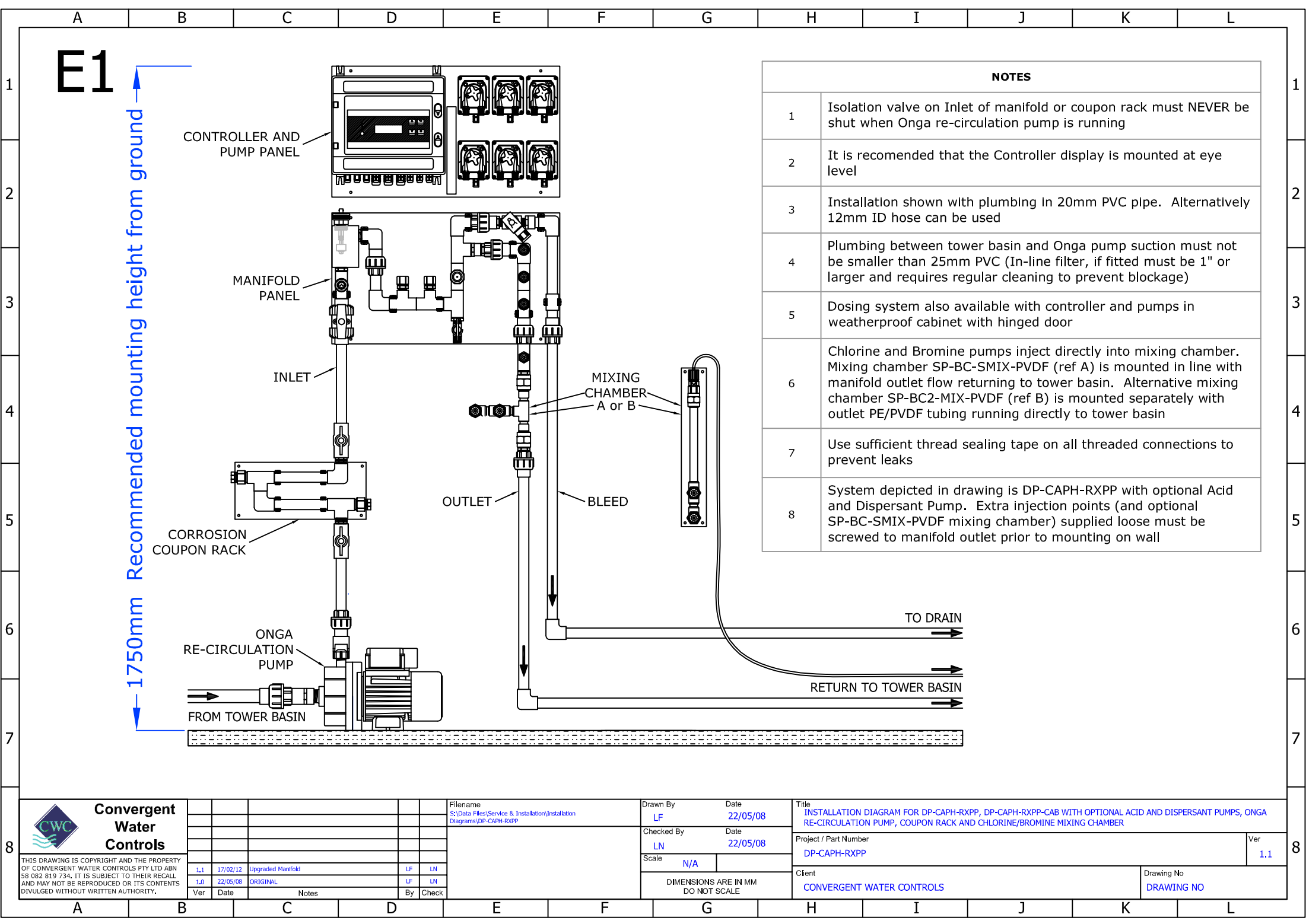


Installation Instructions for Cooling Tower Conductivity Bleed & Inhibitor Dosing with:


