



Date: Monday, November 10, 2025

Town of Deep River

100 Deep River Road, P.O Box 400, Deep River, ON K0J 1P0

www.deepriver.ca

Addendum #2

**Bid Opportunity: 2025-RFT-001 Deep River Water
Treatment Plant Upgrades**

**Mandatory Site Visit:
Wednesday, November 12, 2025 – 11:00 EST**

**Question Deadline Extension To:
Wednesday, November 19, 2025**

**Closing Date Extension To:
Wednesday, November 26, 2025 by 13:30:00 EST**

This Addendum will form part of the RFT document.

In the event of any conflicting or inconsistent information, this addendum will take precedence over all requirements of the original RFT document, and any addenda issued previously.

All other requirements of the RFT document remain the same.

Bidders must acknowledge receipt of this addendum, in the field requested, when submitting their bid.

PART 1 – ATTACHMENT:

1.1 File Name: **Veolia Pre-Purchased Process Mechanical Equipment Shop Drawings**

Number of Pages: 274

Description: Piping & Instrumentation, Field Installation and General Arrangement Drawings for new lamella plates and air scour system (i.e. AERSHAFT), new Actiflo polymer preparation system (i.e. HYDRAPOL), and new microsand preparation and dosing system (i.e. HYDRASAND MINI). For reference, submittal package includes process data sheets and shop drawings for component equipment, including blower, valves, and instruments. Engineer review of shop drawing package is ongoing during tender and tender drawings/specifications shall be updated according to results of shop drawing review.

PART 2 – BIDDER'S QUESTIONS:

2.1 Question 1: Please find attached a letter from Selog Norteck Inc. requesting to be added as a Control System Integrator/Programmer (CSIP) under Section 13100 for the Deep River WTP Upgrades project.

We appreciate your time and consideration, and we would be happy to provide any additional information if needed.

Answer: Capital Controls shall be the only approved CSIP for this project per the specifications.

End of Addendum.



TRANSMITTAL NOTICE

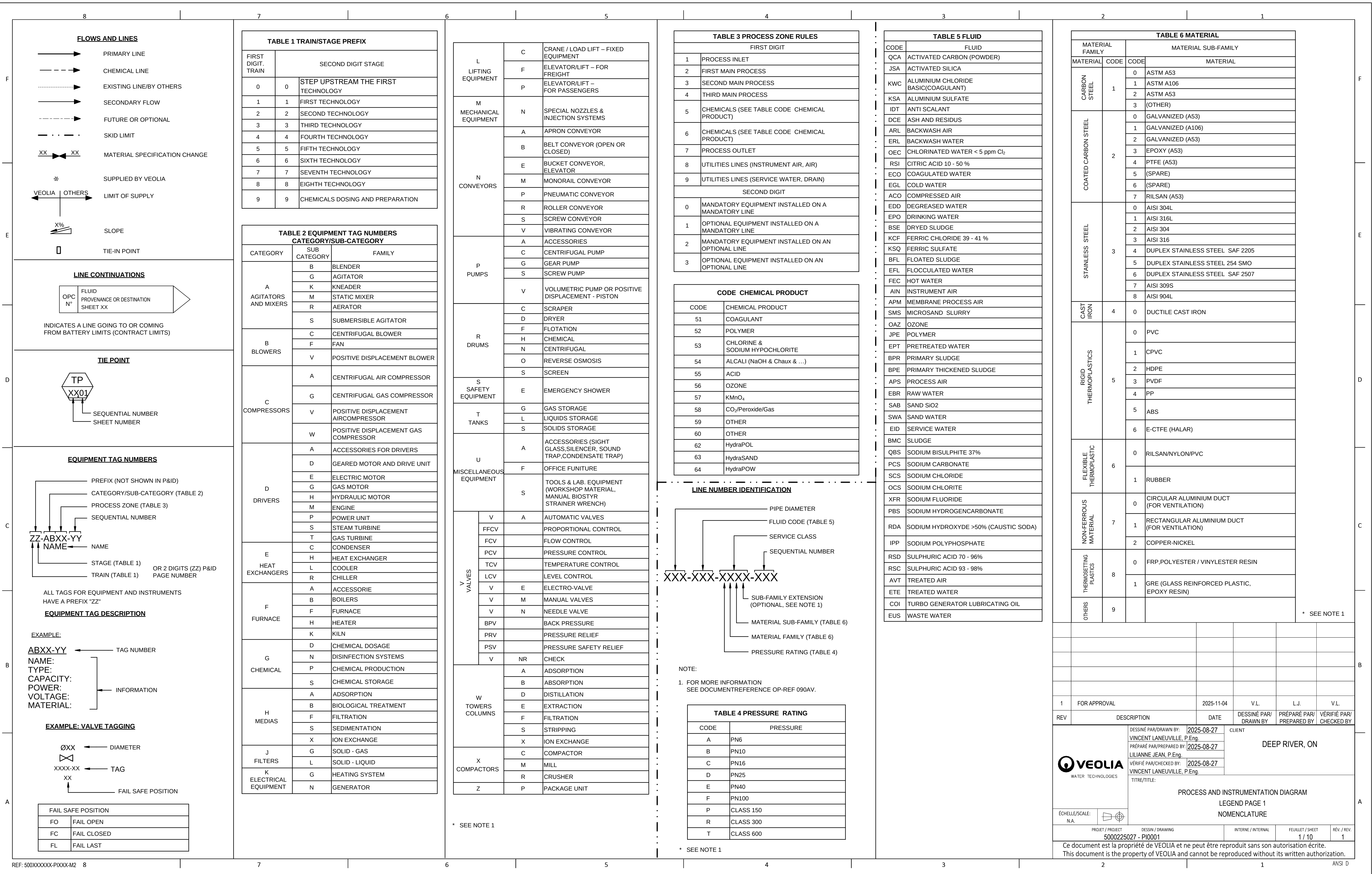
PROJECT TITLE:	5000225027 Deep River, ON
CONTRACT NO.	SUBMITTAL No. :
	5000225027-VWT-TRN-0001
SENDER: Veolia Water Technologies Canada inc 4105 Sartelon Saint-Laurent, Qc H4S 2B3	RECIPIENT: Amy Seymour David McCarthy Bradley Young Mohamad Alzayed

Reference	Revision	Title	Purpose of Issue	
5000225027_PI_0001_GEN_VWT	1	Piping & Instrumentation Diagram	For approval	

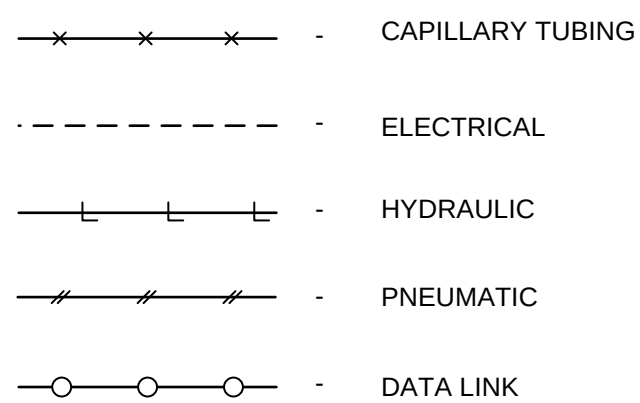
NOTE:	DISTRIBUTION
<i>The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.</i>	

ISSUED BY	
NAME	: Lina Morrone
DATE	: 04 November 2025

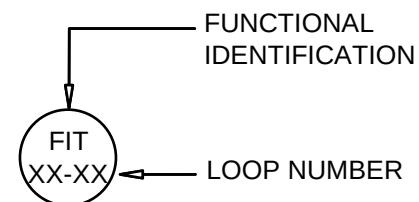
TRANSMITTAL NOTICE	AVIS DE TRANSMISSION	TRANSMITTAL NOTICE
PROJECT TITLE:	TITRE PROJET:	PROJECT TITLE:
CONTRACT NO.	NO. CONTRAT:	CONTRACT NO.
SUBMITTAL No. :	NO. SOUMISSION:	SUBMITTAL No. :
SENDER:	EMETTEUR:	SENDER:
RECIPIENT:	DESTINATAIRE:	RECIPIENT:
Reference	Référence	Reference
Revision	Révision	Revision
Title	Titre	Title
Purpose of Issue	Raison de l'émission	Purpose of Issue
The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.	Les documents joints remplacent toutes révisions antérieures. Il est de la responsabilité du destinataire de s'assurer que les versions ne sont plus utilisées. Retour du reçu une copie de cet avis de transmission sera considérée comme une preuve que cela a été fait.	The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.
ISSUED BY	DÉLIVRÉ PAR	ISSUED BY
NAME :	NOM :	NAME :
For approval	Pour approbation	For approval
For information	Pour information	For information
For installation	Pour installation	For installation
For construction	Pour construction	For construction
Final 100%	Final 100%	Final 100%
As Built	Tel que construit	As Built



INSTRUMENTATION LINES

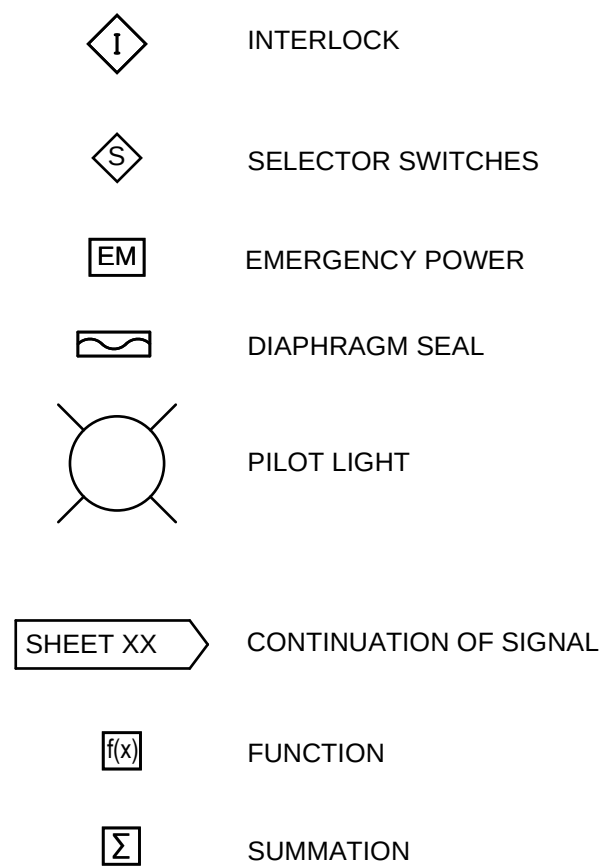


INSTRUMENT TAG NUMBERS



NOTE: HYPHENS ARE OPTIONAL AS SEPARATORS

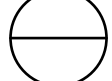
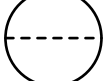
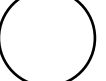
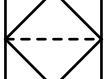
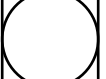
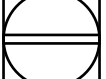
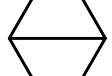
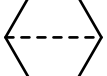
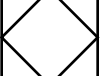
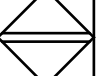
MISCELLANEOUS INSTUMENTATION SYMBOLS



ABREVIATION

AVG	AVERAGE
CFM	CUBIC FEET PER MINUTE
Cl2	CHLORINE
COND.	CONDUCTIVITY
CW	CITY WATER (POTABLE)
DEV	DEVIATION
GAL	GALLONS
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HH	HIGH HIGH
H	HIGH
HOA	HAND/OFF/AUTO
HP	HORSEPOWER
IA	INSTRUMENT AIR
IDEM	EQUAL
L	LOW
LL	LOW LOW
MH	MANHOLE
MW	MANWAY
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
TURB	TURBIDITY
OF	OVERFLOW
pH	PH
PART	PARTICLES
PA	PLANT AIR
PSIG	POUNDS PER SQUARE INCH - GAUGE
PW	PLANT WATER
RUN	RUNNING
RPM	REVOLUTIONS PER MINUTE
SCFM	STANDARD CUBIC FEET PER MINUTE
SCH	SCHEDULE
SG	SPECIFIC GRAVITY
SP	SETPOINT
SSH	STRAIGHT SIDE HEIGHT
SW	SEAL WATER
SWD	SIDE WATER DEPTH
TDH	TOTAL DYNAMIC HEAD (FT OF FLUID)
VAC	VACUUM
VSD	VARIABLE SPEED DRIVE
WC	WATER COLUMN
WD	WATER DEPTH
WL	WATER LEVEL
WV	WORKING VOLUME (DOES NOT INCLUDE FREEBOARD OR HEEL)

GENERAL INSTRUMENT OR FUNCTION SYMBOLS

	PRIMARY LOCATION ***NORMALLY ACCESSIBLE TO OPERATOR	PRIMARY LOCATION ***NORMALLY INACCESSIBLE TO OPERATOR	FIELD MOUNTED	AUXILIARY LOCATION ***NORMALLY ACCESSIBLE TO OPERATOR
DISCRETE INSTRUMENTS	1 * IP1** 	2 	3 	4 
SHARED DISPLAY, SHARED CONTROL	5 	6 	7 	8 
COMPUTER FUNCTION	9 	10 	11 	12 
PROGRAMMABLE LOGIC CONTROL	13 	14 	15 	16 

* SYMBOL SIZE MAY VARY ACCORDING TO THE USER'S NEEDS AND THE TYPE OF DOCUMENT. A SUGGESTED SQUARE AND CIRCLE SIZE FOR LARGE DIAGRAMS IS SHOWN ABOVE. CONSISTENCY IS RECOMMENDED.

*** ABBREVIATIONS OF THE USER'S CHOICE SUCH AS IP1 (INSTRUMENT PANEL #1), IC2 (INSTRUMENT CONSOLE #2), CC3 (COMPUTER CONSOLE #3), ETC., MAY BE USED WHEN IT IS NECESSARY TO SPECIFY INSTRUMENT OR FUNCTION LOCATION.

*** NORMALLY INACCESSIBLE OR BEHIND-THE-PANEL DEVICES OR FUNCTIONS MAY BE
DEPICTED BY USING THE SAME SYMBOL BUT WITH DASHED HORIZONTAL BARS, I.E.

ISA INSTRUMENT IDENTIFICATION TABLE

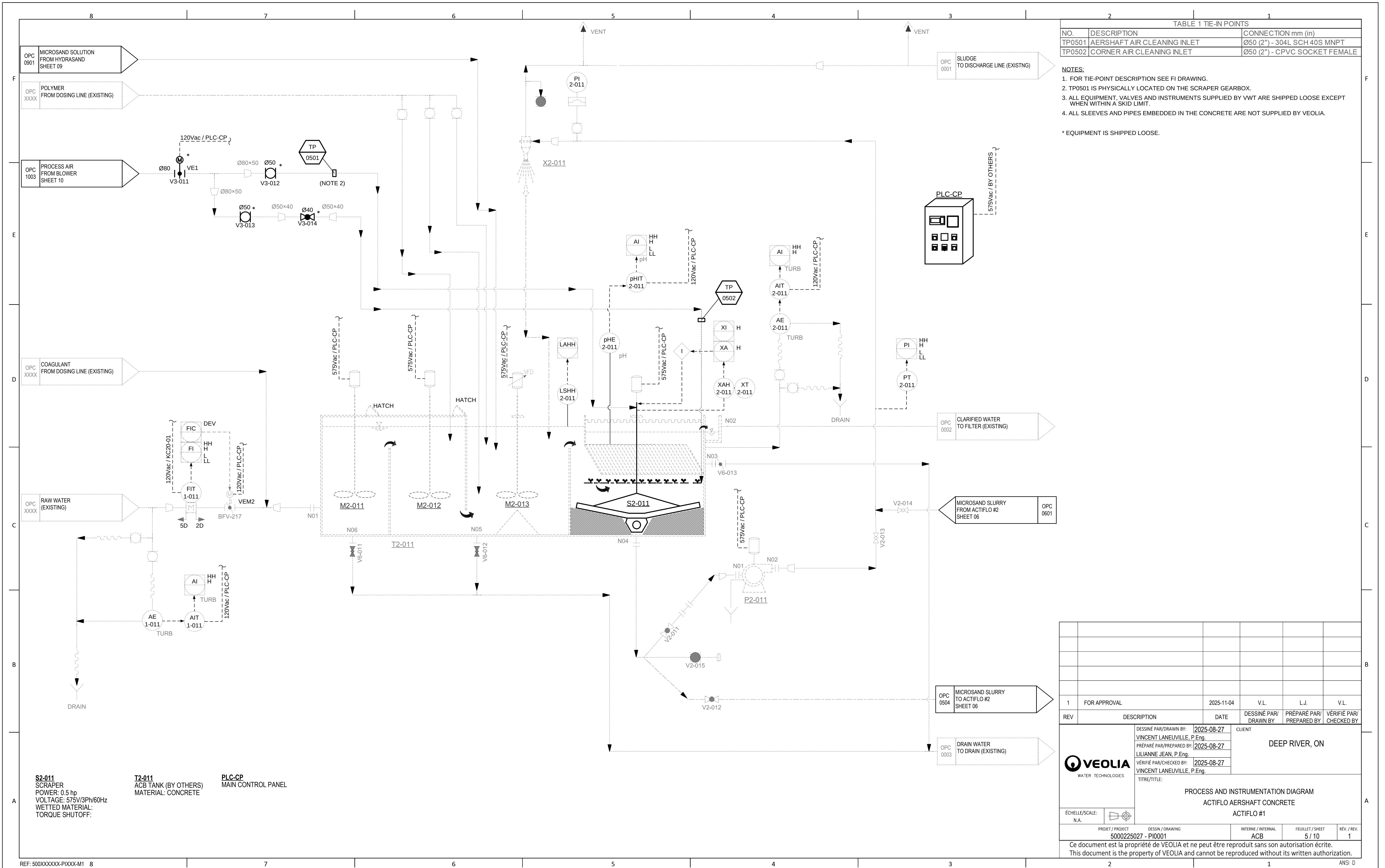
	FIRST LETTER		SUCCEEDING LETTERS		
	PROCESS VARIABLE	MODIFIER (IF NEEDED)	READOUT OR COMPUTER FUNCTION	OUTPUT FUNCTION	MODIFIER (IF NEEDED)
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY			CONTROL	CLOSED
D	DENSITY, SPECIFIC GRAVITY DISSOLVED SOLIDS	DIFFERENTIAL			
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE				
G	GAUGING (DIMENSIONAL)		GLASS, VIEWING DEVICE, GAUGE		
H	MANUAL				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE, HUMIDITY		MONITOR		MIDDLE, INTERMEDIATE
N	CONSISTENCY		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE (RESTRICTION)		OPEN
P	PRESSURE, VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY		INTEGRATE, TOTALIZE		
R	RADIATION RADIOACTIVITY	RATIO	RECORD	REGULATOR	
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE		TRANSMIT		
U	DATA LOGGER		FILTER		
V	VIBRATION, MECH. ANALYSIS VISCOSITY			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE, TORQUE		WELL		
X	UNCLASSIFIED	X-AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y-AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION, DIMENSION	Z-AXIS		DRIVER, ACTUATOR UNCLASSIFIED CONTROL ELEMENT	

LEGEND BASED ON ISA STANDARD S 5.1

SIGNAL IDENTIFICATION TABLE

	FIRST LETTER	SUCCEEDING LETTERS		
A	ANALYSIS	ALARM / FAULT		
B		USER'S CHOICE (AUTO)		
C		COMMAND	CONTROLLER	CLOSED
D	DIFFERENTIAL	DIFFERENTIAL		
F	FLOW		FORWARD	
H		HIGH		
I		INDICATOR		
L	LEVEL	LOW		
O				OPENED
P	PRESSURE			
R		RUNNING	REVERSE	
S	SPEED	SWITCH		
T	TEMPERATURE			
X	UNDEFINED			
Y	VALVE			
Z	POSITION			

1	FOR APPROVAL		2025-11-04	V.L.	L.J.	V.L.			
REV	DESCRIPTION		DATE	DESSINÉ PAR/ DRAWN BY	PRÉPARÉ PAR/ PREPARED BY	VÉRIFIÉ PAR/ CHECKED BY			
							CLIENT		
							DEEP RIVER, ON		
VEOLIA WATER TECHNOLOGIES		DESSINÉ PAR/DRAWN BY: 2025-08-27 VINCENT LANEUVILLE, P.Eng.							
		PRÉPARÉ PAR/PREPARED BY: 2025-08-27 LILIANNE JEAN, P.Eng.							
		VÉRIFIÉ PAR/CHECKED BY: 2025-08-27 VINCENT LANEUVILLE, P.Eng.							
TITRE/TITLE:									
PROCESS AND INSTRUMENTATION DIAGRAM									
LEGEND PAGE 3									
INSTRUMENTS									
ÉCHELLE/SCALE: N.A.									
PROJET / PROJECT 5000225027 - PI0001				INTERIEU / INTERNAL		FEUILLET / SHEET 3 / 10		RÉV. / REV. 1	
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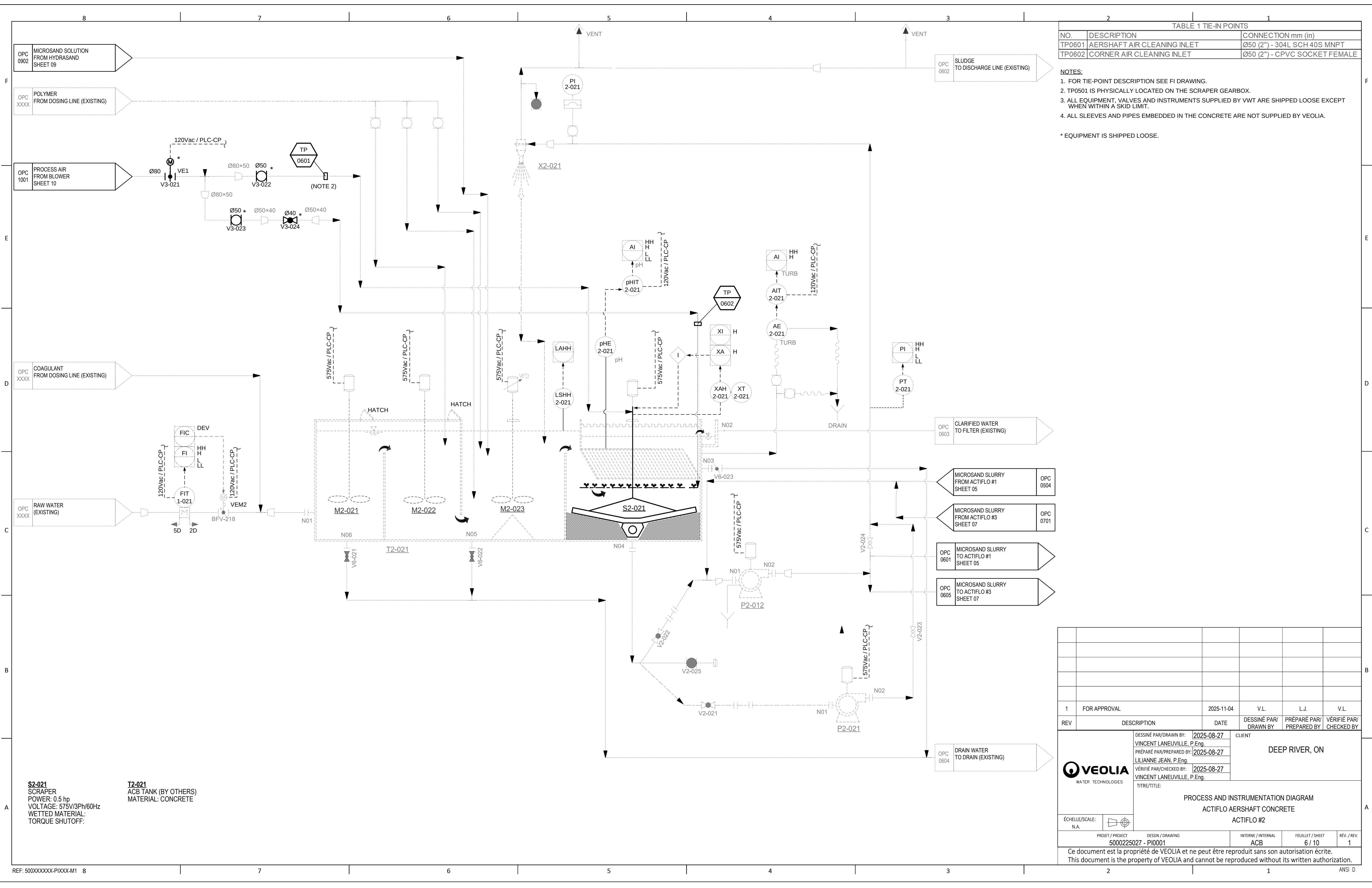
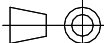


TABLE 1 TIE-IN POINTS		
NO.	DESCRIPTION	CONNECTION mm (in)
TP0601	AERSHAFT AIR CLEANING INLET	Ø50 (2") - 304L SCH 40S MNPT
TP0602	CORNER AIR CLEANING INLET	Ø50 (2") - CPVC SOCKET FEMALE

- NOTES:
1. FOR TIE-POINT DESCRIPTION SEE FI DRAWING.
 2. TP0601 IS PHYSICALLY LOCATED ON THE SCRAPER GEARBOX.
 3. ALL EQUIPMENT, VALVES AND INSTRUMENTS SUPPLIED BY VWT ARE SHIPPED LOOSE EXCEPT WHEN WITHIN A SKID LIMIT.
 4. ALL SLEEVES AND PIPES EMBEDDED IN THE CONCRETE ARE NOT SUPPLIED BY VEOLIA.

* EQUIPMENT IS SHIPPED LOOSE.

1	FOR APPROVAL		2025-11-04	V.L.	L.J.	V.L.		
REV	DESCRIPTION		DATE	DESSINÉ PAR/ DRAWN BY	PRÉPARÉ PAR/ PREPARED BY	VÉRIFIÉ PAR/ CHECKED BY		
			DESSINÉ PAR/DRAWN BY: 2025-08-27	CLIENT DEEP RIVER, ON				
			VINCENT LANEUVILLE, P.Eng.					
			PRÉPARÉ PAR/PREPARED BY: 2025-08-27					
			LILIANNE JEAN, P.Eng.					
			VÉRIFIÉ PAR/CHECKED BY: 2025-08-27					
			VINCENT LANEUVILLE, P.Eng.					
			TITRE/TITLE: PROCESS AND INSTRUMENTATION DIAGRAM ACTIFLO AERSHAFT CONCRETE ACTIFLO #2					
ÉCHELLE/SCALE: N.A.				PROJET / PROJECT 5000225027 - PI0001		DESSIN / DRAWING ACB	FEUILLET / SHEET 6 / 10	RÉV. / REV. 1
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2				1		ANSI D		

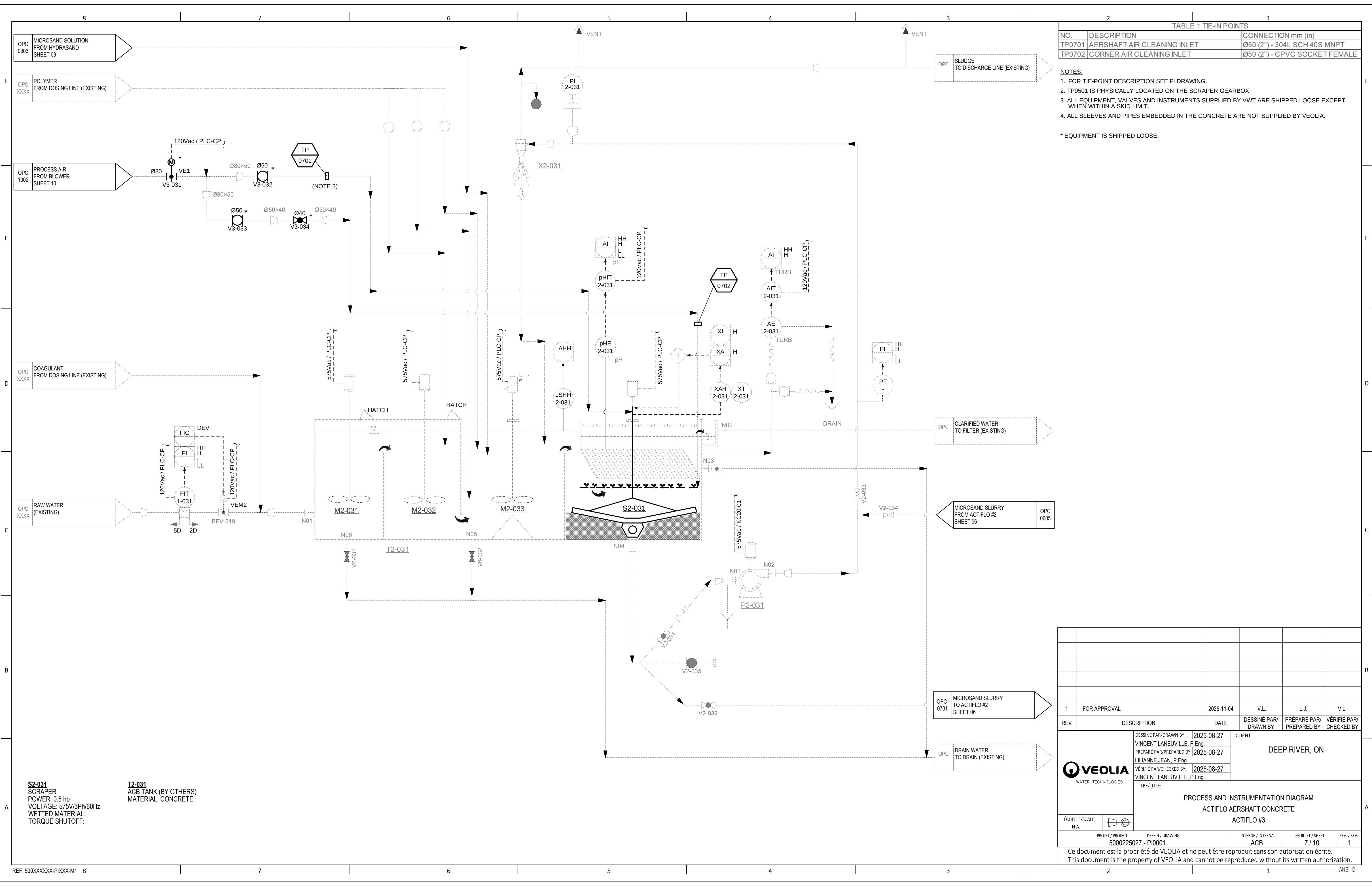


TABLE 1 TIE-IN POINTS		
NO.	DESCRIPTION	CONNECTION mm (in)
TP0701	AERSHAFT AIR CLEANING INLET	Ø50 (2") - 304L SCH 40S MNPT
TP0702	CORNER AIR CLEANING INLET	Ø50 (2") - CPVC SOCKET FEMALE

NOTES:

1. FOR TIE-POINT DESCRIPTION SEE FI DRAWING.
2. TP0501 IS PHYSICALLY LOCATED ON THE SCRAPER GEARBOX.
3. ALL EQUIPMENT, VALVES AND INSTRUMENTS SUPPLIED BY VWT ARE SHIPPED LOOSE EXCEPT WHEN WITHIN A SKID LIMIT.
4. ALL SLEEVES AND PIPES EMBEDDED IN THE CONCRETE ARE NOT SUPPLIED BY VEOLIA.

* EQUIPMENT IS SHIPPED LOOSE.

S2-031
SCRAPER
POWER: 0.5 hp
VOLTAGE: 575V/3Ph/60Hz
WETTED MATERIAL:
TORQUE SHUTOFF:

T2-031
ACB TANK (BY OTHERS)
MATERIAL: CONCRETE

1	FOR APPROVAL	2025-11-04	V.L.	L.J.	V.L.	
REV	DESCRIPTION	DATE	DESSINE PAR/ DRAWN BY	PREPARE PAR/ PREPARED BY	VERIFIE PAR/ CHECKED BY	
		DESSINE PAR/DRAWN BY:	2025-08-27	CLIENT DEEP RIVER, ON		
		VINCENT LANEUVILLE, P.Eng.				
		PREPARE PAR/PREPARED BY:	2025-08-27			
		LILIANNE JEAN, P.Eng.				
		VERIFIE PAR/CHECKED BY:	2025-08-27			
				VINCENT LANEUVILLE, P.Eng.		
		TITRE/TITLE:				
PROCESS AND INSTRUMENTATION DIAGRAM						
ACTIFLO AERSHAFT CONCRETE						
ACTIFLO #3						
ÉCHELLE/SCALE:		PROJET / PROJECT		DESSIN / DRAWING		
N.A.		5000225027 - PI0001		INTERNE / INTERNAL	FEUILLET / SHEET	RÉV. / REV.
				ACB	7 / 10	1
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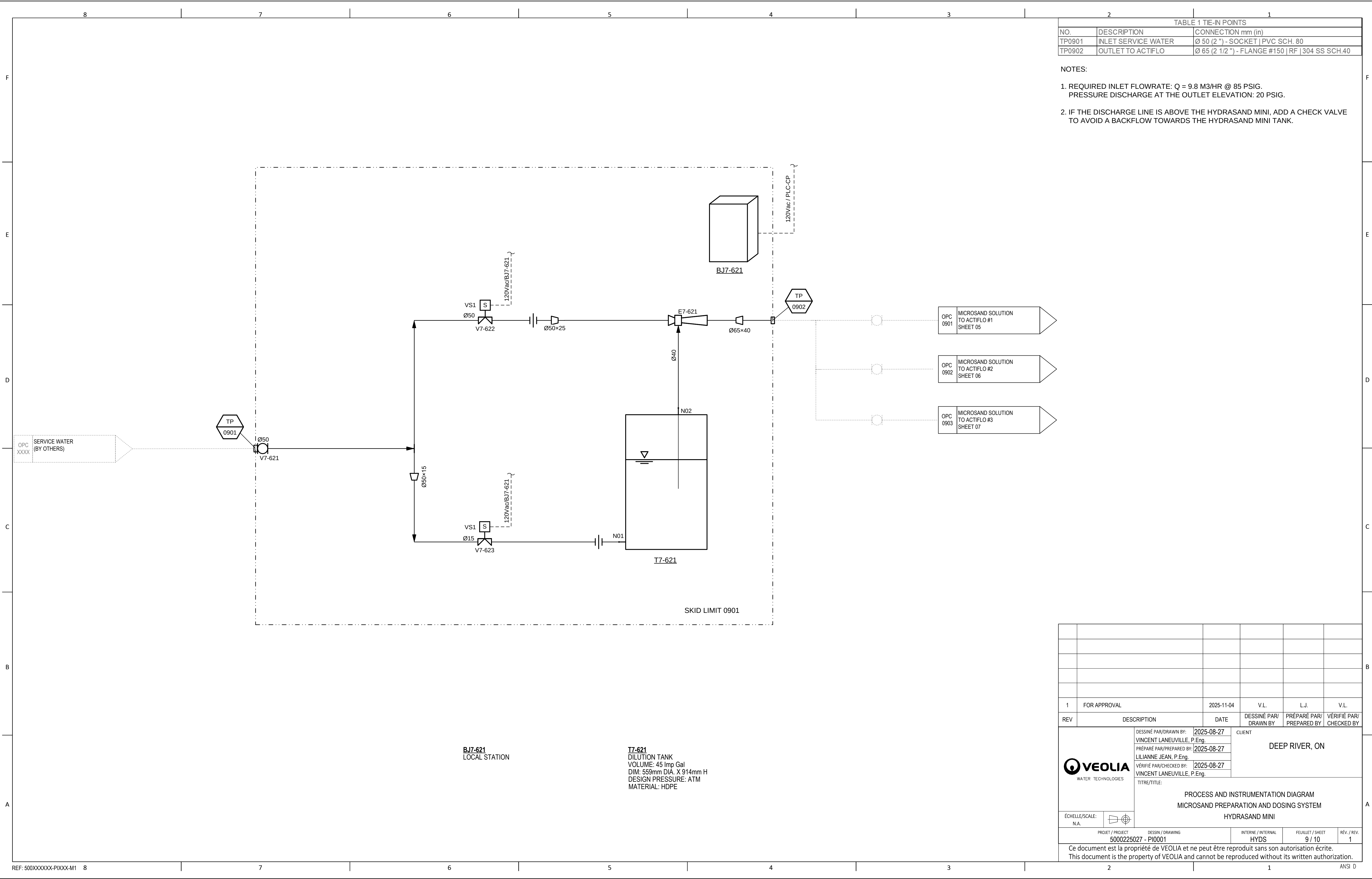
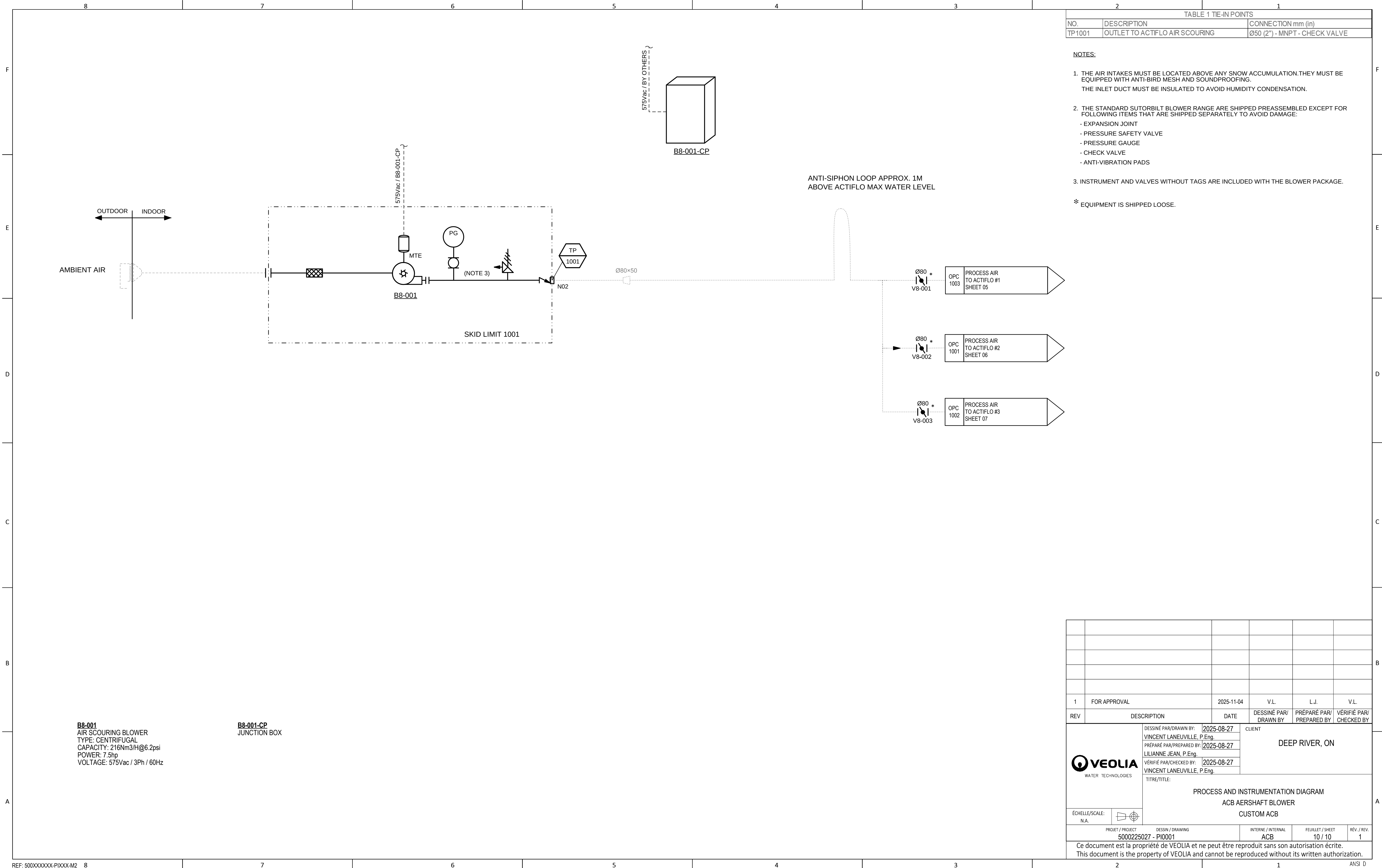


TABLE 1 TIE-IN POINTS		
NO.	DESCRIPTION	CONNECTION mm (in)
TP0901	INLET SERVICE WATER	Ø 50 (2 ") - SOCKET PVC SCH. 80
TP0902	OUTLET TO ACTIFLO	Ø 65 (2 1/2 ") - FLANGE #150 RF 304 SS SCH.40

- NOTES:
- REQUIRED INLET FLOWRATE: Q = 9.8 M3/HR @ 85 PSIG.
PRESSURE DISCHARGE AT THE OUTLET ELEVATION: 20 PSIG.
 - IF THE DISCHARGE LINE IS ABOVE THE HYDRASAND MINI, ADD A CHECK VALVE TO AVOID A BACKFLOW TOWARDS THE HYDRASAND MINI TANK.

1	FOR APPROVAL	2025-11-04	V.L.	L.J.	V.L.
REV	DESCRIPTION	DATE	DESSINÉ PAR/ DRAWN BY	PRÉPARÉ PAR/ PREPARED BY	VÉRIFIÉ PAR/ CHECKED BY
		DESSINÉ PAR/DRAWN BY: 2025-08-27	CLIENT DEEP RIVER, ON		
		VINCENT LANEUVILLE, P.Eng.			
		PRÉPARÉ PAR/PREPARED BY: 2025-08-27			
		LILIANNE JEAN, P.Eng.			
		VÉRIFIÉ PAR/CHECKED BY: 2025-08-27			
		VINCENT LANEUVILLE, P.Eng.			
		TITRE/TITLE:			
		PROCESS AND INSTRUMENTATION DIAGRAM MICROSAND PREPARATION AND DOSING SYSTEM HYDRASAND MINI			
ÉCHELLE/SCALE: N.A.					
PROJET / PROJECT 5000225027 - PI0001		DESSIN / DRAWING HYDS	INTERNE / INTERNAL 9 / 10	FEUILLET / SHEET 1	RÉV. / REV. 1
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1	FOR APPROVAL	2025-11-04	V.L.	L.J.	V.L.
REV	DESCRIPTION	DATE	DESSINÉ PAR/ DRAWN BY	PRÉPARÉ PAR/ PREPARED BY	VÉRIFIÉ PAR/ CHECKED BY
		DESSINÉ PAR/DRAWN BY:	2025-08-27	CLIENT DEEP RIVER, ON	
		VINCENT LANEUVILLE, P.Eng.			
		PRÉPARÉ PAR/PREPARED BY:	2025-08-27		
		LILIANNE JEAN, P.Eng.			
		VÉRIFIÉ PAR/CHECKED BY:	2025-08-27		
		VINCENT LANEUVILLE, P.Eng.			
		TITRE/TITLE:			
PROCESS AND INSTRUMENTATION DIAGRAM					
ACB AERSHAFT BLOWER					
CUSTOM ACB					
ÉCHELLE/SCALE: N.A.		PROJET / PROJECT 5000225027 - PI0001		DESSIN / DRAWING ACB	FEUILLET / SHEET 10 / 10
				RÉV. / REV. 1	
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TRANSMITTAL NOTICE

PROJECT TITLE:

5000225027 Deep River, ON

CONTRACT NO.

SUBMITTAL No. :

5000225027-VWT-TRN-0002

SENDER:

Veolia Water Technologies Canada inc
4105 Sartelon
Saint-Laurent, Qc
H4S 2B3

RECIPIENT:

Amy Seymour
David McCarthy
Bradley Young
Mohamad Alzayed

Reference	Revision	Title	Purpose of Issue	
5000225027_FI_0001_RAC_VWT	1	Field Installation Drawing - Scraper	For approval	
5000225027_FI_0002_ACB_VWT	1	Field Installation Drawing - Lamellas	For approval	
5000225027_GA_6200_HYDP_VWT	1	General Arrangement - Polymer Preparation System	For approval	
5000225027_GA_6350_HYDS_VWT	1	General Arrangement - Microsand Preparation and Dosing System	For approval	

NOTE:

DISTRIBUTION

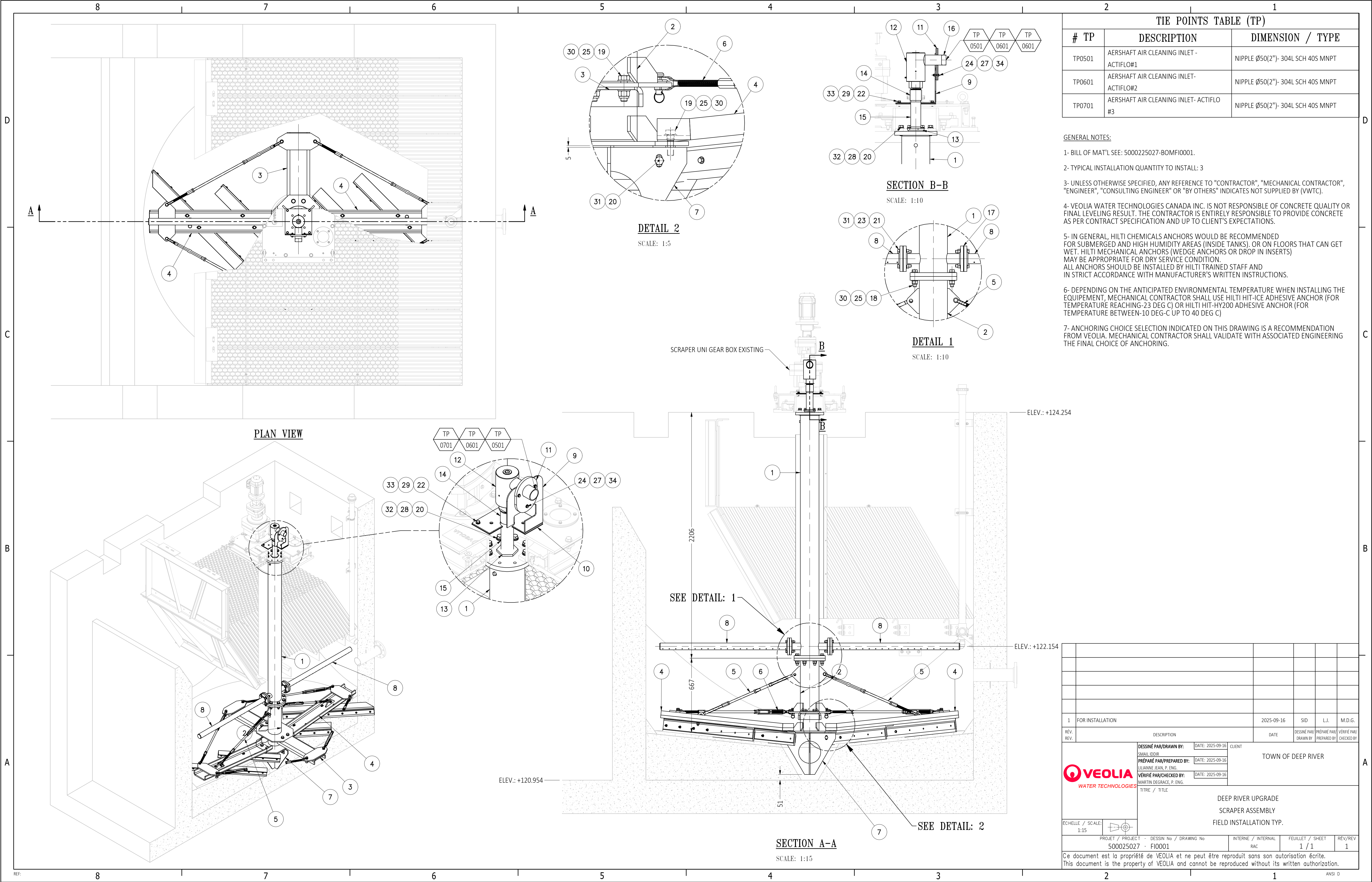
*The attached documents supersede any earlier revision.
It is the responsibility of the recipient to ensure that superseded
versions are removed from use. Return of the receipt
copy of this Transmittal Notice will be taken as evidence that this has been done.*

ISSUED BY

NAME : Lina Morrone

DATE : 04 November 2025

TRANSMITTAL NOTICE	AVIS DE TRANSMISSION	TRANSMITTAL NOTICE
PROJECT TITLE:	TITRE PROJET:	PROJECT TITLE:
CONTRACT NO.	NO. CONTRAT:	CONTRACT NO.
SUBMITTAL No. :	NO. SOUMISSION:	SUBMITTAL No. :
SENDER:	EMETTEUR:	SENDER:
RECIPIENT:	DESTINATAIRE:	RECIPIENT:
Reference	Référence	Reference
Revision	Révision	Revision
Title	Titre	Title
Purpose of Issue	Raison de l'émission	Purpose of Issue
The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.	Les documents joints remplacent toutes révisions antérieures. Il est de la responsabilité du destinataire de s'assurer que les versions ne sont plus utilisées. Retour du reçu une copie de cet avis de transmission sera considérée comme une preuve que cela a été fait.	The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.
ISSUED BY	DÉLIVRÉ PAR	ISSUED BY
NAME :	NOM :	NAME :
For approval	Pour approbation	For approval
For information	Pour information	For information
For installation	Pour installation	For installation
For construction	Pour construction	For construction
Final 100%	Final 100%	Final 100%
As Built	Tel que construit	As Built



TIE POINTS TABLE (TP)		
# TP	DESCRIPTION	DIMENSION / TYPE
TP0501	AERSHAFT AIR CLEANING INLET - ACTIFLO#1	NIPPLE Ø50(2")- 304L SCH 40S MNPT
TP0601	AERSHAFT AIR CLEANING INLET- ACTIFLO#2	NIPPLE Ø50(2")- 304L SCH 40S MNPT
TP0701	AERSHAFT AIR CLEANING INLET- ACTIFLO #3	NIPPLE Ø50(2")- 304L SCH 40S MNPT

GENERAL NOTES:

1- BILL OF MAT'L SEE: 5000225027-BOMFI0001.

2- TYPICAL INSTALLATION QUANTITY TO INSTALL: 3

3- UNLESS OTHERWISE SPECIFIED, ANY REFERENCE TO "CONTRACTOR", "MECHANICAL CONTRACTOR", "ENGINEER", "CONSULTING ENGINEER" OR "BY OTHERS" INDICATES NOT SUPPLIED BY (VWTC).

4- VEOLIA WATER TECHNOLOGIES CANADA INC. IS NOT RESPONSIBLE OF CONCRETE QUALITY OR FINAL LEVELING RESULT. THE CONTRACTOR IS ENTIRELY RESPONSIBLE TO PROVIDE CONCRETE AS PER CONTRACT SPECIFICATION AND UP TO CLIENT'S EXPECTATIONS.

5- IN GENERAL, HILTI CHEMICALS ANCHORS WOULD BE RECOMMENDED FOR SUBMERGED AND HIGH HUMIDITY AREAS (INSIDE TANKS). OR ON FLOORS THAT CAN GET WET. HILTI MECHANICAL ANCHORS (WEDGE ANCHORS OR DROP IN INSERTS) MAY BE APPROPRIATE FOR DRY SERVICE CONDITION. ALL ANCHORS SHOULD BE INSTALLED BY HILTI TRAINED STAFF AND IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

6- DEPENDING ON THE ANTICIPATED ENVIRONMENTAL TEMPERATURE WHEN INSTALLING THE EQUIPEMENT, MECHANICAL CONTRACTOR SHALL USE HILTI HIT-ICE ADHESIVE ANCHOR (FOR TEMPERATURE REACHING -23 DEG C) OR HILTI HIT-HY200 ADHESIVE ANCHOR (FOR TEMPERATURE BETWEEN -10 DEG-C UP TO 40 DEG C)

7- ANCHORING CHOICE SELECTION INDICATED ON THIS DRAWING IS A RECOMMENDATION FROM VEOLIA. MECHANICAL CONTRACTOR SHALL VALIDATE WITH ASSOCIATED ENGINEERING THE FINAL CHOICE OF ANCHORING.

