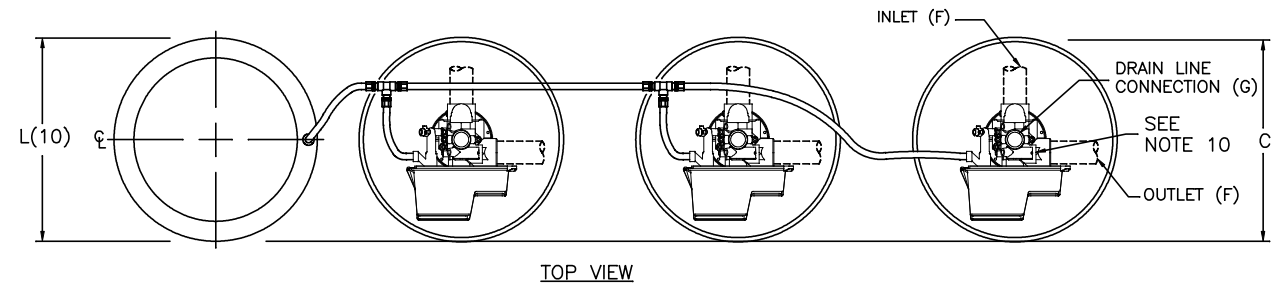


DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED					 ENGINEERED SYSTEMS ROSEMONT, ILLINOIS PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.	NAME HI-FLO® 3e AUTOMATIC SOFTENER TRIPLEX TECHNICAL DATA SHEET		
Let.	Change	By	App	Date		DETAILED BY: KMR 5/03/05	APP. BY: KSR 01/19/10	SHEET 1 OF 1
						REF. NO.	PART NO. S3e_3_MVP	

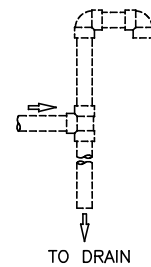
NOTES:

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- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM.
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MODEL	DIMENSIONS (INCHES)										UNIT DATA PER TANK							
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(10)	BRINE TANK HEIGHT M(10)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	TRIPLEX OPER. WT. lbs.	TRIPLEX SHIP. WT. lbs.
HCE-450-3	153.1	104.7	31.5	30	88.9	3.0	2.0	94.2	30	48	450 @ 150	15	160	210	20	1.25	8303	4480
HCE-600-3	181.7	106.2	38.9	36	90.4	3.0	2.0	95.7	39	48	600 @ 200	20	185	250	30	1.25	11411	5746
HCE-900-3	202	105.9	44.6	42	90.1	3.0	2.0	95.4	42	48	900 @ 300	30	200	270	35	2	16004	9089
HCE-1200-3	226.1	108.7	50.8	48	92.9	3.0	2.0	98.2	48	60	1200 @ 400	40	215	280	45	2	20830	11796



DRAIN SIPHON BREAK DETAIL
SEE NOTE 7



PARALLEL AND ALTERNATING TRIPLEX INSTALLATION

DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED				
Let.	Change	By	App	Date