- Liquid Chlorine & Bromine Dosing via ORP



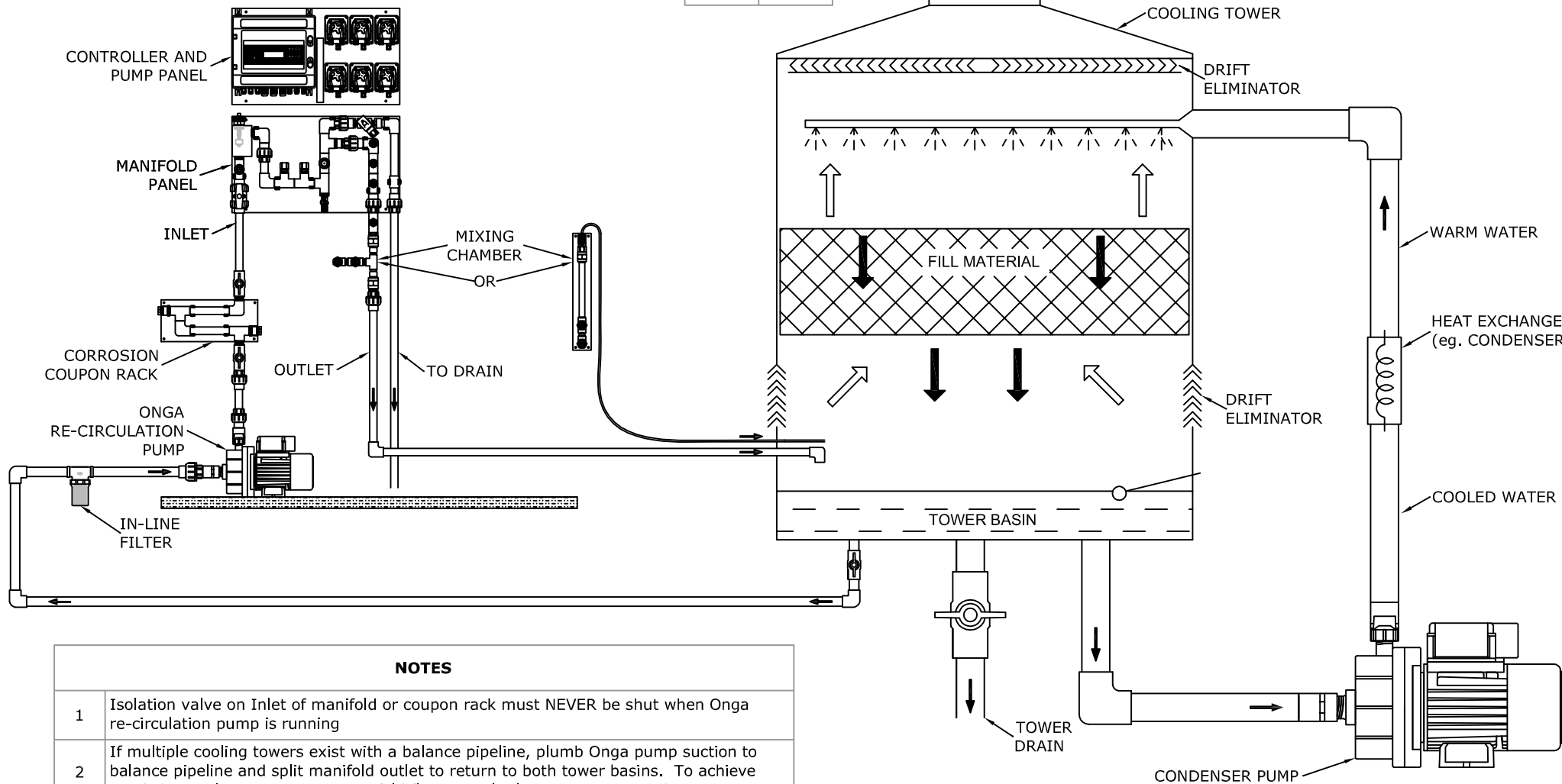
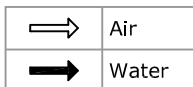
Part Number	Installation Drawing No		Systems with XP2 Series Controllers				Systems with DIGICHEM Plus+ Controller		
			No ORP or pH	pH Control	ORP Control		ORP Control with pH monitoring		
	With Onga Recirc pump	Take-off from Condenser Pump	Timed Biocides Only	Timed Biocides w/pH control (No ORP control)	Chlorine Dosing	Brominator Dosing	Chlorine & Acid (pH) Dosing	Chlorine & Bromine Dosing	Brominator Dosing
DIGICHEM-A2-V	A1 & A2	B1 & B2	•						
DIGICHEM-A2-V-CABG	A1 & A2	B1 & B2	•						
DIGICHEM-AB2-V	A1 & A2	B1 & B2	•						
DIGICHEM-AB2-V-CABG	A1 & A2	B1 & B2	•						