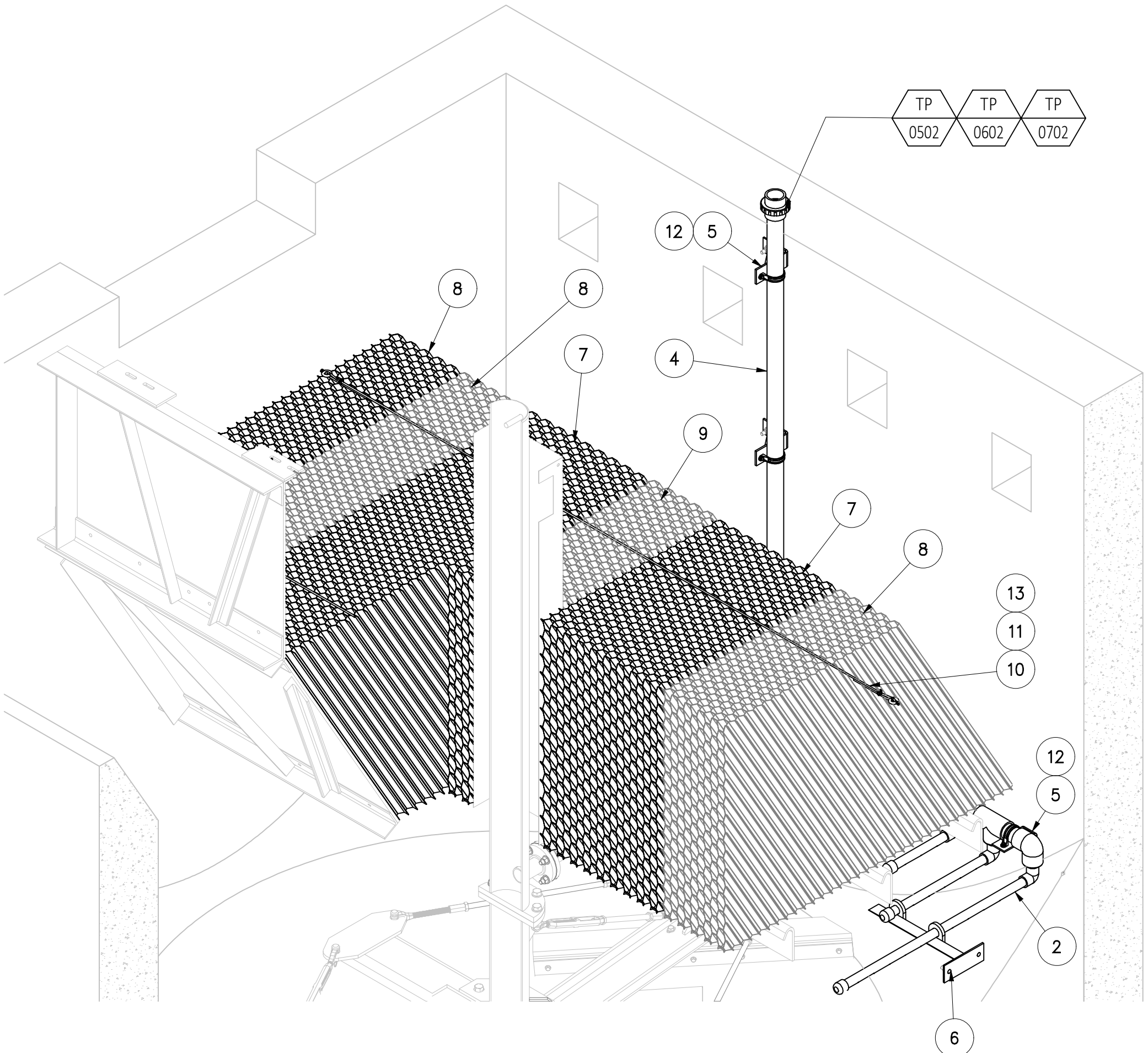
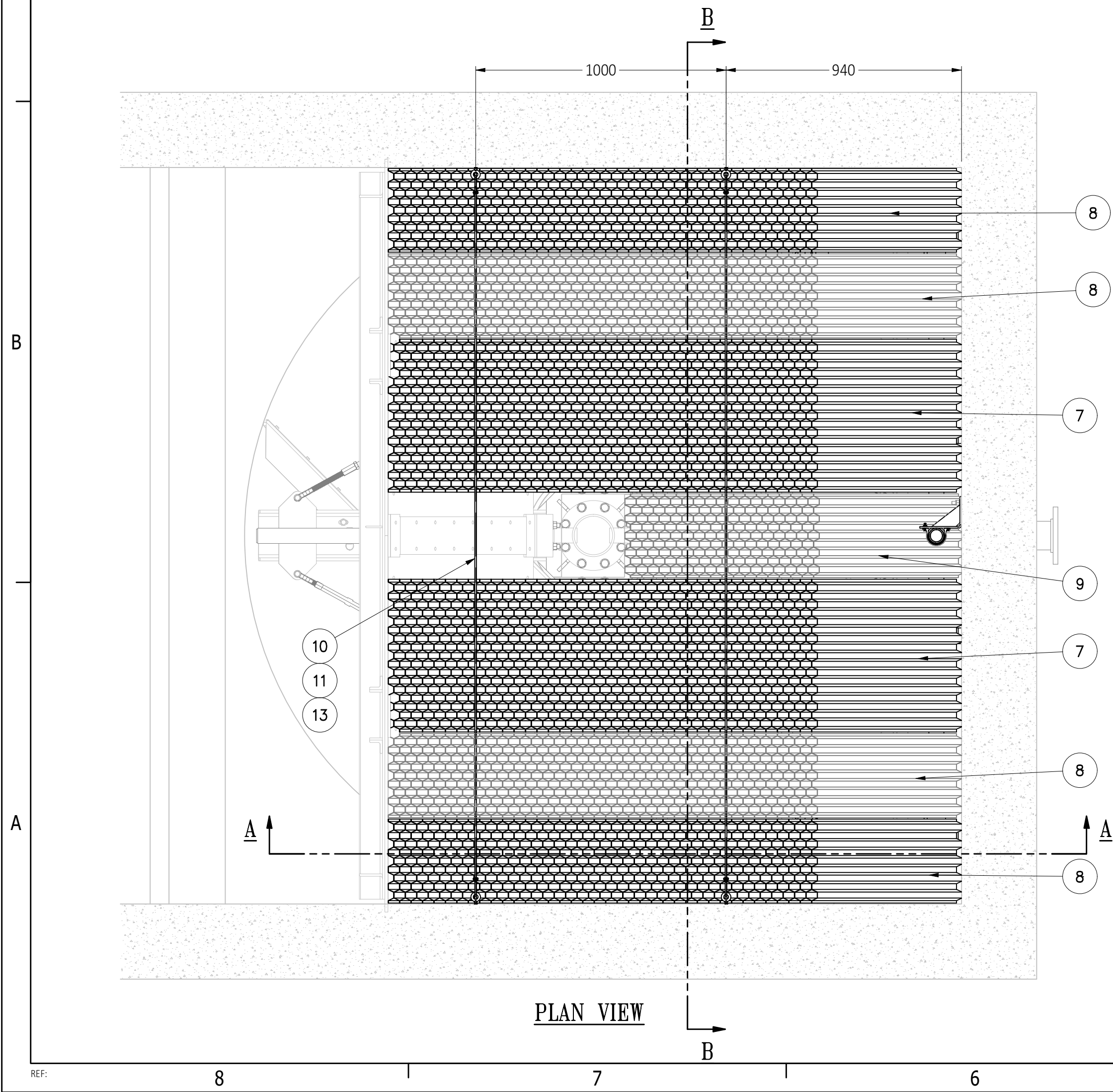
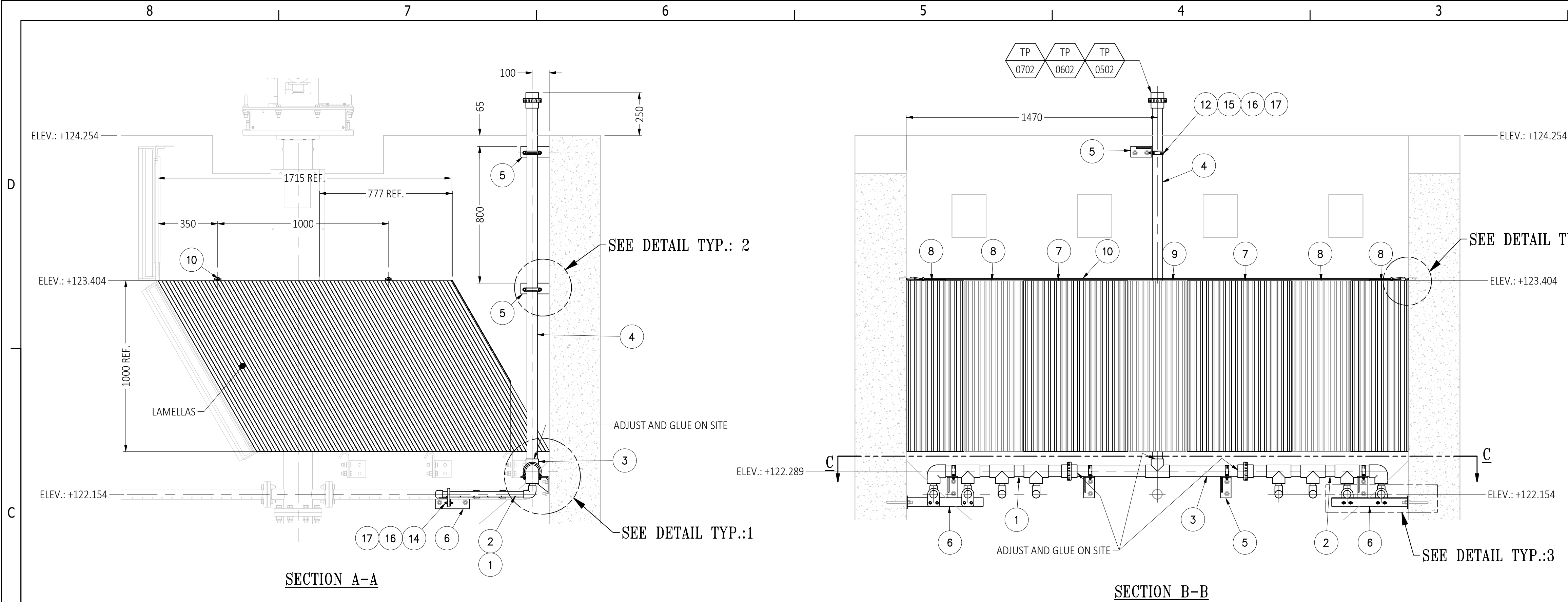
1	FOR INSTALLATION	2025-09-16	SID	L.J.	M.D.G.
REV.	DESCRIPTION	DATE	DESSINÉ PAR / DRAWN BY	PRÉPARÉ PAR / PREPARED BY	VÉRIFIÉ PAR / CHECKED BY
REV.	DESCRIPTION	DATE	DESSINÉ PAR / DRAWN BY	PRÉPARÉ PAR / PREPARED BY	VÉRIFIÉ PAR / CHECKED BY
DESSINÉ PAR / DRAWN BY: SMALL IDOR VEOLIA WATER TECHNOLOGIES			CLIENT: TOWN OF DEEP RIVER		
PRÉPARÉ PAR / PREPARED BY: LIJUANIE JEAN, P. ENG.			DATE: 2025-09-16		
VÉRIFIÉ PAR / CHECKED BY: MARTIN DEGRACE, P. ENG.			DATE: 2025-09-16		
TITRE / TITLE			DEEP RIVER UPGRADE SCRAPER ASSEMBLY FIELD INSTALLATION TYP.		
ECHELLE / SCALE: 1:15	PROJET / PROJECT - DESSIN No / DRAWING No 500025027 - FI0001	INTERNE / INTERNAL RAC	FEUILLET / SHEET 1 / 1	REV/REV 1	
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BILL OF MATERIALS

TITLE					Rev.	DESCRIPTION		DATE	Dessiné par/ Drawn by	Préparé par/ Prepared by	Vérifié par/ Checked by	CLIENT			
DEEP RIVER UPGRADE SCRAPER ASSEMBLY FIELD INSTALLATION TYP.					1	FOR INSTALLATION		2025-09-16	SID	L.J.	M.D.G.	TOWN OF DEEP RIVER			
												REF.No.	500025027	Rev.	1
												Date:	2025-09-16		
DWG #		FI0001													
REV.	ITEM			QTY		DESCRIPTION	MATERIAL	REFERENCE NO.	P&ID		Comments				
				Unit.	Total				I.D. / TAG						
	500025027-FI0001-	1	1	3	UPPER SHAFT - MACHINED	AISI 304L	FA101								
	500025027-FI0001-	2	1	3	LOWER SHAFT - MACHINED	AISI 304L	FA102								
	500025027-FI0001-	3	2	6	AUXILIARY ARM	AISI 304L	FA103								
	500025027-FI0001-	4	2	6	MAIN ARM ASSEMBLY		SA101								
	500025027-FI0001-	5	2	6	AXIAL TENDER ASSEMBLY		SA102								
	500025027-FI0001-	6	4	12	RADIAL TENDER ASSEMBLY		SA103								
	500025027-FI0001-	7	1	3	HOPPER SCRAPER	AISI 304L	FA111								
	500025027-FI0001-	8	2	6	ROTATING LAMELLAS WASHING PIPE	AISI 304L	FA201								
	500025027-FI0001-	9	1	3	SCRAPER BOX ACCES COVER FOR LAMELLAS AIR CLEANING SYSTEM	AISI 304L	FACVAI352191								
	500025027-FI0001-	10	1	3	SEALING GASKET - ACCESS COVER	CAOUTCHOUC ROUGE / RED RUBBER	FACVSC300701								
	500025027-FI0001-	11	1	3	LAMELLAS AIR WASH SYSTEM INLET NIPPLE SUPPORT	POLYPROPYLENE	FABKGU352851								
	500025027-FI0001-	12	1	3	ROTATING JOINT FITTING 90°, RIGHT-HAND, Ø2" MNPT X 2" FNPT	ACIER INOX STAINLESS STEEL	FPADSS354789								
	500025027-FI0001-	13	1	3	REDUCING BUSHING Ø3" MNPT X Ø2" FNPT, #150	AISI 304	FPRDSS313240								
	500025027-FI0001-	14	1	3	COUPLING, Ø2" FNPT, #150, O.D. 2.625"	AISI 304L	FPADSS312200								
	500025027-FI0001-	15	1	3	NIPPLE ø2"-8in LG., SCHEDULE 40S, MADE TO ASTM A733	ASTM A-312 / GR TP304L	FPNISS338385								
	500025027-FI0001-	16	1	3	NIPPLE ø2"-6in LG., SCHEDULE 40S, MADE TO ASTM A733	ASTM A-312 / GR TP304L	FPNISS202362								
	500025027-FI0001-	17	2	6	FLANGE GASKET Ø2	CAOUTCHOUC ROUGE / RED RUBBER	SEGAFP200120								
	500025027-FI0001-	18	8	24	HEX. BOLT Ø3/4"-10UNC X 3 1/2" LG.	ASTM-F593H-316	FXSCZC200563								
	500025027-FI0001-	19	8	24	HEX. BOLT Ø3/4"-10UNC X 2 1/2 LG.	ASTM-F593H-316	FXSCZC200560								
	500025027-FI0001-	20	12	36	HEX. BOLT Ø5/8"-11UNC X 2 LG.	ASTM-F593G-316	FXSCYY200524								
	500025027-FI0001-	21	8	24	HEX. BOLT Ø5/8"-11UNC X 2 3/4 LG.	ASTM A-193 GR. B8M CLASSE 1 (316)	FXSCYY325303								

NOMENCLATURE / BILL OF MATERIAL

TITRE / TITLE					Rev.	DESCRIPTION		DATE	Rev	Verif. / Chk.	Appr.	CLIENT			
DEEP RIVER UPGRADE SCRAPER ASSEMBLY FIELD INSTALLATION TYP.					1	FOR INSTALLATION		2025-09-16	SID	L.J.	M.D.G.	TOWN OF DEEP RIVER			
												REF.No.	500025027	Rev.	1
												Date:	2025-09-16		
DESSIN # / DWG #			FI0001												
REV.	ITEM			QTE / QTY		DESCRIPTION	MATÉRIEL / MATERIAL	NO. RÉFÉRENCE REFERENCE NO.	P&ID I.D. / TAG		Commentaires / Comments				
				Unit.	Total										
	500025027-FI0001-	22	4	12	HEX. BOLT Ø3/8"-16UNC X 1" LG.	ASTM-F593G-316	FXSCYS200405								
	500025027-FI0001-	23	8	24	HEX. NUT Ø5/8"-11UNC	ASTM A-194 GR. 8M (316)	FXNUYY317911								
	500025027-FI0001-	24	3	9	HEX. BOLT Ø1/4"-20UNC X 1 1/4" LG.	ASTM-F593G-316	FXSCYP200359								
	500025027-FI0001-	25	16	48	LOCK-NUT Ø3/4"-10UNC	ASTM-F594H-316	FXNUZD200239								
	500025027-FI0001-	26	4	12	LOCK-NUT Ø5/8"-11UNC	ASTM-F594G-316	FXNUYY200227								
	500025027-FI0001-	27	3	9	LOCK-NUT Ø1/4"-20UNC	ASTM-F594G-316	FXNUYP200204								
	500025027-FI0001-	28	8	24	LOCK WASHER Ø5/8"	AISI 316	FXWAYY200677								
	500025027-FI0001-	29	4	12	LOCK WASHER Ø3/8"	AISI 316	FXWAYS200669								
	500025027-FI0001-	30	32	96	FLAT WASHER Ø3/4", TYPE A, NARROW	AISI 316	FXWAZD200683								
	500025027-FI0001-	31	24	72	FLAT WASHER Ø5/8", TYPE A, NARROW	AISI 316	FXWAYY200676								
	500025027-FI0001-	32	8	24	FLAT WASHER Ø5/8" TYPE A NARROW	AISI 316	FXWAYY200676								
	500025027-FI0001-	33	4	12	FLAT WASHER Ø3/8", TYPE A, NARROW	AISI 316	FXWAYS200668								
	500025027-FI0001-	34	6	18	FLAT WASHER Ø1/4", TYPE A, NARROW	AISI 316	FXWAYP200664								



TIE POINTS TABLE (TP)		
# TP	DESCRIPTION	DIMENSION / TYPE
TP0502	CORNER AIR CLEANING INLET - ACTIFLO#1	UNION Ø50(2")- CPVC SOCKET FEMALE
TP0602	CORNER AIR CLEANING INLET - ACTIFLO#2	UNION Ø50(2")- CPVC SOCKET FEMALE
TP0702	CORNER AIR CLEANING INLET - ACTIFLO #3	UNION Ø50(2")- CPVC SOCKET FEMALE

- GENERAL NOTES:**
- 1- BILL OF MAT'L SEE: 5000225027-BOMFI0002.
 - 2- TYPICAL INSTALLATION QUANTITY TO INSTALL: 3
 - 3- UNLESS OTHERWISE SPECIFIED, ANY REFERENCE TO "CONTRACTOR", "MECHANICAL CONTRACTOR", "ENGINEER", "CONSULTING ENGINEER" OR "BY OTHERS" INDICATES NOT SUPPLIED BY (VWTC).
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 - 7- ANCHORING CHOICE SELECTION INDICATED ON THIS DRAWING IS A RECOMMENDATION FROM VEOLIA. MECHANICAL CONTRACTOR SHALL VALIDATE WITH ASSOCIATED ENGINEERING THE FINAL CHOICE OF ANCHORING.

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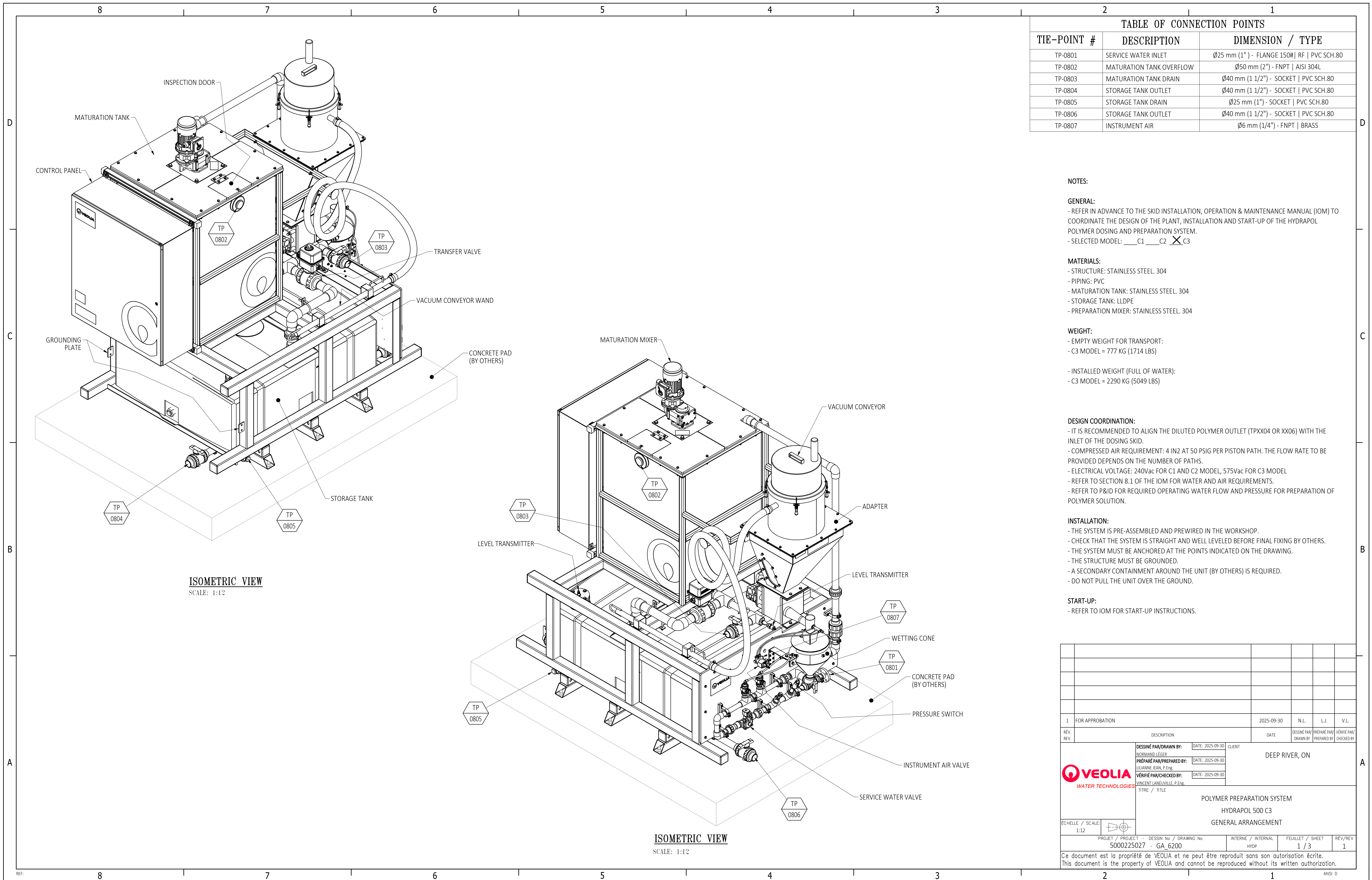


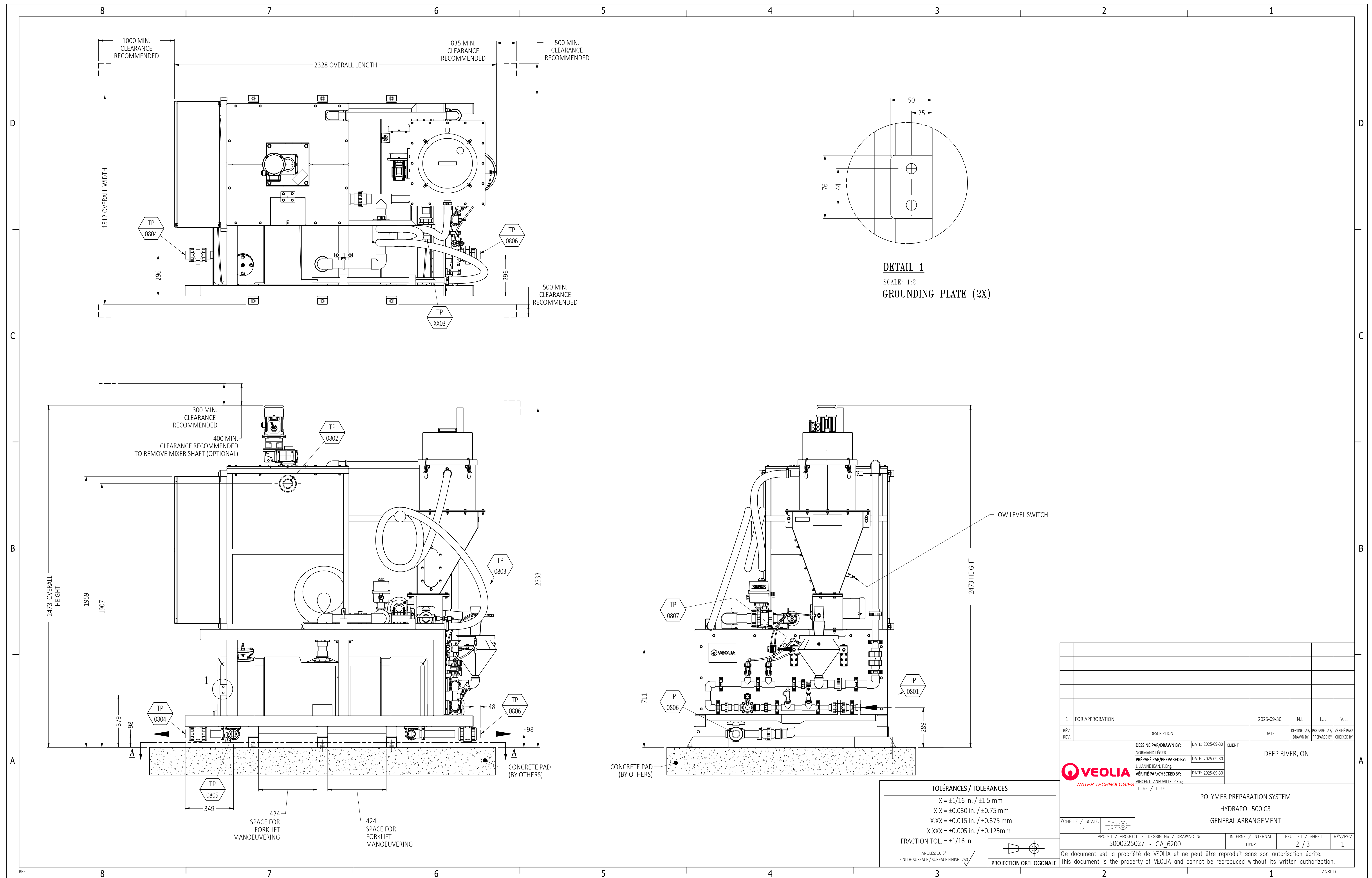
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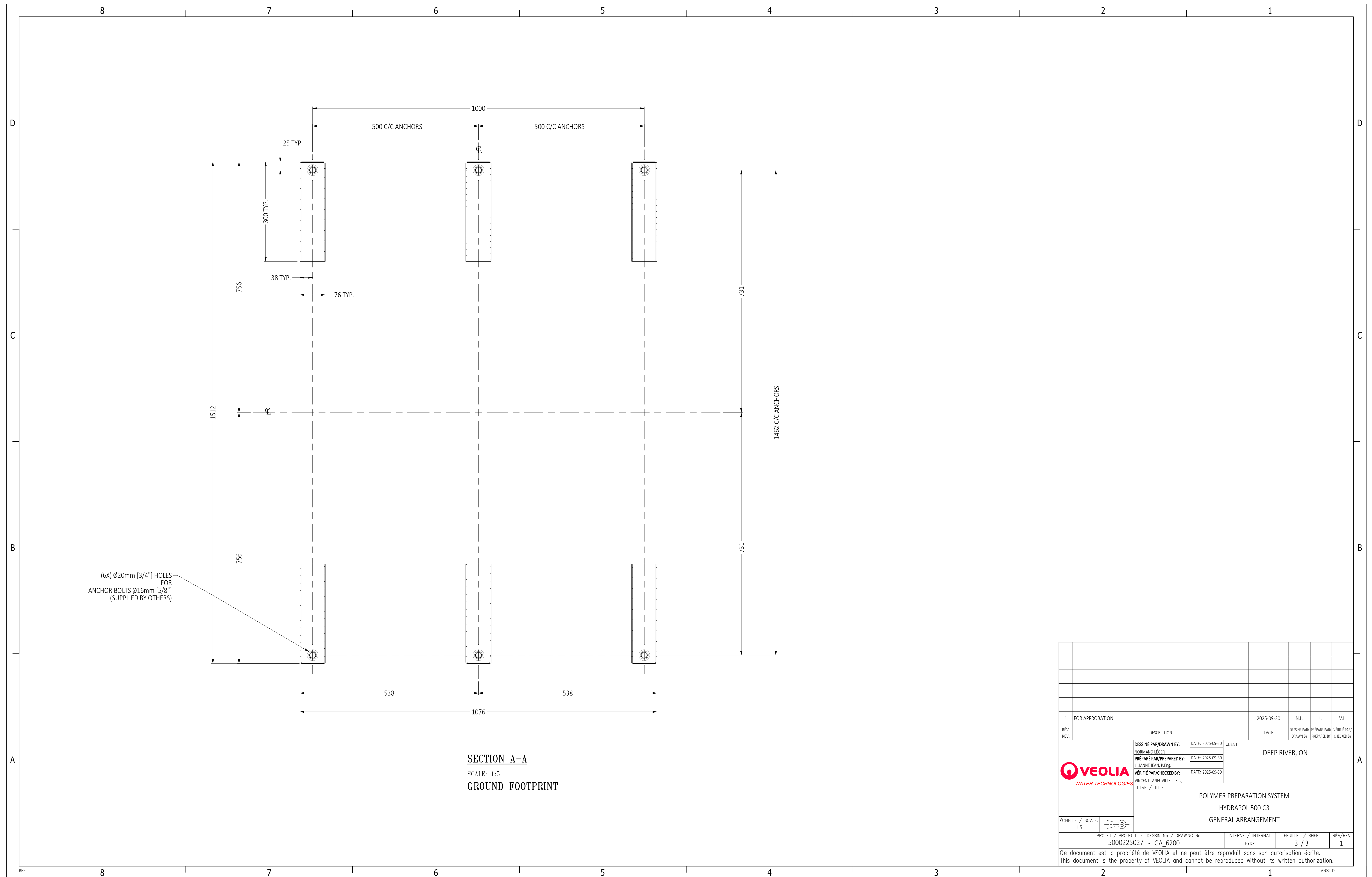


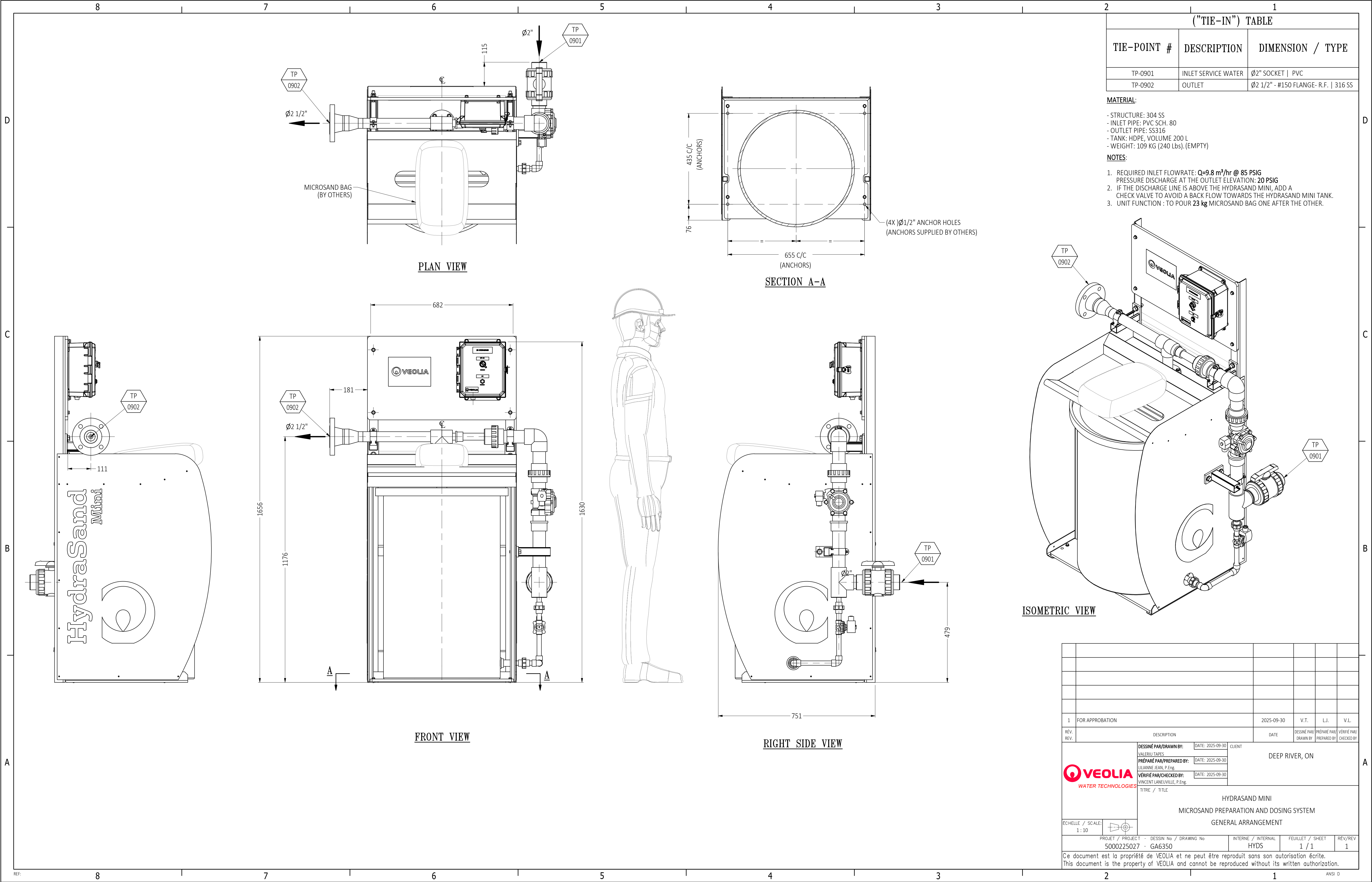
BILL OF MATERIALS

TITLE					Rev.	DESCRIPTION		DATE	Dessiné par/ Drawn by	Préparé par/ Prepared by	Vérifié par/ Checked by	CLIENT			
DEEP RIVER UPGRADE LAMELLAS AND AIR CLEANING ASSEMBLY FIELD INSTALLATION					1	FOR INSTALLATION		2025-09-16	SID	L.J.	M.D.G.	TOWN OF DEEP RIVER			
												REF.No.	500025027	Rev.	1
												Date:	2025-09-16		
DWG #		FI0002													
REV.	ITEM			QTY		DESCRIPTION	MATERIAL	REFERENCE NO.	P&ID		Comments				
				Unit.	Total				I.D. / TAG						
	500025027-FI0002-	1	1	3	LAMELLAS CORNER WASHING RAMP - LEFT	CPVC ASTM D-1784	FA202								
	500025027-FI0002-	2	1	3	LAMELLAS CORNER WASHING RAMP -RIGHT	CPVC ASTM D-1784	FA203								
	500025027-FI0002-	3	1	3	INTERMEDIATE MANIFOLD FOR WASHING RAMPs	CPVC ASTM D-1784	FA204								
	500025027-FI0002-	4	1	3	MANIFOLD PIPE FOR WASHING RAMPs	CPVC ASTM D-1784	FA205								
	500025027-FI0002-	5	6	18	LAMELLAS WASHING SYSTEM WALL SUPPORT DIA. 2"	AISI 304L	FA206								
	500025027-FI0002-	6	2	6	LAMELLAS WASHING SYSTEM WALL SUPPORT DIA. 1"	AISI 304L	FA207								
	500025027-FI0002-	7	2	6	DH38 LAMELLA'S MODULE - 610 mm X 1000 mm X 1715 mm - PP (WHITE)	Generic	FASPAI378477								
	500025027-FI0002-	8	4	12	DH38 LAMELLA'S MODULE - 335 mm X 1000 mm X 1715 mm - PP (WHITE)	Generic	FASPAI378475								
	500025027-FI0002-	9	1	3	DH38 LAMELLA'S MODULE - 335 mm X 1000 mm X 777 mm - PP (WHITE)	Generic	FASPAI378476								
	500025027-FI0002-	10	2	6	METAL CABLE COVERED WITH CLEAR BLACK VINYL, DIA.1/4	AISI 304	CMWIGU302726								
	500025027-FI0002-	11	4	12	WIRE ROPE CLAMP Ø1/4", 304, MCMASTER #31985T73	AISI 304	FXCLYP301965								
	500025027-FI0002-	12	6	18	PIPE CLAMP Ø2". 2 HOLES (PVC) IPEX 036005	PVC	FPCLPV314982								
	500025027-FI0002-	13	4	12	EYE BOLT Ø3/8"-16 x 1" FIBERGLASS	Fiberglass Batt	FXBOYS200073								
	500025027-FI0002-	14	8	24	HEX. BOLT Ø1/4"-20UNC X 1 1/4" LG.	ASTM-F593G-316	FXSCYP200359								
	500025027-FI0002-	15	12	36	HEX. BOLT Ø1/4"-20UNC X 1" LG.	ASTM-F593G-316	FXSCYP200358								
	500025027-FI0002-	16	20	60	LOCK-NUT Ø1/4"-20UNC	ASTM-F594G-316	FXNUYP200204								
	500025027-FI0002-	17	40	120	FLAT WASHER Ø1/4" TYPE A NARROW	AISI 316	FXWAYP200664								









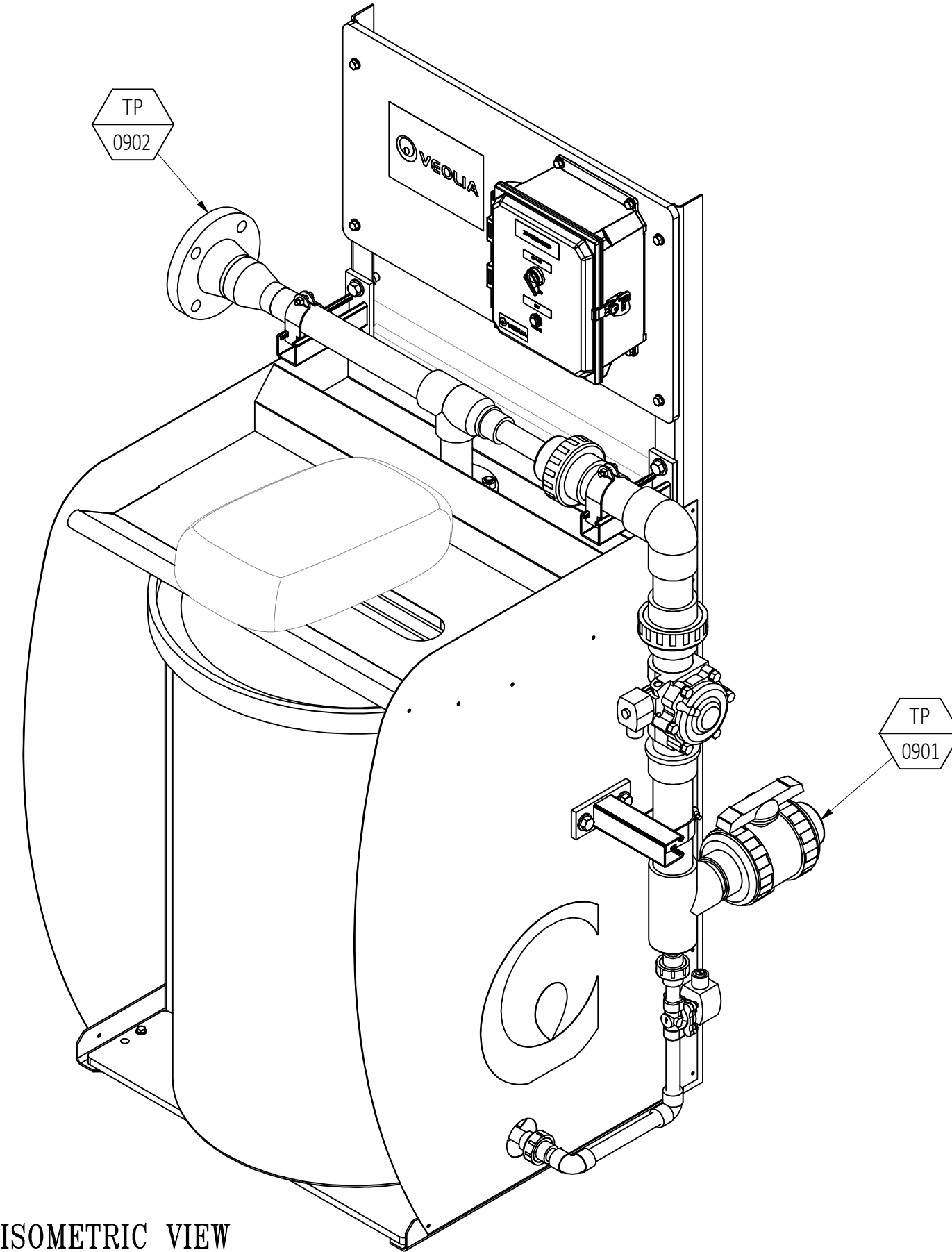
("TIE-IN") TABLE		
TIE-POINT #	DESCRIPTION	DIMENSION / TYPE
TP-0901	INLET SERVICE WATER	Ø2" SOCKET PVC
TP-0902	OUTLET	Ø2 1/2" - #150 FLANGE- R.F. 316 SS

MATERIAL:

- STRUCTURE: 304 SS
- INLET PIPE: PVC SCH. 80
- OUTLET PIPE: SS316
- TANK: HDPE, VOLUME 200 L
- WEIGHT: 109 KG (240 Lbs). (EMPTY)

NOTES:

- REQUIRED INLET FLOWRATE: $Q=9.8\text{ m}^3/\text{hr}$ @ 85 PSIG
PRESSURE DISCHARGE AT THE OUTLET ELEVATION: 20 PSIG
- IF THE DISCHARGE LINE IS ABOVE THE HYDRASAND MINI, ADD A CHECK VALVE TO AVOID A BACK FLOW TOWARDS THE HYDRASAND MINI TANK.
- UNIT FUNCTION : TO POUR 23 kg MICROSAND BAG ONE AFTER THE OTHER.



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TRANSMITTAL NOTICE

PROJECT TITLE:

5000225027 Deep River, ON

CONTRACT NO.

SUBMITTAL No. :

5000225027-VWT-TRN-0003

SENDER:

Veolia Water Technologies Canada inc
4105 Sartelon
Saint-Laurent, Qc
H4S 2B3

RECIPIENT:

Amy Seymour
David McCarthy
Bradley Young
Mohamad Alzayed

Reference	Revision	Title	Purpose of Issue	
5000225027_PSDS_6200_HYDP_VWT	1	Process Data Sheet - Polymer Preparation System	For approval	
5000225027_PSDS_6350_HYDS_VWT	1	Process Data Sheet - Microsand Preparation and Dosing System	For approval	
5000225027_SPK_0001_ACB_VWT	1	Submittal package - Scraper and Lamellas	For approval	
5000225027_SPK_6200_HYDP_VWT	1	Submittal package - Polymer Preparation System	For approval	
5000225027_SPK_6350_HYDS_VWT	1	Submittal package - Microsand Preparation and Dosing System	For approval	

NOTE:

DISTRIBUTION

*The attached documents supersede any earlier revision.
It is the responsibility of the recipient to ensure that superseded
versions are removed from use. Return of the receipt
copy of this Transmittal Notice will be taken as evidence that this has been done.*

ISSUED BY

NAME : Lina Morrone

DATE : 04 November 2025

TRANSMITTAL NOTICE	AVIS DE TRANSMISSION	TRANSMITTAL NOTICE
PROJECT TITLE:	TITRE PROJET:	PROJECT TITLE:
CONTRACT NO.	NO. CONTRAT:	CONTRACT NO.
SUBMITTAL No. :	NO. SOUMISSION:	SUBMITTAL No. :
SENDER:	EMETTEUR:	SENDER:
RECIPIENT:	DESTINATAIRE:	RECIPIENT:
Reference	Référence	Reference
Revision	Révision	Revision
Title	Titre	Title
Purpose of Issue	Raison de l'émission	Purpose of Issue
The attached documents supersede any earlier revisions. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.	Les documents joints remplacent toutes révisions antérieures. Il est de la responsabilité du destinataire de s'assurer que les versions ne sont plus utilisées. Retour du reçu une copie de cet avis de transmission sera considérée comme une preuve que cela a été fait.	The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.
ISSUED BY	DÉLIVRÉ PAR	ISSUED BY
NAME :	NOM :	NAME :
For approval	Pour approbation	For approval
For information	Pour information	For information
For installation	Pour installation	For installation
For construction	Pour construction	For construction
Final 100%	Final 100%	Final 100%
As Built	Tel que construit	As Built

1					VWT CANADA #		PSDS_6200_HYDP		
2					PROJECT No		5000225027		
3					Date		2025-10-10		
4					HYDRA-POL				
5	CLIENT	REV	DESCRIPTION		DATE	By:	CHKD	APP.	
6		1	For Approval		10/10/2025	V.L.	L.J.	L.D.	
7		2							
8	Town of Deep River	3							
9	Project	4							
10	DEEP RIVER, ON	5							
11		6							
12		7							
13		SKID #:	0801	APPLICATION :	POLYMER PREPARATION			REV	
14	GENERAL INFORMATION	Manufacturer				VEOLIA WATER TECHNOLOGIES CANADA			
15		Model Serie				HP500C3			
16		VEOLIA Model Number				HP500C3-RT-MBW-VC75I-IF575120M-N2B-AAS-SLSNIF-AC74			
17	PROCESS VARIABLES	Powder Type			-	Non Ionic Polymer			
18		Solution Concentration Range			%	0,1 - 0,3			
19		Powder Density			Kg/L	0,8			
20		Recommended Maturation Time			min	60			
21		Maturation Time Range			min	45-90			
22		Polymer Consumption Range Per Day			Kg/d	0 - 52			
23		Polymer Solution Production Range Per Day			Gal/d	0 - 17500			
17	ENVIRONMENT CONDITIONS	Equipment Location				Indoor			
18		Min. Temperature			°C	2			
19		Max. Temperature			°C	38			
20		Max. Humidity			%	95			
21		Atmosphere				Non Corrosive			
22		Freeze conditions				Maintain above freezing temperature			
23		Comments							
24	SAFETY	Electrical Classification (according to NFPA 820)				Non Hazardous Area			
25		Province / State				Ontario			
26	OPERATING CONDITIONS	Batch size			L	609			
27		Kg / batch			Kg	0,61 - 1,83			
28		Theoretical feeder cap/rev			Kg/rev	0,0093			
29		Feeder rpm			rpm	115,7			
30		Effective mass flowrate			Kg/min	0,81			
31		Pre-rinsing time			min	2,6			
32		Dosing time			sec	135			
33		Maturing time (incl transf)			min	60			
34		Emptying time			min	0,59			
35	TECHNICAL DESCRIPTION	Mechanical Components	Skid Frame	Manufacturer Model		- -	VWTC		
36				Material		-	SS 304L		
37				Color		-	N/A		
38				Dry Polymer Storage Type		-	Vacuum Conveyor & Hopper		
39				Hopper Volume Material		-	75L SS 304L		
40			Vacuum Conveyor & Hopper		Manufacturer Model		- -		
41			-		-				
42			Dry Polymer Feeder	Manufacturer Model		- -	WAM	MBW 042 I:15 UD4 575V	
43				Motor's Manufacturer Type		-	BALDOR	NEMA	
44				Horsepower (Screw Blending Tool)		HP	0,5	-	
45			Eductor	Manufacturer Model		- -	SCHUTTE & KOERTING	1 ½" Figure 264 PVC	
46				Material				PVC	
47			Maturation Mixer	Manufacturer Model		- -	VWTC	HP500C-EVG01-0.33	
48				Motor's Manufacturer Type		- -	NORD NEMA		
49				Voltage Horsepower Quantity		Voltage HP -	575Vac 0,33 1		
50			Maturation Tank	Manufacturer Model		- -	VWTC		
51				Material Nominal Capacity		- L	SS 304L	500	
52				Transfer Type			Stacked Maturation Tank		
53			Storage Tank	Manufacturer Model		- -	DEN HARTOG	LP0200-RT	
54				Material Nominal Capacity		- L	LLDPE	500	
55			Tanks Location / Feeder				Right (Standard)		
56			Isolation Valve - Service Water	Manufacturer Model		-	CHEMLINE	21A010ES	
57				Diameter Quantity		mm (in) -	25 (1")	1	
58			Service Water Valve	Manufacturer Model		120Vac	ASCO	SC8210G004-120VAC	
59				Diameter Quantity		mm (in) -	25 (1")	1	
60			Metering Valve- Wetting Cone	Manufacturer Model		-	CHEMLINE	SM2A005ES	
61				Diameter Quantity		mm (in) -	15 (1/2")	2	
62			Dry Polymer Isolation Gate Valve	Manufacturer Model		120Vac	ASCO	SC8345G001-120VAC	
63				Diameter Quantity		mm (in) -	8 (1/4")	1	
68			Transfer Valve	Manufacturer Model		120Vac	CHEMLINE	21A020ES/ER20.12	
69				Diameter Quantity		mm (in) -	50 (2")	1	
70			Check Valve- Liquid Polymer	Manufacturer Model		-	CHEMLINE	BTA015ES	
71				Diameter Quantity		mm (in) -	40 (1 1/2")	1	
72			Isol. Valve- Storage Tank Outlet	Manufacturer Model		-	CHEMLINE	21A015ES	
73				Diameter Quantity		mm (in) -	40 (1 1/2")	1	