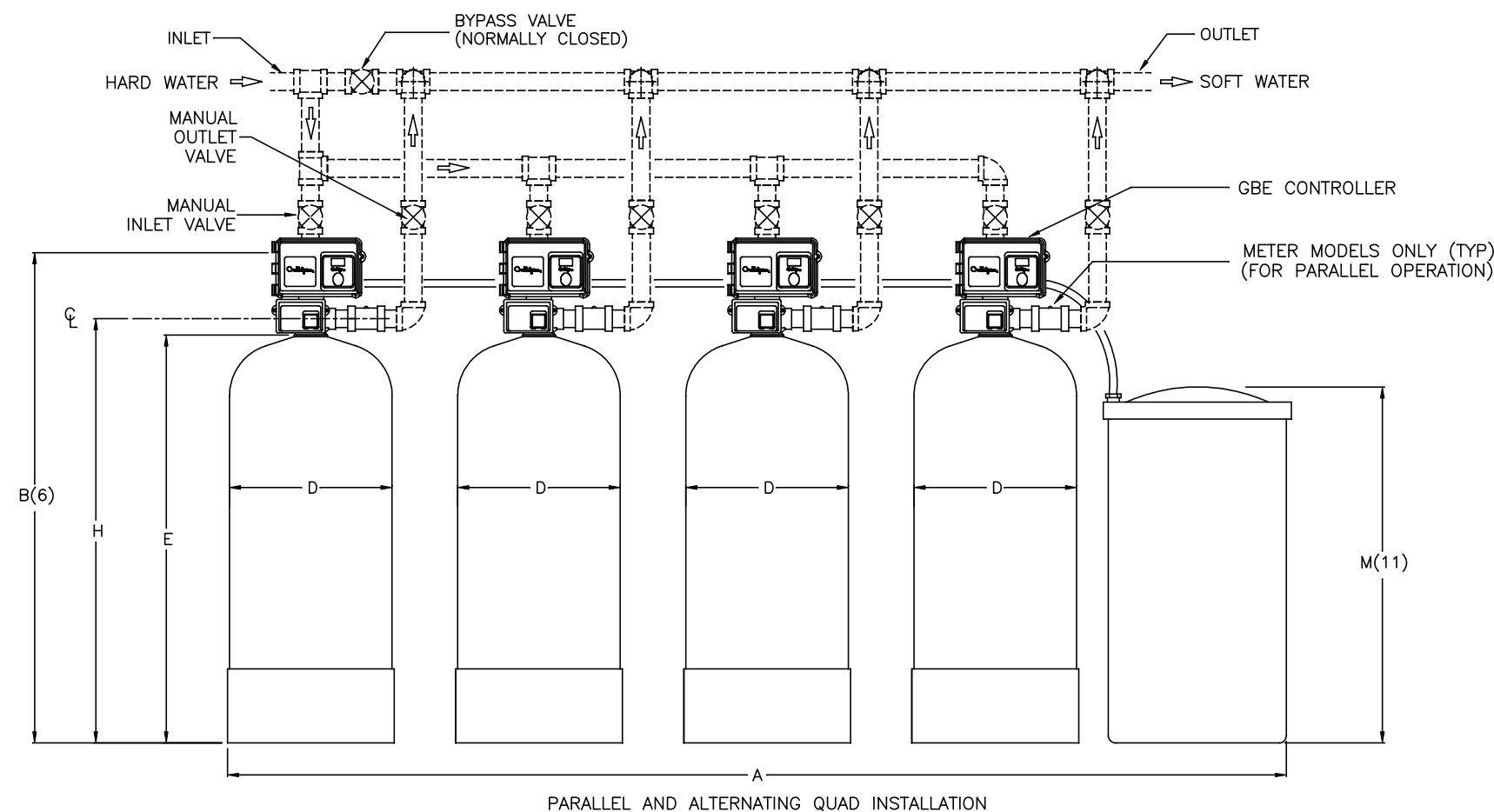
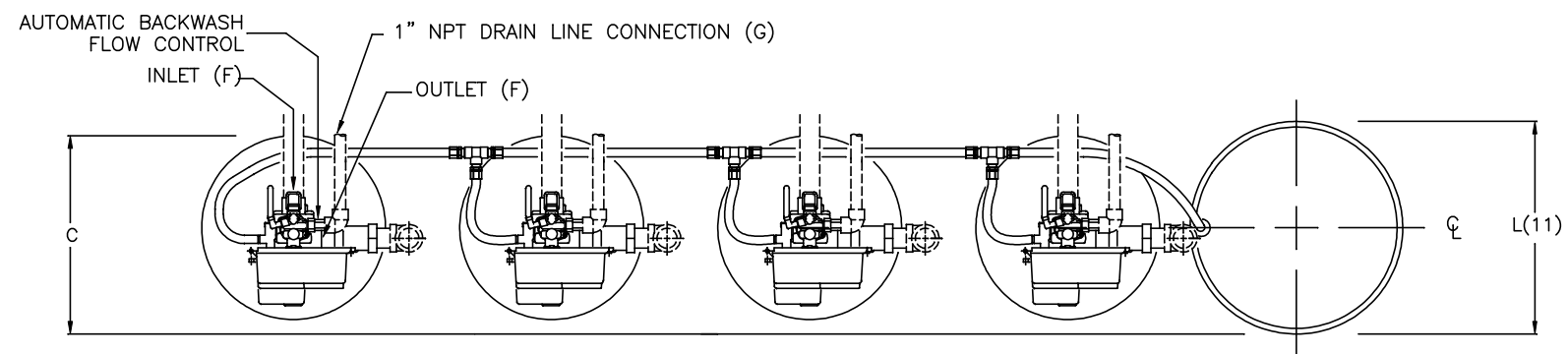
Culligan®
ENGINEERED SYSTEMS
 ROSEMONT, ILLINOIS
 PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.

NAME HI-FLO® 3e, 3900 AUTOMATIC SOFTENER TRIPLEX TECHNICAL DATA SHEET		
DETAILED BY: MKM 1/28/09	APP. BY:	SHEET 1 OF 1
REF. NO.	PART NO. HCE-TRIPLEX	

NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF CONTROL VALVE TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM. THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) TO PERMIT THE OBSERVATION OF THE DRAIN FLOW DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECT TO A VACCUM.
- (10) FOR MAXIMUM PROTECTION OF THE CONTROLLER, IT IS RECOMMENDED THAT A DEDICATED 120 VOLT CIRCUIT IS PROVIDED.
- (11) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM.