DIGI-A2PH2A-P	C1 & C2	D1 & D2		•					
DIGI-A2PH2A-P-CABG	C1 & C2	D1 & D2		•					
DIGI-AB2PH2A-P	C1 & C2	D1 & D2		•					
DIGI-AB2PH2A-P-CABG	C1 & C2	D1 & D2		•					
DIGI-A2RX2A-B	G1 & G2	H1 & H2				•			
DIGI-A2RX2A-B-CABG	G1 & G2	H1 & H2				•			
DIGI-AB2RX2A-B	G1 & G2	H1 & H2				•			
DIGI-AB2RX2A-B-CABG	G1 & G2	H1 & H2				•			
DIGI-A2RX2A-P	C1 & C2	D1 & D2			•				
DIGI-A2RX2A-P-CABG	C1 & C2	D1 & D2			•				
DIGI-AB2RX2A-P	C1 & C2	D1 & D2			•				
DIGI-AB2RX2A-P-CABG	C1 & C2	D1 & D2			•				
DP-CAPHP-RXP	C1 & C2	D1 & D2					•		
DP-CAPHP-RXP-CAB	C1 & C2	D1 & D2					•		
DP-CAPH-RXPP	E1 & E2	F1 & F2						•	
DP-CAPH-RXPP-CAB	E1 & E2	F1 & F2						•	
DP-CAPH-RXB	G1 & G2	H1 & H2							•
DP-CAPH-RXB-CAB	G1 & G2	H1 & H2							•