1					VWT CANADA #		PSDS_6200_HYDP			
2					PROJECT No		5000225027			
3					Date		2025-10-10			
4					HYDRA-POL					
74	ELECTRICITY, INSTRUMENTATION & CONTROLS	Isol. Valve - Tank Drains		Manufacturer Model		-	CHEMLINE	21A015ES		
75				Diameter Quantity		mm (in) -	40 (1 1/2")	2		
76				Manufacturer Model		-		Not included		
77		Static Mixer		Diameter Quantity		mm (in) -		0		
78				Piping		VWTC Piping Class Code		-	A050C	
79						Pipe Material		-	PVC Sch80	
80		Design Pressure				psig	80			
81		Design Temperature				°C	38			
82		Operating Pressure				psig	65			
83		Test Pressure				psig	120			
84		Test duration				min	60			
85		Test Fluid				-	Water			
86		INSTRUMENTS	Low Level Switch - Dry Polymer Hopper		Manufacturer Model		24VDC	IFM	LMC510	
87					Process Connection Quantity			1/2" MNPT	1	
88			Service Water Pressure Switch		Manufacturer Model			IFM	PN7294 c/w pressure indicator	
89					Process Connection Quantity			1/4" FNPT	1	
90			Service Water Pressure Gauge		Manufacturer Model			Wika 2.5"	233.53.063-PG411L-NB-UZZ-ZZZ part # 9110653	
91					Process Connection Quantity			1/4" MNPT	1	
92			Maturation Tank Level Transmitter		Manufacturer Model		24VDC	IFM	PA3228	
93					Process Connection Quantity			1/4" MNPT	1	
94			Storage Tank Level Transmitter		Manufacturer Model		24VDC	IFM	UGT504	
95					Process Connection Quantity			M18 x 1	1	
96		CONTROL PANEL	PLC		Manufacturer Model			Allen-Bradley	CompactLogix L16 (1769L16ERBB1B)	
97			HMI Screen Size		Manufacturer Model			Allen-Bradley	PanelView Plus 7 700 (2711PT7C2D9P)	
98					HMI Screen Size			7"		
99			Panel Enclosure		Material Enclosure Rating			Painted steel(ASTM A 1008/A 1008M-04b)	NEMA-4	
100		Power Supply			Voltage Amps			575V/3Ph/60Hz	15 Amps	
101		ELECTRICITY	Frame Grounding					By Others		
102					Pre wired (Yes/No)			Yes (Refer to Electrical Drawings)		
103			Wiring		Cable Type			M12+Meltric		
104	AUXILIARIES REQUIREMENTS	Service Water		Required Driving Water Flowrate		m3/h	5,2			
105				Min. Pressure (in operation at Qmax)		psig	65			
106				Residual Chlorine Concentration		mg Cl2/L	<0.5 mg Cl2/L			
107				Driving Water Temperature Range		Deg C	10 deg C <T<25 deg C			
108	CONNECTIONS	Service Water Inlet		Diameter (NPS)		mm (in)	25 (1")			
109				Type			Flange #150 RF			
110		Storage Tank Outlet		Diameter (NPS)		mm (in)	40 (1 1/2")			
111				Type			Socket union			
112		Drain		Diameter (NPS)		mm (in)	40 (1 1/2")			
113				Type			Socket union			
114		Overflow		Maturation Tank		Diameter (NPS)	mm (in)	50 (2")		
115				Storage Tank		Diameter (NPS)	mm (in)	50 (2")		
116				Type			By Others			
117		Anchors		Quantity			Refer to General Arrangement Drawing			
118				Scope			By Others			
119	APPROVAL AND CERTIFICATIONS	Code de conception de la tuyauterie					ASME B31.3 Non Certified			
120		Approbation Électrique du Panneau					CSA/cUL			
121	DIMENSIONS AND WEIGHTS	Shipping Weight (dry)				kg	Refer to General Arrangement Drawing			
122		Overall Length				mm (in)				
123		Overall Width				mm (in)				
124		Overall Height				mm (in)				



VWT CANADA #	PSDS_6350_HYDS
Project #	5000225027
Date	2025-09-30

CLIENT	REV	DESCRIPTION	DATE	By	Chkd	App		
Town of Deep River	1	For Approval	2025-09-30	V.L.	L.J.	L.D.		
	2							
PROJECT	3							
DEEP RIVER, ON	4							
	5							
	6							
REV								
GENERAL INFORMATION	Manufacturer		VEOLIA WATER TECHNOLOGIES CANADA					
	Model		HYDRA-SAND Mini					
	Loading method		23 kg Bags - Manual Loading					
ENVIRONMENTAL CONDITIONS	Equipment location			Indoor				
	Min. Ambient Temperature		°C	2				
	Max. Ambient Temperature		°C	38				
	Max. Humidity		%	95				
	Classified Zone			Non hazardous				
	Corrosive atmosphere			Non corrosive				
	No freezing conditions?			No				
	Comments			-				
REQUIRED PERFORMANCE	Daily effective mass flowrate		kg/d	As needed				
OPERATING CONDITIONS	Product type			Microsand 135 microns				
	Dry microsand density		kg/L	1.5				
	Approx . Capacity			one (1) 23 kg bag per 2 minutes				
	Consumed Water Volume per bag		L	330				
	Discharge Pressure (with 85 psig at the inlet)		psig	20				
TECHNICAL DESCRIPTION	MECHANICAL COMPONENTS	Skid frame	Manufacturer		VWTC			
			Material		Painted carbon steel			
			Color		Red Pantone 485			
		Eductor	Manufacturer Model		-	ELMRIDGE	NCTLSM5	
			Diameter Quantity		-	1" X 1 1/2"	1	
		Isolation Valve - Driving Water	Manufacturer Model		-	CHEMLINE	21A020EC	
			Diameter Quantity		-	2"	1	
		Solenoid valve - Driving Water	Manufacturer Model		120 VAC	ASCO	SC8210G100	
			Diameter Quantity		-	2"	1	
		Solenoid valve - Bottom Mixing	Manufacturer Model		120 VAC	ASCO	SC8210G094	
			Diameter Quantity		-	1/2"	1	
		Tank	Manufacturer Model		-	ACO	OT-45	
			Volume Qty		-	200 L	1	
			Piping	Pipe Material		-	PVC Sched. 80	304L SS
		Design Pressure		psig	125			
		Design Temperature		°C	38			
	Operating Pressure			psig	85			
	Test Pressure			psig	188			
	Test Duration			min	60			
	Test Fluid		-	Water				
	ELECTRICITY	Power supply		Voltage Amps		120V/1Ph/60Hz	4.8 Amps	
		Frame grounding		By others				
		Wiring	Prewired (Yes/No)		Yes			
			Cable type		M12 Cable			
AUXILIARY NEEDS	Service water for transport		Required driving water flowrate	m ³ /h	9.8			
			Min. pressure (in operation at Qmax)	psig	85			
	CONNEXIONS	Driving water inlet	Diameter (NPS)	in	2"			
Type				PVC	Flanged #150			
Dosing Outlet		Diameter (NPS)		3"				
		Type	in	A.I. 304L	Flanged #150			
COMPONENTS APPROVAL AND CERTIFICATIONS	NSF-61			No				
	Piping Design Code			ASME B31.3 Non Certified				
	Control Panel CSA/cUL			Yes				
	Province/State			Ontario				
OVERALL DIMENSIONS AND WEIGHT	Weight (dry)		kg	See General Arrangement DWG				
	Overall Length		mm					
	Overall Width		mm					
	Overall Height		mm					
COMMENTS								

veolia/cutsheets



DOCUMENT TITLE :	SPK SUMMARY PAGE	PROJECT :	DEEP RIVER, ON
VWT DOC NO. :	SPK_0001_ACB_VWT_S00_SUMMARY	PROJECT # :	5000225027
REVISION :	1		

SUPPLIER	VWTC EQUIPMENT CODE	TAG	FUNCTION	ASSOCIATED EQUIPMENT/PIPELINE	P&ID PAGE	SUBMITTAL PACKAGE SECTION	SPK SECTION NAME
VWTC	ST-999-001	S2-011	Scraper	Concrete Actiflo #1	PI0001 SHEET 05	SPK_0001_ACB_VWT_S02	SCRAPER
VWTC	ST-999-001	S2-021	Scraper	Concrete Actiflo #2	PI0001 SHEET 06	SPK_0001_ACB_VWT_S02	SCRAPER
VWTC	ST-999-001	S2-031	Scraper	Concrete Actiflo #3	PI0001 SHEET 07	SPK_0001_ACB_VWT_S02	SCRAPER
BRAY	VABFCI373781	V3-011	Lamella Air Cleaning Inlet On/Off Valve	Concrete Actiflo #1	PI0001 SHEET 05	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VABLSS305301	V3-012	Isolation Valve Main Air Pipe	Concrete Actiflo #1	PI0001 SHEET 05	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VABLSS305301	V3-013	Isolation Valve Main Air Pipe	Concrete Actiflo #1	PI0001 SHEET 05	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VAGLSS371740	V3-014	Modulating Valve Main Air Pipe	Concrete Actiflo #1	PI0001 SHEET 05	SPK_0001_ACB_VWT_S03	VALVES
BRAY	VABFCI373781	V3-021	Lamella Air Cleaning Inlet On/Off Valve	Concrete Actiflo #2	PI0001 SHEET 06	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VABLSS305301	V3-022	Isolation Valve Main Air Pipe	Concrete Actiflo #2	PI0001 SHEET 06	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VABLSS305301	V3-023	Isolation Valve Main Air Pipe	Concrete Actiflo #2	PI0001 SHEET 06	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VAGLSS371740	V3-024	Modulating Valve Main Air Pipe	Concrete Actiflo #2	PI0001 SHEET 06	SPK_0001_ACB_VWT_S03	VALVES
BRAY	VABFCI373781	V3-031	Lamella Air Cleaning Inlet On/Off Valve	Concrete Actiflo #3	PI0001 SHEET 07	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VABLSS305301	V3-032	Isolation Valve Main Air Pipe	Concrete Actiflo #3	PI0001 SHEET 07	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VABLSS305301	V3-033	Isolation Valve Main Air Pipe	Concrete Actiflo #3	PI0001 SHEET 07	SPK_0001_ACB_VWT_S03	VALVES
D.M. VALVE ET CONTROLES	VAGLSS371740	V3-034	Modulating Valve Main Air Pipe	Concrete Actiflo #3	PI0001 SHEET 07	SPK_0001_ACB_VWT_S03	VALVES
BRAY	ST-999-009	V8-001	Modulating Valve Air Pipe Actiflo #1	Lamella Cleaning Blower	PI0001 SHEET 10	SPK_0001_ACB_VWT_S03	VALVES
BRAY	ST-999-009	V8-002	Modulating Valve Air Pipe Actiflo #2	Lamella Cleaning Blower	PI0001 SHEET 10	SPK_0001_ACB_VWT_S03	VALVES
BRAY	ST-999-009	V8-003	Modulating Valve Air Pipe Actiflo #3	Lamella Cleaning Blower	PI0001 SHEET 10	SPK_0001_ACB_VWT_S03	VALVES
AIRCOM TECHNOLOGIES	ST-999-002	B8-001	Lamella Cleaning Blower	Lamella Cleaning Blower	PI0001 SHEET 10	SPK_0001_ACB_VWT_S04	BLOWER

Project name:

DEEP RIVER, ON

Project #:

5000225027



Document #:

SPK_0001_ACB_VWT_S01

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1

FIELD INSTALLATION DRAWING

REFER TO FI_0001_RAC AND FI_0002_ACB

OIM Manual Section: X.X.X.1

Project name:

DEEP RIVER, ON

Project #:

5000225027

Document #:

SPK_0001_ACB_VWT_S02

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1



SCRAPER

OIM Manual Section: X.X.X.2

				SCRAPER DATASHEET				
Project		DEEP RIVER, ON		Quantity		3		
Project No.		5000225027		Tag(s) No		S2-011 S2-021 S2-031		
P&ID No./Sheet		PI0001 SHEET 05, PI0001 SHEET 06, PI0001 SHEET 07						
Document No.		SPK_0001_ACB_VWT_S02_2_ST-690_EN_ST-999-001				Revision		1
SCRAPER DATASHEET								
1	GENERAL CHARACTERISTICS		Capacity	m/min	4			
2	MECHANICAL CHARACTERISTICS		Drive Tube Diameter	in	6			
3			Scraper Running Torque	N.m	482			
4			Scraper Shutoff Torque	N.m	964			
5			Wetted Parts Material	304/304L SS				
6			3rd Stage Drive Manufacturer	VWTC				
7			3rd Stage Drive Gear Ratio	Ratio	4.59 : 1			
8			Position Switch included (Torque overload protection)		Yes	Tag(s):	XT2-011	
9							XT2-021	
10							XT2-031	
11			Torque transducer included		No	Tag(s):		
12								
13								
14	Equipment Options							
15	GEARBOX CHARACTERISTICS		Manufacturer		SEW EURODRIVE			
16				Combination Flange-Mount Helical Reducer with shaft-mount parallel helical gearmotor				
17			Model Name					
18			Model No		RF97AD4ZR-FA47DT71D4C			
19			Type		Helical Inline			
20			Service Factor					
21			Gear Ratio		863 : 1			
22			Mounting Position		M4			
23			Output Shaft Type		Solid Keyed Shaft			
24			Output Shaft Diameter	in	2.3622			
25	Output Shaft Length (if solid)	in	5.1181					
26	MOTOR CHARACTERISTICS		Gearbox Options					
27			Manufacturer		SEW EURODRIVE			
28			Model Name		DRN Series			
29			Model No		DT71D4C			
30			Voltage / Inverter Duty		575V/3Ph/60Hz	Yes		
31			Power	hp	0.5			
32			Efficiency class		Premium			
33			Mechanical connection standard		Manufacturer Standard			
34			Enclosure					
35			Ingress Protection Rating					
36	APPROVALS AND CERTIFICATIONS		Motor Options					
37			Electrical Approval		CSA, cULus			
38	PURCHASE		Hazardous Classification		General Purpose			
39			Veolia Part Number		ST-999-001			
40			Model Name		Actiflo Scraper			
41			Model No		ACB 575V			
42			Manufacturer		VWTC			
43	TECHNICAL DATASHEET LINK		Supplier		VWTC			
44	Notes:		Gearmotor Manuf. DS URL !CLICK HERE! -->		N/A			
45								
46	SCRAPER MOTOR AND GEARBOX ARE NOT INCLUDED. EXISTING WILL BE USED.							
47								
48								

Project name: DEEP RIVER, ON

Project #: 5000225027

Document #: SPK_0001_ACB_VWT_S03

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1



VALVES

OIM Manual Section: X.X.X.3



ELECTRIC ON/OFF VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	3
Project No.	5000225027	Tag(s) No	V3-011 V3-021 V3-031
P&ID No./Sheet	PI0001 SHEET 05, PI0001 SHEET 06, PI0001 SHEET 07		
Document No.	SPK_0001_ACB_VWT_S03_2_ELECTRIC-ONOFF-VALVES_EN_ST-315-67553	Revision	1

ELECTRIC ON/OFF VALVE

1	VALVE	Rated Pressure		psig	175	
2	CHARACTERISTICS	Temperature at Rated Pressure		degC	121.11	
3	VALVE BODY	Valve Type			Butterfly	
4		Valve Size	Connection Standard		3	in 125#
5		End Connection 1	End Connection 2		Lug Lug	
6		Body Material			Ductile Iron	
7	VALVE TRIM	Obturator Material	Stem Material		Nylon coated ductile iron	416 SS
8		Seat Material	Seal Material		EPDM	EPDM
9		Chemflare Connector Material / Model No				
10		Options			ST-315-BC311C00C-2-0-0-0-2-0000	
11	ELECTRIC ACTUATOR	Manufacturer			BRAY	
12		Model Name			S70 Series	
13		Model No			S70-E081	
14		Output Torque		N.m	90	
15		Housing Material			Die cast aluminum	
16		Voltage			120V/1Ph/60Hz	
17		Power		W	72	
18		Ingress Protection Rating			65	
19		NEMA Enclosure Rating			NEMA Type 4, 4x	
20		Failure Mode			Fail Last	
21		Actuator Orientation				
22		Actuator Options			c/w heater and limit switches	
23	APPROVALS AND CERTIFICATIONS	NSF61 Approved			No	
24		Oxygen Service			No	
25		CRN Certification				
26		Electrical Approval			CSA,UL,CE	
27		Hazardous Classification			Unclassified	
28	PURCHASE	Veolia Part Number			VABFCI373781	
29		Model Name			Series 31	
30		Model No			310300-11010390+70E081-113DA536/K+7070A2-22600536	
31		Manufacturer			BRAY	
32		Supplier			BRAY	

33	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->	https://d2i37d29h80q1n.cloudfront.net/CS-315-1010.pdf
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34	Notes:
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MANUAL VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	6		
		Tag(s) No	V3-012 V3-013 V3-022 V3-023 V3-032 V3-033		
Project No.	5000225027				
P&ID No./Sheet	PI0001 SHEET 05, PI0001 SHEET 06, PI0001 SHEET 07				
Document No.	SPK_0001_ACB_VWT_S03_2_MANUAL-VALVES_EN_ST-301-408		Revision	1	

MANUAL VALVE DATASHEET

1	VALVE CHARACTERISTICS	Rated Pressure		psig	1000		
2		Temperature at Rated Pressure		degC	37.78		
3	VALVE BODY	Valve Type			Ball		
4		Valve Size	Connection Standard		2	in	Unrated
5		End Connection 1	End Connection 2		Threaded FNPT		Threaded FNPT
6		Body Material			CF8M SS		
7	VALVE TRIM	Obturator Material	Stem Material		316 SS		316 SS
8		Seat Material	Seal Material		RPTFE		PTFE
9		Chemflare Connector Material / Model No					
10		Options					
11	ACTUATOR	Type			Lever		
12		Chainwheel option			No		
13		Locking handle option			Yes		
14	APPROVALS	NSF61 Approved			No		
15		Oxygen Service			No		
16		CRN Certification			Product CRN not available		
17	PURCHASE	Veolia Part Number			VABLSS305301		
18		Model Name			A201		
19		Model No			A201-050016602		
20		Manufacturer			PMP		
21		Supplier			D.M. VALVE ET CONTROLES		
22	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-301-400.pdf			

23	Notes:
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				MANUAL VALVE DATASHEET			
Project		DEEP RIVER, ON		Quantity	3		
Project No.		5000225027		Tag(s) No	V3-014 V3-024 V3-034		
P&ID No./Sheet		PI0001 SHEET 05, PI0001 SHEET 06, PI0001 SHEET 07					
Document No.		SPK_0001_ACB_VWT_S03_2_MANUAL-VALVES_EN_ST-314-215			Revision		1
MANUAL VALVE DATASHEET							
1	VALVE CHARACTERISTICS	Rated Pressure		psig	600		
2		Temperature at Rated Pressure		degC	37.78		
3	VALVE BODY	Valve Type			Globe		
4		Valve Size	Connection Standard		1.1/2	in	Unrated
5		End Connection 1	End Connection 2		Threaded FNPT		Threaded FNPT
6		Body Material			CF8M SS		
7	VALVE TRIM	Obturator Material	Stem Material		316 SS		316 SS
8		Seat Material	Seal Material		N/A		PTFE
9		Chemflare Connector Material / Model No					
10		Options					
11	ACTUATOR	Type			Handwheel		
12		Chainwheel option			No		
13		Locking handle option			No		
14	APPROVALS	NSF61 Approved			No		
15		Oxygen Service			No		
16		CRN Certification			Available		
17	PURCHASE	Veolia Part Number			VAGLSS371740		
18		Model Name			2028 Series		
19		Model No			2028-0400166-M		
20		Manufacturer			PMP		
21		Supplier			D.M. VALVE ET CONTROLES		
22	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-314-210.pdf			
23	Notes:						
24							
25							
26							
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28							



MANUAL VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	3		
		Tag(s) No	V8-001 V8-002 V8-003		
Project No.	5000225027				
P&ID No./Sheet	PI0001 SHEET 10				
Document No.	SPK_0001_ACB_VWT_S03_2_MANUAL-VALVES_EN_ST-999-009		Revision	1	

MANUAL VALVE DATASHEET

1	VALVE CHARACTERISTICS		Rated Pressure		psig		175	
2			Temperature at Rated Pressure		degC		121.11	
3	VALVE BODY		Valve Type				Butterfly	
Valve Size			Connection Standard		3 in 150#			
End Connection 1			End Connection 2		Lug Lug			
Body Material					Ductile Iron			
7	VALVE TRIM		Obturator Material		Stem Material		316 SS 416 SS	
Seat Material			Seal Material		EPDM EPDM			
Chemflare Connector Material / Model No								
Options					ST-315-BC311Z00D-0-4-0-0-0-0000			
11	ACTUATOR		Type				Lever	
Chainwheel option					No			
Locking handle option					No			
14	APPROVALS		NSF61 Approved				No	
Oxygen Service					No			
CRN Certification					Available			
17	PURCHASE		Veolia Part Number				ST-999-009	
Model Name					Series 3L			
Model No					3L0300-11010375+010200-21100007			
Manufacturer					BRAY			
Supplier					BRAY			
22	TECHNICAL DATASHEET LINK		Manufacturer DS URL !CLICK HERE! -->		Consult following page(s)			
23	Notes:							
24								
25								
26								
27								
28								

SERIES 3W/3L
RESILIENT SEATED BUTTERFLY VALVES



Bray®

WWW.BRAY.COM

THE HIGH PERFORMANCE COMPANY

FEATURES AND BENEFITS

The Series 3W/3L resilient seated butterfly valves offer:

MOLDED-IN SEAT

- > Tightly controlled vulcanization process produces accurate and repeatable dimensions, which leads to consistently lower torques over the valve's lifetime.

PRECISION PROFILED DISC SEALING EDGE

- > Extends the valve life by reducing seat wear.

ROBUST FLANGE SEALING

- > Tear-dropped shaped seat face enables tight sealing with a wide variety of industrial flanges.

END OF LINE CAPABILITY

- > Lug style valve allows for sealing at full rated pressure even when the downstream flange is removed..

ISO 5211 TOP FLANGE

- > Direct mounting capability between the valve and Bray actuation reduces package height and complexity.

UPPER AND LOWER STEM BEARINGS

- > Reduce operating torque and increase reliability in high cycle applications.



TECHNICAL DATA

Size Range	DN 50 to 600
	2" to 24"
Body Style	3W One-piece wafer
	3L One-piece lug
Temperature Range	-29°C to 121°C
	-20°F to 250°F
Maximum Operating Pressure	17.2 bar
	250 psi
Shutoff Rating	Bubble tight

MATERIAL OPTIONS

COMPONENT	MATERIAL
Body	Ductile Iron ASTM A536
	Nylon 11 Coated Ductile Iron
Disc	316 Stainless Steel
	431 Stainless Steel
Stem	431 Stainless Steel
Seat	EPDM
	Buna-N

DESIGN STANDARDS

Valve Design	API 609 Category A
	MSS SP-67
Actuator Mounting	ISO 5211
	AS 2129 Tables D & E
Flange Accommodation	ASME B16 Class 125/150
	EN 1092-1 PN10/16
	JIS 10K
	API 598
Seat Testing	ISO 5208
	MSS SP-61
	API 609
Face-to-Face	EN558 Series 20

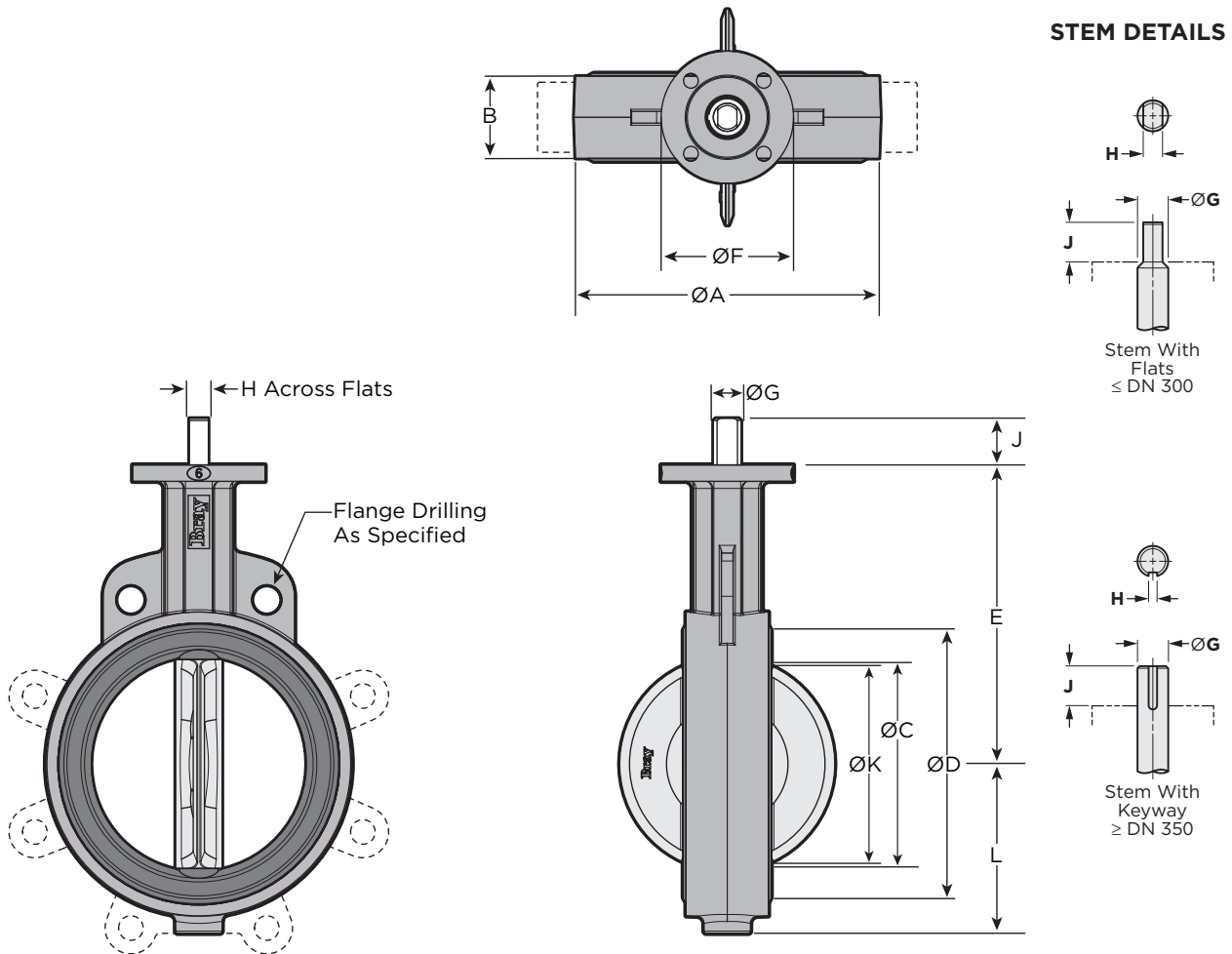
CERTIFICATIONS AND APPROVALS

Certifications	CE/PED
	ANSI/NSF 61
	ANSI/NSF 372
	FDA Food Contact Approved
Approvals	ABS Type
	LRQA Type
	Bureau Veritas

Additional information is available in the 3W/3L Technical Manual.

RESILIENT SEATED BUTTERFLY VALVES

SERIES 3W/3L



DIMENSIONS (mm)

DN	A	B	C	D	E	F	Top Plate Drilling			G	H	J	K*	L		Adp. Code	Weight (Kg)	
							Bolt Circle	Hole Qty	Hole Dia.					Wafer	Lug		Wafer	Lug
50	94	43	51	71	140	90	70	4	10	14	10	32	32	56	58	A	2.5	3
65	106	46	64	84	152	90	70	4	10	14	10	32	48	63	65	A	3	4
80	124	46	76	100	159	90	70	4	10	14	10	32	64	71	71	A	3.5	4
100	154	52	103	129	178	90	70	4	10	16	11	32	91	87	104	B	5.4	6
125	179	56	128	157	191	90	70	4	10	19	13	32	117	102	117	C	6.6	9
150	206	56	146	180	203	90	70	4	10	19	13	32	137	115	129	C	8.7	11
200	267	60	197	237	241	150	125	4	15	22	16	32	190	146	154	D	15.3	18
250	324	68	249	291	273	150	125	4	15	30	22	51	242	181	195	E	23	26
300	378	78	299	342	311	150	125	4	15	30	22	51	291	206	229	E	31	41
350	433	78	337	388	346	150	125	4	14	35	10x10	51	331	238	252	F	48	55
400	488	102	387	442	375	150	125	4	14	35	10x10	51	377	273	287	F	68	75
450	536	114	438	495	406	210	165	4	21	50	12x10	64	427	305	309	G	96	106
500	591	127	489	548	438	210	165	4	21	50	12x10	64	476	356	356	G	129	154
600	710	154	591	650	495	210	165	4	21	64	16x16	102	575	446	446	H	186	222

*Note: K dimension is the disc chordal diameter at the valve face.

Cv VALUES

DN	Disc Position (Degrees)								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	1	4	15	29	46	66	73	86	87
65	1	8	26	44	66	98	141	177	185
80	2	22	43	71	112	171	256	338	360
100	8	37	78	118	192	310	505	689	740
125	9	53	98	170	288	470	759	1131	1218
150	13	86	175	297	479	757	1190	1715	1900
200	19	121	254	429	754	1247	2096	3376	3765
250	37	178	365	728	1215	2005	3342	5814	6661
300	69	240	492	1008	1696	2868	4961	8455	10066
350	110	287	609	1141	1975	3328	5571	9269	11598
400	147	421	844	1547	2651	4440	7412	12214	15395
450	190	470	968	1807	3238	5509	9382	18231	20120
500	230	675	1341	2455	4210	7056	11803	19637	25329
600	317	952	1957	3592	6128	10267	17226	29061	39396

TORQUE VALUES (lb-in) - GENERAL SERVICE

Valve Differential Pressure (psig)						Max. Allowable Stem Torque
DN	High Pressure Disc					
	50	100	150	200	250	431 SS
50	124	134	142	150	159	905
65	142	159	186	212	239	905
80	186	221	257	292	327	905
100	239	292	354	434	513	1475
125	354	460	566	664	761	2236
150	531	664	797	929	1062	2236
200	1044	1266	1478	1690	1903	3806
250	1708	2089	2469	2867	3283	11272
300	2283	2912	3540	4160	4779	11272
350	3947	4735	5558	6381	7202	16164
400	5514	6602	7717	8815	9921	23137
450	7425	8797	10222	11664	13112	44156
500	9673	11549	13443	15372	17319	44156
600	16594	20355	24116	27966	31860	142529

Note: For more information on Series 3W/3L torque, please consult the Series 3W/3L Technical Manual.

RESILIENT SEATED BUTTERFLY VALVES

SERIES 3W/3L



Kv VALUES

DN	Disc Position (Degrees)								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	1	3	13	25	40	57	63	74	75
65	1	7	22	38	57	85	122	153	160
80	2	19	37	61	97	148	221	292	311
100	7	32	67	102	166	268	437	596	640
125	8	46	85	147	249	407	657	978	1054
150	11	74	151	257	414	655	1029	1483	1644
200	16	105	220	371	652	1079	1813	2920	3257
250	32	154	316	630	1051	1734	2891	5029	5762
300	60	208	426	872	1467	2481	4291	7314	8707
350	95	248	527	987	1708	2879	4819	8018	10032
400	127	364	730	1338	2293	3841	6411	10565	13317
450	164	407	837	1563	2800	4766	8115	15770	17404
500	199	584	1160	2124	3642	6103	10210	16986	21910
600	274	823	1693	3107	5301	8881	14900	25138	34078

TORQUE VALUES (Nm) - GENERAL SERVICE

Valve Differential Pressure (bar)						Max. Allowable Stem Torque
DN	High Pressure Disc					
	3.4	7	10.3	14	17.2	431 SS
50	14	15	16	17	18	102
65	16	18	21	24	27	102
80	21	25	29	33	37	102
100	27	33	40	49	58	167
125	40	52	64	75	86	253
150	60	75	90	105	120	253
200	118	143	167	191	215	430
250	193	236	279	324	371	1274
300	258	329	400	470	540	1274
350	446	535	628	721	814	1826
400	623	746	872	996	1121	2614
450	839	994	1155	1318	1482	4989
500	1093	1305	1519	1737	1957	4989
600	1875	2300	2725	3160	3600	16104

Note: For more information on Series 3W/3L torque, please consult the Series 3W/3L Technical Manual.

All statements, technical information, and recommendations in this bulletin are for general use only. Consult Bray representatives or factory for the specific requirements and material selection for your intended application. The right to change or modify product design or product without prior notice is reserved. Patents issued and applied for worldwide.



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BRISBANE

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34 Morrisby Street
Geebung, QLD
4034, Australia
Tel: 61 7 3025 5400

NEW SOUTH WALES

Bray New South Wales
Tel: 61 2 9939 6199

Project name: DEEP RIVER, ON

Project #: 5000225027

Document #: SPK_0001_ACB_VWT_S04

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1



BLOWER

OIM Manual Section: X.X.X.4

				BLOWER DATASHEET				
Project Name		DEEP RIVER, ON		Quantity		1		
Project No.		5000225027		Tag(s) No		B8-001		
P&ID No./Sheet		PI0001 SHEET 10						
Document No.		SPK_0001_ACB_VWT_S04_2_ST-631_EN_ST-999-002				Revision	1	
BLOWER								
1	BLOWER CAPACITIES	Capacity / Rated Pressure At Capacity		216	Nm3/h	/	6.2	psig
2	GENERAL CHARACTERISTICS	Material		Composite				
3		Belt Ratio (if applicable)	Ratio					
4		Temperature Switch Included ?		No	Tag(s):			
5								
6								
7								
8		Options		Silencer; Pressure relief valve ; Check Valve; Gauge ; Ball Valve				
9	MOTOR	Motor Enclosure		TEFC				
10		Motor Inverter Duty		Yes				
11		Voltage		575V/3Ph/60Hz				
12		Power	hp	7.5				
13	APPROVALS AND CERTIFICATIONS	Electrical Approval		CSA, UL				
14		Hazardous Classification		Class I, Division 2, Groups A,B,C,D				
15	PURCHASE	Veolia Part Number		ST-999-002				
16		Model Name / Model No		Sutorbilt	/	3M-7.5HP-575V-MF-2" x 2"-R0.88		
17		Manufacturer / Supplier		GARDNER DENVER	/	AIRCOM TECHNOLOGIES		
18	TECHNICAL DATASHEET LINK	Manuf. DS URL !CLICK HERE! -->	Consult following page(s)					
19								
20	NOZZLE TAGS							
21	Nozzle tag	Nozzle Location	Size	Connection Type	Connection Rating	Connection Standard		
22			in					
23	B8-001/N02	Outlet	2	Threaded MNPT	Unrated			Undefined
24								
25								
26								
27								
28								
29								
30								
31								
32								
33	Notes:							
34	2" NPT Pressure relief valve, 2" NPT Check valve, Pressure gauge with isolation valve will be supplied with the blower, shipped loose, to be installed on site by others							
35								

Sutorbilt Legend - 3M

Product Information

CORRECTED VALUES	ORIGINAL UNITS	ENGLISH UNITS	METRIC UNITS
Ambient Pressure	554 ALTI-FT	14.398 PSIA	0.993 bar a
Elevation	554 ALTI-FT	554 ALTI-FT	169 alti-m
Inlet Pressure	14.398 PSIA	0.000 PSIG	0 bar g
Inlet Pressure Loss	0.3 PSIG	0.300 PSIG	0.021 bar g
Inlet Temp	68 F	68 °F	20 °C
Inlet Flow	216 nm3/h	143 ICFM	244 m³/h
Discharge Pressure	6.2 PSIG	6.200 PSIG	0.427 bar g
Discharge Pressure Loss	0.2 PSIG	0.200 PSIG	0.014 bar g
MEASURED VALUES	ORIGINAL UNITS	ENGLISH UNITS	METRIC UNITS
Speed	3078 RPM	3078 RPM	3078 RPM
RPM % Of Max	86	86	86
Power	5.9 HP	5.9 HP	4.4 kW
Discharge Temp	160 °F	160 °F	71 °C
Temp % of Max	57	57	57
Noise	85 dBa	85 dBa	85 dBa
Pressure % of Max	56	56	56
Adiabatic Efficiency	61.66%	61.66%	61.66%



PHYSICAL	
Weight	79 lbs.
Gear Diameter / Center Distance	3.5 in.
Connection Size	2i/2d in.
Case Length	3.625 in.
WR ²	0.322 lb-ft ²
Orientation	horizontal
PERFORMANCE	
Max Delta P	12 PSI
Max Temp	280 °F
Max Speed	3600 RPM
Min Speed	1091 RPM
Max Case Pressure	25 PSIG
Max Delta T	180 °F

AMBIENT GAS PARAMETERS	ENGLISH UNITS	METRIC UNITS
Molecular Weight	28.865 lbm/lbmol	28.865 kg/kgmol
R Value	53.526 ft.lbf/lbm.R	0.288 kJ/kg.K
Density	0.073 lbm/ft ³	1.176 kg/m ³

GAS MIX:	VOL
Air	100%

Performance Curves

Temperature Rise

DEFINED CONDITIONS

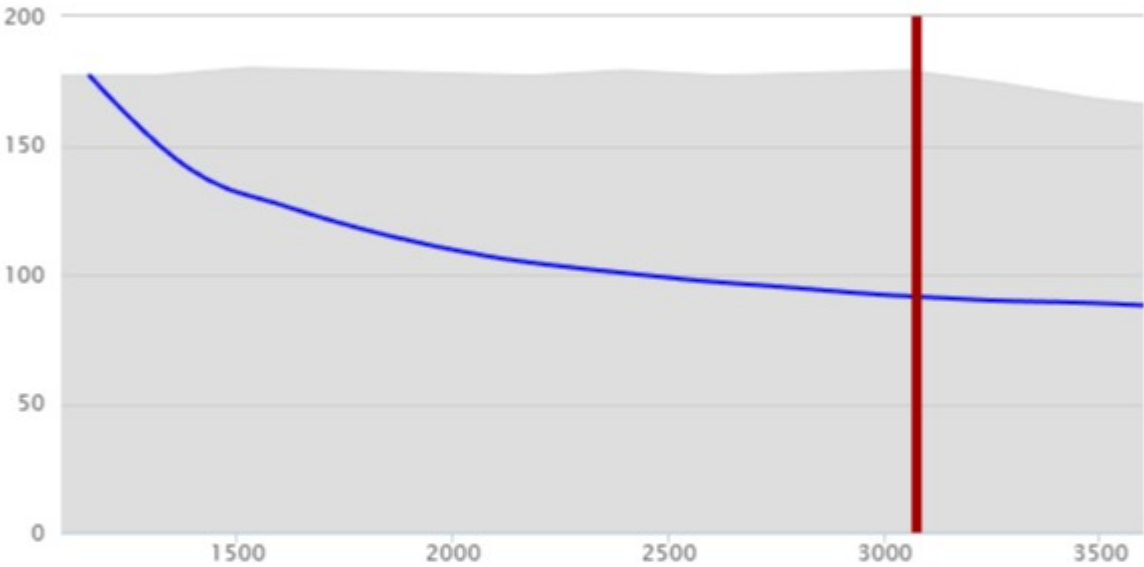
92 F

RPM

3078

Published Data

Defined Conditions



Flow

DEFINED CONDITIONS

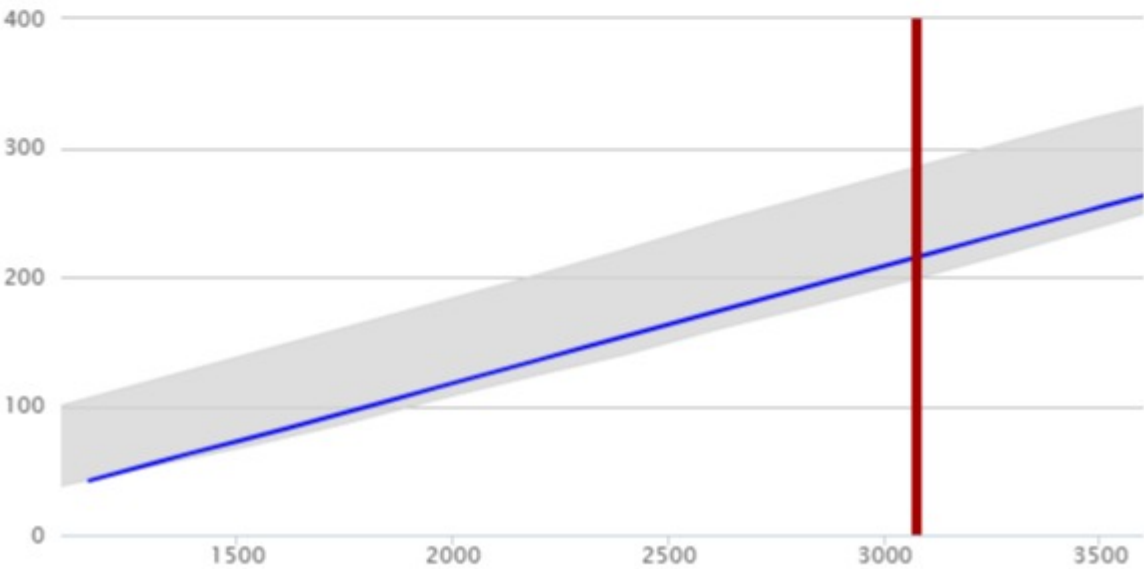
215 NM3/H

RPM

3078

Published Data

Defined Conditions



Performance Curves

Power

DEFINED CONDITIONS

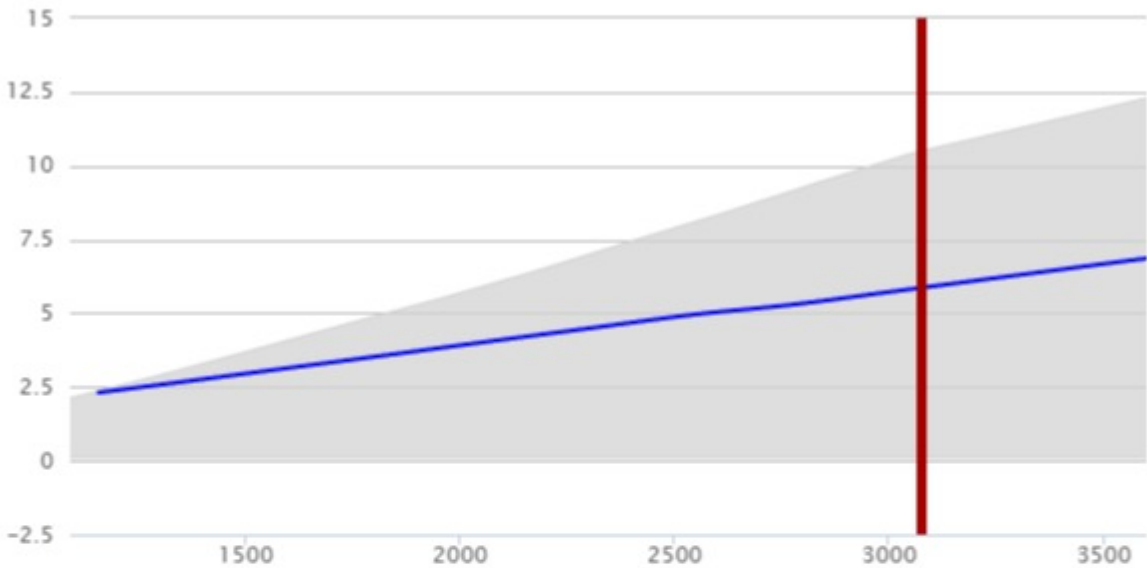
5.9 HP

RPM

3078

Published Data

Defined Conditions



Torque

DEFINED CONDITIONS

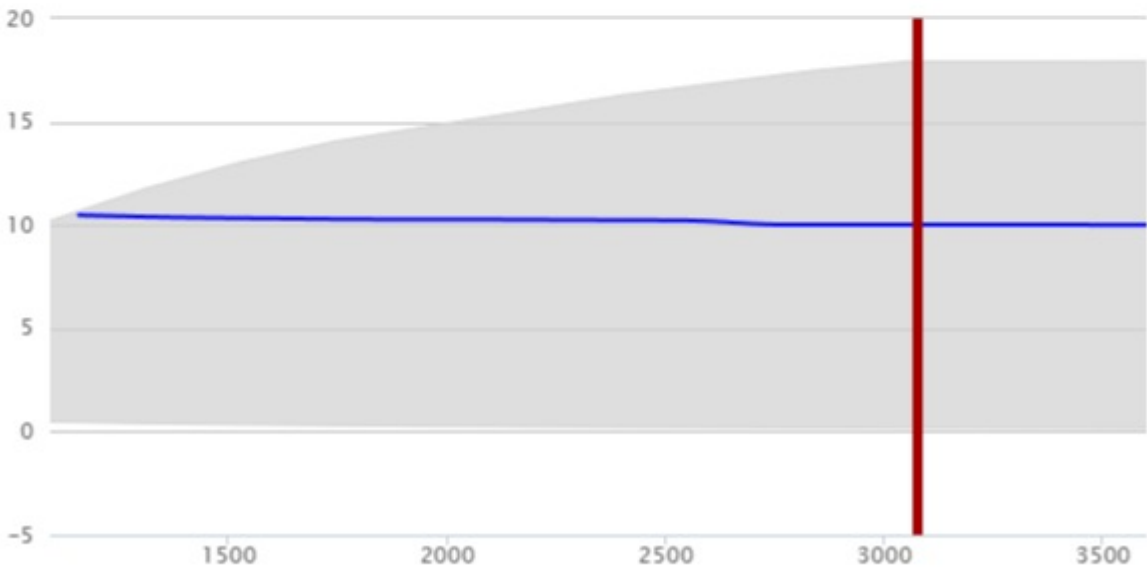
10.1 ft-lb

RPM

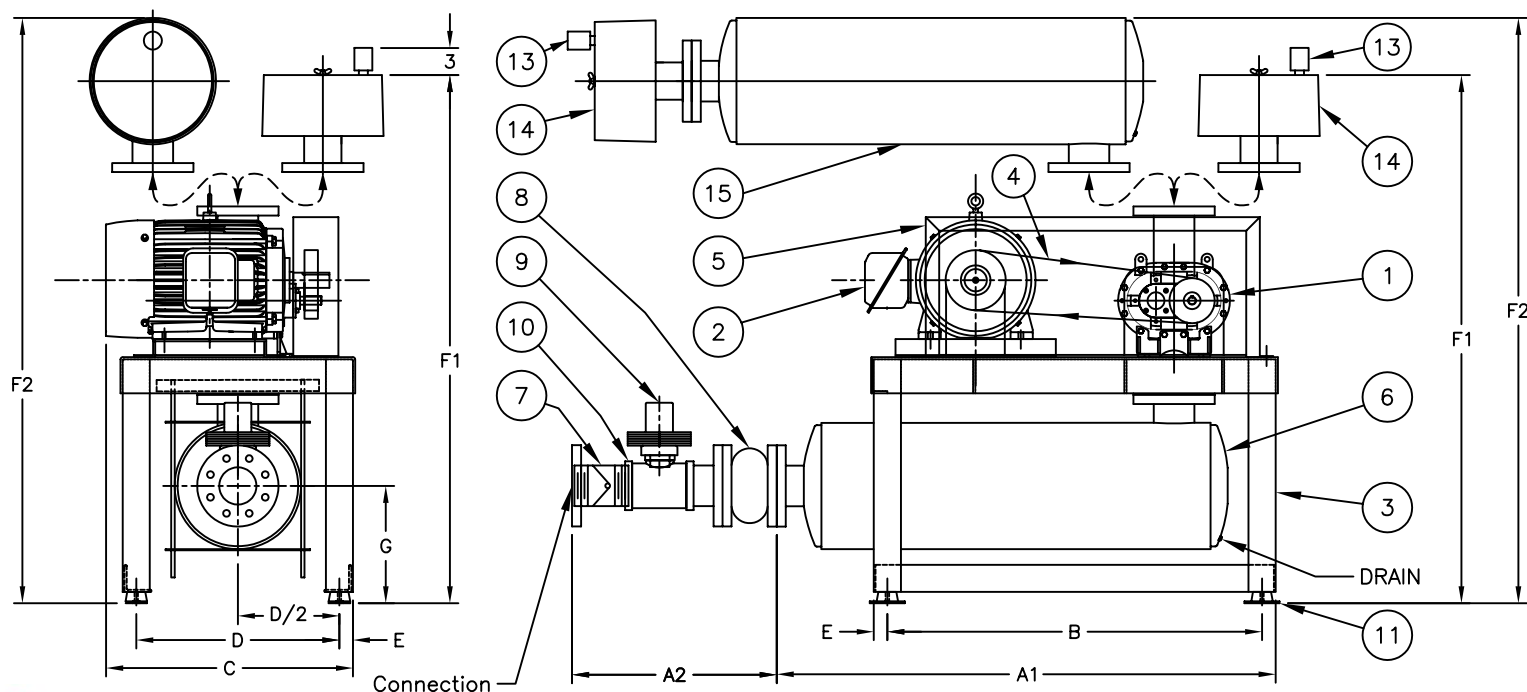
3078

Published Data

Defined Conditions



ITEM	Qty.	DESCRIPTION	ITEM	Qty.	DESCRIPTION
1	1	BLOWER, SUTORBILT MODEL ...	9	1	PRESSURE RELIEF VALVE, WEIGHT LOADED
2	1	ELECTRIC MOTOR, ...	10	1	STUB PIPE TO SUPPORT PRESSURE RELIEF VALVE
3	1	COMMON BASE	11	4	VIBRATION ISOLATORS
4	1	BELT DRIVE	12	1	PRESSURE GAUGE WITH ISOLATING VALVE (NOT SHOWN, SHIPPED LOOSE)
5	1	BELT GUARD PER OSHA STANDARD	13	1	FILTER PRESSURE DROP INDICATOR
6	1	DISCHARGE SILENCER (URB TYPE)	14	1	INLET FILTER/SILENCER
7	1	CHECK VALVE, TWIN FLAPPER, SPRINGLESS	15	1	INLET SILENCER (URB TYPE) (CONFIGURATION 2)
8	1	FLEXIBLE CONNECTOR			



MODEL	CONNECTION		MOTORS (HP)	A1	A2	B	C	D	E	F1	F2	G	Weight	
													Config. 1	Config. 2
2M-AP200	2	S	3-7.5	43	13.5	28.5	18.5	14.5	1.5	41	46.5	8	270	290
2L-AP200	2	S	3-7.5	44	13.5	28.5	20	14.5	1.5	40.5	48.5	8.5	340	370
3H-AP200	2	S	3-10	43.5	13.5	28.5	21	14.5	1.5	40.5	50	9	400	420
3M-AP200	2	S	5-10	44	13.5	28.5	21	14.5	1.5	40	50	9	410	430
3L-AP250	2.5	S	3-10	45	15	28.5	21	14.5	1.5	34.5	50.5	8.5	430	470
3L-AP300	3	S	3-10	57	17	28.5	21	14.5	1.5	45.5	50.5	8.5	440	480
4H-AP200	2	S	5-10	43.5	13.5	28.5	21	14.5	1.5	42	49.5	10	430	460
4M-AP250	2.5	S	7.5-10	45	15	28.5	21	14.5	1.5	36	50	9.5	460	500
4M-BP250	2.5	S	15-25	52	15	41.5	26	22.5	1.5	44.5	62	16	630	660
4L-BP300	3	S	7.5-25	60	17	41.5	28	22.5	1.5	50	62.5	15.5	830	870
4L-BP400	4	F	7.5-25	55.5	23.5	41.5	30.5	22.5	1.5	64	65.5	12.5	870	950
5H-BP250	2.5	S	7.5-30	52	15	41.5	30.5	22.5	1.5	46	62	15.5	870	910
5M-BP400	4	F	15-30	55.5	23.5	41.5	30.5	22.5	1.5	64.5	65.5	14	960	1040
5L-BP400	4	F	7.5-30	55.5	23.5	41.5	30.5	22.5	1.5	62.5	65.5	14	990	1070
5L-BP500	5	F	7.5-30	67	21	41.5	30.5	22.5	1.5	63	66.5	12	1040	1170
6H-BP300	3	S	10-30	59	17	41.5	30.5	22.5	1.5	54.5	62.5	15.5	1070	1110
6M-BP500	5	F	15-30	67	21	41.5	30.5	22.5	1.5	64.5	68	15.5	1200	1330
6M-CP500	5	F	40-50	67.5	21	43.5	33.5	27.5	2	57	75	18	1500	1630
6L-CP600	6	F	25-50	73	21.5	43.5	33.5	27.5	2	57	75	14	1680	1840
7H-CP400	4	F	25-50	56	23.5	43.5	33.5	27.5	2	62	72	17.5	1540	1620
7M-CP600	6	F	30-50	73	21.5	43.5	33.5	27.5	2	60	78.5	15.5	1790	1950
7M-DP600	6	F	60-75	77	21.5	52.5	39	31.5	2.5	82.5	85	22	2070	2230
7L-DP800	8	F	40-75	100.5	22.5	52.5	39	31.5	2.5	91	91	18	2470	2880
8M-DP800	8	F	40-75	100.5	22.5	52.5	39	31.5	2.5	94	94	18	2660	3070

NOTES:

- DIMENSIONS AND WEIGHTS ARE NOT CERTIFIED
- DIMENSIONS ARE IN INCHES AND WEIGHTS IN POUNDS
- WEIGHTS ARE APPROXIMATE
- S= THREADED CONNECTIONS STD. NPT. F= FLANGED CONNECTIONS
- PACKAGE DIMENSIONS WITH SCREWED CONNECTIONS ARE APPROXIMATE TO 1/2"
- CONFIGURATION 1 : COMBINED FILTER/SILENCER
CONFIGURATION 2 : INLET FILTER AND SEPARATE SILENCER
- URB TYPE SILENCER : LOW FREQUENCY ATTENUATION



514-695-4740 F: 514-695-0581 www.aircom.ca

SUTORBILT BLOWER PACKAGE – PRESSURE – DIMENSIONAL DRAWING

0468-E

05/09/2007

P. 1 OF 1

3

DWG NO.: DATE: REV. THIS DRAWING & ALL INFORMATION THERE ON IS THE PROPRIETY OF AIRCOM TECHNOLOGIES INC. & IS CONSIDERED CONFIDENTIAL

Project name: DEEP RIVER, ON



Project #: 5000225027

Document #: SPK_0001_ACB_VWT_S05

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1

SETTLING LAMELLA

OIM Manual Section: X.X.X.5

		FABRICATED ITEM DATASHEET	
Project	DEEP RIVER, ON		
Project No.	5000225027		
P&ID No./Sheet	PI0001 SHEET 05 / 06 / 07		
Document No.	SPK_0001_ACB_VWT_S05_2_ST-995_EN_ST-995-002		Revision1
FABRICATED ITEM DATASHEET			
1	GENERAL INFORMATION	Function	ACTIFLO SETTLING LAMELLA PP WHITE FDA - DH38
2		Additional Information	Custom lamella packs for three Actiflos
3	TECHNICAL DATASHEET LINK	Manufacturer Datasheet URL !CLICK HERE! -->	https://d2i37d29h80q1n.cloudfront.net/CS-995-002.pdf
4	Notes:		
5			
6			
7			
8			
9			

Project name: DEEP RIVER, ON



Project #: 5000225027

Document #: SPK_6200_HYDP_VWT

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

TECHNICAL DOCUMENTATION

SUBMITTAL PACKAGE

HYDRAPOL COMPACT MODEL C3

COMMENTS

VL: Please confirm if you are able to supply instrument air (30-60psig of clean, dry air) for the solenoid valve (tag: V9-553) that activates the dry feeder polymer inlet.