MODEL	DIMENSIONS (INCHES)										UNIT DATA PER TANK							
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(11)	BRINE TANK HEIGHT M(11)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	QUAD OPER. WT. lbs.	QUAD SHIP. WT. lbs.
HCE-120-2	124	78	20	16	65.2	2.0	1.0	67.4	24	50	120 @ 60	4	45	60	8	1.0	3370	1710
HCE-150-2	132	79	21	18	66.3	2.0	1.0	68.5	24	50	150 @ 75	5	60	78	8	1.0	4180	2070
HCE-210-2	144	80	22.5	21	67.1	2.0	1.0	69.3	24	50	210 @ 105	7	58	76	8	1.0	4910	2570
HCE-300-2	162	87	27	24	74.7	2.0	1.0	76.9	30	50	300 @ 150	10	65	85	15	1.25	6690	3530
HCE-450-2	186	92	30	30	78.9	2.0	1.0	81.1	30	50	450 @ 225	15	75	100	25	1.5	9610	5470

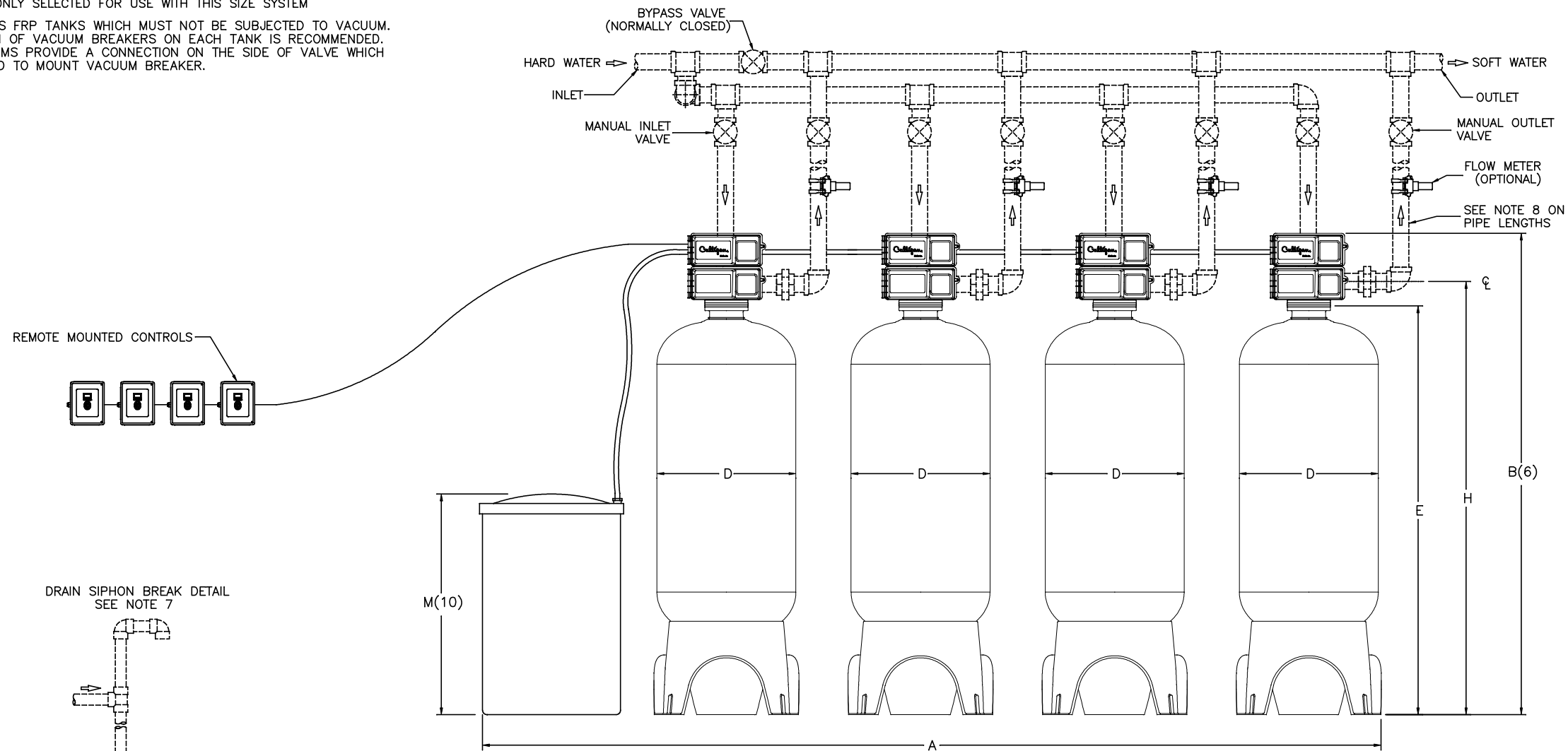
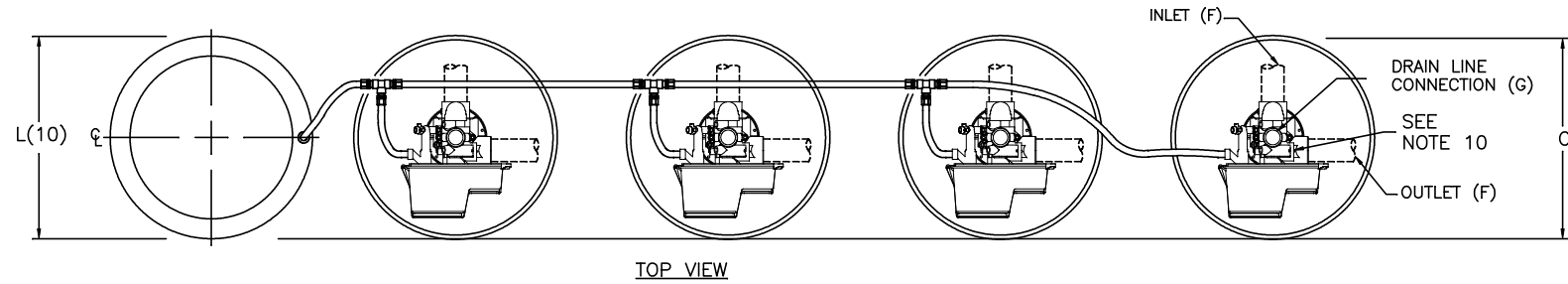


DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED					 ENGINEERED SYSTEMS ROSEMONT, ILLINOIS PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.	NAME HI-FLO® 3e AUTOMATIC SOFTENER QUAD TECHNICAL DATA SHEET		
Let.	Change	By	App	Date		DETAILED BY: KMR 5/03/05	APP. BY: KSR 01/19/10	SHEET 1 OF 1
						REF. NO.	PART NO. S3e_4_MVP	

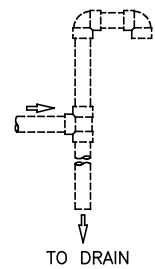
NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF HARNESS TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM, THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES. A SIPHON BREAK SHOULD ALSO BE INSTALLED ON THE DRAIN LINE. SEE DETAIL BELOW FOR RECOMMENDED DRAIN CONFIGURATION.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) BRINE TANK DIMENSIONS SHOWN ARE FOR THE BRINE TANK MOST COMMONLY SELECTED FOR USE WITH THIS SIZE SYSTEM.
- (10) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALLATION OF VACUUM BREAKERS ON EACH TANK IS RECOMMENDED. THESE SYSTEMS PROVIDE A CONNECTION ON THE SIDE OF VALVE WHICH CAN BE USED TO MOUNT VACUUM BREAKER.

MODEL	DIMENSIONS (INCHES)										UNIT DATA PER TANK							
	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L(10)	BRINE TANK HEIGHT M(10)	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	QUAD OPER. WT. lbs.	QUAD SHIP. WT. lbs.
HCE-450-3	195.3	104.7	31.5	30	88.9	3.0	2.0	94.2	30	48	450 @ 150	15	160	210	20	1.25	10398	5951
HCE-600-3	229.8	106.2	38.9	36	90.4	3.0	2.0	95.7	39	48	600 @ 200	20	185	250	30	1.25	14251	7631
HCE-900-3	256.2	105.9	44.6	42	90.1	3.0	2.0	95.4	42	48	900 @ 300	30	200	270	35	2	20002	12082
HCE-1200-3	286.4	108.7	50.8	48	92.9	3.0	2.0	98.2	48	60	1200 @ 400	40	215	280	45	2	26069	15668



DRAIN SIPHON BREAK DETAIL
SEE NOTE 7



DO NOT SCALE DRAWING
TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED

Let.	Change	By	App	Date

Culligan®
ENGINEERED SYSTEMS
ROSEMONT, ILLINOIS

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NAME HI-FLO® 3e, 3900 AUTOMATIC SOFTENER QUAD TECHNICAL DATA SHEET		
DETAILED BY: MKM 1/28/09	APP. BY:	SHEET 1 OF 1
REF. NO.	PART NO. HCE-QUAD	