NOTES	
1	Isolation valve on Inlet of manifold or coupon rack must NEVER be shut when Onga re-circulation pump is running
2	It is recommended that the Controller display is mounted at eye level
3	Installation shown with plumbing in 20mm PVC pipe. Alternatively 12mm ID hose can be used
4	Plumbing between tower basin and Onga pump suction must not be smaller than 25mm PVC (In-line filter, if fitted must be 1" or larger and requires regular cleaning to prevent blockage)
5	Dosing system also available with controller and pumps in weatherproof cabinet with hinged door
6	Chlorine and Bromine pumps inject directly into mixing chamber. Mixing chamber SP-BC-SMIX-PVDF (ref A) is mounted in line with manifold outlet flow returning to tower basin. Alternative mixing chamber SP-BC2-MIX-PVDF (ref B) is mounted separately with outlet PE/PVDF tubing running directly to tower basin
7	Use sufficient thread sealing tape on all threaded connections to prevent leaks
8	System depicted in drawing is DP-CAPH-RXPP with optional Acid and Dispersant Pump. Extra injection points (and optional SP-BC-SMIX-PVDF mixing chamber) supplied loose must be screwed to manifold outlet prior to mounting on wall

 Convergent Water Controls <small>THIS DRAWING IS COPYRIGHT AND THE PROPERTY OF CONVERGENT WATER CONTROLS PTY LTD ABN 58 082 819 734. IT IS SUBJECT TO THEIR RECALL AND MAY NOT BE REPRODUCED OR ITS CONTENTS DIVULGED WITHOUT WRITTEN AUTHORITY.</small>					Filename S:\Data Files\Service & Installation\Installation Diagrams\DP-CAPH-RXPP	Drawn By LF	Date 22/05/08	Title INSTALLATION DIAGRAM FOR DP-CAPH-RXPP, DP-CAPH-RXPP-CAB WITH OPTIONAL ACID AND DISPERSANT PUMPS, ONGA RE-CIRCULATION PUMP, COUPON RACK AND CHLORINE/BROMINE MIXING CHAMBER	
						Checked By LN	Date 22/05/08	Project / Part Number DP-CAPH-RXPP	
						Scale N/A		Client CONVERGENT WATER CONTROLS	
						DIMENSIONS ARE IN MM DO NOT SCALE		Drawing No DRAWING NO	
								Ver 1.1	
	1.1	17/02/12	Upgraded Manifold	LF	LN				
	1.0	22/05/08	ORIGINAL	LF	LN				
	Ver	Date	Notes	By	Check				

E2



NOTES

- 1 Isolation valve on Inlet of manifold or coupon rack must NEVER be shut when Onga re-circulation pump is running
- 2 If multiple cooling towers exist with a balance pipeline, plumb Onga pump suction to balance pipeline and split manifold outlet to return to both tower basins. To achieve good chemical mixing, return manifold flow to multiple points per tower basin
- 3 Refer to detailed installation diagram for full installation instructions for DP-CAPH-RXPP, DP-CAPH-RXPP-CAB with Onga re-circulation pump



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Ver	Date	Notes	By	Check
1.1	16/02/12	Upgraded Manifold	LF	LN
1.0	22/05/08	ORIGINAL	LF	LN

Filename
S:\Data Files\Service & Installation\Installation
Diagrams\DP-CAPH-RXPP

Drawn By
LF
Date
22/05/08
Checked By
LN
Date
22/05/08
Scale
N/A

DIMENSIONS ARE IN MM
DO NOT SCALE

Title
GENERIC DIAGRAM OF CONDUCTIVITY AND LIQUID CHLORINE AND BROMINE ORP DOSING SYSTEM PLUMBED TO COOLING TOWER WITH ONGA RE-CIRCULATION PUMP

Project / Part Number
DP-CAPH-RXPP

Ver
1.1

Client
CONVERGENT WATER CONTROLS

Drawing No
DRAWING NO

F1

Recommended mounting height from ground

CONTROLLER AND
PUMP PANELMANIFOLD
PANEL

INLET

CORROSION
COUPON RACK

FROM CONDENSER PUMP DISCHARGE

OUTLET

MIXING
CHAMBER
A or B

BLEED

TO DRAIN

RETURN TO TOWER BASIN

NOTES

1

It is recommended that the Controller display is mounted at eye level

2

Installation shown with plumbing in 20mm PVC pipe. Alternatively 12mm ID hose can be used

3

Dosing system also available with controller and pumps in weatherproof cabinet with hinged door

4

Chlorine and Bromine pumps inject directly into mixing chamber. Mixing chamber SP-BC-SMIX-PVDF (ref A) is mounted in line with manifold outlet flow returning to tower basin. Alternative mixing chamber SP-BC2-MIX-PVDF (ref B) is mounted separately with outlet PE/PVDF tubing running directly to tower basin

5

Use sufficient thread sealing tape on all threaded connections to prevent leaks

6

System depicted in drawing is DP-CAPH-RXPP with optional Acid and Dispersant Pump. Extra injection points (and optional SP-BC-SMIX-PVDF mixing chamber) supplied loose must be screwed to manifold outlet prior to mounting on wall

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Ver

Date

1.1 17/02/12 Upgraded Manifold

1.0 02/06/08 ORIGINAL

Notes

By

Check

Filename
S:\Data Files\Service & Installation\Installation
Diagrams\DP-CAPH-RXPP

Drawn By
LF

Date
02/06/08

Checked By
LN

Date
02/06/08

Scale
N/A

DIMENSIONS ARE IN MM
DO NOT SCALE

Title
INSTALLATION DIAGRAM FOR DP-CAPH-RXPP, DP-CAPH-RXPP-CAB WITH OPTIONAL ACID AND DISPERSANT PUMPS,
COUPON RACK AND CHLORINE/BROMINE MIXING CHAMBER (CONDENSER PUMP TAKE-OFF)