REV. NO	DESCRIPTION	DATE	PREP.BY	CHKD.BY	APPR.BY
1	For approval	10/9/2025	V.L.	M.D.G.	L.D.

To access manufacturer datasheets enter username/password:

veolia/cutsheets



DOCUMENT TITLE :	SPK SUMMARY PAGE	PROJECT :	DEEP RIVER, ON
VWT DOC NO. :	SPK_6200_HYDP_VWT_S00_SUMMARY	PROJECT # :	5000225027
REVISION :	1		

SUPPLIER	VWTC EQUIPMENT CODE	TAG	FUNCTION	ASSOCIATED EQUIPMENT/PIPELINE	P&ID PAGE	SUBMITTAL PACKAGE SECTION	SPK SECTION NAME
WAM	CMSPGU346169	DF9-521	Feeder Screw	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S03	DRY MICROBATCH FEEDER
SCHUTTE & KOERTING	EJGUEJ200371	E9-521	Eductor	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S04	EDUCTOR
VWTC	CMSPMI335088	M9-521		Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S05	MIXER
VWTC	FAFRHP339375	T9-521	Maturation Tank	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S06	TANKS
PLASTIC MART	TAPEZR316530	T9-522	Storage Tank	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S06	TANKS
CHEMLINE	VABLPV353596	V9-551	Actuated Transfer Valve	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
MENCOM	CECKGU333284	08-VA62-01/EC	Electric cable	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
TECKNO VALVE	VASDBR353835	V9-552	Solenoid Valve - Driving Water	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
TECKNO VALVE	VASDBR353836	V9-553	Solenoid Valve - Feeder	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VABLPV391641	V9-521	Isolation Valve - Driving Water	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VABLPV391643	V9-522	Isolation Valve- Tank Outlet	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VABLPV391643	V9-523	Isolation Valve - Storage Tank Drain	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VABLPV391643	V9-524	Isolation Valve - Maturation Tank Drain	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VABLPV391643	V9-525	Isolation Valve- Tank Outlet	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VABLPV346917	V9-531	Metering Valve- Wetting Cone	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VABLPV346917	V9-532	Metering Valve- Wetting Cone	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
CHEMLINE	VANRPV391922	V9-541	Check Valve- Liquid Polymer	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S07	VALVES
IFM EFECTOR	IESWLE342302	LSL9-521	Hopper Low Level Switch	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S08	INSTRUMENTATION
IFM EFECTOR	IEMRLE343806	LT9-521	Level Transmitter - Maturation Tank	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S08	INSTRUMENTATION
IFM EFECTOR	IEPOLE348108	LT9-522	Level Transmitter - Storage Tank	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S08	INSTRUMENTATION
IFM EFECTOR	IESWSP342303	PSLL9-521	Service Water Pressure Switch	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S08	INSTRUMENTATION
TIGER-VAC	TOIEGU317247	VC9-521	Vacuum Conveyor	Polymer Dosing System	PI0001 SHEET 08	SPK_6200_HYDP_VWT_S09	VACUUM CONVEYOR

Project name: DEEP RIVER, ON



Project #: 5000225027

Document #: SPK_6200_HYDP_VWT_S01

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1

PROCESS DATASHEET

REFER TO PSDS_6200_HYDP_VWT

OIM Manual Section: X.X.X.1

Project name: DEEP RIVER, ON



Project #: 5000225027

Document #: SPK_6200_HYDP_VWT_S02

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1

GENERAL ARRANGEMENT DRAWING

REFER TO GA_6200_HYDP_VWT

OIM Manual Section: X.X.X.2

Project name: DEEP RIVER, ON



Project #: 5000225027

Document #: SPK_6200_HYDP_VWT_S03

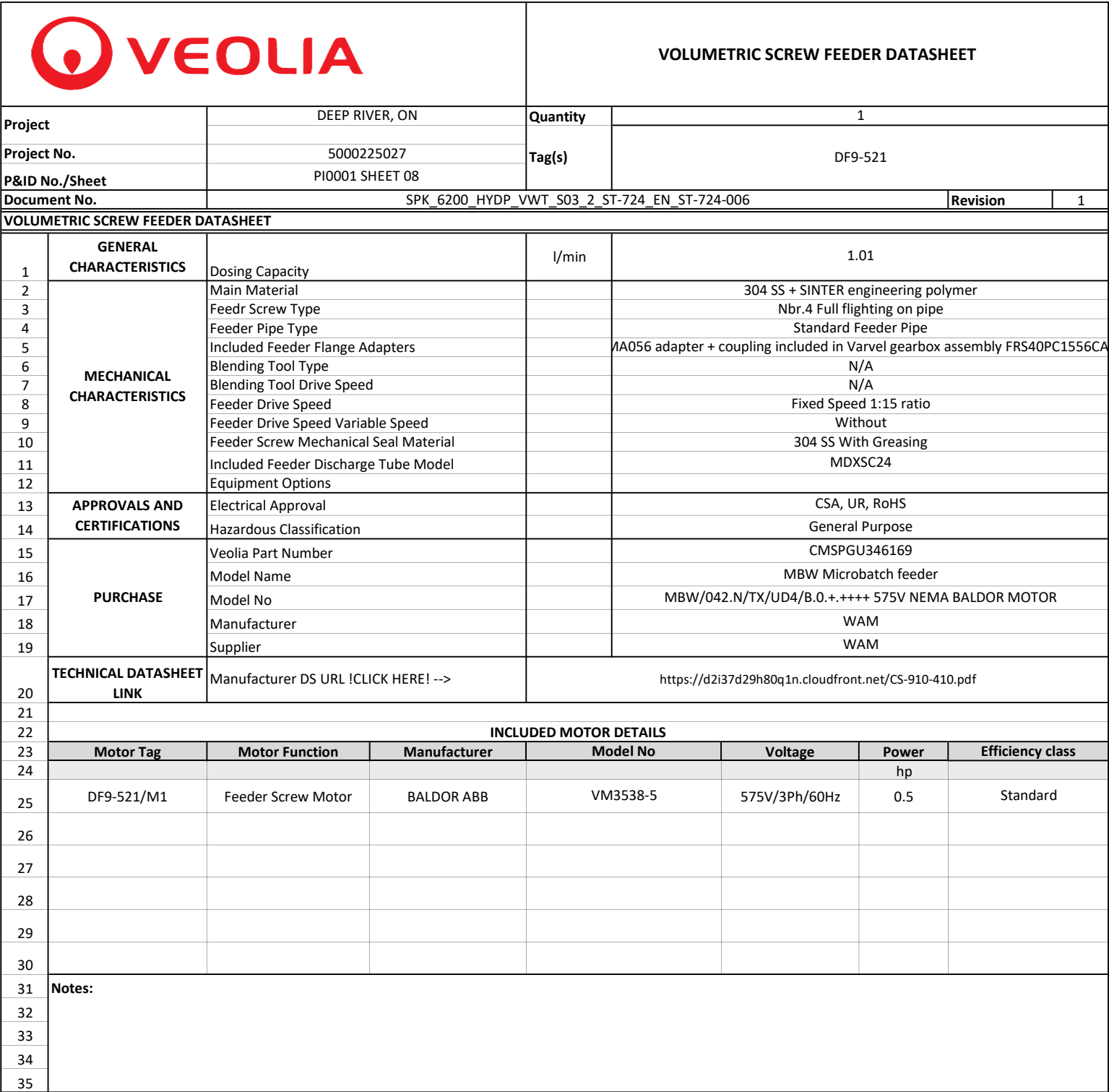
Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1

DRY MICROBATCH FEEDER

OIM Manual Section: X.X.X.3



Project name:

DEEP RIVER, ON

Project #:

5000225027

Document #:

SPK_6200_HYDP_VWT_S04

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1



EDUCTOR

OIM Manual Section: X.X.X.4



EDUCTOR DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	E9-521
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S04_2_ST-504_EN_ST-504-107		Revision 1

EDUCTOR DATASHEET

1	GENERAL CHARACTERISTICS	Max Suction Capacity		ft3/h	11
2		Rated Pressure		psig	200
3		Temperature At Rated Pressure		degF	199.99
4		Theoretical Motive Flow		m3/hr	5.2
5		Motive Pressure		psig	65
6		Max Theoretical Discharge Pressure		psig	10
7		Max Effective Discharge Pressure		psig	8
8		Min Washdown Flow Rate		m3/hr	
9	MECHANICAL CHARACTERISTICS	Body Material			PVC
10		Nozzle Diffuser Material			PVC
11		Pressure Connection Size		in	1
12		Pressure Connection Type			Threaded FNPT
13		Discharge Connection Size		in	1.1/2
14		Discharge Connection Type			Threaded FNPT
15		Suction Connection Size		in	1.1/2
16		Suction Connection Type			Threaded FNPT
17		Equipment Options			
18	APPROVALS AND CERTIFICATIONS	NSF61 Approved			No
19		CRN Certification			TBD
20	PURCHASE	Veolia Part Number			EJGUEJ200371
21		Model Name			Fig. 264 PVC Eductor
22		Model No			Fig. 264 PVC Eductor 1.5
23		Manufacturer			SCHUTTE & KOERTING
24		Supplier			SCHUTTE & KOERTING
25	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-504-100.pdf	
26	Notes:				
27					
28					
29					
30					

Project name:

DEEP RIVER, ON

Project #:

5000225027

Document #:

SPK_6200_HYDP_VWT_S05

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1



MIXER

OIM Manual Section: X.X.X.5



MIXER DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	M9-521
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S05_2_ST-652_EN_ST-652-HP500C3-575-N		Revision 1

MIXER DATASHEET

1	GENERAL CHARACTERISTICS	Capacity	USGal/min	1671
2		Mixer Function		
3	MECHANICAL CHARACTERISTICS	Mixer Rotation		Clockwise
4		Mixer Thrust		Down
5		Rotation Speed	rpm	192.78
6		Wetted Parts Material		304 SS
7		Temperature / Leak Switch Included ?	No	Tag(s):
8				
9				
10				
11		Equipment Options		
12	GEARBOX CHARACTERISTICS	Manufacturer		NORD
13		Model Name		SK Series
14		Model No		SK0182.1AXFH N56C 8.87 1.000 10.7
15		Type		Helical Parallel Shaft
16		Service Factor		10.7
17		Gear Ratio		8.87 : 1
18		Mounting Position		M4
19		Output Shaft Type		Hollow Keyed Shaft
20		Output Shaft Diameter		1.0000
21		Output Shaft Length (if solid)	in	
22		Gearbox Options		NEMA Adapter
23	MOTOR CHARACTERISTICS	Manufacturer		NORD
24		Model Name		Motor with NEMA adapter
25		Model No		71S/4
26		Voltage / Inverter Duty	575V/3Ph/60Hz	Yes
27		Power	hp	0.33
28		Efficiency class		IE1
29		Mechanical connection standard		NEMA Flange
30		Enclosure		TEFC
31		Ingress Protection Rating		IP55
32		Motor Options		
33		Gearmotor DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-670-HP500C3-575-N.pdf
34	APPROVALS AND CERTIFICATIONS	Electrical Approval		CSA,cULus,UL,EAC,CE
35		Hazardous Classification		Non-hazardous area
36	PURCHASE	Veolia Part Number		CMSPMI335088
37		Veolia Document Number		DODAHP329382
38		Model Name		Hydrapol 500 C3 575V (max 2000 cps)
39		Model No		EVG01-0.33
40		Manufacturer		VWTC
41		Supplier		VWTC
42	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-910-529.pdf
43	Notes:			
44				
45				
46				
47				

Project name:

DEEP RIVER, ON

Project #:

5000225027

Document #:

SPK_6200_HYDP_VWT_S06

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1



TANKS

OIM Manual Section: X.X.X.6

				TANK DATASHEET							
Project	DEEP RIVER, ON		Quantity	1							
Project No.	5000225027		Tag(s) No	T9-522							
P&ID No./Sheet	PI0001 SHEET 08										
Document No.	SPK_6200_HYDP_VWT_S06_2_ST-752_EN_ST-752-201						Revision	1			
TANK DATASHEET											
1	TANK CHARACTERISTICS	Capacity	USGal		200						
2		Design Pressure	Design Temperature	0 psig = ATM	psig			degC			
3		Tank Material Specific Gravity		1.7							
4	TANK DATA	Diameter Height			in		19	in			
5		Length Width		60	in		48	in			
6		Wall thickness	mm	7.87							
7		Shape	Rectangular								
8		Type of Roof / Type Of Bottom		Fixed With Lid	/		Flat				
9		Sloping	deg	N/A							
10		Has Insulation		No							
11	MATERIALS	Body Material	LLPDE								
12	ACCESSORIES	Lifting Lug Qty / Anchor Hole Qty	/								
13		Has Grounding Lug(s)	No								
14	PURCHASE	Veolia Part Number	TAPEZR316530								
15		Model Name / Model No		Hydrapol Tank	/		LPO200RT				
16		Manufacturer / Supplier		DEN HARTOG	/		PLASTIC MART				
17	TECHNICAL DATASHEET LINK	Manuf. DS URL ICLICK HERE! -->	https://d2i37d29h80q1n.cloudfront.net/CS-752-201.pdf								
18											
19	NOZZLE DETAILS										
20	Nozzle Tag	Nozzle Description	Shell/Roof	Size	Connection Type	Connection Rating	Connection Standard	Radius	Angle	Elevation	
21				in				in	deg	in	
22	08-TL62-02/N01	Inlet	Roof	2	Threaded FNPT	Unrated	ASTM D1784	18.31	180		
23	T9-522/N02	Level Transmitter	Roof	3/4	M18 x 1	Unrated	Undefined	29.09	231		
24	T9-522/N03	Outlet Left	Bottom	1.1/2	Threaded FNPT	Unrated	Undefined	25.31	270		
25	T9-522/N04	Outlet Right	Bottom	1.1/2	Threaded FNPT	Unrated	Undefined	25.31	90		
26											
27											
28											
29											
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39											
40											
41											
42											
43											
44											
45	MANHOLE DETAILS										
46	Nozzle Tag	Nozzle Description	Shell/Roof	Size	Connection Type	Has Davit	Radius	Angle	Elevation		
47				in			in	deg	in		
48											
49											
50											
51											
52											
53											
54	MECHANICAL COMPONENT DETAILS										
55	Tag	Veolia Part Number	Model Name	Model Number	Description						
56											
57											
58											
59	Note:										
60											
61											
62	Low Profile, C/W Vented Lid 5" Dia., 1x FNPT Adapter 1" Dia. Short Side, Color: Natural										
63											
64											

				TANK DATASHEET							
Project	DEEP RIVER, ON		Quantity	1							
Project No.	5000225027		Tag(s) No	T9-521							
P&ID No./Sheet	PI0001 SHEET 08										
Document No.	SPK_6200_HYDP_VWT_S06_2_ST-752_EN_ST-752-202					Revision	1				
TANK DATASHEET											
1	TANK CHARACTERISTICS	Capacity		liter	500						
2		Design Pressure	Design Temperature	0 psig = ATM	psig		60		degC		
3		Tank Material Specific Gravity		7.93							
4	TANK DATA	Diameter Height				in	45.67		in		
5		Length Width		31.5		in	31.5		in		
6		Wall thickness		mm	3.05						
7		Shape		Rectangular							
8		Type of Roof / Type Of Bottom		Fixed	/		Flat				
9		Sloping		deg	N/A						
10		Has Insulation		No							
11	MATERIALS	Body Material		304 SS							
12	ACCESSORIES	Lifting Lug Qty / Anchor Hole Qty		/ 6							
13		Has Grounding Lug(s)		Yes							
14	PURCHASE	Veolia Part Number		FAFRHP339375							
15		Model Name / Model No		Hydrapol Tank	/	Preparation HP 500C					
16		Manufacturer / Supplier		VWTC	/	VWTC					
17	TECHNICAL DATASHEET LINK	Manuf. DS URL !CLICK HERE! -->		N/A							
18											
19	NOZZLE DETAILS										
20	Nozzle Tag	Nozzle Description	Shell/Roof	Size	Connection Type	Connection Rating	Connection Standard	Radius	Angle	Elevation	
21				in				in	deg	in	
22	T9-521/N01	Inlet	Roof	1.1/2	Open	Unrated	Undefined	13.78	45		
23	T9-521/N02	Overflow	Shell	2	Threaded FNPT	Unrated	ASTM D1784		180	45.28	
24	T9-521/N03	Outlet	Shell	2	Threaded MNPT	Unrated	Undefined		90	2.95	
25											
26											
27											
28											
29											
30											
31											
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38											
39											
40											
41											
42											
43											
44											
45	MANHOLE DETAILS										
46	Nozzle Tag	Nozzle Description	Shell/Roof	Size	Connection Type	Has Davit	Radius	Angle	Elevation		
47				in			in	deg	in		
48											
49											
50											
51											
52											
53											
54	MECHANICAL COMPONENT DETAILS										
55	Tag	Veolia Part Number	Model Name	Model Number	Description						
56											
57											
58											
59	Note:										
60											
61											
62											
63											
64											

Project name:

DEEP RIVER, ON

Project #:

5000225027

Document #:

SPK_6200_HYDP_VWT_S07

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1



VALVES

OIM Manual Section: X.X.X.7



ELECTRIC ON/OFF VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	V9-551
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S07_2_ELECTRIC-ONOFF-VALVES_EN_ST-301-300	Revision	1

ELECTRIC ON/OFF VALVE

1	VALVE CHARACTERISTICS	Rated Pressure	psig	230
2		Temperature at Rated Pressure	degC	20
3		Valve Type		Ball
4	VALVE BODY	Valve Size	Connection Standard	2 in Unrated
5		End Connection 1	End Connection 2	Socket Socket
6		Body Material		PVC
7		Obturator Material	Stem Material	PVC PVC
8	VALVE TRIM	Seat Material	Seal Material	PTFE EPDM
9		Chemflare Connector Material / Model No		
10		Options		
11		Manufacturer		CHEMLINE
12	ELECTRIC ACTUATOR	Model Name		ER Series
13		Model No		ERS20.12
14		Output Torque	N.m	35
15		Housing Material		Polyamide PA6
16		Voltage		120V/1Ph/60Hz
17		Power	W	45
18		Ingress Protection Rating		66
19		NEMA Enclosure Rating		NEMA Type 4, 4x
20		Failure Mode		Fail Last
21		Actuator Orientation		
22		Actuator Options		None
23	APPROVALS AND CERTIFICATIONS	NSF61 Approved		Yes
24		Oxygen Service		No
25		CRN Certification		
26		Electrical Approval		EAC, CSA, cULus, RoHS
27		Hazardous Classification		Unclassified
28	PURCHASE	Veolia Part Number		VABLPV353596
29		Model Name		Type 21
30		Model No		21A020ES/21020-ERS20.12
31		Manufacturer		CHEMLINE
32		Supplier		CHEMLINE

33	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->	https://d2i37d29h80q1n.cloudfront.net/CS-301-300.pdf
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34	Notes:
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MANUAL VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	V9-521
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S07_2_MANUAL-VALVES_EN_ST-301-103		Revision 1

MANUAL VALVE DATASHEET

1	VALVE	Rated Pressure		psig	230	
2	CHARACTERISTICS	Temperature at Rated Pressure		degC	20	
3	VALVE BODY	Valve Type			Ball	
4		Valve Size	Connection Standard		1	in Unrated
5		End Connection 1	End Connection 2		Socket Socket	
6		Body Material			PVC	
7	VALVE TRIM	Obturator Material	Stem Material		PVC	PVC
8		Seat Material	Seal Material		PTFE	EPDM
9		Chemflare Connector Material / Model No				
10		Options				
11	ACTUATOR	Type			Lever	
12		Chainwheel option			No	
13		Locking handle option			No	
14	APPROVALS	NSF61 Approved			Yes	
15		Oxygen Service			No	
16		CRN Certification			Available	
17	PURCHASE	Veolia Part Number			VABLPV391641	
18		Model Name			Type 21	
19		Model No			21A010ES	
20		Manufacturer			CHEMLINE	
21		Supplier			CHEMLINE	
22	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-301-10000.pdf		
23	Notes:					
24						
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				MANUAL VALVE DATASHEET				
Project		DEEP RIVER, ON		Quantity		4		
		5000225027		Tag(s) No		V9-522 V9-523 V9-524 V9-525		
		PI0001 SHEET 08						
Project No.								
P&ID No./Sheet								
Document No.		SPK_6200_HYDP_VWT_S07_2_MANUAL-VALVES_EN_ST-301-11501				Revision		1
MANUAL VALVE DATASHEET								
1	VALVE CHARACTERISTICS		Rated Pressure		psig		230	
2			Temperature at Rated Pressure		degC		20	
3	VALVE BODY		Valve Type		Ball			
4			Valve Size		Connection Standard		1.1/2 in Unrated	
5			End Connection 1		End Connection 2		Socket Socket	
6			Body Material		PVC			
7	VALVE TRIM		Obturator Material		Stem Material		PVC PVC	
8			Seat Material		Seal Material		PTFE EPDM	
9			Chemflare Connector Material / Model No					
10			Options					
11	ACTUATOR		Type		Lever			
12			Chainwheel option		No			
13			Locking handle option		No			
14	APPROVALS		NSF61 Approved				Yes	
15			Oxygen Service				No	
16			CRN Certification		Available			
17	PURCHASE		Veolia Part Number		VABLPV391643			
18			Model Name		Type 21			
19			Model No		21A015ES			
20			Manufacturer		CHEMLINE			
21			Supplier		CHEMLINE			
22	TECHNICAL DATASHEET LINK		Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-301-10000.pdf			
23	Notes:							
24								
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MANUAL VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	2
Project No.	5000225027	Tag(s) No	V9-531 V9-532
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S07_2_MANUAL-VALVES_EN_ST-301-500		Revision 1

MANUAL VALVE DATASHEET

1	VALVE	Rated Pressure		psig	230		
2	CHARACTERISTICS	Temperature at Rated Pressure		degC	20		
3	VALVE BODY	Valve Type			Ball Metering		
4		Valve Size	Connection Standard		1/2	in	Unrated
5		End Connection 1	End Connection 2		Socket		Socket
6		Body Material			PVC		
7	VALVE TRIM	Obturator Material	Stem Material		PVC	PVC	
8		Seat Material	Seal Material		PTFE	EPDM	
9		Chemflare Connector Material / Model No					
10		Options					
11	ACTUATOR	Type			Lever		
12		Chainwheel option			No		
13		Locking handle option			No		
14	APPROVALS	NSF61 Approved			No		
15		Oxygen Service			No		
16		CRN Certification			Available		
17	PURCHASE	Veolia Part Number			VABLPV346917		
18		Model Name			SM2 Series		
19		Model No			SM2A005ES		
20		Manufacturer			CHEMLINE		
21		Supplier			CHEMLINE		
22	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-301-501.pdf			
23	Notes:						
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CHECK VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1			
Project No.	5000225027		Tag(s)	V9-541		
P&ID No./Sheet	PI0001 SHEET 08					
Document No.	SPK_6200_HYDP_VWT_S07_2_ST-302_EN_ST-302-1051		Revision		1	

CHECK VALVE

1	VALVE CHARACTERISTICS	Rated Pressure		psig	150		
2		Temperature at Rated Pressure		degC	50		
3		Check Valve Type			Ball		
4		Max Allowable Back Pressure		psig			
5	VALVE BODY	Valve Type			Check		
6		Valve Size	Connection Standard		1.1/2	in	Unrated
7		End Connection 1	End Connection 2		Socket		Socket
8		Body Material			PVC		
9	VALVE TRIM	Obturator Material			PVC		
10		Seat Material	Seal Material		EPDM		EPDM
11		Spring Material (if applicable)			N/A		
12		Chemflare Connector Material / Model No					
13		Options					
14	APPROVALS AND CERTIFICATIONS	NSF61 Approved			Yes		
15		Oxygen Service			Yes		
16		CRN Certification			0C11045.01R2456789, TO BE CONFIRMED WITH SUPPLIER FOR OTHER PROVINCES		
17	PURCHASE	Veolia Part Number			VANRPV391922		
18		Model Name			BT Series		
19		Model No			BTA015ES		
20		Manufacturer			CHEMLINE		
21		Supplier			CHEMLINE		
22	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-302-10000.pdf			
23	Notes:						
24							
25							
26							
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SOLENOID VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	V9-553
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S07_2_ST-304_EN_ST-304-550	Revision	1

SOLENOID VALVE

1	GENERAL CHARACTERISTICS	Rated Pressure	psig	150
2		Temperature at Rated Pressure	degF	180
3	VALVE BODY	Valve Type		Solenoid
4		Valve Size	Connection Standard	1/4 in Unrated
5		End Connection 1	End Connection 2	Threaded FNPT Threaded FNPT
6		Body Material		Brass
7	VALVE TRIM	Obturator Material		NBR
8		Seat Material	Seal Material	NBR NBR
9		Options		
10	SOLENOID VALVE CHARACTERISTICS	Solenoid Way / Position		4 / 2
11		Normal State Mode		Normally Open
12		Voltage		120V/1Ph/60Hz
13		Power	VA	25
14		Optional Construction Features		SC: Class F or H High Temperature Coils with DIN Connections
15		Red Hat II Solenoid Options		Watertight, Types 1,2,3,3S,4 and 4X
16	APPROVALS AND CERTIFICATIONS	NSF61 Approved		No
17		Oxygen Service		No
18		CRN Certification		Product CRN available
19		Electrical Approval		CE, CSA, cULus
20		Hazardous Classification		General Purpose
21	PURCHASE	Veolia Part Number		VASDBR353836
22		Model Name		4/2 Series 8345
23		Model No		SC8345G001-120VAC
24		Manufacturer		ASCO
25		Supplier		TECKNO VALVE
26	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->	https://d2i37d29h80q1n.cloudfront.net/CS-304-550.pdf	

27	Notes:
28	
29	
30	Pilot operated, minimum operating differential pressure of 10 psig
31	
32	



SOLENOID VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	V9-552
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S07_2_ST-304_EN_ST-304-551	Revision	1

SOLENOID VALVE

1	GENERAL CHARACTERISTICS	Rated Pressure		psig	150		
2		Temperature at Rated Pressure		degF	180		
3	VALVE BODY	Valve Type			Solenoid		
4		Valve Size	Connection Standard		1	in	Unrated
5		End Connection 1	End Connection 2		Threaded FNPT		Threaded FNPT
6		Body Material			Brass		
7	VALVE TRIM	Obturator Material			NBR		
8		Seat Material	Seal Material		NBR		NBR
9		Options					
10	SOLENOID VALVE CHARACTERISTICS	Solenoid Way / Position			2		
11		Normal State Mode			Normally Closed		
12		Voltage			120V/1Ph/60Hz		
13		Power		VA	16		
14		Optional Construction Features			SC: Class F or H High Temperature Coils with DIN Connections		
15		Red Hat II Solenoid Options			Watertight, Types 1,2,3,3S,4 and 4X		
16	APPROVALS AND CERTIFICATIONS	NSF61 Approved			No		
17		Oxygen Service			No		
18		CRN Certification			Product CRN available		
19		Electrical Approval			CE, CSA, cULus		
20		Hazardous Classification			General Purpose		
21	PURCHASE	Veolia Part Number			VASDBR353835		
22		Model Name			2/2 Series 8210		
23		Model No			SC8210G004-120VAC		
24		Manufacturer			ASCO		
25		Supplier			TECKNO VALVE		
26	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-304-551.pdf			
27	Notes:						
28							
29							
30							
31							
32							

		CABLE DATASHEET		
Project	DEEP RIVER, ON	Quantity	2	
Project No.	5000225027	Tag(s) No	V9-552/CAB V9-553/CAB	
P&ID No./Sheet	PI0001 SHEET 08			
Document No.	SPK_6200_HYDP_VWT_S07_2_ST-931_EN_ST-931-006		Revision	1
CABLE DATASHEET				
1	CABLE CHARACTERISTICS	Cable Length	m	5
2		Cable Service		Signal 120Vac
3		Cable Type		
4		Cable Description		Sensor Cable 2P+E,5m,DIN Form A ,M12 Plug
5	PURCHASE	Veolia Part Number		CECAGU333288
6		Model Name		Solenoid Valve Cable
7		Model No		VAJ-520-3501
8		Manufacturer		MENCOM
9		Supplier		MENCOM
10	TECHNICAL DATASHEET LINK	Manufacturer Datasheet URL		https://d2i37d29h80q1n.cloudfront.net/CS-910-809.pdf
11	Notes:			
12				
13				
14				
15				
16				

Project name:

DEEP RIVER, ON

Project #:

5000225027



Document #:

SPK_6200_HYDP_VWT_S08

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1

INSTRUMENTATION

OIM Manual Section: X.X.X.8



LEVEL TRANSMITTER DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	LT9-521
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S08_2_ST-405_EN_ST-405-201	Revision	1

LEVEL TRANSMITTER DATASHEET

1	GENERAL CHARACTERISTICS	Range Min.	Range Max.		0	250
2		Range Units			mbar	
3		Operating Principle			hydrostatic pressure	
4	MECHANICAL CHARACTERISTICS	Process Connection Size (if applicable)		in	1/4	
5		Process Connection Type (if applicable)			Threaded FNPT	
6		Process Connection Material (if applicable)			316 SS, Al2O3	
7		Process Connection Seal Material (if applicable)			Viton	
8		Mount Instrument Connection				
9		Options			No display	
10	ELECTRICAL CHARACTERISTICS	Electrical Connection			M12 Plug	
11		Voltage			24VDC	
12		Communication Protocol Type			4-20 mA	
13		Output Signal			4-20mA	
14		Ingress Protection Rating			IP65	
15		NEMA Enclosure Rating				
16	APPROVALS AND CERTIFICATIONS	NSF61 Approved				
17		CRN Certification			No Product CRN	
18		Electrical Approval			CE, cULus	
19		Hazardous Classification			Unclassified	
20	PURCHASE	Veolia Part Number			IEMRLE343806	
21		Model Name			PA3228	
22		Model No			PA3228	
23		Manufacturer			IFM EFECTOR	
24		Supplier			IFM EFECTOR	
25	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-405-201.pdf		

ACCESSORIES DETAIL

Accessory Tag	Description	Model No	Veolia Part Number	Qty
Notes:				



LEVEL TRANSMITTER DATASHEET

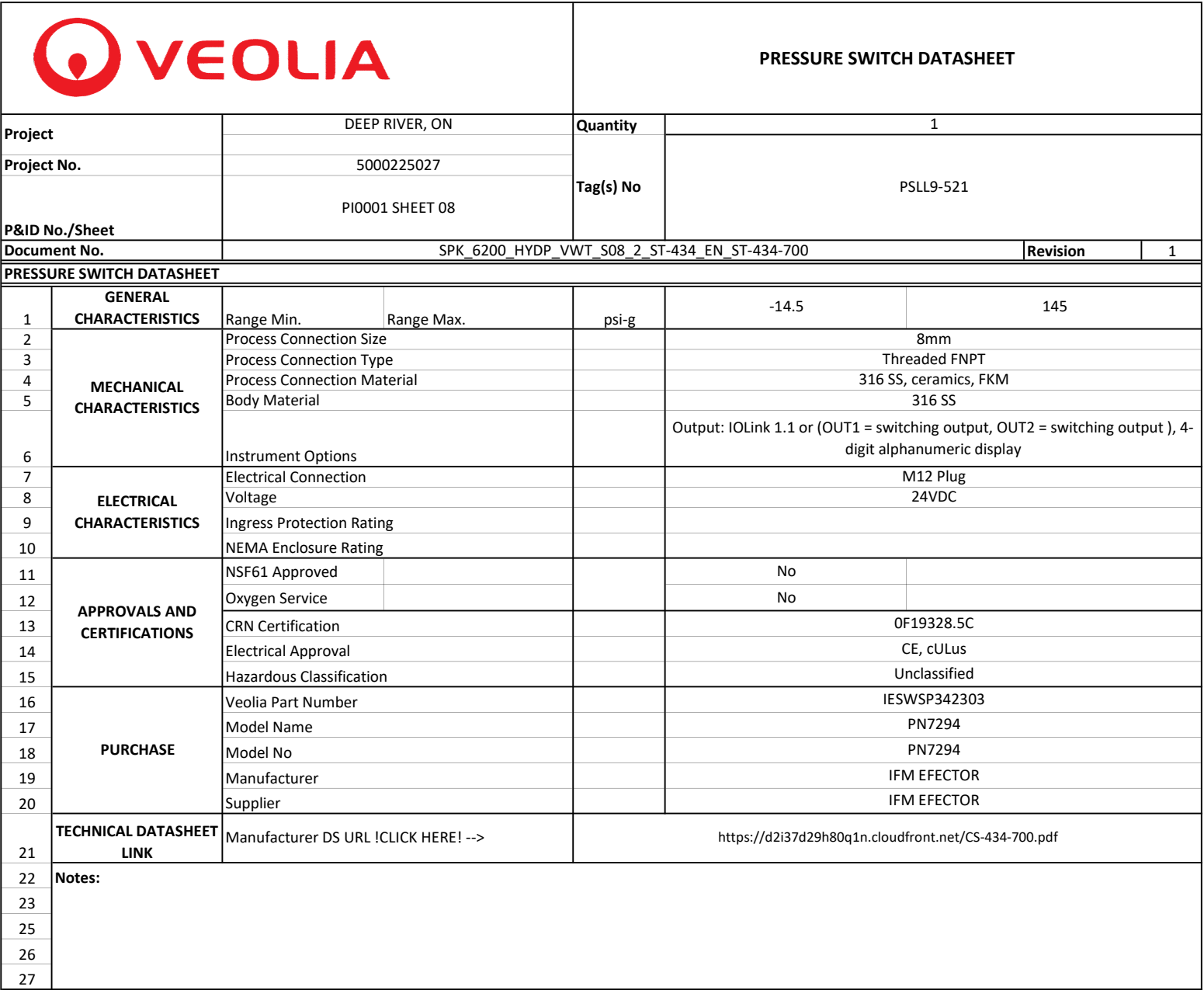
Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	LT9-522
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S08_2_ST-405_EN_ST-405-900	Revision	1

LEVEL TRANSMITTER DATASHEET

1	GENERAL CHARACTERISTICS	Range Min.	Range Max.		60	800
2		Range Units			mm	
3		Operating Principle			ultrasonic	
4	MECHANICAL CHARACTERISTICS	Process Connection Size (if applicable)		in		
5		Process Connection Type (if applicable)				
6		Process Connection Material (if applicable)				
7		Process Connection Seal Material (if applicable)				
8		Mount Instrument Connection			M18 X 1	
9		Options				
10	ELECTRICAL CHARACTERISTICS	Electrical Connection			M12 Plug	
11		Voltage			24VDC	
12		Communication Protocol Type			4-20 mA	
13		Output Signal			1 x 4 - 20 mA	
14		Ingress Protection Rating			IP67	
15		NEMA Enclosure Rating				
16	APPROVALS AND CERTIFICATIONS	NSF61 Approved				
17		CRN Certification			No Product CRN	
18		Electrical Approval			CE, cULus	
19		Hazardous Classification			General Purpose	
20	PURCHASE	Veolia Part Number			IEPOLE348108	
21		Model Name			Ultrasonic Sensor	
22		Model No			UGT504	
23		Manufacturer			IFM EFECTOR	
24		Supplier			IFM EFECTOR	
25	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-401-550.pdf		

ACCESSORIES DETAIL

Accessory Tag	Description	Model No	Veolia Part Number	Qty
Notes:				





LEVEL SWITCH DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	LSL9-521
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S08_2_ST-451_EN_ST-451-600		Revision 1

LEVEL SWITCH DATASHEET

1	GENERAL CHARACTERISTICS	Operating Principle			Impedance spectroscopy method	
2	MECHANICAL CHARACTERISTICS	Process Connection Size			1/2"	
3		Process Connection Type			Threaded MNPT	
4		Body Material			316L SS; PEEK; PEI; FKM	
5		Instrument Options				
6	ELECTRICAL CHARACTERISTICS	Electrical Connection			M12 Plug	
7		Voltage			24VDC	
8		Ingress Protection Rating			IP 68/69K	
9		NEMA Enclosure Rating				
10	APPROVALS AND CERTIFICATIONS	NSF61 Approved			No	
11		CRN Registration				
13		Electrical Approval			cULus	
14		Hazardous Classification			Unclassified	
15	PURCHASE	Veolia Part Number			IESWLE342302	
16		Model Name			LMC510	
17		Model No			LMC510	
18		Manufacturer			IFM EFECTOR	
19		Supplier			IFM EFECTOR	
20	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-451-600.pdf		
21	Notes: Output: IOLINK 1.1 or 2 X PNP					
22						
23						
24						
25						

Output: IOLINK 1.1 or 2 X PNP

		CABLE DATASHEET		
Project	DEEP RIVER, ON	Quantity	5	
Project No.	5000225027	Tag(s) No	LSL9-521/CAB LT9-521/CAB LT9-522/CAB PSL9-521/CAB V9-551/CAB	
P&ID No./Sheet	PI0001 SHEET 08			
Document No.	SPK_6200_HYDP_VWT_S08_2_ST-931_EN_ST-931-003		Revision	1
CABLE DATASHEET				
1	CABLE CHARACTERISTICS	Cable Length	m	5
2		Cable Service		Signal 24Vdc
3		Cable Type		
4		Cable Description		Sensor Cable 4P,5m,M12 plug,M12 socket
5	PURCHASE	Veolia Part Number		CECAGU333286
6		Model Name		EVC Series
7		Model No		EVC014
8		Manufacturer		IFM EFECTOR
9		Supplier		IFM EFECTOR
10	TECHNICAL DATASHEET LINK	Manufacturer Datasheet URL		https://d2i37d29h80q1n.cloudfront.net/CS-910-808.pdf
11	Notes:			
12				
13				
14				
15				
16				

Project name:

DEEP RIVER, ON

Project #:

5000225027



Document #:

SPK_6200_HYDP_VWT_S09

Project Engineer:

Vincent Laneuville

Project Manager:

Lamine Diop

Revision:

1

VACUUM CONVEYOR

OIM Manual Section: X.X.X.9



VACUUM CONVEYOR DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	VC9-521
P&ID No./Sheet	PI0001 SHEET 08		
Document No.	SPK_6200_HYDP_VWT_S09_2_ST-721_EN_ST-721-002	Revision	1

VACUUM CONVEYOR DATASHEET

1	GENERAL CHARACTERISTICS	Suction Capacity		CFM	110
2		Pressure at Capacity		inH ² O	-110
3	MECHANICAL CHARACTERISTICS	Main Material			Composite
4		Equipment Options			
5	ELECTRICAL CHARACTERISTICS	Voltage			240V/2Ph/60Hz
6		Power		W	1250
7	APPROVALS AND CERTIFICATIONS				
8		Oxygen Service			No
9		Electrical Approval			CSA
10		Hazardous Classification			General Purpose
11	PURCHASE	Veolia Part Number			TOIEGU317247
12		Model Name			Model EC-12(G)
13		Model No			210951B
14		Manufacturer			TIGER-VAC
15		Supplier			TIGER-VAC
16	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-910-556.pdf	
17	Notes: Silencer not included, bought separately				
18					
19					
20					
21					

veolia/cutsheets



DOCUMENT TITLE :	SPK SUMMARY PAGE	PROJECT :	DEEP RIVER, ON
VWT DOC NO. :	SPK_6350_HYDS_VWT_S00_SUMMARY	PROJECT # :	5000225027
REVISION :	1		

SUPPLIER	VWTC EQUIPMENT CODE	TAG	FUNCTION	ASSOCIATED EQUIPMENT/PIPELINE	P&ID PAGE	SUBMITTAL PACKAGE SECTION	SPK SECTION NAME
ELMRIDGE	EJGUEJ316960	E7-621	Eductor	Microsand Preparation and Dosing System	PI0001 SHEET 09	SPK_6350_HYDS_VWT_S03	EDUCTOR
ACO CONTAINER	TAPEZM200024	T7-621	Dilution Tank	Microsand Preparation and Dosing System	PI0001 SHEET 09	SPK_6350_HYDS_VWT_S04	TANK
TECKNO VALVE	VASDBR400520	V7-622	Solenoid Valve - Service Water	Microsand Preparation and Dosing System	PI0001 SHEET 09	SPK_6350_HYDS_VWT_S05	VALVES
TECKNO VALVE	VASDBR400519	V7-623	Solenoid Valve - Bottom Mixing	Microsand Preparation and Dosing System	PI0001 SHEET 09	SPK_6350_HYDS_VWT_S05	VALVES
CHEMLINE	VABLPV391644	V7-621	Isolation Valve - Service Water	Microsand Preparation and Dosing System	PI0001 SHEET 09	SPK_6350_HYDS_VWT_S05	VALVES

Project name: DEEP RIVER, ON

Project #: 5000225027

Document #: SPK_6350_HYDS_VWT_S01

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1



PROCESS DATASHEET

REFER TO PSDS_6350_HYDS_VWT

OIM Manual Section: X.X.X.1

Project name: DEEP RIVER, ON



Project #: 5000225027

Document #: SPK_6350_HYDS_VWT_S02

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1

GENERAL ARRANGEMENT DRAWING

REFER TO GA_6350_HYDS_VWT

OIM Manual Section: X.X.X.2

Project name: DEEP RIVER, ON

Project #: 5000225027

Document #: SPK_6350_HYDS_VWT_S03

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1



EDUCTOR

OIM Manual Section: X.X.X.3



EDUCTOR DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	E7-621
P&ID No./Sheet	PI0001 SHEET 09		
Document No.	SPK_6350_HYDS_VWT_S03_2_ST-504_EN_ST-504-153		Revision 1

EDUCTOR DATASHEET

1	GENERAL CHARACTERISTICS	Max Suction Capacity		ft3/h	97
2		Rated Pressure		psig	300
3		Temperature At Rated Pressure		degF	100
4		Theoretical Motive Flow		m3/hr	43.15
5		Motive Pressure		psig	85
6		Max Theoretical Discharge Pressure		psig	22.2
7		Max Effective Discharge Pressure		psig	17.76
8		Min Washdown Flow Rate		m3/hr	12
9	MECHANICAL CHARACTERISTICS	Body Material			Bronze
10		Nozzle Diffuser Material			Bronze
11		Pressure Connection Size		in	1
12		Pressure Connection Type			Threaded FNPT
13		Discharge Connection Size		in	1.1/2
14		Discharge Connection Type			Threaded FNPT
15		Suction Connection Size		in	1.1/2
16		Suction Connection Type			Threaded FNPT
17		Equipment Options			
18	APPROVALS AND CERTIFICATIONS	NSF61 Approved			No
19		CRN Certification			No product CRN
20	PURCHASE	Veolia Part Number			EJGUEJ316960
21		Model Name			Liqui-Jet Solids Eductor NCTLSM Series
22		Model No			NCTLSM5
23		Manufacturer			ELMRIDGE
24		Supplier			ELMRIDGE
25	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-504-252.pdf	
26	Notes: Body is rated 150#				
27					
28					
29					
30					

Body is rated 150#

Project name: DEEP RIVER, ON

Project #: 5000225027

Document #: SPK_6350_HYDS_VWT_S04

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1



TANK

OIM Manual Section: X.X.X.4

				TANK DATASHEET										
Project		DEEP RIVER, ON		Quantity	1									
Project No.		5000225027		Tag(s) No	T7-621									
P&ID No./Sheet		PI0001 SHEET 09												
Document No.		SPK_6350_HYDS_VWT_S04_2_ST-752_EN_ST-752-210					Revision		1					
TANK DATASHEET														
1	TANK CHARACTERISTICS		Capacity		IMPGal		45							
Design Pressure			Design Temperature		0 psig = ATM		psig		48 degC					
Tank Material Specific Gravity							1.9							
4	TANK DATA		Diameter Height				22.01		in		35.98		in	
5			Length Width						in		in			
6			Wall thickness		mm				5.50					
7			Shape						Circular					
8			Type of Roof / Type Of Bottom				Open		/		Flat			
9			Sloping		deg				N/A					
10			Has Insulation						No					
11	MATERIALS		Body Material				HDPE							
12	ACCESSORIES		Lifting Lug Qty / Anchor Hole Qty				/							
Has Grounding Lug(s)					No									
14	PURCHASE		Veolia Part Number				TAPEZM200024							
Model Name / Model No					OT Series /		OT-45							
Manufacturer / Supplier					ACO CONTAINER /		ACO CONTAINER							
17	TECHNICAL DATASHEET LINK		Manuf. DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-752-008.pdf									
NOZZLE DETAILS														
20	Nozzle Tag		Nozzle Description		Shell/Roof	Size	Connection Type	Connection Rating	Connection Standard	Radius	Angle	Elevation		
21						in				in	deg	in		
22	T7-621/N01		Washdown service water		Shell	1/2	Threaded FNPT	Unrated	Undefined		90	2.52		
23	T7-621/N02		Suction microsand solution		Roof	1.1/2	Plain End Pipe	Unrated	Undefined	8.46				
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														
34														
35														
36														
37														
38														
39														
40														
41														
42														
43														
44														
MANHOLE DETAILS														
46	Nozzle Tag		Nozzle Description		Shell/Roof	Size	Connection Type		Has Davit	Radius	Angle	Elevation		
47						in				in	deg	in		
48														
49														
50														
51														
52														
53														
MECHANICAL COMPONENT DETAILS														
55	Tag		Veolia Part Number		Model Name		Model Number		Description					
56														
57														
58														
59	Note:													
60														
61														
62														
63														
64														

Project name: DEEP RIVER, ON

Project #: 5000225027

Document #: SPK_6350_HYDS_VWT_S05

Project Engineer: Vincent Laneuville

Project Manager: Lamine Diop

Revision: 1



VALVES

OIM Manual Section: X.X.X.5



MANUAL VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	V7-621
P&ID No./Sheet	PI0001 SHEET 09		
Document No.	SPK_6350_HYDS_VWT_S05_2_MANUAL-VALVES_EN_ST-301-11601		Revision 1

MANUAL VALVE DATASHEET

1	VALVE	Rated Pressure		psig	230	
2	CHARACTERISTICS	Temperature at Rated Pressure		degC	20	
3	VALVE BODY	Valve Type			Ball	
4		Valve Size	Connection Standard		2	in Unrated
5		End Connection 1	End Connection 2		Socket Socket	
6		Body Material			PVC	
7	VALVE TRIM	Obturator Material	Stem Material		PVC	PVC
8		Seat Material	Seal Material		PTFE	EPDM
9		Chemflare Connector Material / Model No				
10		Options				
11	ACTUATOR	Type			Lever	
12		Chainwheel option			No	
13		Locking handle option			No	
14	APPROVALS	NSF61 Approved			Yes	
15		Oxygen Service			No	
16		CRN Certification			Available	
17	PURCHASE	Veolia Part Number			VABLPV391644	
18		Model Name			Type 21	
19		Model No			21A020ES	
20		Manufacturer			CHEMLINE	
21		Supplier			CHEMLINE	
22	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-301-10000.pdf		
23	Notes:					
24						
25						
26						
27						
28						



SOLENOID VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	V7-622
P&ID No./Sheet	PI0001 SHEET 09		
Document No.	SPK_6350_HYDS_VWT_S05_2_ST-304_EN_ST-304-815	Revision	1

SOLENOID VALVE

1	GENERAL CHARACTERISTICS	Rated Pressure		psig	125		
2		Temperature at Rated Pressure		degF	180		
3	VALVE BODY	Valve Type			Solenoid		
4		Valve Size	Connection Standard		2	in	Unrated
5		End Connection 1	End Connection 2		Threaded FNPT		Threaded FNPT
6		Body Material			Brass		
7	VALVE TRIM	Obturator Material			NBR		
8		Seat Material	Seal Material		NBR		NBR
9		Options					
10	SOLENOID VALVE CHARACTERISTICS	Solenoid Way / Position			2		
11		Normal State Mode			Normally Closed		
12		Voltage			120V/1Ph/60Hz		
13		Power		VA	16		
14		Optional Construction Features			SC: Class F or H High Temperature Coils with DIN Connections		
15		Red Hat II Solenoid Options			RedHat II - Watertight Types 1,2,3,3S,4 and 4X. RedHat - Type I		
16	APPROVALS AND CERTIFICATIONS	NSF61 Approved			No		
17		Oxygen Service			No		
18		CRN Certification			Product CRN available		
19		Electrical Approval			CE, CSA, cULus		
20		Hazardous Classification			General Purpose		
21	PURCHASE	Veolia Part Number			VASDBR400520		
22		Model Name			2/2 Series 8210		
23		Model No			SC8210G100 -120 VAC		
24		Manufacturer			ASCO		
25		Supplier			TECKNO VALVE		
26	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-304-551.pdf			
27	Notes:						
28							
29							
30	Pilot operated, minimum operating differential pressure of 5 psig						
31							
32							



SOLENOID VALVE DATASHEET

Project	DEEP RIVER, ON	Quantity	1
Project No.	5000225027	Tag(s) No	V7-623
P&ID No./Sheet	PI0001 SHEET 09		
Document No.	SPK_6350_HYDS_VWT_S05_2_ST-304_EN_ST-304-816	Revision	1

SOLENOID VALVE

1	GENERAL CHARACTERISTICS	Rated Pressure		psig	150		
2		Temperature at Rated Pressure		degF	180		
3	VALVE BODY	Valve Type			Solenoid		
4		Valve Size	Connection Standard		1/2	in	Unrated
5		End Connection 1	End Connection 2		Threaded FNPT		Threaded FNPT
6		Body Material			Brass		
7	VALVE TRIM	Obturator Material			NBR		
8		Seat Material	Seal Material		NBR		
9		Options					
10	SOLENOID VALVE CHARACTERISTICS	Solenoid Way / Position			2		
11		Normal State Mode			Normally Closed		
12		Voltage			120V/1Ph/60Hz		
13		Power		VA	10.1		
14		Optional Construction Features			SC: Class F or H High Temperature Coils with DIN Connections		
15		Red Hat II Solenoid Options			Watertight, Types 1,2,3,3S,4 and 4X		
16	APPROVALS AND CERTIFICATIONS	NSF61 Approved			No		
17		Oxygen Service			No		
18		CRN Certification			Product CRN available		
19		Electrical Approval			CE, CSA, cULus		
20		Hazardous Classification			General Purpose		
21	PURCHASE	Veolia Part Number			VASDBR400519		
22		Model Name			2/2 Series 8210		
23		Model No			SC8210G094-120VAC		
24		Manufacturer			ASCO		
25		Supplier			TECKNO VALVE		
26	TECHNICAL DATASHEET LINK	Manufacturer DS URL !CLICK HERE! -->		https://d2i37d29h80q1n.cloudfront.net/CS-304-551.pdf			
27	Notes:						
28							
29							
30							
31							
32							

		CABLE DATASHEET		
Project	DEEP RIVER, ON	Quantity	2	
Project No.	5000225027	Tag(s) No	V7-622/CAB V7-623/CAB	
P&ID No./Sheet				
Document No.	SPK_6350_HYDS_VWT_S05_2_ST-931_EN_ST-931-006		Revision	1
CABLE DATASHEET				
1	CABLE CHARACTERISTICS	Cable Length	m	5
2		Cable Service		Signal 120Vac
3		Cable Type		
4		Cable Description		Sensor Cable 2P+E,5m,DIN Form A ,M12 Plug
5	PURCHASE	Veolia Part Number		CECAGU333288
6		Model Name		Solenoid Valve Cable
7		Model No		VAJ-520-3501
8		Manufacturer		MENCOM
9		Supplier		MENCOM
10	TECHNICAL DATASHEET LINK	Manufacturer Datasheet URL		https://d2i37d29h80q1n.cloudfront.net/CS-910-809.pdf
11	Notes:			
12				
13				
14				
15				
16				



TRANSMITTAL NOTICE

PROJECT TITLE:	5000225027 Deep River, ON
CONTRACT NO.	SUBMITTAL No. :
	5000225027-VWT-TRN-0004
SENDER: Veolia Water Technologies Canada inc 4105 Sartelon Saint-Laurent, Qc H4S 2B3	RECIPIENT: Amy Seymour David McCarthy Bradley Young Mohamad Alzayed

Reference	Revision	Title	Purpose of Issue	
5000225027_IOM_6200_HYDP_VWT	1	Installation Manual - Polymer Preparation System	For approval	

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ISSUED BY	
NAME :	Lina Morrone
DATE :	04 November 2025

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For approval	Pour approbation	For approval
For information	Pour information	For information
For installation	Pour installation	For installation
For construction	Pour construction	For construction
Final 100%	Final 100%	Final 100%
As Built	Tel que construit	As Built



HydraPol™ Compact

HP500C / HP1000C

Polymer Preparation System

Installation, Operation and Maintenance Manual

Document No: IOM_6200_HYDP

Product Version: 1

Revision: 6

Date: July 2025

WATER TECHNOLOGIES

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1 INTRODUCTION

This document provides handling, storage, installation, operation and maintenance instructions for the HydraPol™ Compact polymer preparation system. The components of the HydraPol™ Compact are supplied by Veolia Water Technologies Canada (**VWTC**).

To obtain any additional information regarding characteristics or instructions on this equipment, please do not hesitate to contact us.

The system was designed in Canada by:

Veolia Water Technologies Canada
4105, Sartelon
Saint-Laurent, QC
Canada H4S 2B3
Phone: 514-334-7230
Fax: 514-334-5070

For technical support or service needs, for spare parts or to get assistance during your warranty period, you may contact us at the following number during regular business hours or write us at:

Veolia Water Technologies Canada After Sales Support

1-844-SER-VWT9 | 1-844-737-8989 | vwtservicecanada@veolia.com

Our business hours are from
Monday to Friday
8:30am to 5pm EST

2 SAFETY

2.1 INTRODUCTION



It is important that the operator has understood the instructions of use, security and maintenance before using the HydraPol Compact system. The manufacturer cannot be held responsible for use or improper maintenance resulting from a breach or non-compliance with instructions. The Operation and Maintenance manual contents must be kept permanently close to the system in a safe place.

It is important for Operations and Maintenance individuals to understand the nature of the chemicals they are working with. HydraPol Compact systems are for the preparation and dosage of different chemicals, some of which can pose extreme slip/trip hazards if spilled. Other chemicals create fine dust and pose a risk to respiratory health.

The safety rules and guidelines issued to the operators are the primary precautions that are necessary for the prevention of accidents. The operators should be very familiar with these rules. The safety pictograms used in the plant are to be respected at all times.



Operators should always wear the safety equipment that is provided or required by their management. Such items as hard hats, safety shoes, safety glasses, gloves, breathing protection, protective clothing, protection harness and hearing protection are very basic and go a long way in preventing accidents.

Operators should be aware of the location of eye wash stations, safety showers, self-contained breathing apparatus, first aid stations, and other safety equipment furnished for the plant.



Good housekeeping will also eliminate safety hazards such as tripping or slipping. When spills happen, the floor should be cleaned as soon as possible (see Chemicals Hazards section).

2.1.1 Utility Hazards

Utility hazards exist on a system including high-voltage electricity, pressurized water, and high pressure air. Care should be taken when utilizing this system.

2.1.1.1 Electrical



Electrical connections must be made by certified electricians in compliance with all applicable codes and regulations. Electrical equipment should never be worked on unless it is turned off and locked and tagged out. The lockout system key should belong to the person doing the repair or the on-site electrician. This will remove the potential danger for electrical shock or accidental start-up.

Even though most electrical motors and switch boxes are designed to be water tight, the presence of water around electrical equipment always presents a hazard and therefore should be used with care.

2.1.1.2 Pressurized Water



Only the proper pressure fittings should be used in the piping system. Leaks should be repaired as soon as possible. Isolation valves on piping that are being repaired should be shut tight and locked out. Lock out the water inlet and remove pressure before starting any maintenance.

2.1.2 Equipment Hazards

2.1.2.1 Rotating Parts



General instructions

Since the system includes equipment with rotating parts (Dry polymer feeder and mixer), operators should avoid wearing loose clothing and jewellery. Loose clothing can present one of the biggest safety hazards that exist when working near equipment in process.

Dry polymer Feeder

- Never introduce hands into a running micro-batch feeder.
- Never open the inspection hatch when the feeder is running.
- It is however necessary fitting upstream the machine a fix safety grid or a hopper high enough to prevent damages to limbs according to the Machine Directive in force. The same approach is necessary for the outlet: it is required using a vertical outlet or similar systems meant to prevent foreign bodies from entering the machine and cause damage to it, to persons or to their limbs. Always ensure the Machine Directive in force is being followed.
- Lock out the system before starting any maintenance.

Mixer

- Never introduce hands into the preparation tank if the system is not locked out.
- Lock-out the motor starter before starting any maintenance.

2.1.2.2 Operation and Maintenance

The system in its normal use can present a hazard if not operated or repaired in a safe manner.

All equipment should only be operated and repaired according to the recommended procedures of the manufacturer, and by qualified individuals.

Only recommended spare parts should be used.



Maintenance on pumps, piping, etc. should be performed only after valves are locked and tagged or slip blanks are installed to completely isolate the equipment being worked on. Instrumentation and controls should always be kept in good working order to help assure the safe operation of equipment. Never remove instruments or controls out of service until having communicated with the operator and have established a plan to define the operation maintenance steps. If air operated valves are used for isolation, the air line should be removed to prevent inadvertent operation of the valves. When possible, the valve can also be locked in position.



When maintenance is finished on equipment, the protective caps provided must be reinstalled. If a protection must be left off, unwary personnel should be notified by using safety pictograms or installing temporary protection. Equipment should never be inspected or maintenance attempted while the equipment is operating. All pumps and various automatic valves may cause harm to an operator if care is not taken.

2.1.3 Chemical Hazards

Dry Polymer Material Safety Data Sheets (MSDS) should be available close to the system.

Since chemicals or chemical dosage are used during normal operation of treatment facility, the risks of exposure to toxic chemicals or chemical burns are present.

All plant personnel should be required to wear proper protective clothing when handling or working near these chemicals. A minimum wardrobe should include, but not be limited to, a plastic hard hat, coat, boots and gloves of a resistant material as well as a pair of safety glasses. Safety glasses, even with shields, are not adequate for use in areas where very acidic or basic materials are handled.

In the presence of water, polymer becomes very slippery. Spill recovery or remediation kits that include cat litter, rock salt and absorbent pads are very helpful in preventing trip/slip risks that result from polymer spills. In case of spill, wear appropriate personal protective equipment. Ventilate area. Prevent material from entering sewers, remove as much dry polymer as possible with a vacuum.

If the polymer has been wetted, the operator will remove as much as possible the wet polymer with a can and then, he will add an absorbent material (cat litter). He will let it soak it up for a while before he will shovel it into a disposal container. After the spill has been dried then a floor drain will allow washing the containment with a hose garden (warmest water possible).

3 SHIPPING

Most of the equipment and material for this project will be drop shipped from **VWTC** facilities and delivered directly to the site.

- All items delivered will be clearly identified with **VWTC**'s name, **VWTC**'s project name, **VWTC**'s project number.
- All shipments will have a clear Packing List identifying all parts in the shipment.
- All equipment will be tagged with the corresponding tag numbers shown on the design drawings (if applicable).

If there are more stringent requirements in the contract documents, they will take precedence over the above. If any of these requirements are not being followed, please notify the **VWTC** Project Manager immediately.

4 RECEIVING

The condition of all delivered equipment must be verified by the responsible party upon arrival at site. Verification that all equipment has been delivered as per contract must also be done upon arrival at site. Notification of missing or damaged items must be sent to Veolia Water Technologies Canada within five (5) working days of receipt of equipment. If there is no documented notification of missing or damaged parts within five (5) working days, Veolia Water Technologies Canada is not responsible for replacement of any items found to be missing or damaged at the time of installation and start-up of the supplied equipment. It is the responsibility of the party receiving the equipment to ensure all packaging is opened at the time of receipt to uncover and document any and all damages to the Freight Company and Veolia Water Technologies Canada.

Photographs and written documentation should be provided for all damaged equipment.

5 HANDLING

5.1 GENERAL

Equipment will arrive at the project site in a single shipment and its structure can be handled with a forklift. Typically, a flatbed truck is used which requires a fork lift or a crane to remove the items.

The Contractor is responsible for unloading and handling the equipment.

5.2 STAINLESS STEEL MATERIAL HANDLING

In order to minimize potential corrosion damage or unsightly surface marking, measures shall be taken to prevent contamination by iron, aluminium, copper, chlorides, and sulphides from lifting equipment. Stainless steel slippers or wooden packers should be used on forklift trucks to prevent contamination. Any resultant incidental contamination shall be removed at the earliest opportunity.

6 STORAGE

6.1 GENERAL

The following instructions outline the duties and responsibilities of the responsible party for equipment storage. The responsible party shall assume responsibility for the equipment upon arrival at the project site. These instructions shall define the minimum expectations for storage of all equipment. While this storage specification takes into account common environmental issues that may affect the system during storage, common sense should be the overriding factor in determining the best method to ensure the integrity and proper storage of the **VWTC** equipment.

For contractual purposes, **VWTC** demands the Client to send pictures of major equipment once it is placed in storage, any time it gets moved during storage and again prior to removing from storage. For outside storage, pictures must be sent every month. Alternatively, a written document (check list, etc.) confirming that proper storage conditions are maintained will suffice. Failing to do so would cancel the proposed warranty.

Should it be necessary to delay installation and subsequent operation of a unit for more than one month from date of receipt at Site, special precautions must be taken.

Although some equipment can be stored outdoors, indoor storage is preferred for most equipment.

The storage environment into which a system is placed can have a severe effect on the long-term usefulness of some parts. Key environmental factors are:

- Temperature
- Relative humidity
- Pollutants

Air may contain excessive moisture, pollutants, microorganisms, and other particulates that accelerate the deterioration of some materials. Humidity and pollutants can produce an aggressive atmosphere.

Indoor storage refers to storage in a climate-controlled environment in a clean, non-aggressive, dry (non-condensing) and sheltered environment having a relatively constant temperature (especially for gear reducers, motors, bearings, etc.). Storage volume depends on the size of the project.

The environmental indoor conditions should not exceed the following ranges:

Min/Max Temperature Range between: 5° - 40°C
Relative Humidity (RH) Range between: 35% - 70%

1. Equipment should be stored in such a manner that it is free from allowing insects/rodents etc. from entering the equipment.
2. Cover the equipment with a tarp or similar protective shield to prevent direct exposure to dust or any other contamination. However, never enclose the unit or components totally in plastic covers; always leave adequate ventilation of air to prevent condensation.

Equipment must be checked on a weekly basis for tarp/wrap integrity and accumulation of dust or contaminants.

To avoid damage, do NOT stack crates.

To avoid damage, do NOT stack enclosures.

Do not store equipment or spares parts in barns, equipment sheds, or any other building without the capacity for heating and cooling as needed.

6.2 STAINLESS STEEL MATERIAL STORAGE

Stainless steel materials and products shall be stored separately from carbon steels and nonferrous materials. Materials should be stored under conditions that minimise the accumulation of dust and deposits. Any resultant incidental contamination shall be removed at the earliest opportunity.

6.3 SPECIAL MAINTENANCE REQUIREMENTS DURING STORAGE

After three (3) months of storage, long term storage methods must be applied to the unit including complete fill with lubricant. Protect machined surfaces and rotate shafts periodically (every month). Five (5) complete rotations of the output shafts are recommended each time.

Periodic checks should be made to ensure that no rusting or other damage has occurred. Should such be noted, corrective action should be taken immediately. Prior to putting the unit into service, drain lubricant and refill to the proper level as determined by the mounting position. Refer to manufacturer documentation.

All motors must be run every 3 months as a preventive measure against the formation of corrosion.

6.4 EQUIPMENT CLEANING

VWTC is not responsible for cleaning of any equipment prior to installation and start-up due to the storage of the equipment. This is the complete responsibility of others.

7 HYDRAPOL PRINCIPLE AND DESCRIPTION

7.1 POLYMER HYDRATION PRINCIPLE

Dry polymers must be diluted with water before use. The HydraPol Compact system is designed to handle all kind of dry polymer encountered in water treatment application (cationic, anionic and non-ionic). The uses of the HydraPol Compact polymer make up system allow activating between 90% and 100% of the dry polymer and help to minimize shipping and handling costs.

The challenge of dry polymer wetting is that the best activation each dry polymer particle should be wetted individually. When a clump of particles is wet, it forms an agglomeration called fisheyes that will dissolve slowly.

To avoid large agglomeration, the first polymer wetting and dilution must be done with a ratio between the service water and the dry polymer dosage. The wetting cone is designed for an optimal dissolving of dry polymer. The whirl created in the cone a high shearing stream that allows the polymer dispersion. After the powder dosage it cleans the cone. After the fast dispersion, the polymer hydration starts by forming a gel layer all around the polymer particles.

This dilution ratio is different depending on the type of polymer and the particle size. Anionic polymer must be more diluted than cationic polymer (see Table below).

The wetted polymer needs an aging time to reach its full activity; this aging time depends also on polymer type.

Polymer Powder	First Dilution	Aging Time
Anionic	0.2% – 0.25%	60 – 90 min
Cationic	0.3% – 0.5%	45 – 60 min

The polymer hydration changes its properties:

- Increase in molecule weight
- Charge interaction increase molecule size
- Entanglement in molecule increase viscosity
- Increase of conductivity

Dry polymers are susceptible to caking if stored under humid conditions. Caking interferes with the dilution process. It is recommended to store dry polymer in dry environment and respect powder life time.

7.2 SERIES OF MODELS

7.2.1 Comparative Table of Models

The range of HydraPol Compact 500 and 1000 includes three groups of options C1 / C2 / C3 whose differences are described in the following table:

EQUIPMENT DESCRIPTION	HYDRAPOL COMPACT MODELS		
	C1	C2	C3
Mixer motor voltage	WEG – 230V/1Ph/60Hz		Nord 575V/3Ph/60Hz or 460V/3Ph/60Hz
Dry feeder voltage	Baldor – 230V/1Ph/60Hz		Baldor 575V/3Ph/60Hz or 460V/3Ph/60Hz
Dry polymer hopper loading	Manual	Vacuum	
Detection of hopper low level	No	Yes	
Automation	AB Micro850		AB CompactLogix L16
User interface	2711R PanelView 800 HMI 4 inch		PanelView Plus 7 STD Terminal 7 inch
Panel electrical power	230V/1Ph/60Hz (25 A)		575V/3Ph/60Hz (15 A) or 460V/3Ph/60Hz

7.2.2 Technical Data Sheets

If this polymer preparation system is integrated to a processing plant, refer to Technical Data Sheets in the Technical Documentation section of the Operation and Maintenance Manual of the processing plant.

7.2.3 Process and Instrumentation Diagram

If this polymer preparation system is integrated to a processing plant, refer to the Drawings section of the Operation and Maintenance Manual of the processing plant.

7.2.4 General Arrangement Drawings

If this polymer preparation system is integrated to a processing plant, refer to the Drawings section of the Operation and Maintenance Manual of the processing plant.

7.3 COMPONENTS DESCRIPTION

The components of the HydraPol Compact system provide four main functions:

- Dry polymer storage and dosing
- Polymer wetting and transfer to the maturation tank
- Polymer maturation
- Polymer solution storage

7.3.1 Dry Polymer Storage and Dosing

7.3.1.1 Hopper with Manual Loading (or optional vacuum system)

A storage hopper can hold 75 L of dry polymer and is located above the feeder. The hopper can be either manually loaded or with an integrated vacuum system to transfer polymer from dry bulk bags or other containers to the HydraPol Compact system.

7.3.1.2 Volumetric Feeder

WAM, model MBW, is a volumetric feeder that doses a dry material at a constant rate. The feed screw is made of SINT™. The feeder includes, at the outlet, a T nozzle which directs the flow of the material, allows for isolation of the dosing screw, and has an inspection window where the powder dosing can be observed. In the case of a HydraPol Compact C3, the feeder contains a low level switch, preventing the volumetric feeder from running when empty.

The feeder is also composed of a plunger which closes the T nozzle (at the exit of the feeder) of the wetting cone. The operation of this device is controlled by a solenoid valve that allows a flow of compressed air to the cylinder.

7.3.2 Polymer Wetting and Transfer to the Maturation Tank

7.3.2.1 Isolation Valve

An isolation ball valve is placed at the entry of the system to close the water inlet to the HydraPol Compact. Two (2) others valves (shipped separately) are placed at the outlet of the storage tank to drain or to close the conduit of the system. The valve is made of PVC with EPDM seals.

7.3.2.2 Solenoid Valve

Two solenoid valves are placed in the system. The first valve monitors the pressure of the inlet to the service water line. When the switch detects a fault, a switch commands the solenoid valve to close.

The second valve (4 way) is used to let the compressed air go into the cylinder that triggers the opening of the feeder dispenser door.

7.3.2.3 Service Water Pressure Switch

The pressure switch activation will trigger an error message and close the service water inlet valve if the inlet pressure is below its set point.

7.3.2.4 Pressure Gauge

The gauge is used to read the water inlet pressure.

7.3.2.5 Wetting Cone and Eductor

The wetting cone is a device that wets the metered powder and prevents material accumulation in the cone at the feeder output. It includes a tangential inlet to the cone that is controlled by a manual ball valve. It is very important to have the right amount of flow from this inlet into the cone to avoid having too little flow and a resulting accumulation of half-dry powder. However too much flow is also an issue, as it can cause water to splash up out of the cone and into the T nozzle. A 2nd manual ball valve is provided to control the service water flow through a vortex breaker "needle" aimed at the side of the wetting cone. This vortex breaker water jet is adjustable and should be aiming at the wetting cone upper wall to prevent air entrainment in the polymer solution.

An eductor, installed at the bottom of the wetting cone, will vacuum the powder into the water flow hydrolyzing the polymer powder.

7.3.2.6 Check Valve

A check valve is placed after the output of the eductor. It prevents the return of the solution into the wetting cone when the system stops.

7.3.2.7 Level Switch (available on C3 model)

A level switch is installed in the hopper to signal the operator and stop the system when the level of powder becomes too low.

7.3.3 Polymer Maturation

7.3.3.1 Preparation Tank

The cubic preparation tank, made of stainless steel, allows the maturation process of the polymer solution. As stated in section 7.1, this timing depends on the volume of the batch, type of polymer and

dosage. The tank cover includes an access trap made of polypropylene. A ball valve is installed at the bottom of the tank to allow the transfer of the polymer solution to the storage tank. A hydrostatic pressure transmitter is installed at the bottom of the tank to measure the level in the tank. An overflow is installed at the top of the tank.

7.3.3.2 Mixer

A mixer is installed on the cover of the preparation tank to allow maturation of the polymer solution. During the batching sequence, the mixer does not begin to run until the water level has reached the impellers. This level is set during commissioning and also dictates the point during the batching sequence when the volumetric feeder begins dosing.

7.3.3.3 Ball Valve

An electrically actuated ball valve allows the polymer solution transfer from the preparation tank to the storage tank.

7.3.3.4 Pressure Transmitter

A hydrostatic pressure transmitter installed at the bottom of the tank measures the level in the tank. This level is set on commissioning and is integral to the batching sequence.

7.3.4 Polymer Solution Storage

7.3.4.1 Storage Tank

The rectangular storage tank, made of polyethylene, allows the storage of the polymer solution. A support structure mounts the preparation tank above the storage tank.

7.3.4.2 Pressure Transmitter

A hydrostatic pressure transmitter installed at the bottom of the tank measures the level in the tank. This level is set on commissioning and controls when the batch in the preparation tank is transferred to the storage tank. In case of very low level in the storage tank, an alarm is transmitted to the automaton.

7.3.4.3 Control Panel

A control panel allows the fully automated system operation. It also allows the transmission of alarm signals to an external system.

8 INSTALLATION

8.1 SERVICE WATER

The HydraPol Compact system needs a clean water supply for the polymer activation a clean water supply. This water must meet quality criteria. The installer must connect the water supply as indicated on the general arrangement drawing.

8.1.1 Flowrate and Inlet Pressure

It is important to respect the flow rate and pressure of 5,2 m³/h at 65 psig to ensure proper system operation. These conditions must be met as a requirement for starting a batching sequence. When setting these inlet water standards, the dynamic head losses have to be taken into account. Non-compliance can lead to overflows at the wetting cone or plugging of the wetting cone due to improper blending. Inlet pressure is not to exceed 120 psig working pressure and must exceed 65 psig.

Please note that a reducer should be installed upstream of the service water inlet tie-point to minimize dynamic head losses in the piping section(s) upstream of the polymer makeup system.

8.1.2 Water Temperature

The water temperature for the polymer make-up must preferably be between 10°C and 30°C. The ideal temperature is 15°C.

8.1.3 Water Quality

The service water should have preferably a low residual chlorine content ($<0.5 \text{ mgCl}_2/\text{L}$). Chlorine can quickly deteriorate polymer solutions and thus reduce their effectiveness. Water having a high content of hardness ($> 300 \text{ ppm CaCO}_3$) or alkalinity ($>75 \text{ ppm}$) should also be avoided.

Parameter	Impact	Upper Allowable Limit
Total Hardness	High hardness causes precipitation in makedown vessels (most prevalent in high charge products)	$<300 \text{ mg/L as Ca CO}_3$
pH	Low pH causes precipitation in makedown vessels	Makedown water pH in range of 6.0 to 8.0
Conductivity	High conductivity slows dissolution and reduces viscosity Low conductivity slows dissolution and reduces viscosity	$< 10,000 \text{ }\mu\text{S/cm}$ See following notes on conductivity
Chloride	No specific impacts distinct from that of conductivity as indicated above.	None specified. Refer to Conductivity limits.
Suspended Solids	High TSS promotes flocculation in makedown tank. Possible plugging of feed system.	$< 5 \text{ mg/l}$ (filtration at $100 \text{ }\mu\text{m}$).
Temperature	Warmer water promotes dissolution. Low temperature result in increased mixing time and potential for incomplete dissolution. Higher solution viscosities develop in low temperature solutions.	10 to 30°C
Metals(Fe^{2+} , Cu^{2+} ...)	Cleavage of polymer chain and loss of activity.	$< 1 \text{ mg/l}$ each
Residual Oxidant	Degradation of polymer chain.	$< 0.5 \text{ mg/l}$
Microbiological Activity	Degradation of polymer chain	$< 10^3 \text{ CFU/ml}$ aerobic or SRB

8.1.4 Feeder Dispenser Actuator Compressed Air Requirement

The HydraPol Compact system comes with a feeder dispenser door actuator (cylinder) that functions with the motive pressure of compressed air that must be instrumentation air quality (free of oil, dust and humidity) with a pressure between 30 and 60 psig.

8.2 RECOMMENDED ARRANGEMENT

The installation should be performed by qualified personnel.

Select a location providing:

- An easy access to the system and an easy polymer handling.
- At least a clearance of one meter in front of the electrical panel.
- At least 72 inches of clearance behind the feeder for the maintenance.

In the presence of water, polymer becomes very slippery, it is recommended to take this hazard into account in the equipment layout.

It is recommended:

- To build a curb all around the area or install a plastic secondary containment.
- To secure the access to the top of tanks without entering into the secondary containment.
- To install a resistant coating and easy-to-wash on floors and curbs.
- To install tempered water hose close to the system.
- To install a closed floor drain in the secondary containment into which deteriorated polymer and the total volume of the HydraPol tanks can be emptied.
- To design a concrete pad under the polymer tank to avoid flood damage to the instruments.
- To do not install equipment in areas of extreme heat, cold, dust or humidity. Avoid areas where objects or fluids can drop from overhead. Units are to be installed as close to the point of application as possible.

After selecting the optimal location, the installer will:

- Unpack the components.
- Install the preparation tank above the storage tank (if any) on a sturdy level surface. Fasten to prevent movement.
- Position powder dosing skid as the corresponding drawings on a sturdy level surface. Fasten to prevent movement.

8.3 PIPES CONNECTIONS

The installer has to connect the following pipes:

- Service water inlet.
- Tank overflow and drains (they should be directed to an appropriate location according to local regulations).
- Glue the 2 PVC isolation valves at the outlets of the storage tank that were shipped separately to avoid damage.

8.4 ELECTRICAL REQUIREMENT

Electrical connections and maintenance must only be performed by qualified personnel. Electrical elements have to be connected according to local regulations. The HydraPol Compact system is usually provided with its own control panel.

The electrician has to connect the main power supply of the control panel:

It is recommended to ground the dosing system frame.

9 INSTALLATION AND PRE START-UP INSPECTION

9.1 PRE-OPERATIONAL CHECKOUT

Included in appendices of this manual are standard **VWTC** checklist forms to be completed by the installer and returned to **VWTC** project manager prior **VWTC** onsite installation inspection. **VWTC** will schedule our field service visits prior to return of completed checklists but it is our policy to not dispatch field personnel to the jobsite until the completed and signed checklist is received by our project manager or field service manager.

9.2 START-UP CHECKOUT

9.2.1 Mechanical, Electrical and Control Start-Up

The mechanical and electrical start-up of the polymer make-up system includes the connection, verification and inspection of the following elements:

- Mounting
- Motors
- Mixers
- I/O Check
- Tubing and process connections
- Power connections and supply
- Valves
- Instrument calibration

9.2.1.1 Initial Checking and Adjustment

Prior to calibration the following elements will be verified:

FUNCTIONAL START-UP CHECKOUT	
Vacuum	Check that the air filter is in place.
	Check suction of the system. Do not put your hands on the suction nozzle.
Feeder	Check whether foreign substances or water have entered the feeder. In such a case, clean thoroughly.
	Avoid any friction between the metering screw and the body. This requires opening the hopper and removing the T nozzle. Inspecting the screw/auger to be sure that it is flush with the walls of the hopper and inside the T nozzle is very important because removing the material can be difficult and risky.
	Check that the inspection hatch is closed (stainless steel feeder only).
	Check oil level in gear reducer.
	Check that the metering screw rotates counter clockwise when looking from the rear of the drive unit.
	Check that the feeder is working properly.
	Minimum speed and maximum speed must be verified.
Wetting Cone	Check that the wetting cone is completely clean and free from dirt or foreign objects.
	Check that the water flows tangentially into the cone.
	Ensure that the water speed is sufficient to create a vortex.
	Ensure that water speed is not too great to create splashing up into the T nozzle.
	Check that the metered powder falls vertically in the middle of the wetting cone.
Eductor	Check that the eductor is completely clean and free from dirt or foreign objects.
	Check that the service water pressure is higher than 65 psig in operation.
	Check that the eductor is working properly.
Piping	Check that the pipework is completely clean and free from dirt or foreign objects.
Manual valves	Check that all manual valves are working properly.
	The manual valves control the whirl and blending of the powder. Ensure that the flow is appropriate.
Automatic valves	Check that all automatic/electric valves are connected to the control panel.
	Check that all automatic/electric valves are working at proper times and the limit switches are set.
Instruments	Check that all instruments are properly calibrated.
	Check that all instruments are properly installed.
Pressure switch	Check that the pressure switch works properly by closing the water inlet valve.
	Check that the pressure switch is connected to the control panel.
	Check that the pressure switch works properly.
	Check the pressure gauge is working correctly.
Mixer	Check all bolts and nuts are properly tightened.
	Check the oil level in the gearbox.
	Check if installation of the mixer shaft is adequate.
	Check the direction of rotation of the agitator.
	Adjust the motor overload protection to the value shown on each motor nameplate.
	During start-up, listen for unusual noises and check for excessive vibration.
	Check the temperature of the motor and the gear reducer. The temperature should not exceed 180°F (82°C).
Level transmitter	Check the calibration of the level transmitter.

9.2.2 Hydraulic Test

Due to the nature of the materials used in the HydraPol Compact systems, it is important that the hydraulic integrity of the system is verified even before the Control Start-Up is performed. The hydraulic inspection and testing is comprised of the following elements:

- Connect all fittings and walk the piping to be sure that the hydraulic pathway meets operational specifications.
- Verify that the service water system is ready to provide water and that the client is ready to accept water into their downstream system.
 - NOTE: this step is of extreme importance as during the construction phase, often communication with other workers is complicated and difficult. Be sure that you yourself check the discharge point and that no one is working in the area and that all risks are mitigated.
- Briefly allow water through the system by manually operating the valves. Check for leaks. Provided no leaking or loose connections are found, continue to the next step.
- Verify that the preparation tank and storage tank are clean and have head space to accept a few minutes of water. Manually operate the valves and booster pumps to allow for the operational pressure of the system is met. Walk the HydraPol Compact to verify that all tubing fittings are tight, that the T nozzle plunger is pulled back, and that the whirl in the wetting code is adequate.
 - NOTE: this step is of importance. If the whirl of the wetting cone is not adequate, then the wetting cone will clog with polymer and the clean-up will take hours.
- Allow the preparation and storage tank to fill with service water. Check that the level set-points give the desired volume for the sequencing and batching in the Process Start-Up section.
- Stop the system and do a final walk-through of all hydraulic and mechanical integrity.

9.2.3 Control Start-Up

The control start-up for the polymer make-up system include; connection, verification and inspection of the following elements:

- The alarms, start-up and shut down of the motors.
- The transmission of the electric signals of the different components as well as their configuration parameters if needed.
- The pumps alarm transmission to the plant system.
- I/O verification of instrumentation.
- Sequencing.
- The proper functioning of the electrical and process alarms.
- The variable frequency drives connection.
- The control panel.
- Other elements of control, if required.

Start-up and shut down sequencing will be checked:

- Normal start and stop sequencing.
- Alarms stop sequencing.
- Clearing alarms and restarting the process.

9.2.4 Process Start-Up

Once the mechanical, electrical, hydraulic and control start-up of the preparation system have been completed, the equipment commissioning can begin. The following steps will be performed.

9.2.4.1 Screw Calibration Procedure

Tests will be performed using water for the initial testing and the specific chemical for the final test.

- Calibration of the dosing screw at minimum, full range and intermediate speeds to set the functional output curve.
- Preparation unit concentration and dosage settings.

Powder polymer is injected into a preparation tank using a dosing apparatus. The apparatus operating time is calculated based on its capacity and the desired concentration.

9.2.4.1.1 Dosage Calculation

The operating dosing time is calculated based with the following formula:

$$T_s = \frac{CONC \times ((LEV_{stop} - LEV) \times SURF)}{CAP} \times 60$$

T _s :	Dosing apparatus operating time (sec)
CONC:	Polymer concentration adjustable to operator interface (g/l)
LEV:	Preparation tank current level (m)
LEV _{stop} :	Preparation stop level set point (m)
SURF:	Preparation tank surface (m ²)
CAP:	Dosing apparatus capacity adjustable to operator interface (kg/min)

Note: This formula may also be used to perform a manual preparation in case of automatic system failure. To ensure dosing accuracy of the tank, capacity must be validated by the operator.

9.2.4.1.2 Feeder Capacity

The feeder capacity must be checked by weighing the discharged amount of polymer powder/time.

The operator must repeat four (4) times the following procedure:

- Hold a sample shovel just under the outlet of the powder feeder.
- Then turn the switch for FEEDER to position H for a specific time.
- Weigh the contents in the sample shovel.

EXAMPLE (dry polymer):

Obtained value 2000 g/20 sec = 6 kg/min = feeder capacity

Assume that 0,3% concentration is to be mixed in a 400 L tank (see the actual value on the data sheet). The amount needed for each batch will be:

$$\frac{0.3 \times \text{Size of tank (dm}^3\text{)}}{100} = \frac{0.3 \times 400}{100} = 1.2 \text{ kg}$$

The dosing time of the powder feeder will then be:

$$\frac{1.2 [\text{Amount of polymer in kg}]}{6 [\text{Capacity of feeder in kg/min}]} = 0.2 \text{ minute}$$

This dosing time is set on the interface. Record the test procedures and test results/settings within the manual.

9.2.5 Process Start-Up Records

The personal in charge of the commissioning will furnish inspection sheets for equipment including:

- Project name
- Tag number and description
- Manufacturer
- Model and serial number
- Date, time and person who will perform calibration
- Calibration data to include:
 - Input, output and error at minimum, intermittent and maximum output range
- Space for comments
- Certification by installer and acknowledgment by contractor and date
- Adjustment of the service water flow rate and pressures (if required)

10 TROUBLESHOOTING GUIDE

COMPONENT	ISSUES	POSSIBLE CAUSES	ACTION
SERVICE WATER INLET	Service water low pressure.	Service water feed system low pressure.	Inspect service water system and booster pumps.
		Obstruction.	Clean pipes.
VACUUM	Reduction of the suction capacity at the vacuum filling of the polymer powder.	Clogging of the dust filter.	Remove the external filter and clean. Verify that the lid and viewport have no leaks.
		Max level in the powder hopper is exceeded and/or malfunctioning level sensors.	Stop the filling. Inspect the feedback from level indicators. If not reflective of material's level, inspect wiring and ability to detect material.
		The feeder shutter at the outlet of the feeder is not shut.	Filling must not be done while the feeder is operating. Wait until the feeder has stopped.
WETTING CONE	Clogging of the wetting cone.	The feeder shutter at the outlet of the feeder is not shut.	Check the function of the solenoid valve to the feeder shutter, or clean the shutter from possible polymer powder clogging.
		The water whirl in the wetting cone is too small.	Check water pressure.
FEEDER	Feeder does not run.	No power to the feeder.	Check the button or the on / off switch of the machine is turned on.
			Check that the isolating switch is in the on position.
			Check that the inverter is not set to 0 Hz.
			Check if there are short circuits, blown fuses or tripped breakers.
			Check that the power supply corresponds to control and motor requirements.

			Check if there are error messages in the drive controller screen.
	Feeder screw is damaged.	Foreign body inside feeder.	Remove foreign body and replace damaged components
	Feeder screw stops.	Hygroscopic material inside feeder has absorbed humidity.	Unload feeder completely when shutting down for long periods.
	Feeder – Rotating components unscrewed; no material handled.	Motor incorrectly wired.	Rewire (metering screw must turn counter clockwise when viewed from behind drive unit).
	Feeder – Sticking of hygroscopic products; Agglomeration of viscous materials; Contamination of the product.	Long shutdown period.	Unload feeder completely when shutting down for longer periods.
	Feeder makes scraping or grinding noise.	Foreign body inside feeder. Poor alignment of gearbox, hopper wall welding.	Visually inspect the hopper and the level of the auger by removing the T nozzle.
	Feeder dispenser door does not open.	Feeder dispenser compressed air does not meet requirements described in section 8.1.4.	Verify if actuator tubing on the feeder dispenser is clogged or show signs of corrosion. Clean the tubing and perform a dispenser door open test by manually actuating the 4-way solenoid while the compressed air line is connected. If the test doesn't work, replace damaged parts and ensure feeder dispenser actuator compressed air quality complies with section 8.1.4.

TANK	Maturation tank or storage tank overflow.	Level transmitter default.	Inspect level transmitter.
	Incorrect concentration of the polymer solution.	Wrong dosing time set point	Calibrate the dosing screw and adjust parameter.
		Polymer density change.	Calibrate the dosing screw and adjust parameter.
TRANSFER VALVE	Transfer valve not closing tight.	Debris present in the valve.	Remove the foreign object and check for possible damages.
		The adjustment of the travel stop is incorrect.	Adjust the actuator travel stop according to the manufacturer's instructions.
		Prepared polymer solution concentration is too high	Adjust the concentration

Note: If the preparation sequence is interrupted by a power failure or by component failure then the current polymer batch will be lost and will have to be drained. Broken components will have to be replaced before starting a new polymer batch.

11 MAINTENANCE

Any manipulation of metering equipment and chemicals should be done by qualified and trained personnel. Refer to product MSDS for safe material handling.

ITEM	DESCRIPTION	WEEKLY	MONTHLY	BI-MONTHLY	YEARLY	COMMENTS
MIXER	Gearbox visual inspection and noise	X				
	Check gearbox oil level	X				
PREPARATION TANK AND STORAGE TANK	Empty storage and preparation tanks. Check the presence of foreign matter at the bottom. Clean if necessary.				Every 6 months	Dispose of chemical residues appropriately
PIPING	Check for leaks.	X				
	Rinse pipes with lukewarm water.				Every 6 months	
LEVEL TRANSMITTER	Calibrate on a regular basis and / or when readings become inaccurate (specific to each type of use).				Every 6 months	
FEEDER	If the feeder uses MBTX, MBTN or MBTT type shaft seals, check these on a monthly basis to make sure they are in good working condition.		X			Grease monthly
DISSOLVER CONE	Inspect the cone for the presence of polymer agglomeration. In case of loss of suction, remove and clean eductor with hot water. Inspect weekly to ensure that there is no accumulation of polymer or fouling and, if necessary, clean by draining the cone and the eductor with water.	X				
VALVES	Inspected and clean if required. Refer to supplier's maintenance manual.				Every 6 month	
DOSING SKID FRAME	Check the appearance of the structure, paying particular attention to the state of welds.		X			
	Check that all bolts are correctly tightened.		X			

11.1 LUBRICATION

- Refer to the following table for the lubrication schedule.
- Refer to manufacturer equipment manual for complete lubrication, inspection and maintenance requirements.

11.1.1 Lubrication schedule

Equipment to be serviced	Component serviced	Type of lubrication	Lubricant manufacturer	Lubricant brand name	Quantity of lubricant	Lubrication schedule	Comments
Dry feeder (WAM)	MBTT shaft seal	Food grade grease	Total	Nevastane XMF 2	2mL for MBTT2 4 mL for MBTT3	Add grease once a month	N/A
	Reducer box	N/A	N/A	N/A	N/A	N/A	Varvel reducers are sealed and lubricated for life.
	Motor bearings	N/A	Mobil	Polyrex EM	5 mL (1 teaspoon)	Regrease every 12,000 hrs.	For bearing 6203 on shaft end

Table: Dry feeder lubrication schedule

Equipment to be serviced	Component serviced	Type of lubrication	Lubricant manufacturer	Lubricant brand name	Quantity of lubricant	Lubrication schedule	Comments
Mixers (VWTCA)	Motor bearings	N/A	N/A	N/A	N/A	N/A	The bearings are sealed for life. No additional lubrication required.
	Reducer box	N/A	N/A	N/A	N/A	N/A	SK0182.1, SK0282.1 are maintenance free and lubricated for life.
	Reducer box bearings	Food grade grease	Mobil	FM 222 (NLGI 2)	The bearing cavity should be packed to approx. 1/3 full with grease	Regrease bearings every 6 months	N/A

Table: Mixer lubrication schedule

APPENDIX A

START-UP CHECKOUT CHECKLIST
(TO BE COMPLETED BY CONTRACTOR)



HYDRA-POL COMPACT START-UP CHECKOUT CHECKLIST

Project		Date	
Structure		Revision	
Number		Doc. N°	
		Prepared by	

N°	ITEMS	X	COMMENTS
1	AUXILIARY COMPONENTS TEST PROCEDURE		
1.1	Place main disconnect to "ON"		
1.2	Put water inlet valve in manual mode "OPEN" position		
1.3	Check service water pressure when valve placed in OPEN position		
1.4	Check water whirl in wetting cone		
1.5	Adjust manual wetting cone valve for desired whirl level		
1.6	Check if service water reaches the mixing tank		
1.7	Close water inlet valve		
1.8	Verify that water pressure switch alarm activates after 100 seconds		
1.9	Open water inlet valve		
1.10	Verify that water pressure switch alarm is disabled		
1.11	Simulate, if possible, the function of powder hopper level switch (if installed)		
1.12	Start powder vacuum conveyor (if supplied)		
1.13	Check suction capacity of vacuum conveyor (if installed)		
1.14	Stop powder vacuum conveyor (if supplied)		
1.15	AUXILIARIES COMPONENTS TEST PROCEDURE COMPLETED		
2.0	WET TEST PROCEDURE		
2.1	Place main disconnect to "ON"		
2.2	Put water inlet valve in manual mode "OPEN" position		
2.3	Check service water pressure when valve placed in OPEN position		
2.4	Check water whirl in wetting cone		
2.5	Adjust wetting cone valve for desired whirl level		
2.6	Check if service water reaches the mixing tank		
2.7	Allow the water level in the mixing tank to reach 100 mm above the impellers		
2.8	Place mixer selector in manual mode "ON" position		
2.9	Confirm impeller rotation follows supplier requirement		
2.10	Put feeder discharge valve in manual mode "OPEN" position		
2.11	Check feeder discharge valve is "OPEN"		
2.12	Place feeder screw motor selector in manual mode "START" position		
2.13	Check feeder screw motor is in "RUN" mode		

N°	ITEMS	X	COMMENTS
2.14	Confirm feeder screw rotation follows requirement		
2.15	Place feeder screw motor selector in manual mode "STOP" position		
2.16	Put feeder discharge valve in manual mode "CLOSE" position		
2.17	Put mixer in manual mode "STOP" position		
2.18	Put water inlet valve in manual mode "CLOSE" position		
2.19	Put mixing tank transfer valve in manual mode "OPEN" position		
2.20	Verify that water transfers from mixing tank to storage tank		
2.21	Put mixing tank transfer valve in manual mode "CLOSE" position		
2.22	MANUAL WET TEST PROCEDURE COMPLETED		
3.0	FEEDER CALIBRATION PROCEDURE		
3.1	Place polymer powder in storage hopper		Refer to Hydra-Pol manual for specific instructions
3.2	Put water inlet valve in manual mode "OPEN" position		
3.3	Check service water pressure when valve placed in "OPEN" position		
3.4	Check water whirl in wetting cone		
3.5	Adjust manual wetting cone valve for desired whirl level		
3.6	Check service water reaches the mixing tank		
3.7	Put feeder discharge valve in manual mode "OPEN" position		
3.8	Check feeder discharge valve is "OPEN"		
3.9	Install powder test sampling collection device at feeder discharge		
3.10	Place feeder motor selector in manual mode "START" position		
3.11	Let feeder run for 2-3 minutes until steady flowrate is reached		
3.12	Place feeder motor selector in manual mode "STOP" position		
3.13	Dispose collected powder in storage hopper		
3.14	Install powder test sampling collection device at feeder discharge		
3.15	Place feeder motor selector in manual mode "START" position		
3.16	Run feeder for 1 minute and weigh collected powder sample		
3.17	Dispose collected powder in storage hopper		
3.18	Place feeder motor selector in manual mode "STOP" position		
3.19	Repeat the powder sampling procedure 4 times (1 minute for each sampling)		
3.20	Remove highest and lowest weighted values and determine feeder real capacity by calculating the average value between the three closest values		

Nº	ITEMS	X	COMMENTS
3.21	Insert feeder real capacity value in Hydra-Pol HMI (feeder calibration screen)		
3.22	Place all motor selectors on "STOP"		
3.23	Place all valve switches on "OFF"		
3.24	FEEDER CALIBRATION PROCEDURE IS COMPLETED		
4.0	AUTOMATIC START-UP PROCEDURE		
4.1	Put all valve selector switches in "AUTO" position		
4.2	Put all motor selector switches in "AUTO" position		
4.3	Check service water pressure when valve placed in "AUTO" position		
4.4	Check water whirl in wetting cone		
4.5	Adjust manual wetting cone valve for desired whirl level		
4.6	Check service water reaches the mixing tank		
4.7	Confirm that mixer starts automaticaly		
4.8	Confirm that feeder discharge valve opens		
4.9	Confirm that feeder starts		
4.10	Confirm that polymer powder is fed to wetting system		
4.11	Confirm that feeder motor stops when feeding time is completed		
4.12	Confirm that feeder discharge valve closes		
4.13	Confirm that water inlet valve closes when water level reaches "HIGH LEVEL"		
4.14	Confirm that mixer stops when mixing time is completed		
4.15	Confirm that mixing tank discharge valve opens when mixing time is completed and liquid level in storage tank is under "LOW LEVEL"		
4.16	Confirm that mixing tank discharge valve closes after transfer		
4.17	Confirm that new batch restarts automaticaly		
4.18	AUTOMATIC START-UP PROCEDURE IS COMPLETED		

APPENDIX B

COMPONENTS DATA SHEETS AND MAINTENANCE MANUALS

If this polymer preparation system is integrated to a processing plant, refer to the Manufacturer Operation and Maintenance Manual section of the Operation and Maintenance Manual for the preparation system component manufacturer manuals.

APPENDIX C

HUMAN MACHINE INTERFACE (HMI) MANUAL

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HMI Manual

VEOLIA WATER TECHNOLOGIES

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Saint-Laurent, QC H4S 2B3
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Tel: 514-334-7230

www.veoliawatertechnologies.com

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REVISION SCHEDULE

Rev	Date	Established	Review	Approved	Description
1	2019-06-11	XM	GJ	GP	Initial Version

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The operator interface has several sections that you will find below.

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Recessive symbols	4
Access	4
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2. MAIN PAGE	7
3. INFORMATION	8
4. SYSTEM PARAMETERS	9
5. TOTALIZERS	10
6. HYDRAPOL	11
Explanation of equipment location	11
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12. ALARMS	20

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GENERAL INFORMATION

Color code

- 1) Inactivated buttons or animations are dark gray.
- 2) Activated buttons or animations are white.
- 3) When errors occur, they appear in pink.
- 4) Alarms are displayed in red.

Recessive symbols

Several symbols are repeated on several pages. Here is a short introduction to these:

- 1) At the top right of the screen, the name of the user is constantly displayed.

User : JMI

- 2) On all the pages of the interface, you can consult the alarm page by clicking on the rectangle at the bottom left. The latter is gray when there is no alarm and red when there is one.



- 3) In addition, the symbol Veolia at the bottom right takes you directly to the main page.



Access

Some pages have limited access.

Access table

User name	Accessible pages
All No login required to log in.	<i>Security main page information Level Graph</i>
Oper	<i>All the above plus: system settings Totalizer settings (4 pages) alarms</i>
Maintenance	<i>All the above plus: I / O Status</i>
Admin	<i>All the above plus: User management</i>

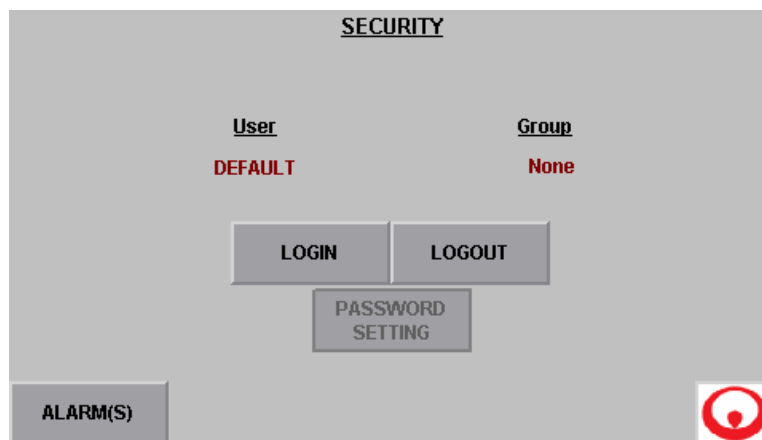
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1. SAFETY

Use this page to log into a user account.

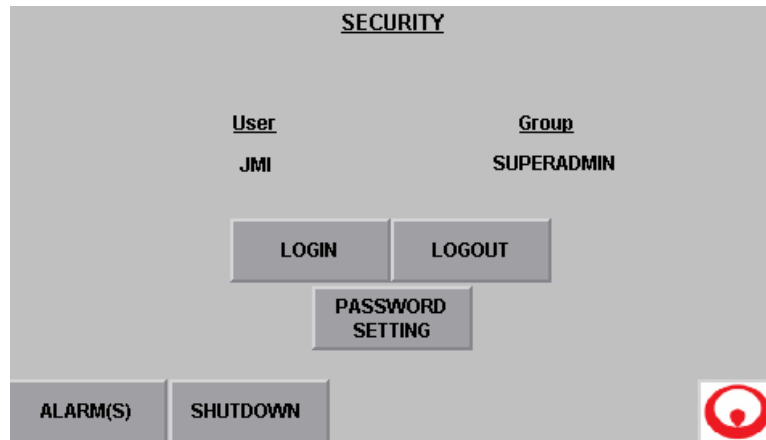
In the first place, you can stay with the default user, but access will be more restricted. To log into your account or switch users, press the button **"OPEN SESSION"**. The name of the user logged is displayed on the screen.