Project / Part Number

DP-CAPH-RXPP

Ver

1.1

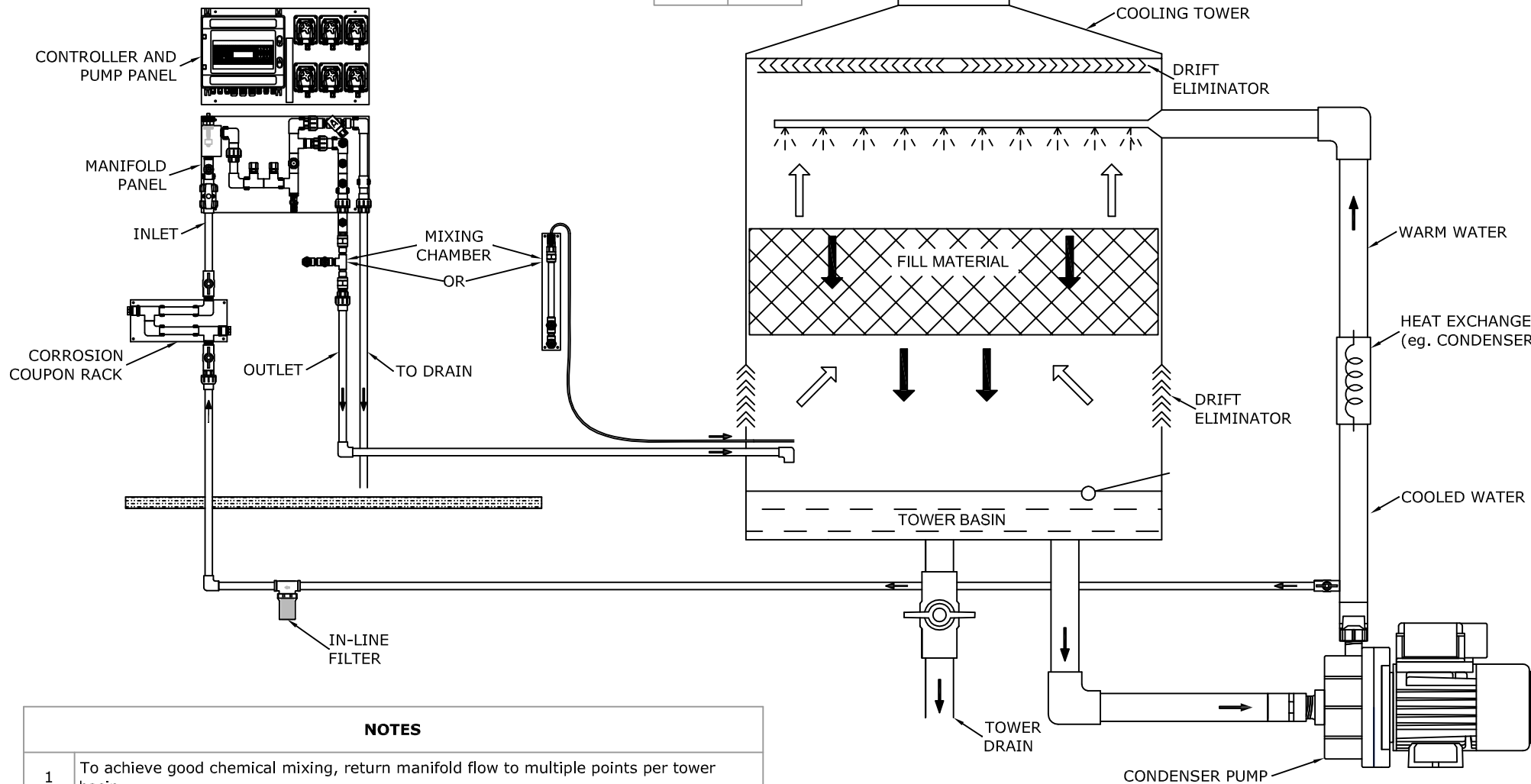
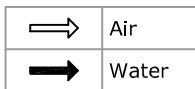
Client