Note: The different users are defined by Veolia, but the password is defined by the customer. Please note your password for not forgetting it.



If you ever want to log out, you have to press the logout button. To change the password, press the **"PASSWORD SETTING"** button.

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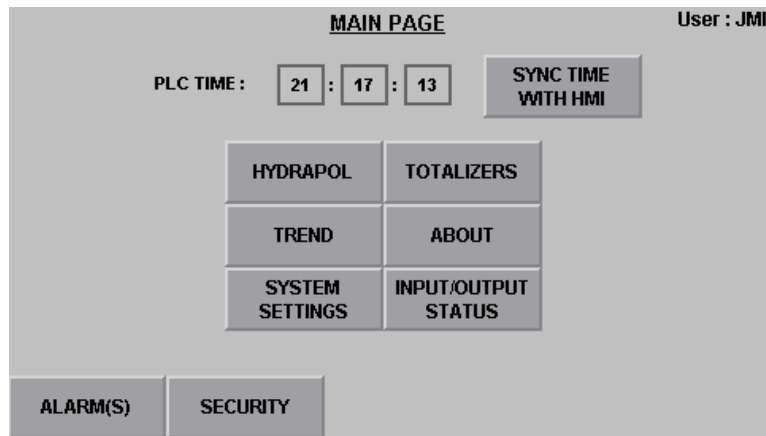
The button "**SHUTDOWN**" is used to stop the program installed in the interface. It is not recommended to click on it unless you want to change the interface program.

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2. MAIN PAGE

This page is used to access different screens.

The plc time is displayed on it. Subsequently, several buttons allow you to access the different pages of the program. These are explained to you later in the document.



The button "**SECURITY**" is used to return to the security screen.

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3. INFORMATION

This interface gives all the important and necessary information to contact Veolia in case of questions or problems.

ABOUT

After-Sale Service

Tel.: 1-844-737-8989
VWTServiceCanada@Veolia.com

HydraPol version: 01.01
HMI : FTView ME ver. 11.00.00 (CPR 9 SR 11)
PLC : RSLogix 5000 V32.00 (CPR 9 SR 11)
PLC Firmware Version : 32 . 11

Veolia Water Technologies
4105 rue Sartelon
Saint-Laurent (Québec)
Canada, H4S 2B3
Tel.: 514.334.7230
Fax.: 514.334.5070
www.veoliawatertechnologies.ca

ALARM(S)



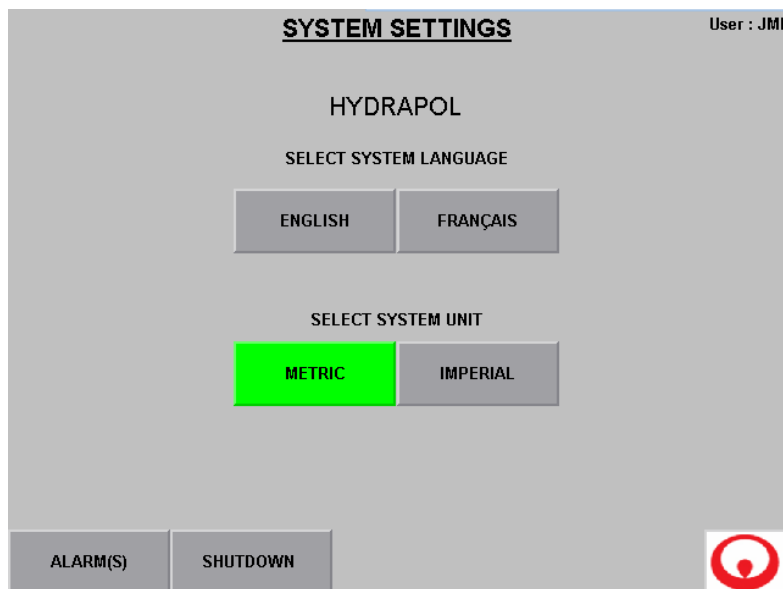
The Service information are available with the système software revision.

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4. SYSTEM PARAMETERS

Several information for operating the system can be found here. This includes language selection (English or French) and units (metric or imperial).

*Note *: If you manually enter values into the parameters and change the format of the units, they will automatically convert.*



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5. TOTALIZERS

This section includes the operating time for the system (in hours), as well as the total powder used (kg or lbs).

User : JMI

TOTALIZERS		
SYSTEM RUNNING TIME	4	hrs
TOTAL POWDER FOR TODAY	1	kg
TOTAL POWDER FOR YESTERDAY	0	kg

ALARM(S)

RESET
TOTALS

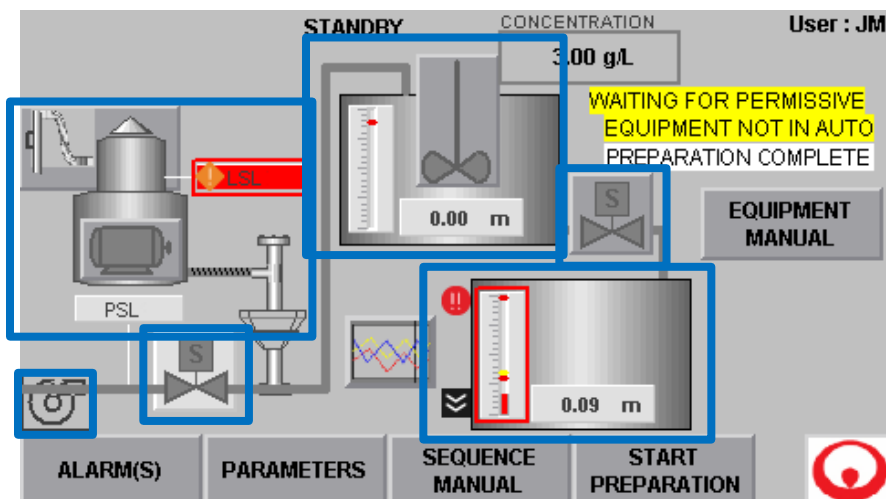


The "RESET TOTALS" button is used to reset the dry polymer powder totalizers only.

6. HYDRAPOL

This interface represents the system using symbols.

Explanation of equipment location



1) Booster pump. It only appears if the client have the booster pump option.



2) Service water valve.



3) Vacuum (option). A LSL alarm represents a low polymer level.

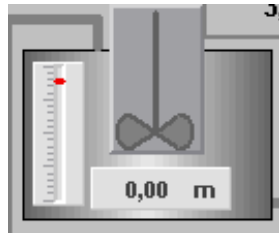
You have to click on the vacuum to activate it.



4) Dry polymer feeder

5) Dry polymer isolation

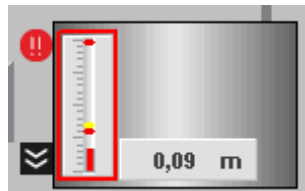
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6) This is the maturation tank. The mixer is inside. A bar graph and a numeric display represent the level in the tank.



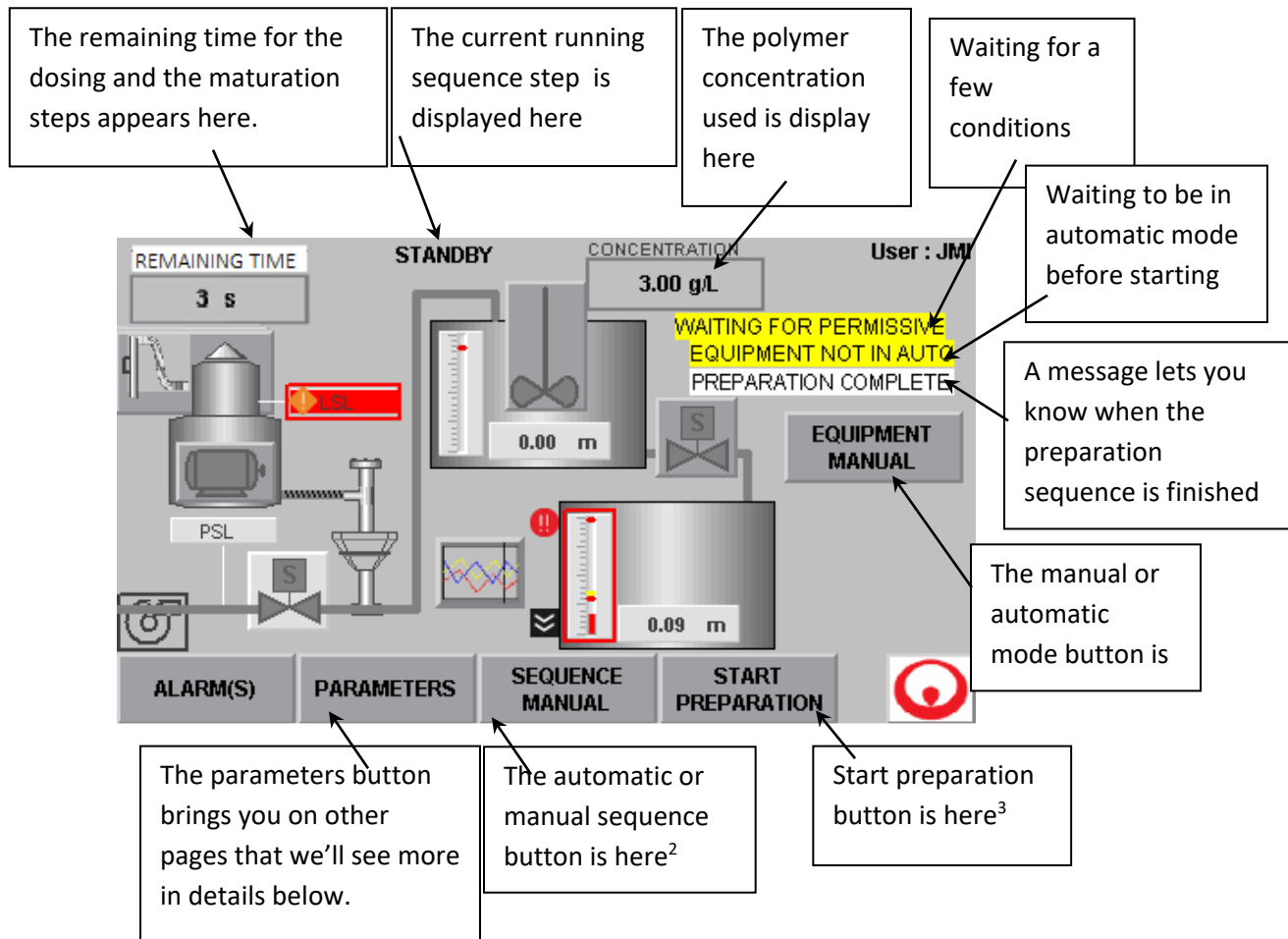
7) Transfer valve.



8) This picture represent the storage tank. There is a bar graph and a numeric display inside that shows the water level.

** The symbols are visually different for *Hydrapol Compact 1* and *2*. However, their operation is the same and their location is similar.

Explanation of activation buttons and indicators



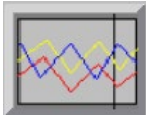
¹ When the manual equipment button is activated, you can manually activate the equipment by pressing it. A sequence start is however not possible when it is activated, but you can use it during the sequence.

² When the button is activated in automatic sequence, the sequence is automatically repeated all the time (except in case of error (s)). The button is activated in manual sequence, the start preparation button appears. You must press it to manually activate the sequence. When it is finished, the system waits for you to press it again to start.

³ The start preparation button is visible only when the sequence is in manual mode. When it is in automatic mode, the button is not necessary.

The alarms are displayed in red.

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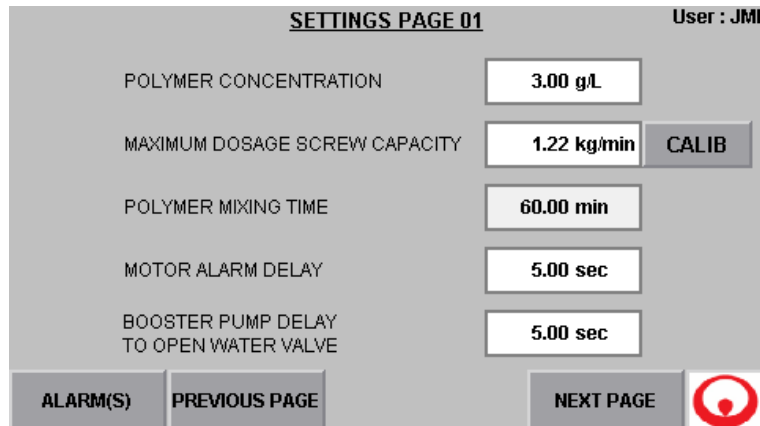


If you want to see the tank level graph, you can either go back to the main page and click on the level graph, or you can save a few finger movements and touch this symbol.

In the parameter pages, you can insert multiple values manually. Please be aware that calibration has been done before and during commissioning. Otherwise, the parameters are explained in more detail below.

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7. PARAMETERS 01



SETTINGS PAGE 01 User: JMI

POLYMER CONCENTRATION	3.00 g/L
MAXIMUM DOSAGE SCREW CAPACITY	1.22 kg/min CALIB
POLYMER MIXING TIME	60.00 min
MOTOR ALARM DELAY	5.00 sec
BOOSTER PUMP DELAY TO OPEN WATER VALVE	5.00 sec

ALARM(S) **PREVIOUS PAGE** **NEXT PAGE** 

POLYMER CONCENTRATION allows to change the desired polymer concentration in the mixture.

The MAXIMUM DOSAGE SCREW CAPACITY is the limit of the feeder to supply polymer powder into the system. This value is determined using the average value from several calibration tests.

The CALIB function (called IN CALIB when it is in operation) allows you to calibrate the feeder for 30 seconds. It can only be activated when the preparation sequence is stopped, the polymer feeder is not in operation and the equipment and sequence are in manual mode.

POLYMER MIXING TIME is the time that the agitator mixes the mixture in the maturation tank.

The MOTOR ALARM DELAY is the time delay when one of the engine receives a command to start before it receives a feedback. When the delay is exceeded, an alarm is triggered. This parameter is applicable for all motors.

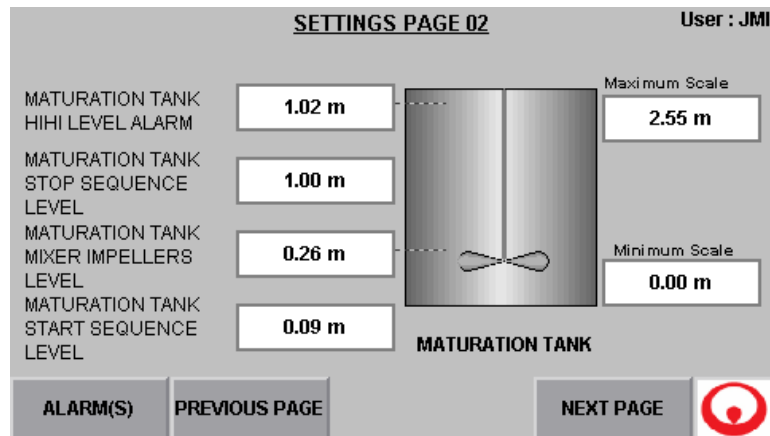
The BOOSTER PUMP DELAY TO OPEN WATER VALVE is only present if you have the booster pump as an option. This delay time is used to determine the time required to build the required service pressure upstream of the service water valve.

If you press the button, "**PREVIOUS PAGE**" the page of the Hydrapol appear.

If you press the "**NEXT PAGE**" key, the second page of the parameters will open (see section below).

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8. PARAMETERS 02



SETTINGS PAGE 02 User : JMI

MATURATION TANK HIHI LEVEL ALARM: 1.02 m

MATURATION TANK STOP SEQUENCE LEVEL: 1.00 m

MATURATION TANK MIXER IMPELLERS LEVEL: 0.26 m

MATURATION TANK START SEQUENCE LEVEL: 0.09 m

Maximum Scale: 2.55 m

Minimum Scale: 0.00 m

MATURATION TANK

ALARM(S) PREVIOUS PAGE NEXT PAGE 

This page contains the parameters related to the maturation tank. We can also see the representation of the maturation tank and its agitator.

The MATURATION TANK HIHI LEVEL ALARM is used to set a limit when the tank level becomes too high. This alarm is used to prevent an overflow.

The MATURATION TANK STOP SEQUENCE LEVEL is the desired level of filling. Once reached, the tank stops filling.

The MATURATION TANK MIXER IMPELLER LEVEL is required level to cover the blades of the agitator. Thus, when the water level exceeds this limit, the PLC starts the mixer motor.

The MATURATION TANK START SEQUENCE LEVEL is the maximum water level of the preparation for the sequence to begin. If the level is too high, the sequence will not start.

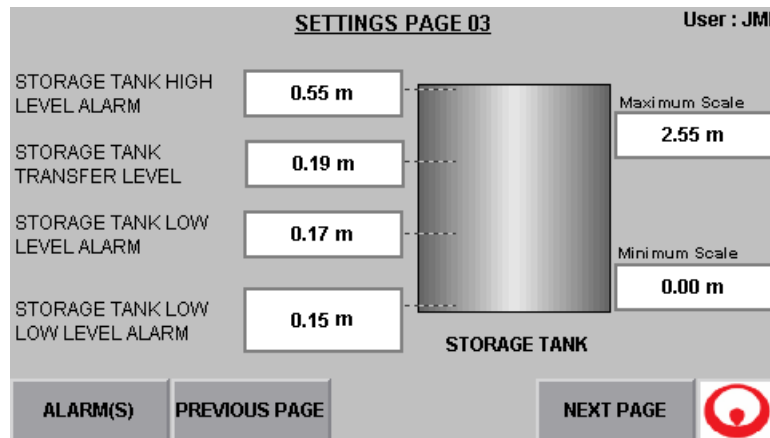
The maximum scale is used to define the level transmitter value at 20 mA.

The minimum scale is used to define the level transmitter value at 4 mA.

If you press " **PREVIOUS PAGE**", the first settings page will appear.

If you press the " **NEXT PAGE**", the third settings page will open (see below).

9. PARAMETERS 03



This page shows the storage tank. There are all the parameters associated with its use.

The **STORAGE TANK HIGH-LEVEL ALARM** is the level at which the high-level tank alarm is triggered. This alarm serves to prevent an overflow.

The **STORAGE TANK TRANSFER LEVEL** is the filling level of the tank that triggers gravity transfer of the polymer solution from the maturation tank to the storage tank.

The **STORAGE TANK LOW LEVEL ALARM** is an alarm that indicates the level starts getting low.

The **STORAGE TANK LOW LOW LEVEL ALARM** serves to alarm that the level risks of damaging the metering pump(s). This signal is available to stop the pump(s) if needed.

The maximum scale is used to define the level transmitter value at 20 mA.

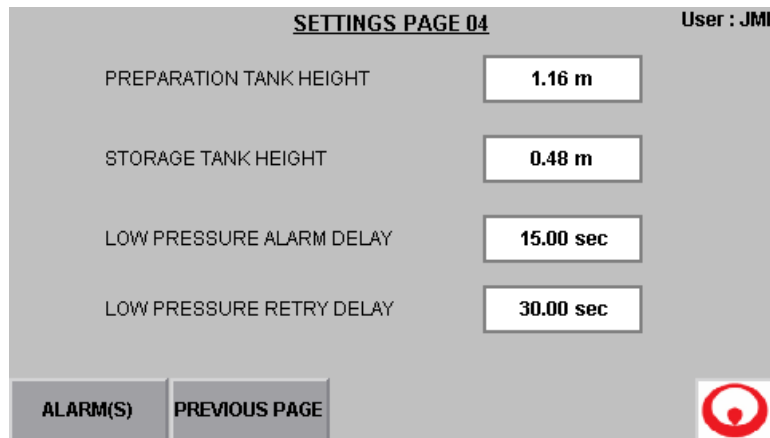
The minimum scale is used to define the level transmitter value at 4 mA.

If you press "**PREVIOUS PAGE**", the second settings page will appear.

If you press the "**NEXT PAGE**" key, the fourth page of the parameters will open (see section below).

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10. PARAMETERS 04



SETTINGS PAGE 04 User : JMI

PREPARATION TANK HEIGHT	1.16 m
STORAGE TANK HEIGHT	0.48 m
LOW PRESSURE ALARM DELAY	15.00 sec
LOW PRESSURE RETRY DELAY	30.00 sec

ALARM(S) PREVIOUS PAGE

The PREPARATION TANK HEIGHT is the total height of the maturation tank.

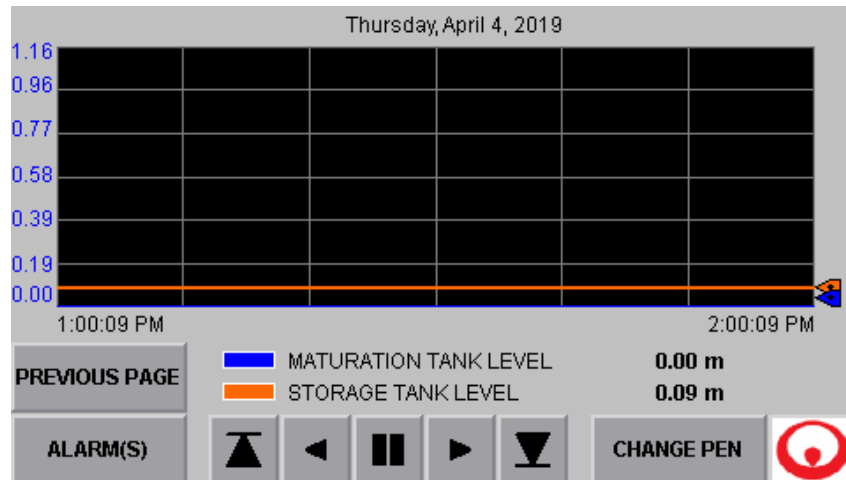
The STORAGE TANK HEIGHT is the total height of the tank of the storage tank.

The LOW PRESSURE ALARM DELAY is the time for which the system tries to build the necessary pressure in the conduit (pressure provided by service water and/or booster pump upstream).

The LOW PRESSURE RETRY DELAY is the waiting time between each test for a low pressure alarm on the service water conduit upstream of the service water valve.

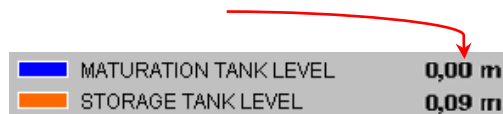
If you press "**PREVIOUS PAGE**", the third settings page will appear.

11. LEVEL GRAPH



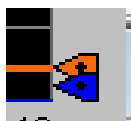
The black space is where graphics are plotted. The y-axis (or the vertical axis) is calculated as a level. The x-axis (or the horizontal axis) is calculated in time. The graph represents the level of the tanks in function of time.

**The MATURATION TANK LEVEL graph is displayed in blue while the STORAGE TANK LEVEL is orange. The level values are displayed numerically to the right.

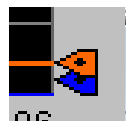


**Just for the C3 model

The button "**CHANGE PENCIL**" is used to put one of the lines in the forefront.



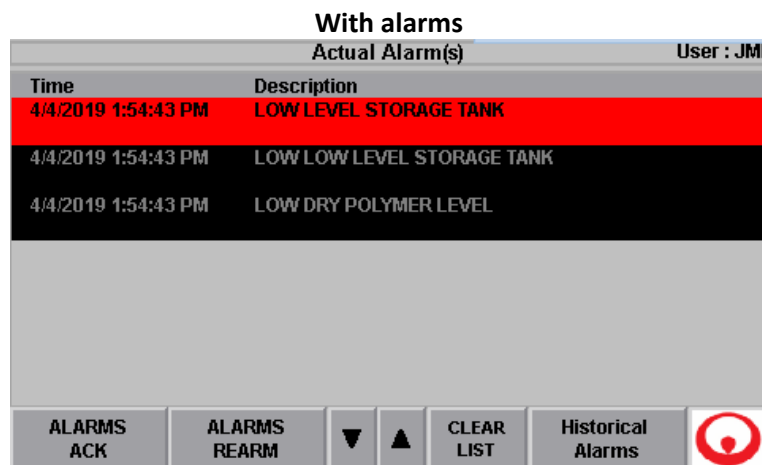
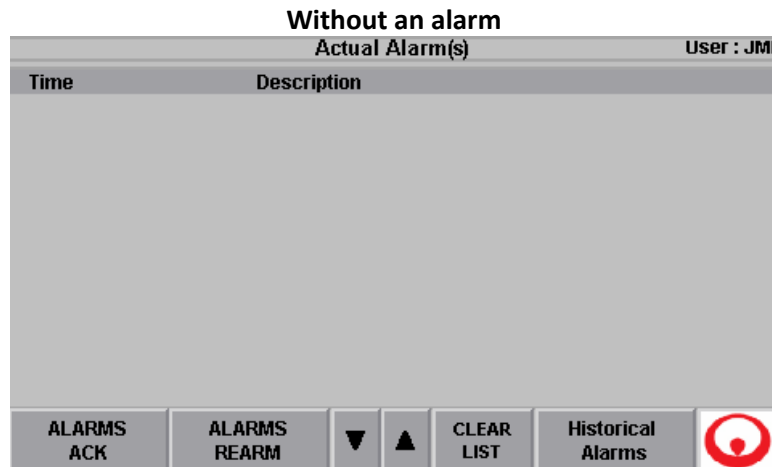
The blue cursor (and its ligne) are forefront.



When the change pencil button is clicked, the orange cursor is put in the forefront. You can change the order by clicking it

If you press the "**PREVIOUS PAGE**" key, this will take you to the Hydrapol page.

12. ALARMS



ALARMS ACK. This button is effective on all current alarms.

ALARMS REARM. This button is effective on all current alarms.

DELETE LIST. This button is applied to all current alarms. The alarm list displayed on the screen is cleared. Note erasing the alarm list do not remove the alarms. If an alarm was active, you will lose the information.

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This message is displayed when the dosing is not completed, while the level in the tank has already been reached. The concentration of the solution will not be correct.



APPENDIX D

EXCHANGE TABLE



HYDRAPOL C1

XL_6200_HYDP

Exchange Table

REV.	DESCRIPTION	PLC	PLC	PANEL	TYPE	DATA TYPE	ALARM	ENGINEERING UNITS		SECURITY	TEST
		TAG/ADDRESS	ADDRESS					SCALE	UNITS	LEVEL	OK
1.0	VARIABLE TYPE :	Writing BOOL			DW						
		Reading BOOL			DR						
		Analogic reading			AR						
		Analogic writing (Setpoint)			AW						
	GENERAL										
1.0	POWER FAIL	POWER_FAIL_ALM	40001.0	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM ACTIVE ALARM	PO_SYST_FAULT_PRESENT	40001.1	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM IN AUTO MODE	PO_SYST_A	40001.2	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER SYSTEM READY PREPARATION SEQUENCE	PO_SYST_PREP_SEQ_RDY	40001.3	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER CONCENTRATION DOSAGE TIME CALCULATION	PO_SYST_CONCENT_SP	40003 - 40004	HYDRAPOL CONTROL PANEL	AW	REAL		0 - 9999	g/l	2	
	MATURATION TANK LEVEL LT62_01										
1.0	MATURATION TANK LEVEL	LT62_01_Val	40005 - 40006	HYDRAPOL CONTROL PANEL	AR	REAL		0-2.62	m		
1.0	MATURATION TANK OUT OF RANGE ALARM	LT62_01_OR_ALM	40001.16	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK HIGH HIGH LEVEL ALARM	LT62_01_HiHi_ALM	40001.17	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK BAR GRAPH	LT62_01_BG	40007 -40008	HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	STORAGE TANK LEVEL LT62_02										
1.0	STORAGE TANK LEVEL	LT62_02_Val	40009 -40010	HYDRAPOL CONTROL PANEL	AR	REAL		0-0.489	m		
1.0	STORAGE TANK LEVEL OUT OF RANGE ALARM	LT62_02_OR_ALM	40001.18	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK HIGH HIGH LEVEL ALARM	LT62_02_HiHi_ALM	40001.19	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LEVEL ALARM	LT62_02_Lo_ALM	40001.20	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LOW LEVEL ALARM	LT62_02_LoLo_ALM	40001.21	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK BAR GRAPH	LT62_02_BG	40011 - 40012	HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	POLYMER MIXER AG62_01										
1.0	MATURATION TANK MIXER RUNNING STATUS	AG62_01_Run_Fdbk	40001.5	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	MATURATION TANK MIXER FAIL TO START ALARM	AG62_01_Alm_FailToStart	40001.6	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK MIXER OUT OF RANGE ALARM	AG62_01_OL_Alm	40001.7	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	DOSAGE SCREW ND62_01										
1.0	DOSAGE SCREW RUNNING STATUS	ND62_01_Run_Fdbk	40001.8	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	DOSAGE SCREW FAIL TO START ALARM	ND62_01_Alm_FailToStart	40001.9	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	DOSAGE SCREW OVERLOAD	ND62_01_OL_Alm	40001.10	HYDRAPOL CONTROL PANEL	DR	BOOL	X			2	
	EMERGENCY STOP PO-SYST-E-STOP										
1.0	EMERGENCY STOP SIGNAL	PO_SYST_E_STOP	40001.4	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	LOW PRESSURE SWITCH PSLL62_01										
1.0	LOW PRESSURE SWITCH SIGNAL	PSLL62_01_ALM	40001.11	HYDRAPOL CONTROL PANEL	DR	BOOL	X				



HYDRAPOL C1

XL_6200_HYDP

Exchange Table

REV.	DESCRIPTION	PLC	PLC	PANEL	TYPE	DATA TYPE	ALARM	ENGINEERING UNITS		SECURITY LEVEL	TEST OK
		TAG/ADDRESS	ADRESS					SCALE	UNITS		
	WATER SERVICE VALVE	VE62_01									
1.0	WATER SERVICE VALVE OPENED STATUS	VE62_01_Inp_OpenLS	40001.12	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	WATER SERVICE VALVE CLOSED STATUS	VE62_01_Inp_ClosedLS	40001.13	HYDRAPOL CONTROL PANEL	DR	BOOL					
	TRANSFERT VALVE	VA62_01									
1.0	TRANSFERT VALVE OPENING STATUS	VA62_01_Inp_OpenLS	40001.14	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	TRANSFERT VALVE CLOSING STATUS	VA62_01_Inp_ClosedLS	40001.15	HYDRAPOL CONTROL PANEL	DR	BOOL					
	DRY POLYMER ISOLATION GATE VALVE	VE62_02									
1.0	ISOLATION GATE VALVE OPENING STATUS	VE62_02_Inp_OpenLS	40001.22	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	ISOLATION GATE VALVE CLOSING STATUS	VE62_02_Inp_ClosedLS	40001.23	HYDRAPOL CONTROL PANEL	DR	BOOL					



HYDRAPOL C2
XL_6202_HYDP
Exchange Table

REV.	DESCRIPTION	PLC	PANEL	TYPE	DATA	ALARM	ENGINEERING UNITS		SECURITY	TEST	
		TAG/ADDRESS					ADRESS	SCALE	UNITS	LEVEL	OK
1.0	VARIABLE TYPE :			Writing	BOOL						
				Reading	BOOL						
				Analogic reading							
				Analogic writing (Setpoint)							
	GENERAL										
1.0	POWER FAIL	POWER_FAIL_ALM	40001.0	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM ACTIVE ALARM	PO_SYST_FAULT_PRESENT	40001.1	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM IN AUTO MODE	PO_SYST_A	40001.2	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER SYSTEM READY PREPARATION SEQUENCE	PO_SYST_PREP_SEQ_RDY	40001.3	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER CONCENTRATION DOSAGE TIME CALCULATION	PO_SYST_CONCENT_SP	40003 - 40004	HYDRAPOL CONTROL PANEL	AW	REAL		0 - 9999	g/l	2	
	MATURATION TANK LEVEL LT62_01										
1.0	MATURATION TANK LEVEL	LT62_01_Val	40005 - 40006	HYDRAPOL CONTROL PANEL	AR	REAL		0-2.62	m		
1.0	MATURATION TANK OUT OF RANGE ALARM	LT62_01_OR_ALM	40001.16	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK HIGH HIGH LEVEL ALARM	LT62_01_HiHi_ALM	40001.17	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK BAR GRAPH	LT62_01_BG	40007 -40008	HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	STORAGE TANK LEVEL LT62_02										
1.0	STORAGE TANK LEVEL	LT62_02_Val	40009 -40010	HYDRAPOL CONTROL PANEL	AR	REAL		0-0.489	m		
1.0	STORAGE TANK LEVEL OUT OF RANGE ALARM	LT62_02_OR_ALM	40001.18	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK HIGH HIGH LEVEL ALARM	LT62_02_HiHi_ALM	40001.19	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LEVEL ALARM	LT62_02_Lo_ALM	40001.20	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LOW LEVEL ALARM	LT62_02_LoLo_ALM	40001.21	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK BAR GRAPH	LT62_02_BG	40011 - 40012	HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	POLYMER MIXER AG62_01										
1.0	MATURATION TANK MIXER RUNNING STATUS	AG62_01_Run_Fdbk	40001.5	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	MATURATION TANK MIXER FAIL TO START ALARM	AG62_01_Alm_FailToStart	40001.6	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK MIXER OUT OF RANGE ALARM	AG62_01_OL_Alm	40001.7	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	DOSAGE SCREW ND62_01										
1.0	DOSAGE SCREW RUNNING STATUS	ND62_01_Run_Fdbk	40001.8	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	DOSAGE SCREW FAIL TO START ALARM	ND62_01_Alm_FailToStart	40001.9	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	DOSAGE SCREW OVERLOAD	ND62_01_OL_Alm	40001.10	HYDRAPOL CONTROL PANEL	DR	BOOL	X			2	
	EMERGENCY STOP PO-SYST-E-STOP										
1.0	EMERGENCY STOP SIGNAL	PO_SYST_E_STOP	40001.4	HYDRAPOL CONTROL PANEL	DR	BOOL	X				



HYDRAPOL C2
XL_6202_HYDP
Exchange Table

REV.	DESCRIPTION	PLC	PLC	PANEL	TYPE	DATA TYPE	ALARM	ENGINEERING UNITS		SECURITY	TEST
		TAG/ADDRESS	ADRESS					SCALE	UNITS	LEVEL	OK
	LOW PRESSURE SWITCH	PSLL62_01									
1.0	LOW PRESSURE SWITCH SIGNAL	PSLL62_01_ALM	40001.11	HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	WATER SERVICE VALVE	VE62_01									
1.0	WATER SERVICE VALVE OPENED STATUS	VE62_01_Inp_OpenLS	40001.12	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	WATER SERVICE VALVE CLOSED STATUS	VE62_01_Inp_ClosedLS	40001.13	HYDRAPOL CONTROL PANEL	DR	BOOL					
	TRANSFERT VALVE	VA62_01									
1.0	TRANSFERT VALVE OPENING STATUS	VA62_01_Inp_OpenLS	40001.14	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	TRANSFERT VALVE CLOSING STATUS	VA62_01_Inp_ClosedLS	40001.15	HYDRAPOL CONTROL PANEL	DR	BOOL					
	DRY POLYMER ISOLATION GATE VALVE	VE62_02									
1.0	ISOLATION GATE VALVE OPENING STATUS	VE62_02_Inp_OpenLS	40001.22	HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	ISOLATION GATE VALVE CLOSING STATUS	VE62_02_Inp_ClosedLS	40001.23	HYDRAPOL CONTROL PANEL	DR	BOOL					



HYDRAPOL C3CA
XL_6204_HYDP
Exchange Table

REV.	DESCRIPTION	PLC	PANEL	TYPE	DATA TYPE	ALARM	ENGINEERING UNITS		SECURITY	TEST	
		TAG/ADDRESS					ADDRESS	SCALE	UNITS	LEVEL	OK
1.0	VARIABLE TYPE :			Writing	BOOL	DW					
				Reading	BOOL	DR					
				Analogic reading		AR					
				Analogic writing (Setpoint)		AW					
	GENERAL										
1.0	POWER FAIL	POWER_FAIL_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM ACTIVE ALARM	PO_SYST_FAULT_PRESENT		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM IN AUTO MODE	PO_SYST_A		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER SYSTEM READY PREPARATION SEQUENCE	PO_SYST_PREP_SEQ_RDY		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER CONCENTRATION DOSAGE TIME CALCULATION	PO_SYST_CONCENT_SP		HYDRAPOL CONTROL PANEL	AW	REAL		0 - 9999	g/l	2	
	MATURATION TANK LEVEL LT62_01										
1.0	MATURATION TANK LEVEL	LT62_01_Val		HYDRAPOL CONTROL PANEL	AR	REAL		0-2.62	m		
1.0	MATURATION TANK OUT OF RANGE ALARM	LT62_01_OR_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK HIGH HIGH LEVEL ALARM	LT62_01_HiHi_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK BAR GRAPH	LT62_01_BG		HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	STORAGE TANK LEVEL LT62_02										
1.0	STORAGE TANK LEVEL	LT62_02_Val		HYDRAPOL CONTROL PANEL	AR	REAL		0-0.489	m		
1.0	STORAGE TANK LEVEL OUT OF RANGE ALARM	LT62_02_OR_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK HIGH HIGH LEVEL ALARM	LT62_02_HiHi_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LEVEL ALARM	LT62_02_Lo_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LOW LEVEL ALARM	LT62_02_LoLo_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK BAR GRAPH	LT62_02_BG		HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	POLYMER MIXER AG62_01										
1.0	MATURATION TANK MIXER RUNNING STATUS	AG62_01_Run_Fdbk		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	MATURATION TANK MIXER FAIL TO START ALARM	AG62_01_Alm_FailToStart		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK MIXER OUT OF RANGE ALARM	AG62_01_OL_Alm		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	DOSAGE SCREW ND62_01										
1.0	DOSAGE SCREW RUNNING STATUS	ND62_01_Run_Fdbk		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	DOSAGE SCREW FAIL TO START ALARM	ND62_01_Alm_FailToStart		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	DOSAGE SCREW OVERLOAD	ND62_01_OL_Alm		HYDRAPOL CONTROL PANEL	DR	BOOL	X			2	
	EMERGENCY STOP PO-SYST-E-STOP										
1.0	EMERGENCY STOP SIGNAL	PO_SYST_E_STOP		HYDRAPOL CONTROL PANEL	DR	BOOL	X				



HYDRAPOL C3CA
XL_6204_HYDP
Exchange Table

REV.	DESCRIPTION	PLC	PLC	PANEL	TYPE	DATA TYPE	ALARM	ENGINEERING UNITS		SECURITY LEVEL	TEST OK
		TAG/ADDRESS	ADDRESS					SCALE	UNITS		
	LOW PRESSURE SWITCH	PSLL62_01									
1.0	LOW PRESSURE SWITCH SIGNAL	PSLL62_01_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	WATER SERVICE VALVE	VE62_01									
1.0	WATER SERVICE VALVE OPENED STATUS	VE62_01_Inp_OpenLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	WATER SERVICE VALVE CLOSED STATUS	VE62_01_Inp_ClosedLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
	TRANSFERT VALVE	VA62_01									
1.0	TRANSFERT VALVE OPENING STATUS	VA62_01_Inp_OpenLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	TRANSFERT VALVE CLOSING STATUS	VA62_01_Inp_ClosedLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
	DRY POLYMER ISOLATION GATE VALVE VE62_02										
1.0	ISOLATION GATE VALVE OPENING STATUS	VE62_02_Inp_OpenLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	ISOLATION GATE VALVE CLOSING STATUS	VE62_02_Inp_ClosedLS		HYDRAPOL CONTROL PANEL	DR	BOOL					



HYDRAPOL C3US
XL_6205_HYDP
Exchange Table

REV.	DESCRIPTION	PLC	PANEL	TYPE	DATA TYPE	ALARM	ENGINEERING UNITS		SECURITY		TEST
		TAG/ADRESS					ADRESS	SCALE	UNITS	LEVEL	OK
1.0	VARIABLE TYPE :			Writing	BOOL	DW					
				Reading	BOOL	DR					
				Analogic reading		AR					
				Analogic writing (Setpoint)		AW					
	GENERAL										
1.0	POWER FAIL	POWER_FAIL_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM ACTIVE ALARM	PO_SYST_FAULT_PRESENT		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	POLYMER SYSTEM IN AUTO MODE	PO_SYST_A		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER SYSTEM READY PREPARATION SEQUENCE	PO_SYST_PREP_SEQ_RDY		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	POLYMER CONCENTRATION DOSAGE TIME CALCULATION	PO_SYST_CONCENT_SP		HYDRAPOL CONTROL PANEL	AW	REAL		0 - 9999	g/l	2	
	MATURATION TANK LEVEL LT62_01										
1.0	MATURATION TANK LEVEL	LT62_01_Val		HYDRAPOL CONTROL PANEL	AR	REAL		0-2.62	m		
1.0	MATURATION TANK OUT OF RANGE ALARM	LT62_01_OR_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK HIGH HIGH LEVEL ALARM	LT62_01_HiHi_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK BAR GRAPH	LT62_01_BG		HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	STORAGE TANK LEVEL LT62_02										
1.0	STORAGE TANK LEVEL	LT62_02_Val		HYDRAPOL CONTROL PANEL	AR	REAL		0-0.489	m		
1.0	STORAGE TANK LEVEL OUT OF RANGE ALARM	LT62_02_OR_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK HIGH HIGH LEVEL ALARM	LT62_02_HiHi_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LEVEL ALARM	LT62_02_Lo_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK LOW LOW LEVEL ALARM	LT62_02_LoLo_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	STORAGE TANK BAR GRAPH	LT62_02_BG		HYDRAPOL CONTROL PANEL	AR	REAL		0 - 100	%		
	POLYMER MIXER AG62_01										
1.0	MATURATION TANK MIXER RUNNING STATUS	AG62_01_Run_Fdbk		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	MATURATION TANK MIXER FAIL TO START ALARM	AG62_01_Alm_FailToStart		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	MATURATION TANK MIXER OUT OF RANGE ALARM	AG62_01_OL_Alm		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	DOSAGE SCREW ND62_01										
1.0	DOSAGE SCREW RUNNING STATUS	ND62_01_Run_Fdbk		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	DOSAGE SCREW FAIL TO START ALARM	ND62_01_Alm_FailToStart		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
1.0	DOSAGE SCREW OVERLOAD	ND62_01_OL_Alm		HYDRAPOL CONTROL PANEL	DR	BOOL	X			2	
	EMERGENCY STOP PO-SYST-E-STOP										
1.0	EMERGENCY STOP SIGNAL	PO_SYST_E_STOP		HYDRAPOL CONTROL PANEL	DR	BOOL	X				



HYDRAPOL C3US
XL_6205_HYDP
Exchange Table

REV.	DESCRIPTION	PLC	PLC	PANEL	TYPE	DATA	ALARM	ENGINEERING UNITS		SECURITY	TEST
		TAG/ADRESS	ADRESS			TYPE		SCALE	UNITS	LEVEL	OK
	LOW PRESSURE SWITCH	PSLL62_01									
1.0	LOW PRESSURE SWITCH SIGNAL	PSLL62_01_ALM		HYDRAPOL CONTROL PANEL	DR	BOOL	X				
	WATER SERVICE VALVE	VE62_01									
1.0	WATER SERVICE VALVE OPENED STATUS	VE62_01_Inp_OpenLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	WATER SERVICE VALVE CLOSED STATUS	VE62_01_Inp_ClosedLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
	TRANSFERT VALVE	VA62_01									
1.0	TRANSFERT VALVE OPENING STATUS	VA62_01_Inp_OpenLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	TRANSFERT VALVE CLOSING STATUS	VA62_01_Inp_ClosedLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
	DRY POLYMER ISOLATION GATE VALVE	VE62_02									
1.0	ISOLATION GATE VALVE OPENING STATUS	VE62_02_Inp_OpenLS		HYDRAPOL CONTROL PANEL	DR	BOOL					
1.0	ISOLATION GATE VALVE CLOSING STATUS	VE62_02_Inp_ClosedLS		HYDRAPOL CONTROL PANEL	DR	BOOL					

APPENDIX E

SPARE PARTS CATALOG

It is highly recommended to keep in stock spare parts in sufficient quantity for all critical components to the proper functioning of the system.

Only the use of original Veolia spare parts will ensure proper and reliable operation of the system.

When ordering a spare part, please give the following information:

- Veolia's project number
- Veolia's project name
- Part number

SPARE PARTS CATALOG

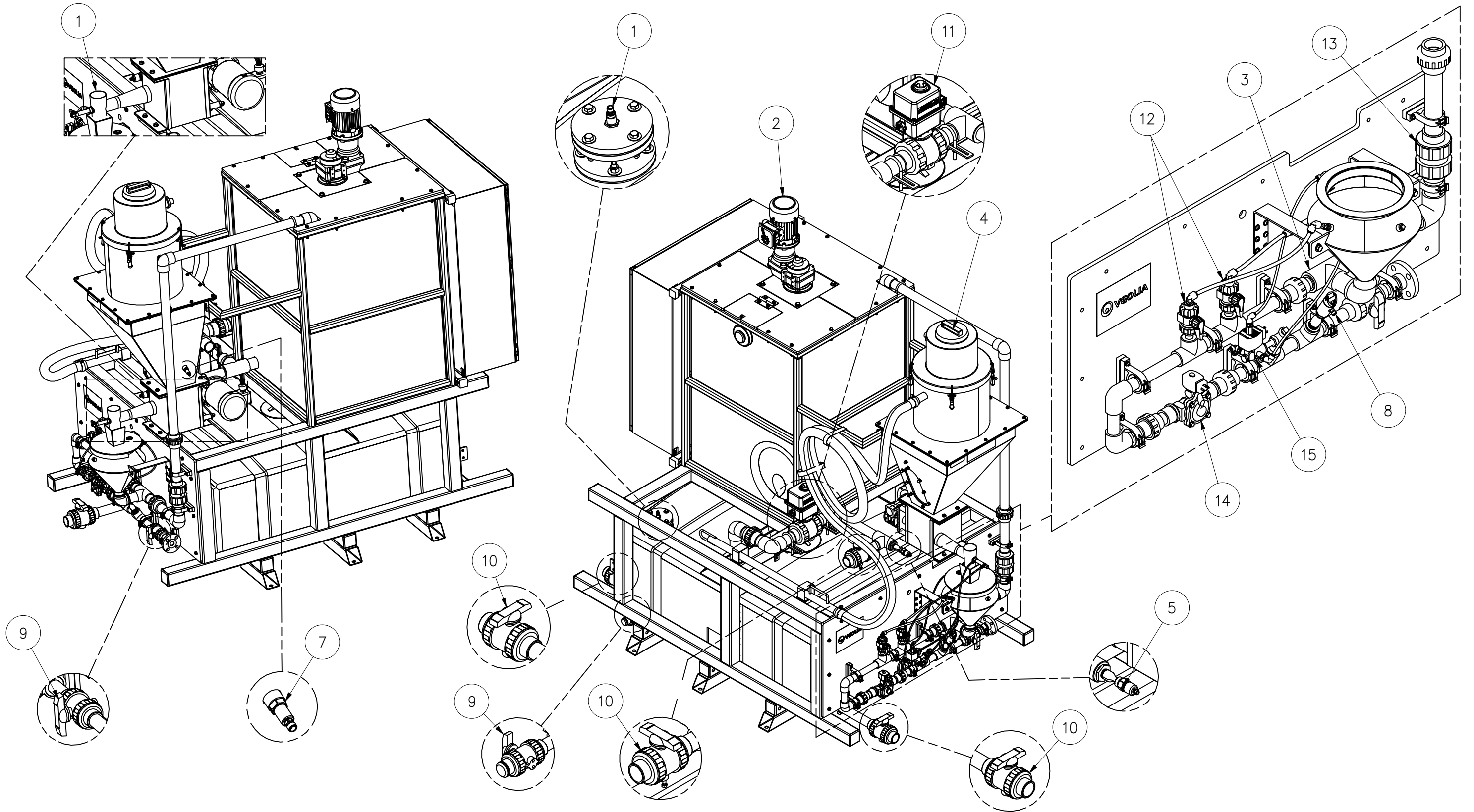
Hydrapol 500/1000 C1/C2/C3

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1. INTRODUCTION

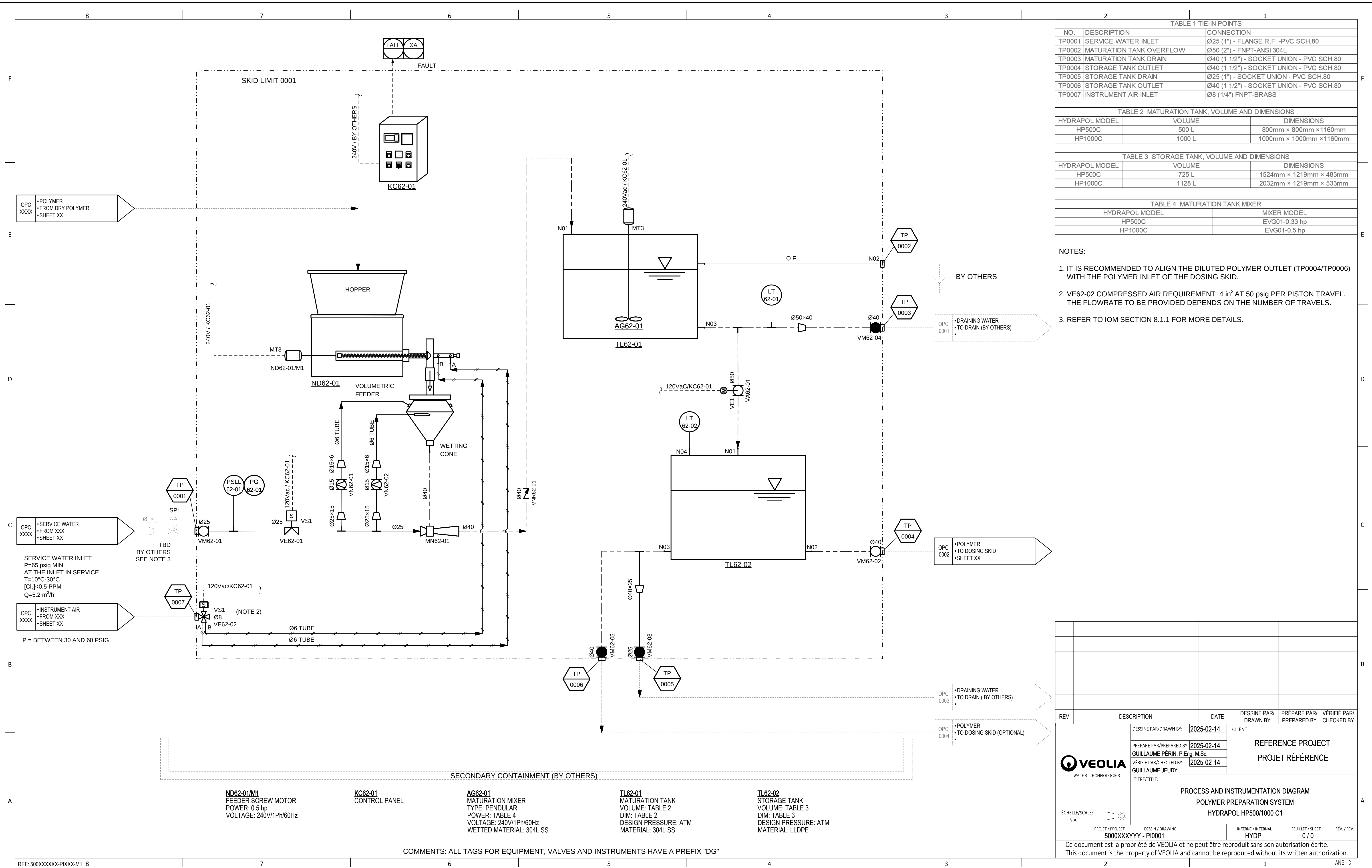
This catalog lists all the spare parts for the HYDRAPOL 500/1000 C1/C2/C3, with recommendations on spare parts to keep in inventory. It is strongly suggested to keep sufficient stocks of spare parts for all the essential components of the system. These essential components are presented in section 3: Recommended Spare Parts. Spare parts installation must always be done by qualified employees. Before performing a part replacement, make sure the power has been shut down and the pressure has been released to avoid any danger.