CONVERGENT WATER CONTROLS

Drawing No

DRAWING NO

F2



NOTES

- 1 To achieve good chemical mixing, return manifold flow to multiple points per tower basin
- 2 Refer to detailed installation diagram for full installation instructions for DP-CAPH-RXPP, DP-CAPH-RXPP-CAB with Condenser Pump Take-off



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1.1	16/02/12	Manifold Upgrade	LF	LN	
1.0	02/06/08	ORIGINAL	LF	LN	
Ver	Date	Notes	By	Check	

Filename
S:\Data Files\Service & Installation\Installation
Diagrams\DP-CAPH-RXPP

Drawn By
LF

Date
02/06/08

Checked By
LN

Date
02/06/08

Scale
N/A

DIMENSIONS ARE IN MM
DO NOT SCALE

Title
GENERIC DIAGRAM OF CONDUCTIVITY AND LIQUID CHLORINE AND BROMINE ORP DOSING SYSTEM PLUMBED TO COOLING TOWER FROM CONDENSER PUMP DISCHARGE

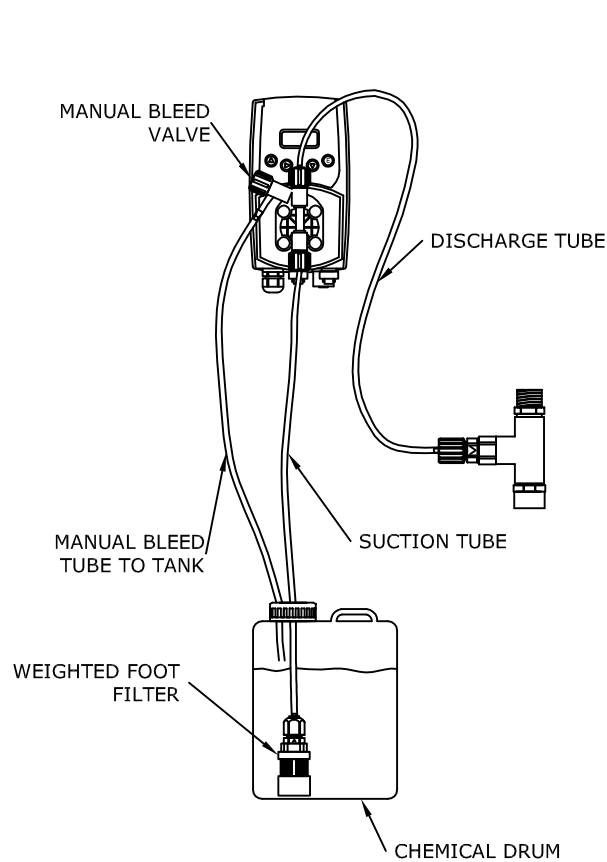
Project / Part Number
DP-CAPH-RXPP

Ver