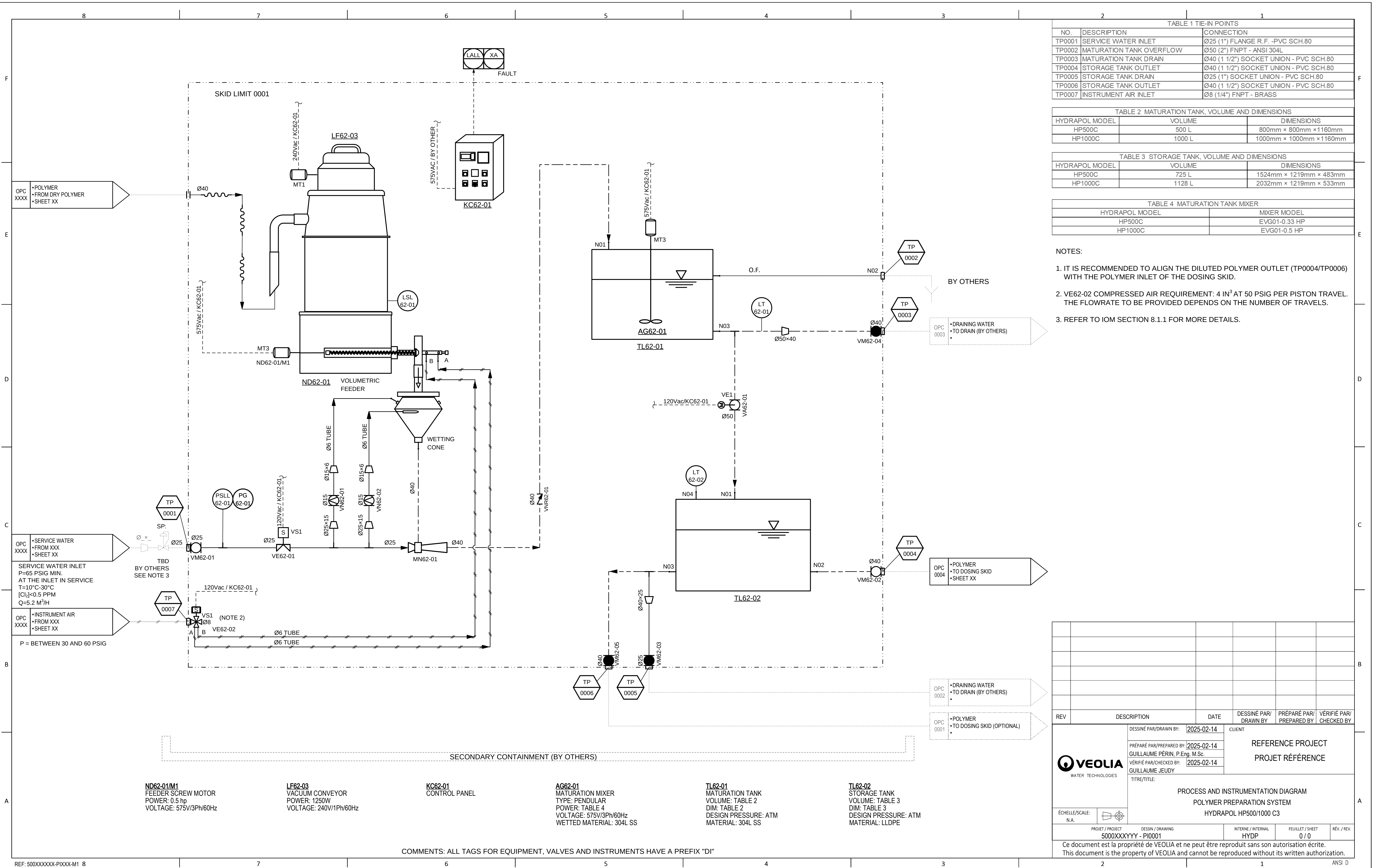
When ordering spare parts, always identify the associated #Aquapart number to the part, containing 12 characters, as found in this document. All available parts are classified by their type (Mechanical, Instrumentation, Valve, Miscellaneous), and associated to each model HYDRAPOL COMPACT. To make an order, call at 1-844-737-8989 or email to vwtservicecanada@veolia.com. Delivery time to be confirmed at the time of order, depending on the availability of the part needed.



TOLÉRANCES GÉNÉRALES:							DESSINÉ PAR DRAWN BY	DATE			TITRE TITLE				HYDRAPOL 500L/1000L C1/C2/C3 SPARE PARTS / PIÈCES DE RECHANGE						
DIMENSIONS EN POUCES:		DIMENSIONS EN mm:					H.H.	2020-06-17			VÉRIFIÉ PAR CHECKED BY	DATE	CLIENT								
0 @ 24 : ± 1/32 [± .03]		0 @ 600 : ± 0.5									G.J.	2020-06-17									
24 @ 160 : ± 1/16 [± .05]		600 @ 4000 : ± 1.0																			
> 160 : ± 1/8 [± .1]		> 4000 : ± 3.0																			
ANGLES: ± 0° 10'													Ce document est la propriété de VEOLIA et ne peut être reproduit sans son autorisation écrite. This document is the property of VEOLIA and cannot be reproduced without its written authorization.								
BRISER TOUTES LES ARÊTES																					
TOUTES LES SURFACES USINÉES: 250 ✓											ÉCHELLE: SCALE:		N.T.S.								
1	FOR ASSEMBLY / POUR ASSEMBLAGE					2020-06-17	H.H.	G.J.	G.P.												
RÉV.	DESCRIPTION					DATE	RÉVISÉ REVISED	VÉRIFIÉ CHECKED	APPROUVÉ APPROVED												
REV.																					

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2. UNIT CLASSIFICATION

2.1. Mechanical parts

SUB-UNIT	DESCRIPTION
1	Volumetric Feeder
2	Maturation Tank Mixer
3	Eductor
4	Vacuum Conveyor (Only for C2 and C3 models)

2.2. Instrumentation

5	Maturation tank - Level Transmitter
6	Storage tank - Level Transmitter
7	Hopper - Low Level Switch (Only for C3 model)
8	Service Water - Pressure Switch

2.3. Valves

9	Isolation Valves Ø1"
10	Isolation Valves Ø1 ½"
11	Actuated Transfer Valve Ø2"
12	Metering Valve - Wetting Cone
13	Check Valve - Liquid Polymer
14	Solenoid Valve - Driving Water
15	Solenoid Valve - Feeder

2.4. Miscellaneous

16	Valve Cables
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3. RECOMMENDED SPARE PARTS

3.1. Mechanical Parts

SUB-UNIT	#AQUAPART	DESCRIPTION	PICTURE
1	CMSPGU329528	UTD242000, SPECIAL FEEDING TOOL TYPE 4 HELICOID FLIGHTING WITH CENTER PIPE IN SS FOR SIZE 42	INSERT PICTURE
1	C1: CEMOGU339785 C2: CEMOGU339785 C3: 460V:CEMOGU33978 6 575V: CEMOGU339787	C1: BALDOR MOTOR 230V/1Ph/60hz 0.5HP FOR DRY FEEDER C2: BALDOR MOTOR 230V/1Ph/60hz 0.5HP FOR DRY FEEDER C3: BALDOR MOTOR 575V/3Ph/60hz 0.5HP FOR DRY FEEDER (Also available with 460V tension in USA)	
1	FTCKPD302114	MALE CONNECTOR 1/ 4" X MS, CA JOINT, QUICK CONNECTION	
1	CMPNGU337688	MDXSC24 VERTICAL DIS. TUBE WITH PNEUMATIC ACTUATOR	INSERT PICTURE

2	HP500C1/C2: CEMOGU353722 HP1000C1/C2: CEMOGU353723 HP500C3: 460V: CEMOGU353087 575V: CEMOGU353088 HP1000C3: 460V: CEMOGU353081 575V: CEMOGU354263	C1/C2:WEG GEARMOTOR 230V/1PH/60HZ 0.33HP FOR MIXER C1/C2:WEG GEARMOTOR 230V/1PH/60HZ 0.5HP FOR MIXER C3: NORD GEARMOTOR 0.33HP FOR MIXER C3: NORD GEARMOTOR 0.5HP FOR MIXER	
4	CFBGYD322723	POLYESTER FILTER FOR HAZVAC WITH CLAMP (Only for C2 and C3 models)	

3.2. Instrumentation

SUB-UNIT	#AQUAPART	DESCRIPTION	PICTURE
5	IEMRLE343806	MATURATION TANK - LEVEL TRANSMITTER (LT62-01)	
6	IEPOLE348108	STORAGE TANK - LEVEL TRANSMITTER (LT62-02)	
7	IESWLE342302	HOPPER - LOW LEVEL SWITCH (LSL62-01)	

8	IESWSP342303	SERVICE WATER - PRESSURE SWITCH (PSLL62-01)	
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3.3. Valves

SUB-UNIT	#AQUAPART	DESCRIPTION	PICTURE
9	VABLPV200251	ISOLATION VALVE Ø1" (VM62-01)	
10	VABLPV200253	ISOLATION VALVE Ø1 1/2" (VM62-03)	
11	VABLPV353596	ACTUATED TRANSFER VALVE (VA62-01)	
12	VABLPV346917	METERING VALVE- WETTING CONE (VN62-01/02)	

13	VANRPV200667	CHECK VALVE- LIQUID POLYMER (VNR62-01)	
14	VASDBR353835	SOLENOID VALVE - DRIVING WATER (VE62-01)	
14	VASDBR353836	SOLENOID VALVE - FEEDER (VE62-02)	

3.4. Miscellaneous

SUB-UNIT	#AQUAPART	DESCRIPTION
16	CECAGU333286	ELECTRIC CABLE
16	CECAGU333288	ELECTRIC VALVE CABLE
16	CECKGU333284	ELECTRIC VALVE CABLE ADAPTER

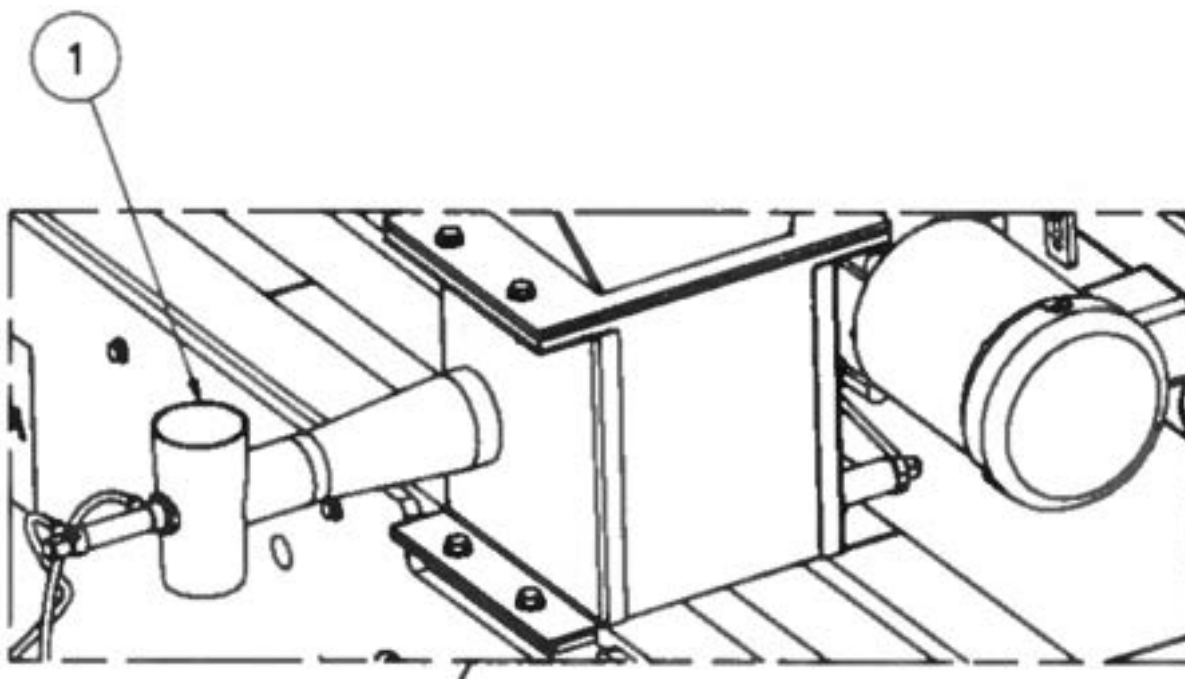
Note: Parts presented may have slight differences between Hydrapol models

4. ALL AVAILABLE SPARE PARTS

4.1. Mechanical Parts

4.1.1. Model: C1-500

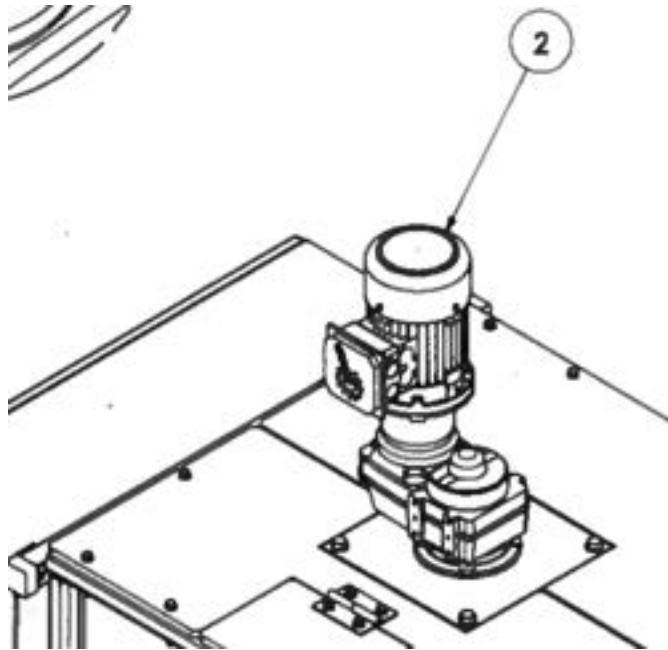
- Sub-Unit 1: Volumetric Feeder



Available spare parts:

#Aquapart	Description
CMSPGU346171	DRY FEEDER (Whole sub-unit)
SESHGU320298	MBTT2, SHAFT SEAL IN ST. STEEL WITH GREASING FOR SIZE 42
CMSPGU329528	UTD242000, SPECIAL FEEDING TOOL TYPE 4 HELICOID FLIGHTING WITH CENTER PIPE IN SS FOR SIZE 42
CEMOGU339785	BALDOR MOTOR 230V/1Ph/60Hz 0.5HP FOR DRY FEEDER
FTCKPD302114	MALE CONNECTOR 1/ 4" X MS, CA JOINT, QUICK CONNECTION
CMPNGU337688	MDXSC24, VERTICAL DISCHARGE TUBE WITH PNEUMATIC ACTUATOR

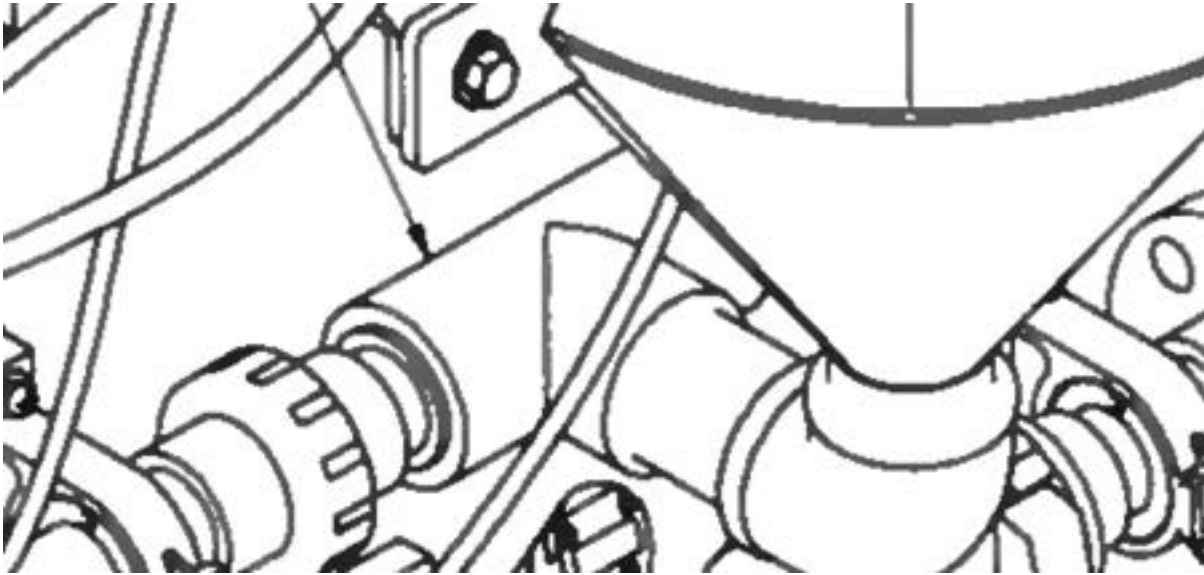
- **Sub-Unit 2: Maturation Tank Mixer**



Available spare parts:

#Aquapart	Description
CMSPMI336368	MATURATION MIXER (Whole sub-unit)
CEMOGU353722	WEG GEARMOTOR 230V/1PH/60HZ 0.33HP FOR MIXER
SEGAGU328769	GASKET,MTR SK20 120X80
SEGAGU340648	GASKET-ASSY COVER SK0182.1 S=1
CMBEGU326407	BEARING 6008 Z, ZR C 16.6
SESEGU328774	SEAL,MECHANIC 40X68X8 AS
CMBEGU339349	GROOVED BEARING 0.472 BORE/1.26 OD
CMBEGU339351	GROOVED BEARING 0.472 BORE/1.457 OD
SEPLGU340689	PLUG,BORE 37 X5 EMF
SEPLGU340688	PLUG,BORE 30 X 8
SEGAGU340691	GASKET,MOTOR,NEMA 56C/140,1SI31 S=0.5
CMBEGU339348	GROOVED BEARING 35MM ID
CMBEGU339350	GROOVED BEARING 0.984 BORE, EMQ
SESEGU340690	SEAL,30X 62X 7 A FKM

- **Sub-Unit 3 : Eductor**

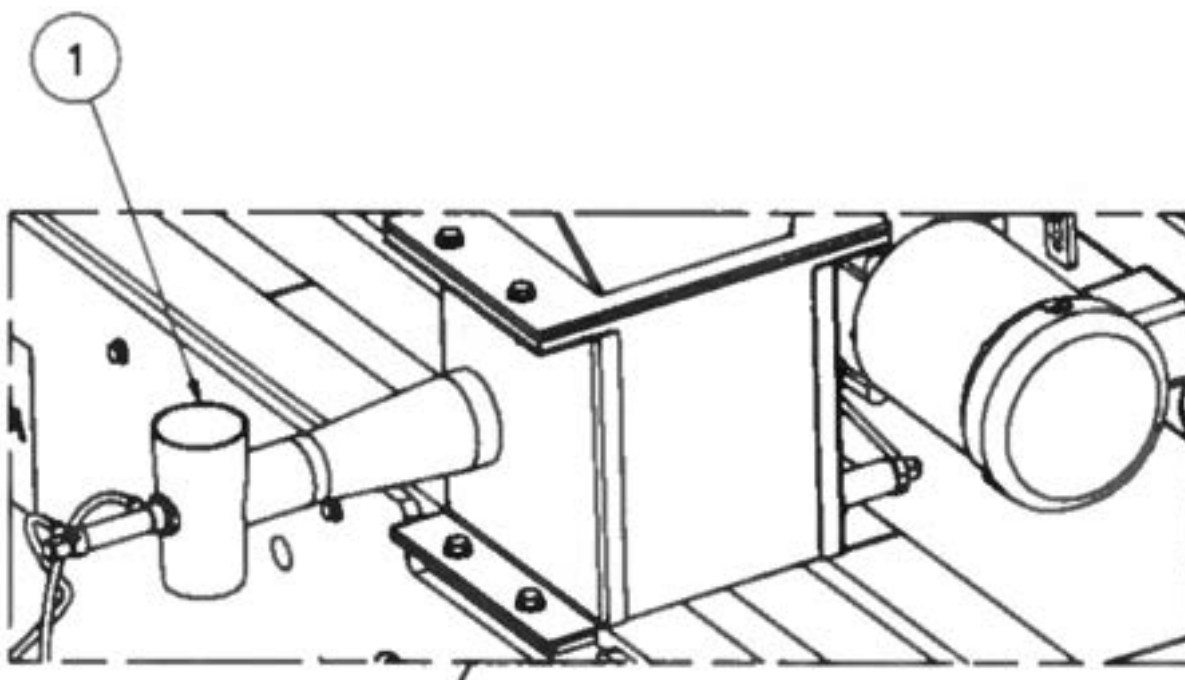


Available spare parts:

#Aquapart	Description
EJGUEJ200371	EDUCTOR (MN62-02)

4.1.2. Model: C1-1000

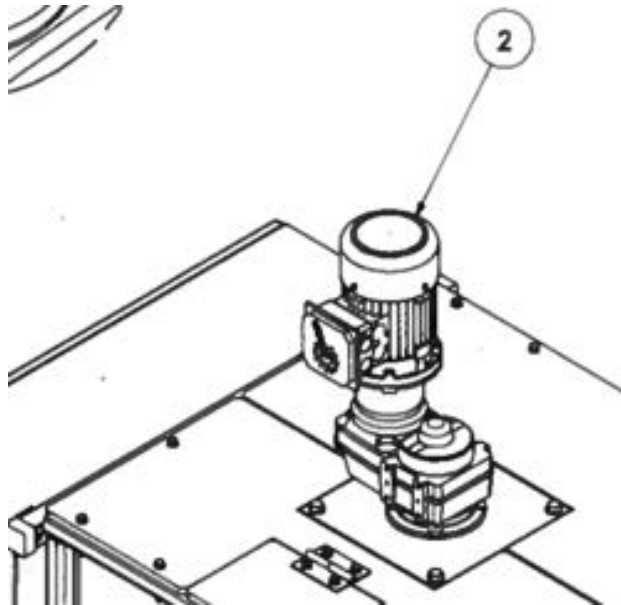
- Sub-Unit 1: Volumetric Feeder



Available spare parts:

#Aquapart	Description
CMSPGU346171	DRY FEEDER (Whole sub-unit)
SESHGU320298	MBTT2, SHAFT SEAL IN ST. STEEL WITH GREASING FOR SIZE 42
CMSPGU329528	UTD242000, SPECIAL FEEDING TOOL TYPE 4 HELICOID FLIGHTING WITH CENTER PIPE IN SS FOR SIZE 42
CEMOGU339785	BALDOR MOTOR 230V/1Ph/60hz 0.5HP FOR DRY FEEDER
FTCKPD302114	MALE CONNECTOR 1/ 4" X MS, CA JOINT, QUICK CONNECTION
CMPNGU337688	MDXSC24, VERTICAL DISCHARGE TUBE WITH PNEUMATIC ACTUATOR

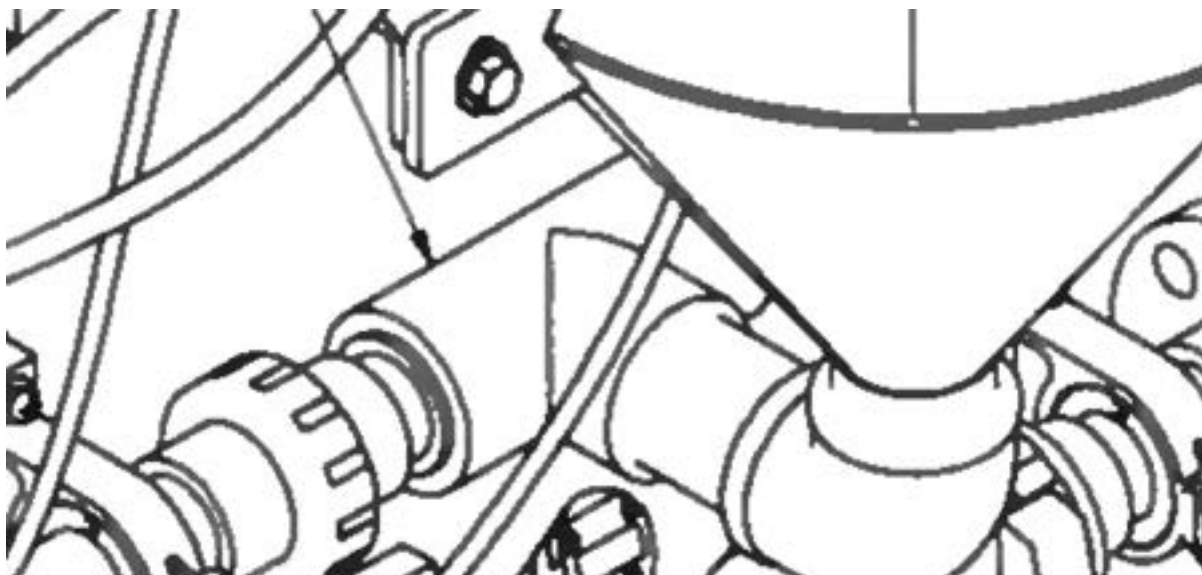
- **Sub-Unit 2: Maturation Tank Mixer**



Available spare parts:

#Aquapart	Description
CMSPMI336372	MATURATION MIXER (Whole sub-unit)
CEMOGU353723	WEG GEARMOTOR 230V/1PH/60HZ 0.5HP FOR MIXER
SEGAGU328769	GASKET,MTR SK20 120X80
SEGAGU340648	GASKET-ASSY COVER SK0182.1 S=1
CMBEGU326407	BEARING 6008 Z, ZR C 16.6
SESEGU328774	SEAL,MECHANIC 40X68X8 AS
CMBEGU339349	GROOVED BEARING 0.472 BORE/1.26 OD
CMBEGU339351	GROOVED BEARING 0.472 BORE/1.457 OD
SEPLGU340689	PLUG,BORE 37 X5 EMF
SEPLGU340688	PLUG,BORE 30 X 8
SEGAGU340691	GASKET,MOTOR,NEMA 56C/140,1SI31 S=0.5
CMBEGU339348	GROOVED BEARING 35MM ID
CMBEGU339350	GROOVED BEARING 0.984 BORE, EMQ
SESEGU340690	SEAL,30X 62X 7 A FKM

- **Sub-Unit 3 : Eductor**

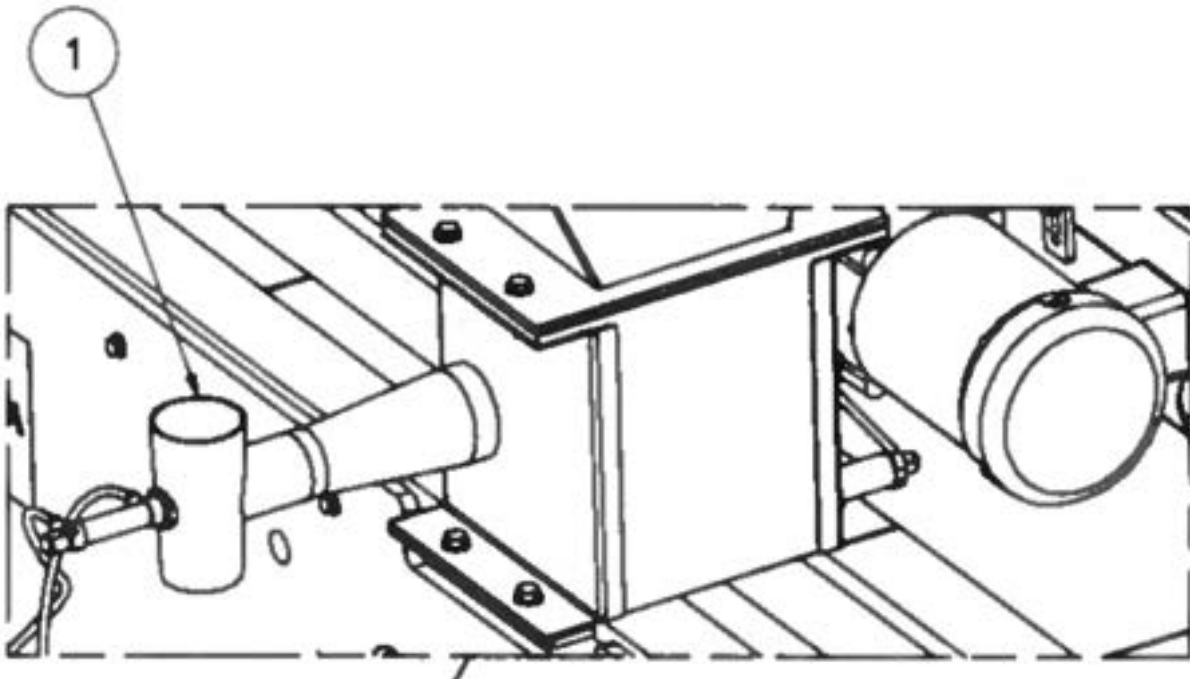


Available spare parts:

#Aquapart	Description
EJGUEJ200371	EDUCTOR (MN62-02)

4.1.3. Model: C2-500

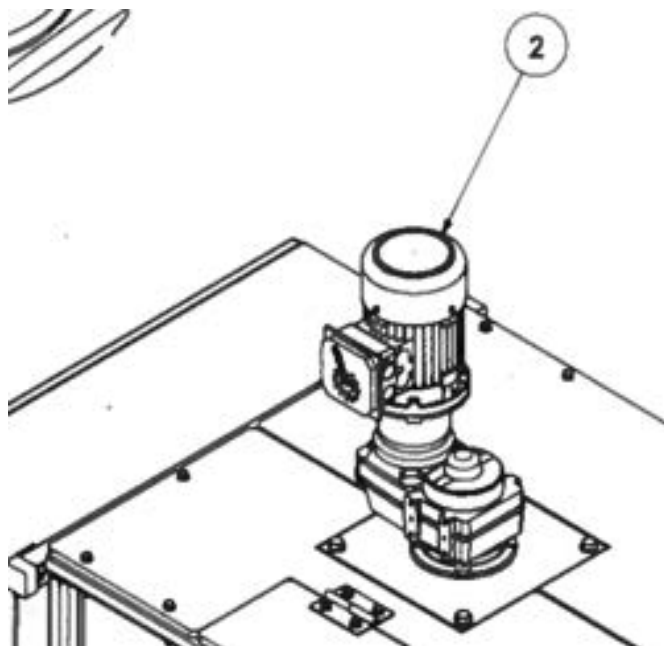
- **Sub-Unit 1: Volumetric Feeder**



Available spare parts:

#Aquapart	Description
CMSPGU346171	DRY FEEDER (Whole sub-unit)
SESHGU320298	MBTT2, SHAFT SEAL IN ST. STEEL WITH GREASING FOR SIZE 42
CMSPGU329528	UTD242000, SPECIAL FEEDING TOOL TYPE 4 HELICOID FLIGHTING WITH CENTER PIPE IN SS FOR SIZE 42
CEMOGU339785	BALDOR MOTOR 230V/1Ph/60hz 0.5HP FOR DRY FEEDER
FTCKPD302114	MALE CONNECTOR 1/ 4" X MS, CA JOINT, QUICK CONNECTION
CMPNGU337688	MDXSC24, VERTICAL DISCHARGE TUBE WITH PNEUMATIC ACTUATOR

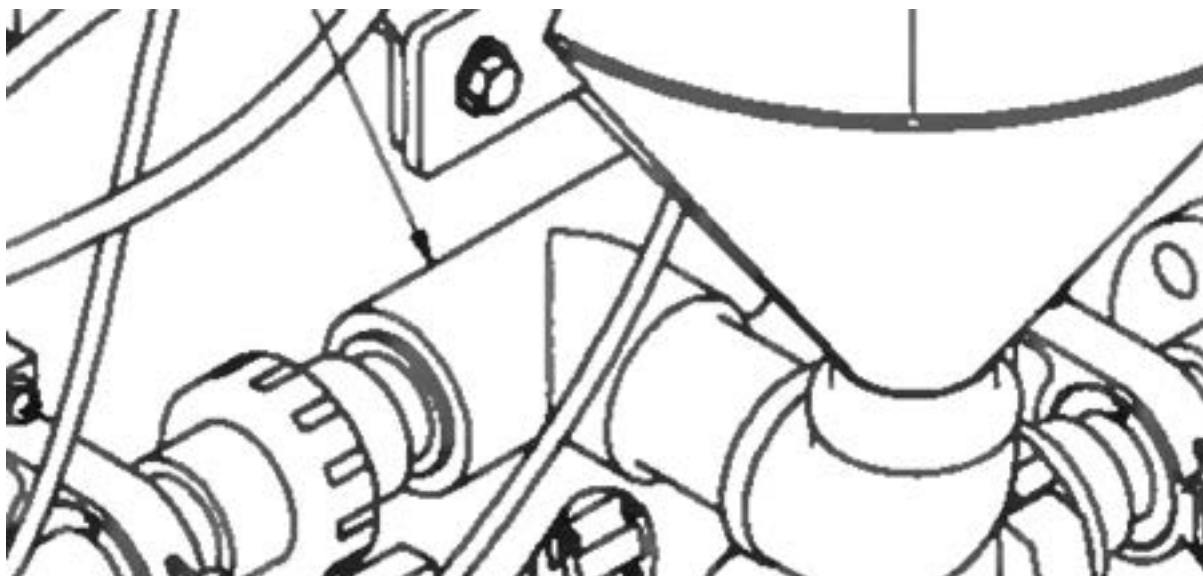
- **Sub-Unit 2: Maturation Tank Mixer**



Available spare parts:

#Aquapart	Description
CMSPMI336368	MATURATION MIXER (Whole sub-unit)
CEMOGU353722	WEG MOTOR 230V/1PH/60HZ 0.33HP FOR MIXER
SEGAGU328769	GASKET,MTR SK20 120X80
SEGAGU340648	GASKET-ASSY COVER SK0182.1 S=1
CMBEGU326407	BEARING 6008 Z, ZR C 16.6
SESEGU328774	SEAL,MECHANIC 40X68X8 AS
CMBEGU339349	GROOVED BEARING 0.472 BORE/1.26 OD
CMBEGU339351	GROOVED BEARING 0.472 BORE/1.457 OD
SEPLGU340689	PLUG,BORE 37 X5 EMF
SEPLGU340688	PLUG,BORE 30 X 8
SEGAGU340691	GASKET,MOTOR,NEMA 56C/140,1SI31 S=0.5
CMBEGU339348	GROOVED BEARING 35MM ID
CMBEGU339350	GROOVED BEARING 0.984 BORE, EMQ
SESEGU340690	SEAL,30X 62X 7 A FKM

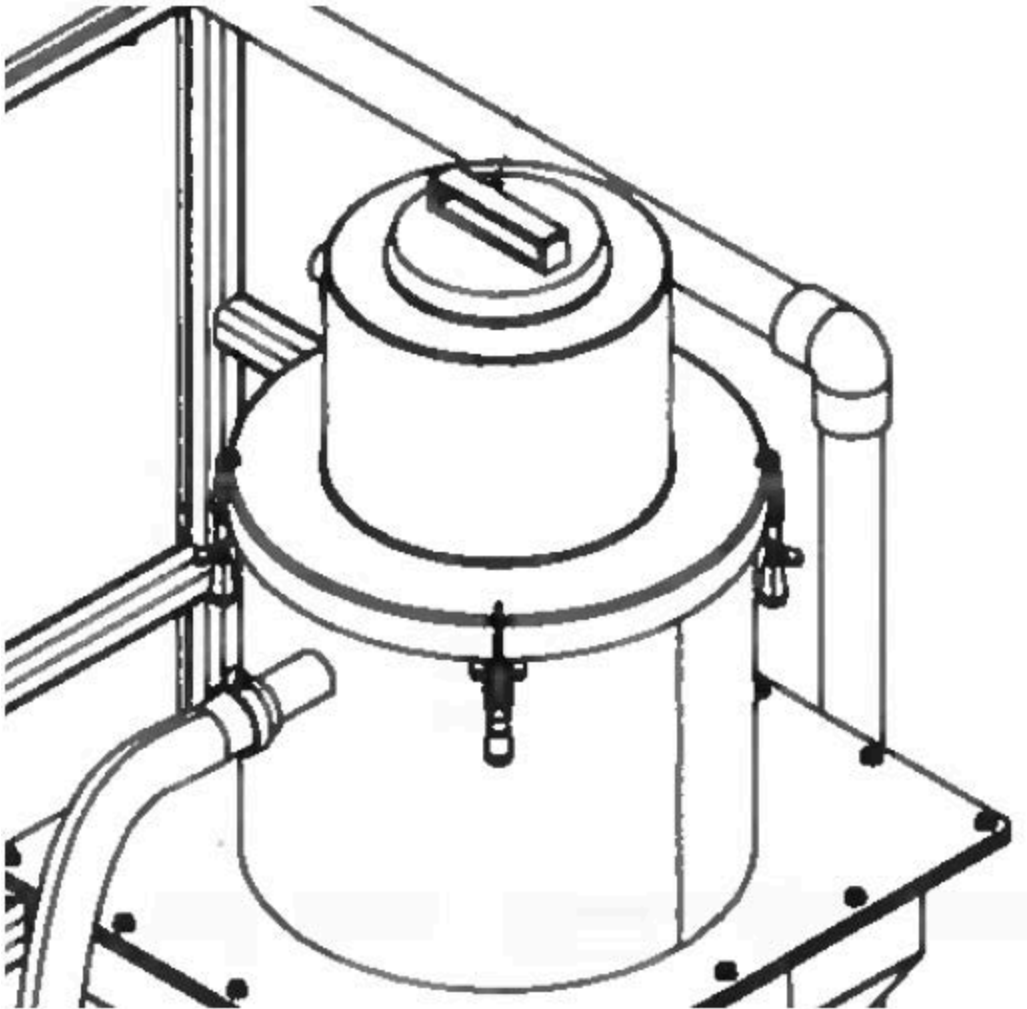
- **Sub-Unit 3 : Eductor**



Available spare parts:

#Aquapart	Description
EJGUEJ200371	EDUCTOR (MN62-02)

- **Sub-Unit 4: Vacuum Conveyor**

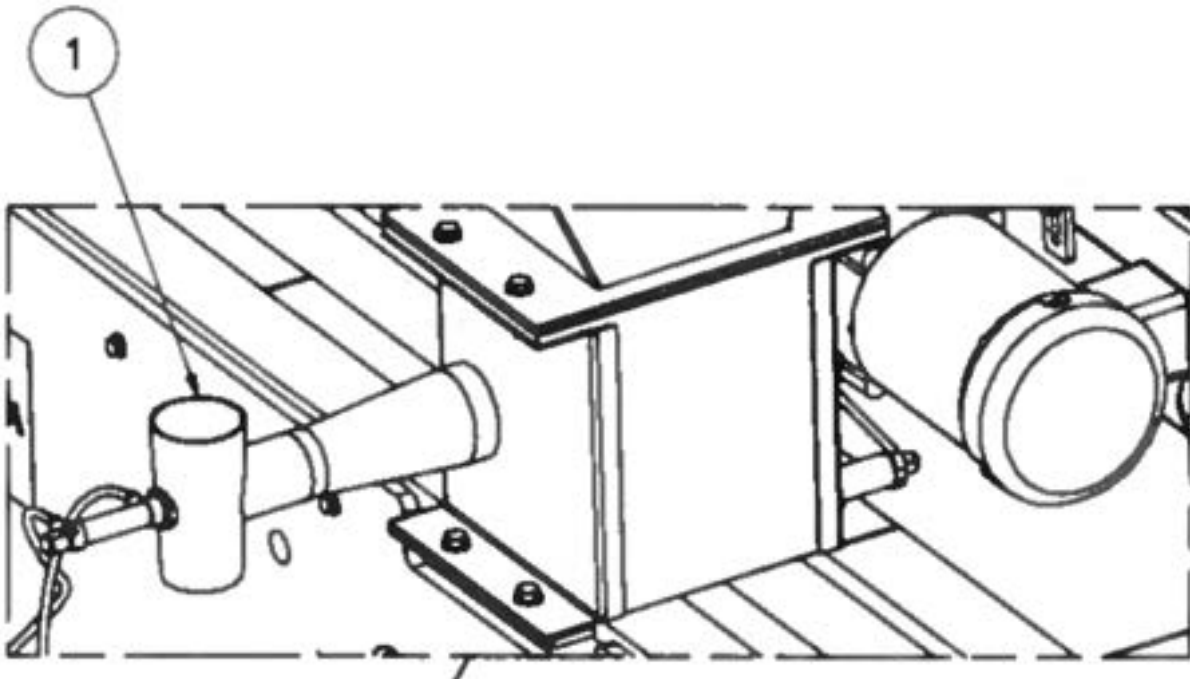


Available spare parts:

#Aquapart	Description
TOIEGU317247	VACUUM CONVEYOR (Whole sub-unit)
FASPHP338711	GASKET, VACUUM HEAD, NEOPRENE
CFBGYD322723	POLYESTER FILTER FOR HAZVAC WITH CLAMP
TOTOME319807	EXHAUST SILENCER ASSEMBLY 2" x 7" MADE OF ABS

4.1.4. Model: C2-1000

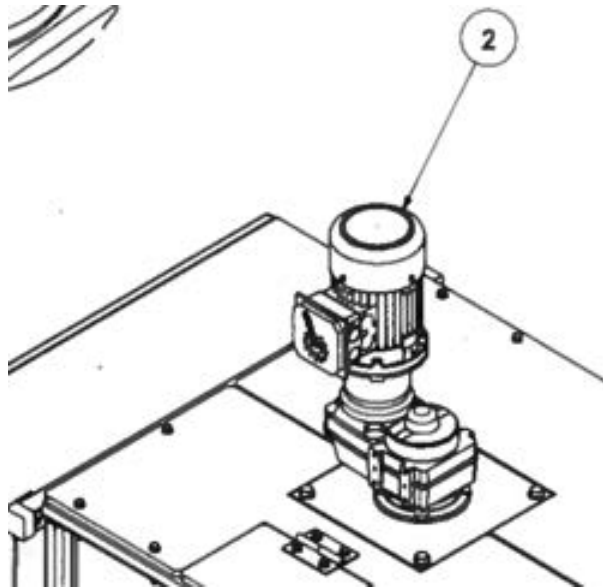
- **Sub-Unit 1: Volumetric Feeder**



Available spare parts:

#Aqupart	Description
CMSPGU346171	DRY FEEDER (Whole sub-unit)
SESHGU320298	MBTT2, SHAFT SEAL IN ST. STEEL WITH GREASING FOR SIZE 42
CMSPGU329528	UTD242000, SPECIAL FEEDING TOOL TYPE 4 HELICOID FLIGHTING WITH CENTER PIPE IN SS FOR SIZE 42
CEMOGU339785	BALDOR MOTOR 230V/1Ph/60hz 0.5HP FOR DRY FEEDER
FTCKPD302114	MALE CONNECTOR 1/ 4" X MS, CA JOINT, QUICK CONNECTION
CMPNGU337688	MDXSC24, VERTICAL DISCHARGE TUBE WITH PNEUMATIC ACTUATOR

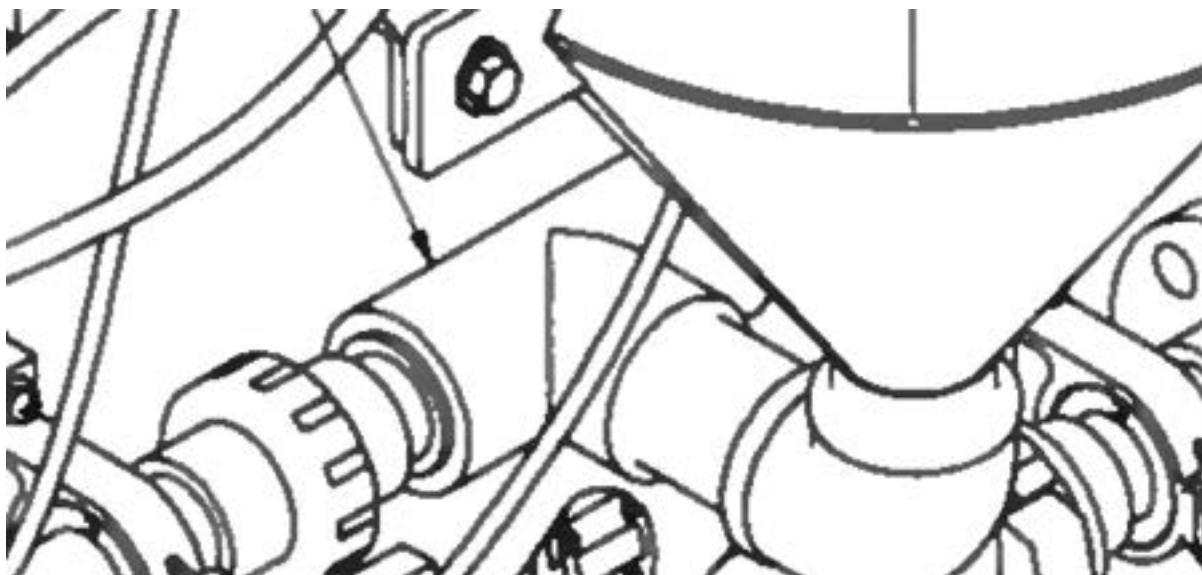
- **Sub-Unit 2: Maturation Tank Mixer**



Available spare parts:

#Aquapart	Description
CMSPMI336372	MATURATION MIXER (Whole sub-unit)
CEMOGU353723	WEG GEARMOTOR 230V/1PH/60HZ 0.5HP FOR MIXER
SEGAGU328769	GASKET,MTR SK20 120X80
SEGAGU340648	GASKET-ASSY COVER SK0182.1 S=1
CMBEGU326407	BEARING 6008 Z, ZR C 16.6
SESEGU328774	SEAL,MECHANIC 40X68X8 AS
CMBEGU339349	GROOVED BEARING 0.472 BORE/1.26 OD
CMBEGU339351	GROOVED BEARING 0.472 BORE/1.457 OD
SEPLGU340689	PLUG,BORE 37 X5 EMF
SEPLGU340688	PLUG,BORE 30 X 8
SEGAGU340691	GASKET,MOTOR,NEMA 56C/140,1SI31 S=0.5
CMBEGU339348	GROOVED BEARING 35MM ID
CMBEGU339350	GROOVED BEARING 0.984 BORE, EMQ
SESEGU340690	SEAL,30X 62X 7 A FKM

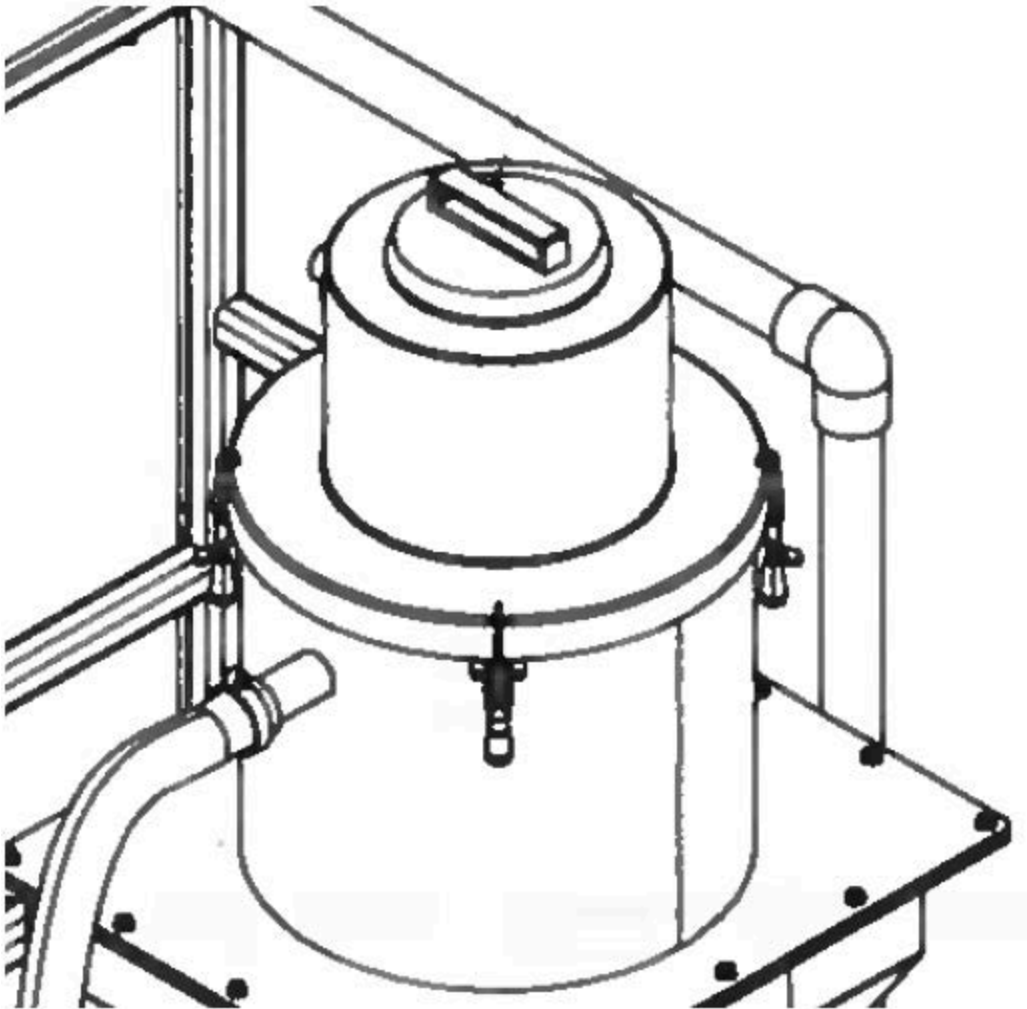
- **Sub-Unit 3 : Eductor**



Available spare parts:

#Aquapart	Description
EJGUEJ200371	EDUCTOR (MN62-02)