1.1

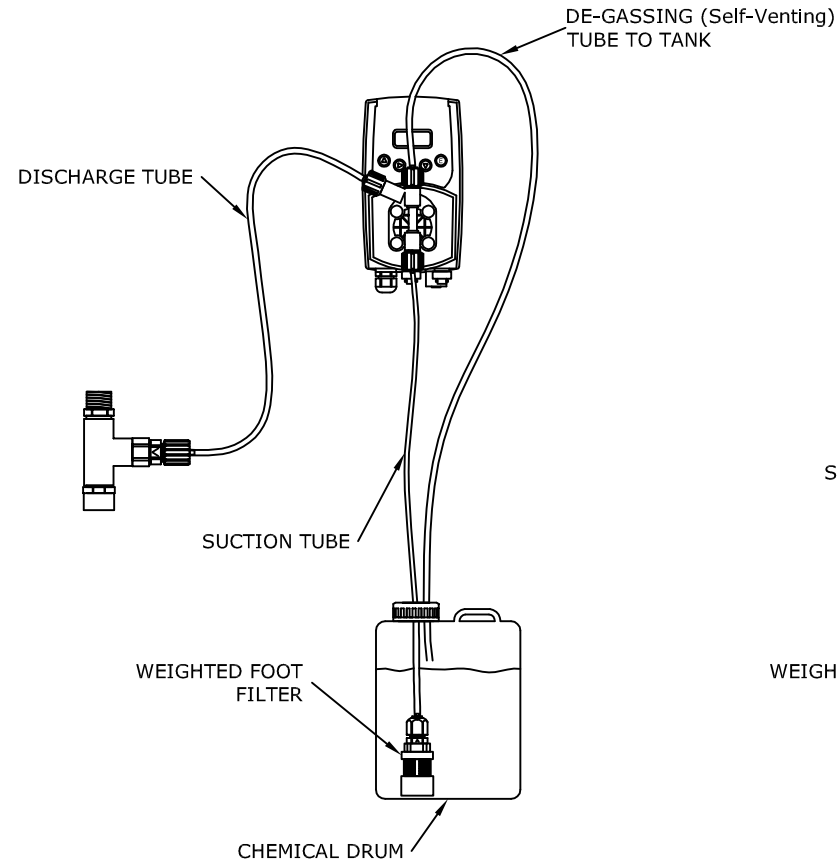
Client
CONVERGENT WATER CONTROLS

Drawing No
DRAWING NO

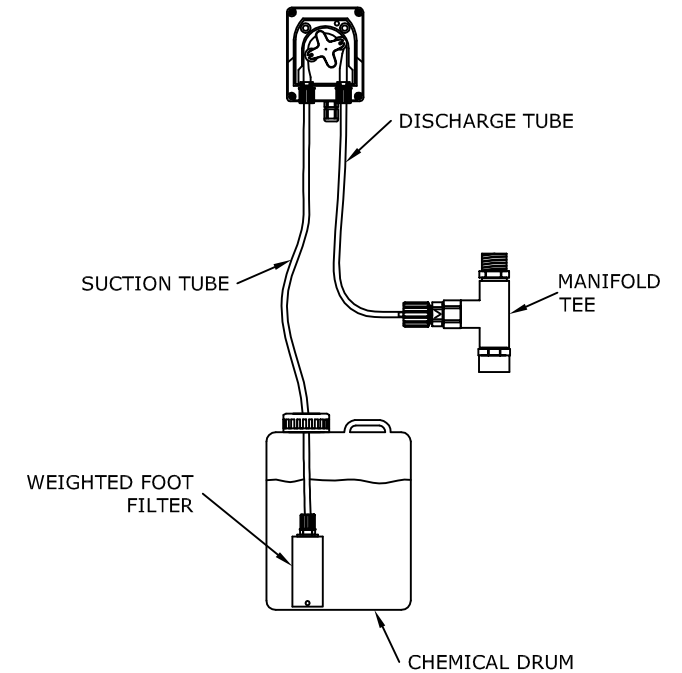
EMEC V SERIES PUMP



EMEC VA SERIES PUMP



SEKO PERISTALTIC PUMP



Notes

- 1 All tubing supplied with pumps has 4mm inside diameter, 6mm outside diameter. Suction tubing is clear PVC, Discharge tubing is black PE
- 2 It is recommended that pumps are mounted less than 2m from base of chemical drum



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Filename
S:\Data Files\Service & Installation\Installation Diagrams\EMEC & SEKO Dosing Pump Installation

Drawn By
LF

Date
17/02/12

Checked By
LN

Date
17/02/12

Scale
N/A

DIMENSIONS ARE IN MM
DO NOT SCALE

Title
Pump Installation Diagram

Project / Part Number
EMEC V SERIES & SEKO PUMPS

Client
CONVERGENT WATER CONTROLS

Drawing No
DRAWING NO

Ver
1.0