- **Sub-Unit 4: Vacuum Conveyor**

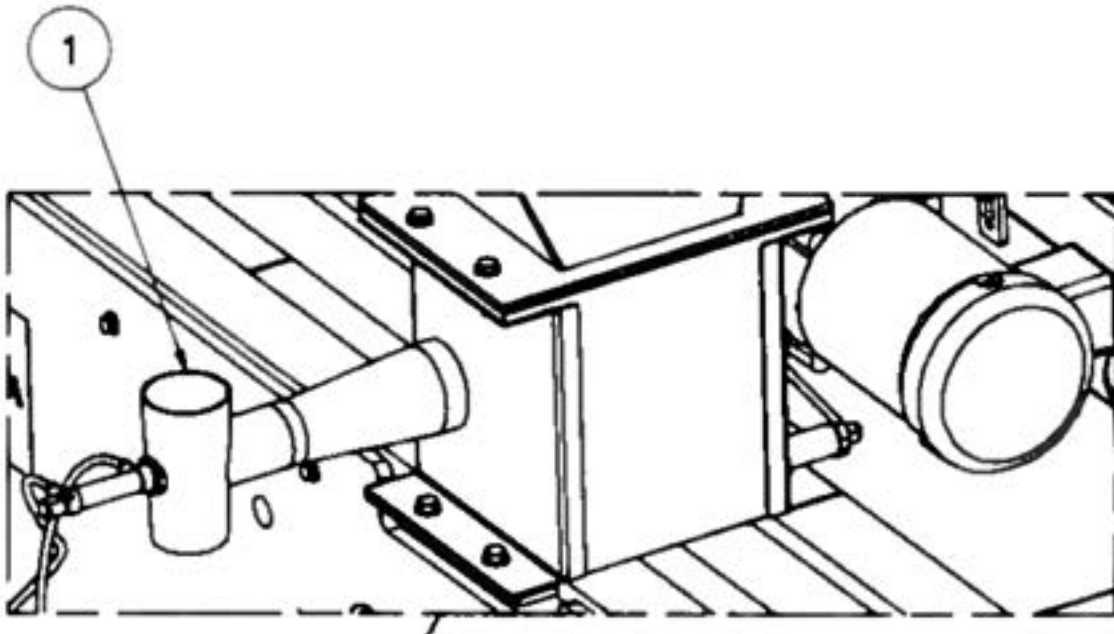


Available spare parts:

#Aquapart	Description
TOIEGU317247	VACUUM CONVEYOR (Whole sub-unit)
CFBGYD322723	POLYESTER FILTER FOR HAZVAC WITH CLAMP
FASPHP338711	GASKET, VACUUM HEAD, NEOPRENE
TOTOME319807	EXHAUST SILENCER ASSEMBLY 2" x 7" MADE OF ABS

4.1.5. Model: C3-500

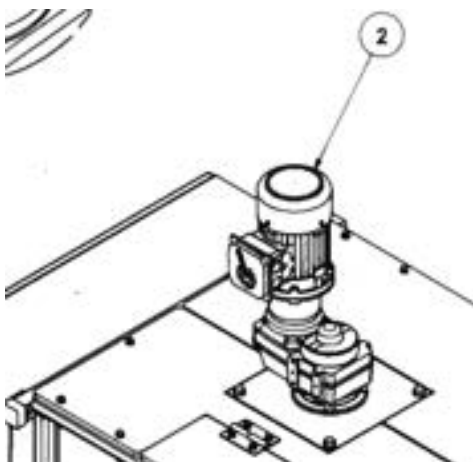
- **Sub-Unit 1: Volumetric Feeder**



Available spare parts:

#Aquapart	Description
460V: CMSPGU346170 575V: CMSPGU346169	DRY FEEDER (Whole sub-unit)
SESHGU320298	MBTT2, SHAFT SEAL IN ST. STEEL WITH GREASING FOR SIZE 42
CMSPGU329528	UTD242000, SPECIAL FEEDING TOOL TYPE 4 HELICOID FLIGHTING WITH CENTER PIPE IN SS FOR SIZE 42
460V: CEMOGU339786 575V: CEMOGU339787	BALDOR MOTOR 575V/3Ph/60hz 0.5HP FOR DRY FEEDER (Also available with 460V tension in USA)
FTCKPD302114	MALE CONNECTOR 1/ 4" X MS, CA JOINT, QUICK CONNECTION
CMPNGU337688	MDXSC24, VERTICAL DISCHARGE TUBE WITH PNEUMATIC ACTUATOR

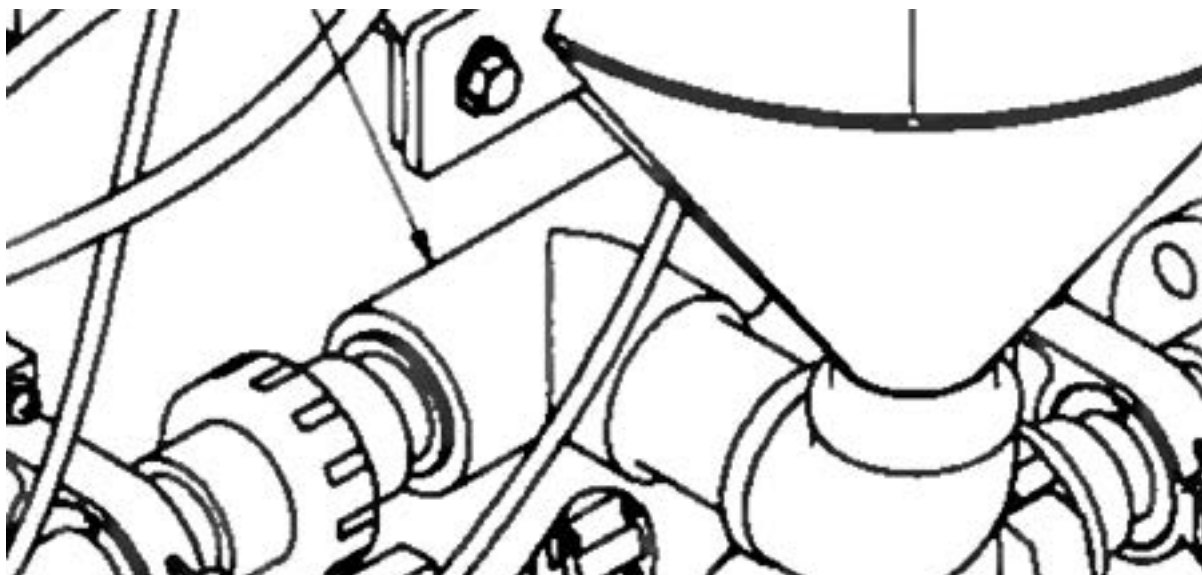
- **Sub-Unit 2: Maturation Tank Mixer**



Available spare parts:

#Aquapart	Description
460V: CMSPMI336367 575V: CMSPMI335088	MATURATION MIXER (Whole sub-unit)
460V: CEMOGU353087 575V: CEMOGU353088	NORD MOTOR 575V/3PH/60HZ 0.33HP FOR MIXER (Also available with 460V tension in USA)
SEGAGU328769	GASKET,MTR SK20 120X80
SEGAGU340648	GASKET-ASSY COVER SK0182.1 S=1
CMBEGU326407	BEARING 6008 Z, ZR C 16.6
SESEGU328774	SEAL,MECHANIC 40X68X8 AS
CMBEGU339349	GROOVED BEARING 0.472 BORE/1.26 OD
CMBEGU339351	GROOVED BEARING 0.472 BORE/1.457 OD
SEPLGU340689	PLUG,BORE 37 X5 EMF
SEPLGU340688	PLUG,BORE 30 X 8
SEGAGU340691	GASKET,MOTOR,NEMA 56C/140,1SI31 S=0.5
CMBEGU339348	GROOVED BEARING 35MM ID
CMBEGU339350	GROOVED BEARING 0.984 BORE, EMQ
SESEGU340690	SEAL,30X 62X 7 A FKM

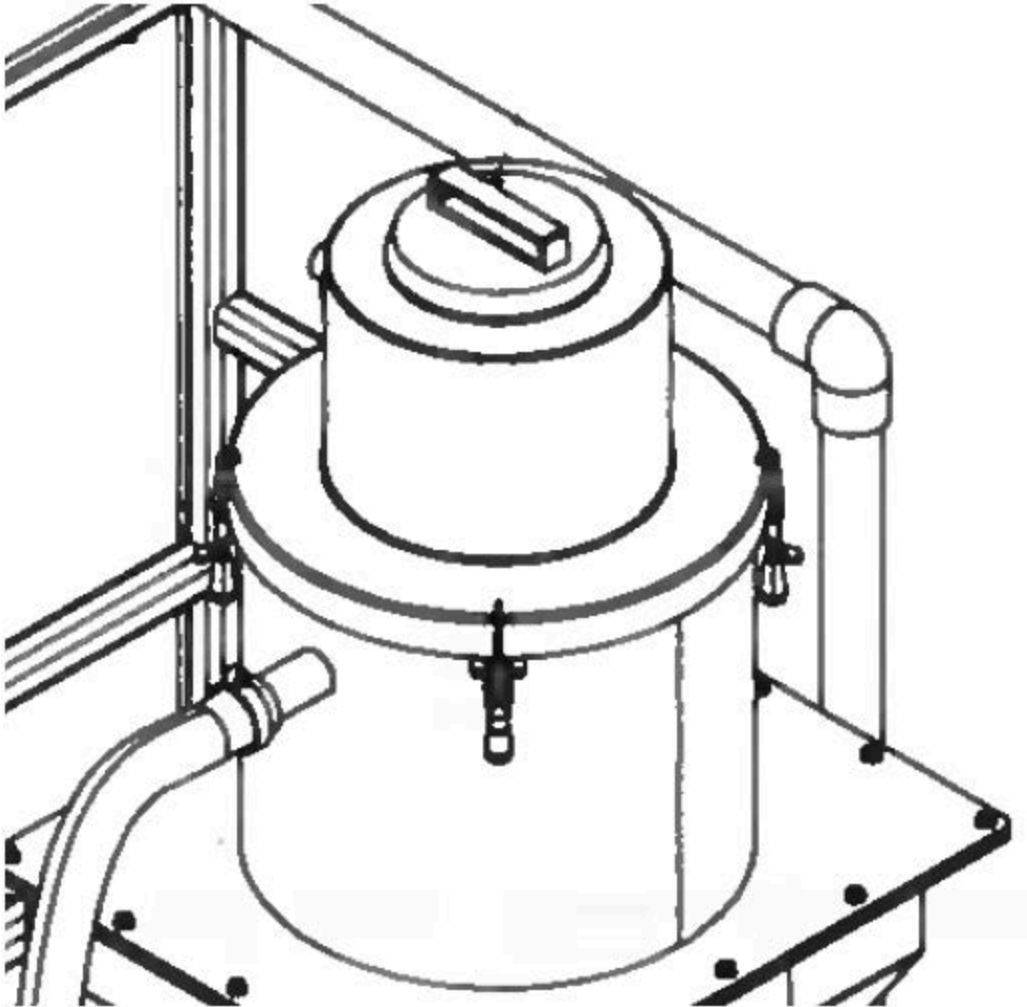
- **Sub-Unit 3 : Eductor**



Available spare parts:

#Aquapart	Description
EJGUEJ200371	EDUCTOR (MN62-02)

- **Sub-Unit 4: Vacuum Conveyor**

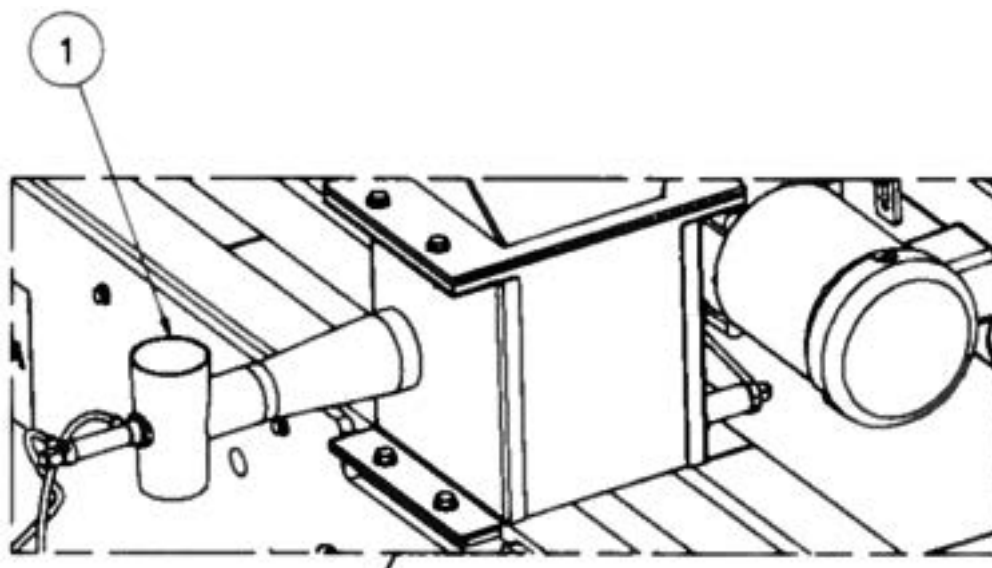


Available spare parts:

#Aquapart	Description
TOIEGU317247	VACUUM CONVEYOR (Whole sub-unit)
CFBGYD322723	POLYESTER FILTER FOR HAZVAC WITH CLAMP
FASPHP338711	GASKET FOR LID FOR EC-12, 3/8" X 1-1/4" x 50" LONG, CELLULAR URETHANE WITH ADHESIVE
TOTOME319807	EXHAUST SILENCER ASSEMBLY 2" x 7" MADE OF ABS

4.1.6. Model: C3-1000

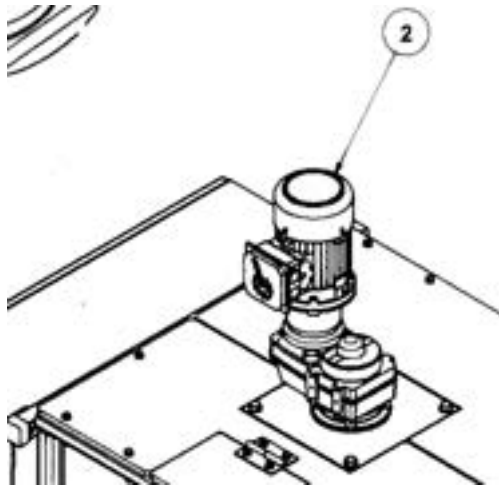
- **Sub-Unit 1: Volumetric Feeder**



Available spare parts:

#Aquapart	Description
460V: CMSPGU346170 575V: CMSPGU346169	DRY FEEDER (Whole sub-unit)
SESHGU320298	MBTT2, SHAFT SEAL IN ST. STEEL WITH GREASING FOR SIZE 42
CMSPGU329528	UTD242000, SPECIAL FEEDING TOOL TYPE 4 HELICOID FLIGHTING WITH CENTER PIPE IN SS FOR SIZE 42
460V: CEMOGU339786 575V: CEMOGU339787	BALDOR MOTOR 575V/3Ph/60hz 0.5HP FOR DRY FEEDER (Also available with 460V tension in USA)
FTCKPD302114	MALE CONNECTOR 1/ 4" X MS, CA JOINT, QUICK CONNECTION
CMPNGU337688	MDXSC24, VERTICAL DISCHARGE TUBE WITH PNEUMATIC ACTUATOR

- **Sub-Unit 2: Maturation Tank Mixer**

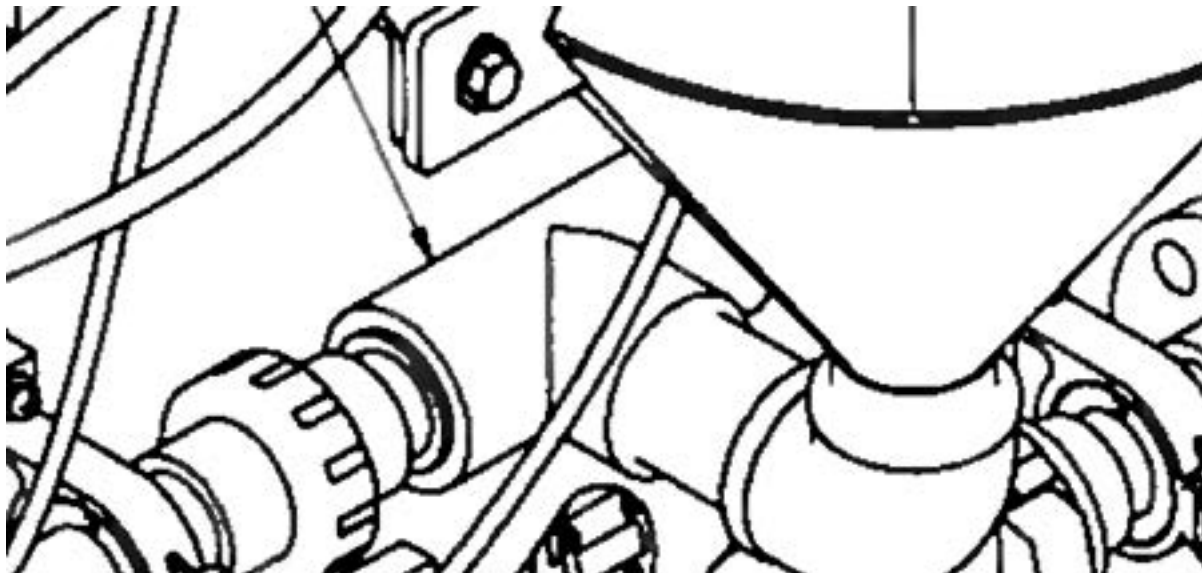


Available spare parts:

#Aquapart	Description
460V: CMSPMI336373 575V: CMSPMI336387	MATURATION MIXER (Whole sub-unit)
460V: CEMOGU353081 575V: CEMOGU354263	NORD GEARMOTOR 575V/3PH/60HZ 0.5HP FOR MIXER (Also available with 460V tension in USA)
SEGAGU328769	GASKET,MTR SK20 120X80
SEGAGU340648	GASKET-ASSY COVER SK0182.1 S=1
CMBEGU326407	BEARING 6008 Z, ZR C 16.6
SESEGU328774	SEAL,MECHANIC 40X68X8 AS
CMBEGU339349	GROOVED BEARING 0.472 BORE/1.26 OD
CMBEGU339351	GROOVED BEARING 0.472 BORE/1.457 OD
SEPLGU340689	PLUG,BORE 37 X5 EMF
SEPLGU340688	PLUG,BORE 30 X 8
SEGAGU340691	GASKET,MOTOR,NEMA 56C/140,1SI31 S=0.5
CMBEGU339348	GROOVED BEARING 35MM ID

CMBEGU339350	GROOVED BEARING 0.984 BORE, EMQ
SESEGU340690	SEAL,30X 62X 7 A FKM

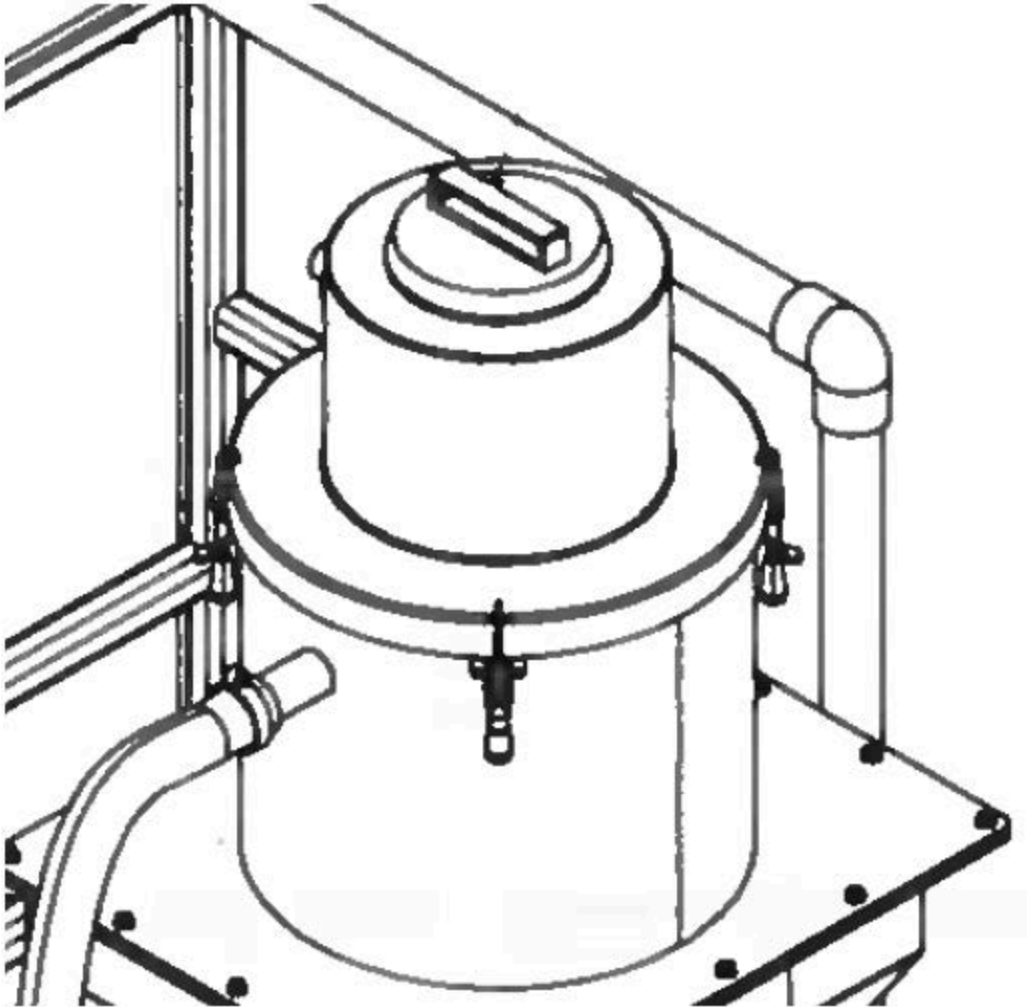
- **Sub-Unit 3 : Eductor**



Available spare parts:

#Aquapart	Description
EJGUEJ200371	EDUCTOR (MN62-02)

- **Sub-Unit 4: Vacuum Conveyor**



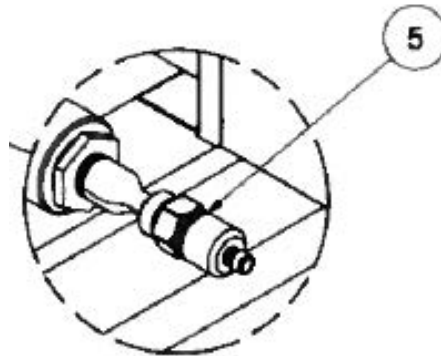
Available spare parts:

#Aquapart	Description
TOIEGU317247	VACUUM CONVEYOR (Whole sub-unit)
CFBGYD322723	POLYESTER FILTER FOR HAZVAC WITH CLAMP
FASPHP338711	GASKET, VACUUM HEAD, NEOPRENE
TOTOME319807	EXHAUST SILENCER ASSEMBLY 2" x 7" MADE OF ABS

4.2. Instrumentation

4.2.1. Model: C1-500

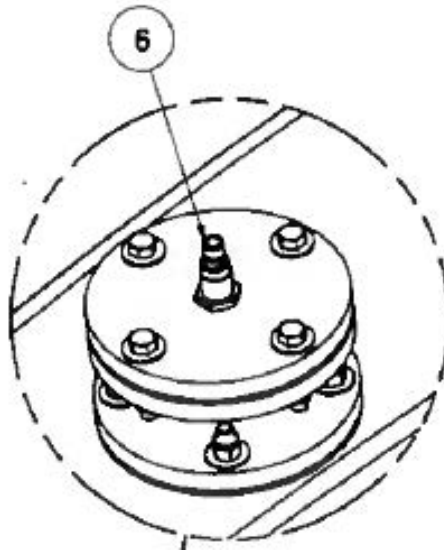
- Sub-Unit 5: Maturation Tank - Level Transmitter



Available spare parts:

#Aquapart	Description
IEMRLE343806	MATURATION TANK - LEVEL TRANSMITTER (LT62-01)

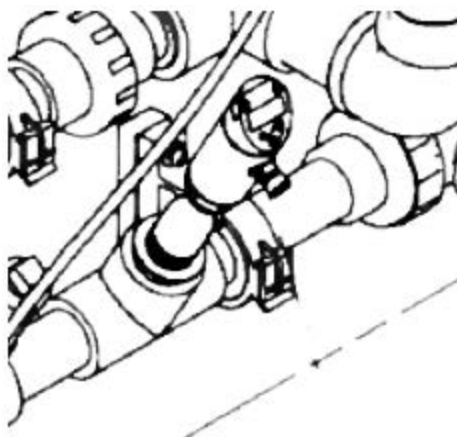
- **Sub-Unit 6: Storage Tank - Level Transmitter**



Available spare parts:

#Aquapart	Description
IEPOLE348108	STORAGE TANK - LEVEL TRANSMITTER (LT62-02)

- **Sub-Unit 8: Service Water - Pressure Switch**

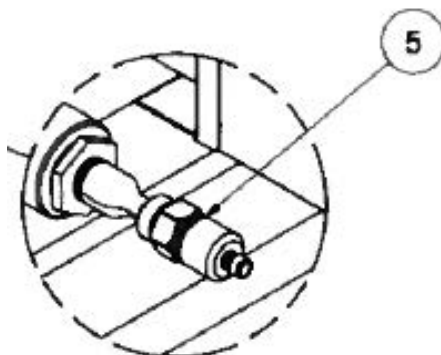


Available spare parts:

#Aquapart	Description
IESWSP342303	SERVICE WATER PRESSURE SWITCH (PSLL62-01)

4.2.2. Model: C1-1000

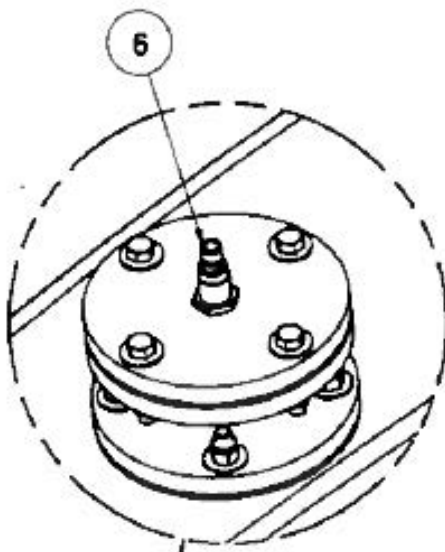
- Sub-Unit 5: Maturation Tank - Level Transmitter



Available spare parts:

#Aquapart	Description
IEMRLE343806	MATURATION TANK - LEVEL TRANSMITTER (LT62-01)

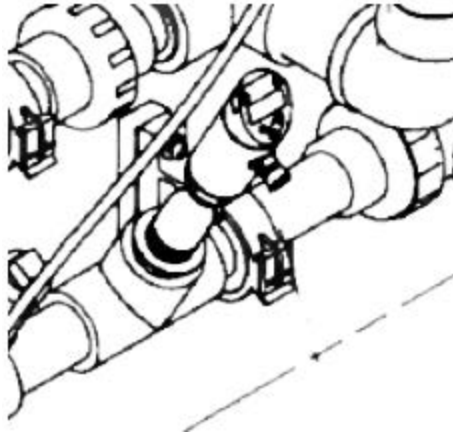
- **Sub-Unit 6: Storage Tank - Level Transmitter**



Available spare parts:

#Aquapart	Description
IEPOLE348108	STORAGE TANK - LEVEL TRANSMITTER (LT62-02)

- **Sub-Unit 8: Service Water - Pressure Switch**

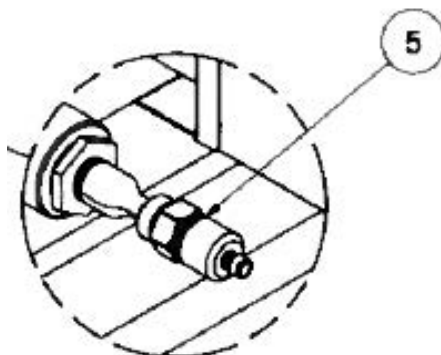


Available spare parts:

#Aquapart	Description
IESWSP342303	SERVICE WATER PRESSURE SWITCH (PSLL62-01)

4.2.3. Model: C2-500

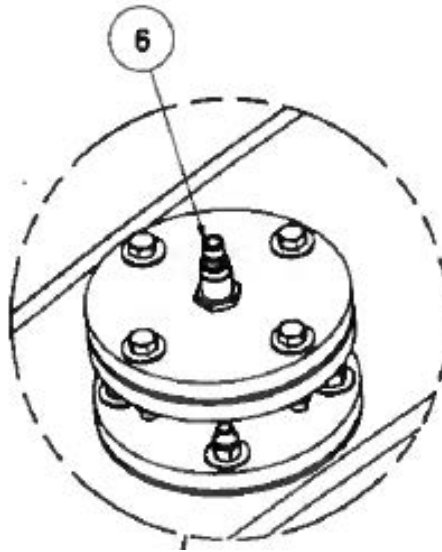
- Sub-Unit 5: Maturation Tank - Level Transmitter



Available spare parts:

#Aquapart	Description
IEMRLE343806	MATURATION TANK - LEVEL TRANSMITTER (LT62-01)

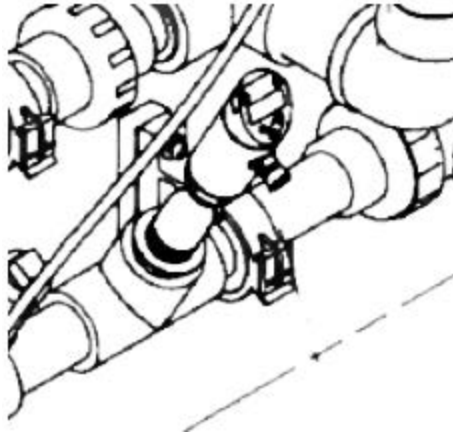
- **Sub-Unit 6: Storage Tank - Level Transmitter**



Available spare parts:

#Aquapart	Description
IEPOLE348108	STORAGE TANK - LEVEL TRANSMITTER (LT62-02)

- **Sub-Unit 8: Service Water - Pressure Switch**

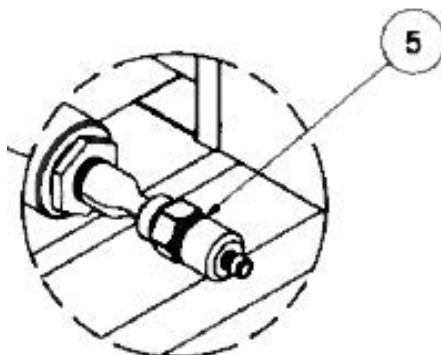


Available spare parts:

#Aquapart	Description
IESWSP342303	SERVICE WATER PRESSURE SWITCH (PSLL62-01)

4.2.4. Model: C2-1000

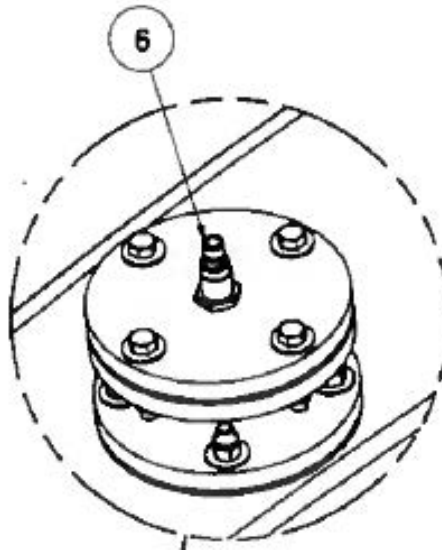
- Sub-Unit 5: Maturation Tank - Level Transmitter



Available spare parts:

#Aquapart	Description
IEMRLE343806	MATURATION TANK - LEVEL TRANSMITTER (LT62-01)

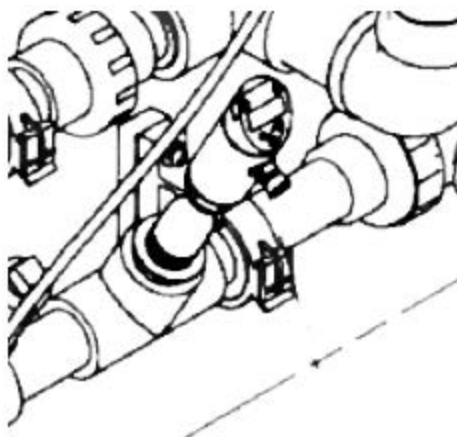
- **Sub-Unit 6: Storage Tank - Level Transmitter**



Available spare parts:

#Aquapart	Description
IEPOLE348108	STORAGE TANK - LEVEL TRANSMITTER (LT62-02)

- **Sub-Unit 8: Service Water - Pressure Switch**

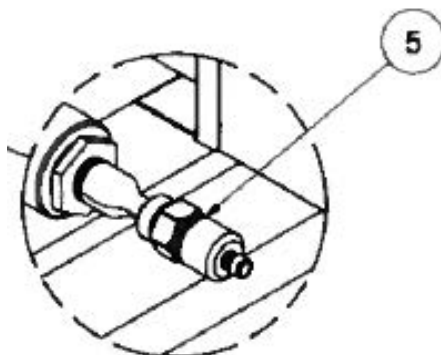


Available spare parts:

#Aquapart	Description
IESWSP342303	SERVICE WATER PRESSURE SWITCH (PSLL62-01)

4.2.5. Model: C3-500

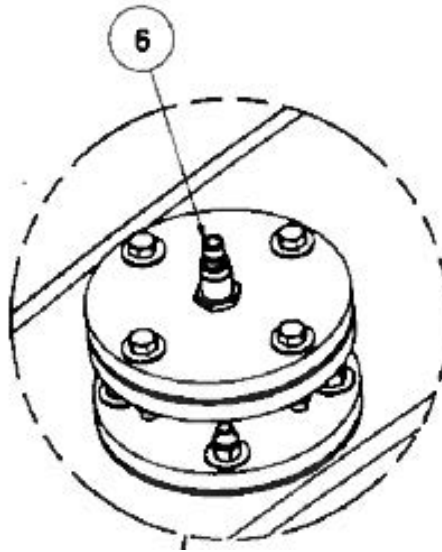
- Sub-Unit 5: Maturation Tank - Level Transmitter



Available spare parts:

#Aquapart	Description
IEMRLE343806	MATURATION TANK - LEVEL TRANSMITTER (LT62-01)

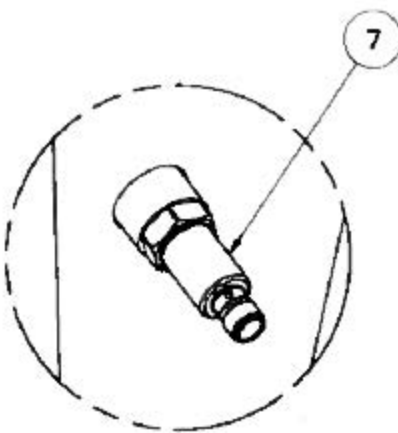
- **Sub-Unit 6: Storage Tank - Level Transmitter**



Available spare parts:

#Aquapart	Description
IEPOLE348108	STORAGE TANK - LEVEL TRANSMITTER (LT62-02)

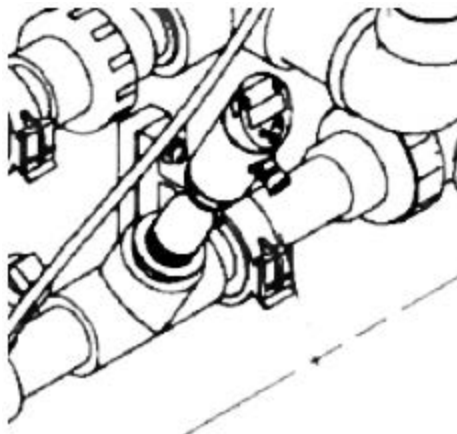
- **Sub-Unit 7: Hopper-Low Level Switch**



Available spare parts:

#Aquapart	Description
IESWLE342302	HOPPER - LOW LEVEL SWITCH (LSL62-01)

- **Sub-Unit 8: Service Water - Pressure Switch**

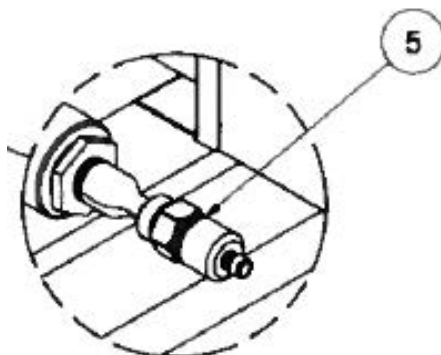


Available spare parts:

#Aquapart	Description
IESWSP342303	SERVICE WATER - PRESSURE SWITCH (PSLL62-01)

4.2.6. Model: C3-1000

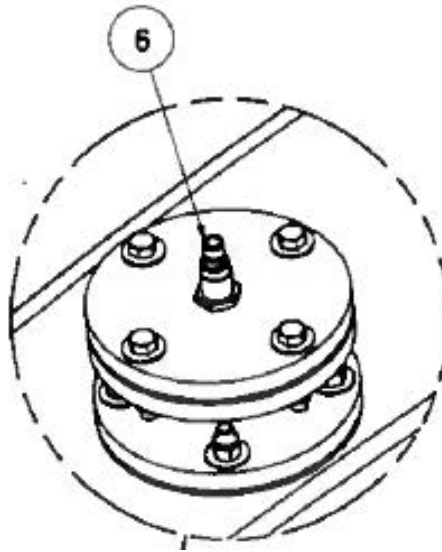
- Sub-Unit 5: Maturation Tank - Level Transmitter



Available spare parts:

#Aquapart	Description
IEMRLE343806	MATURATION TANK - LEVEL TRANSMITTER (LT62-01)

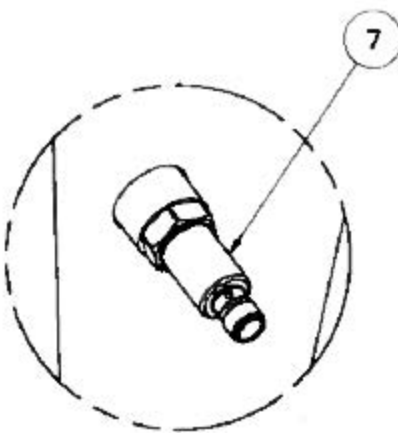
- **Sub-Unit 6: Storage Tank - Level Transmitter**



Available spare parts:

#Aquapart	Description
IEPOLE348108	STORAGE TANK - LEVEL TRANSMITTER (LT62-02)

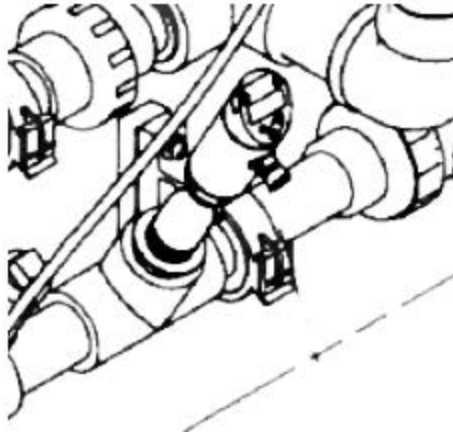
- **Sub-Unit 7: Hopper-Low Level Switch**



Available spare parts:

#Aquapart	Description
IESWLE342302	HOPPER LOW LEVEL SWITCH (LSL62-01)

- **Sub-Unit 8: Service Water - Pressure Switch**



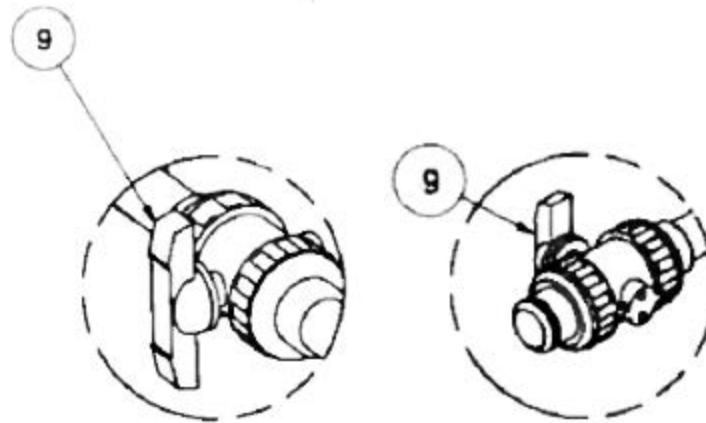
Available spare parts:

#Aquapart	Description
IESWSP342303	SERVICE WATER PRESSURE SWITCH (PSLL62-01)

4.3. Valves

4.3.1. Model: C1-500

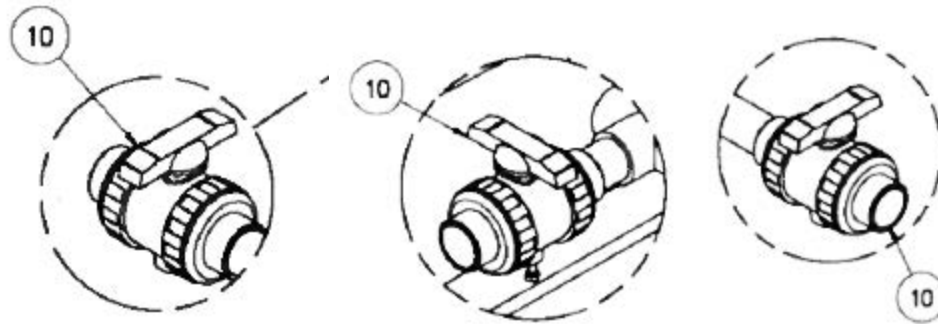
- Sub-Unit 9: Isolation valves Ø1”



Available spare parts:

#Aquapart	Description
VABLPV200251	ISOLATION VALVE - DRIVING WATER (VM62-01)
VABLPV200251	ISOLATION VALVE- TANKS DRAINS

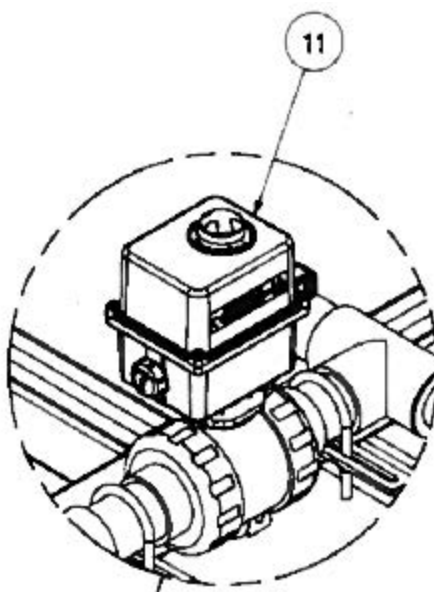
- **Sub-Unit 10: Isolation valves Ø1 1/2"**



Available spare parts:

#Aquapart	Description
VABLPV200253	ISOLATION VALVE- TANKS DRAINS
VABLPV200253	ISOLATION VALVE- TANK OUTLET (V62-06)
VABLPV200253	ISOLATION VALVE- TANKS DRAINS

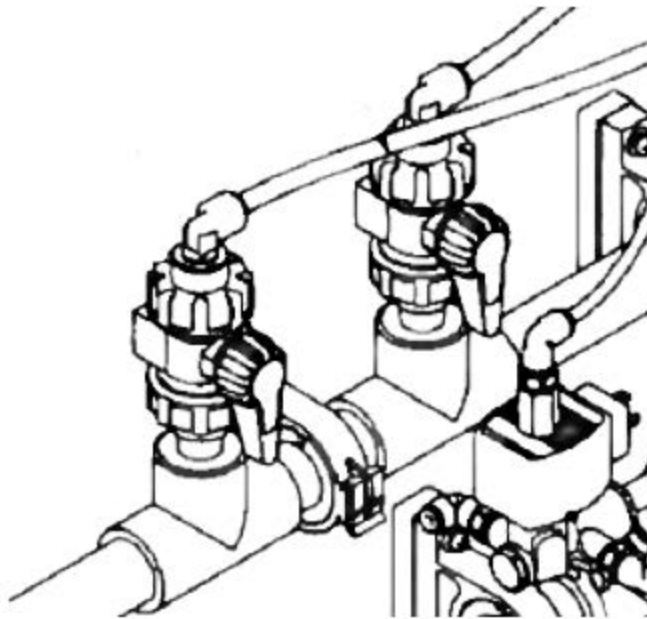
- **Sub-Unit 11: Transfer valve Ø2"**



Available spare parts:

#Aquapart	Description
VABLPV353596	ACTUATED TRANSFER VALVE (Whole sub-unit) (VA62-01)
VABLSP363579	ELECTRIC ACTUATOR ERS20.12 120VAC

- **Sub-Unit 12: Metering valve - Wetting cone**



Available spare parts:

#Aquapart	Description
VABLPV346917	METERING VALVE- WETTING CONE (VN62-01)
VABLPV346917	METERING VALVE- WETTING CONE (VN62-02)

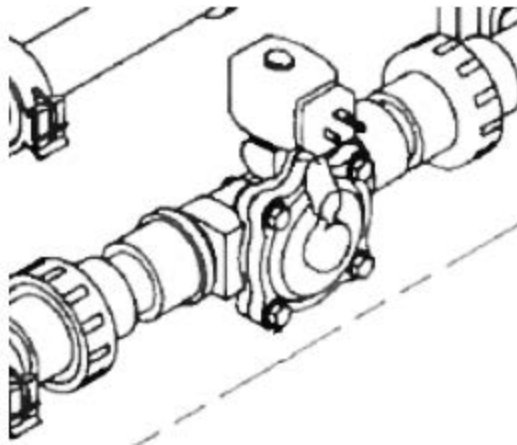
- **Sub-Unit 13: Check Valve - Liquid Polymer**



Available spare parts:

#Aquapart	Description
VANRPV200667	CHECK VALVE- LIQUID POLYMER (VNR62-01)

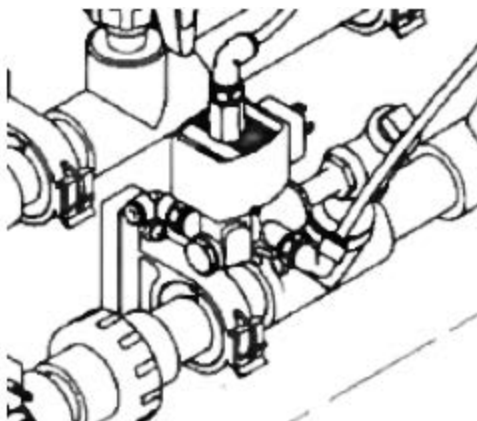
- **Sub-Unit 14: Solenoid Valve - Driving Water**



Available spare parts:

#Aquapart	Description
VASDBR353835	SOLENOID VALVE - DRIVING WATER (VE62-01)

- **Sub-Unit 15: Solenoid Valve - Feeder**

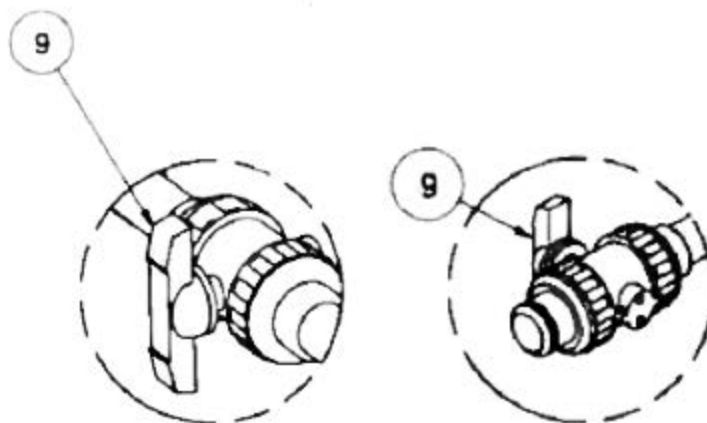


Available spare parts:

#Aquapart	Description
VASDBR353836	SOLENOID VALVE - FEEDER (VE62-02)

4.3.2. Model: C1-1000

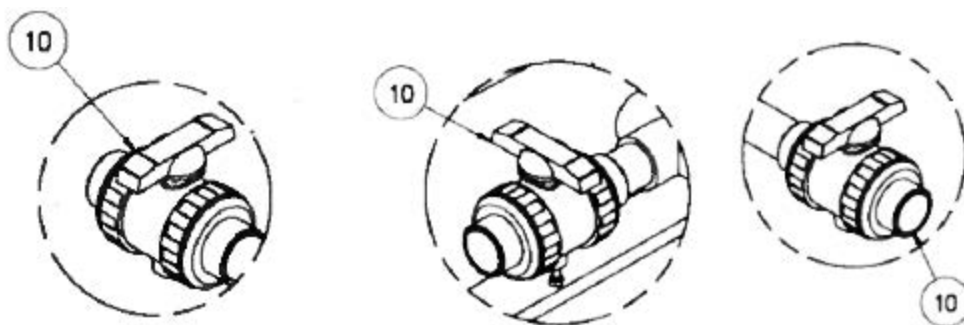
- Sub-Unit 9: Isolation valves Ø1''



Available spare parts:

#Aquapart	Description
VABLPV200251	ISOLATION VALVE - DRIVING WATER (VM62-01)
VABLPV200251	ISOLATION VALVE- TANKS DRAINS

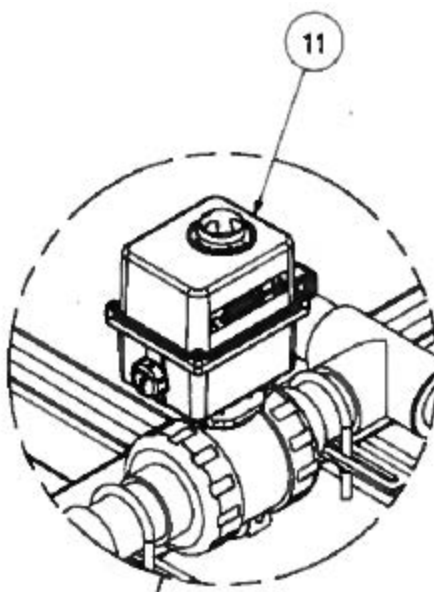
- **Sub-Unit 10: Isolation valves Ø1 1/2"**



Available spare parts:

#Aquapart	Description
VABLPV200253	ISOLATION VALVE- TANKS DRAINS
VABLPV200253	ISOLATION VALVE- TANK OUTLET (VM62-03)
VABLPV200253	ISOLATION VALVE- TANKS DRAINS

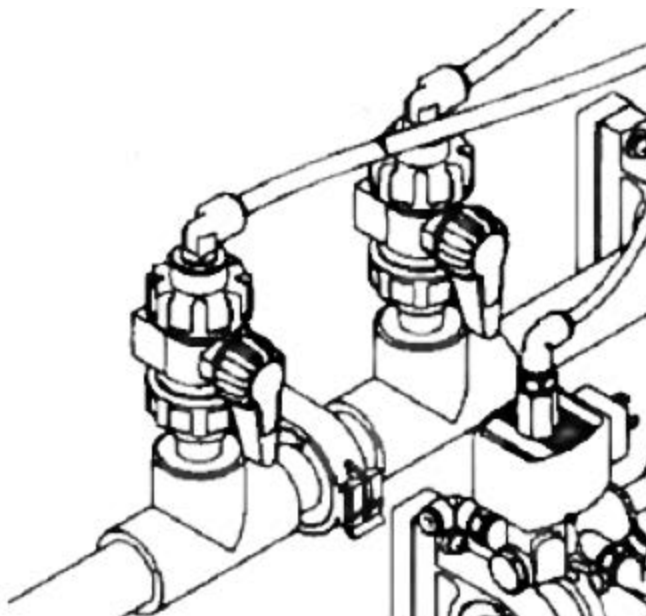
- **Sub-Unit 11: Transfer valve Ø2"**



Available spare parts:

#Aquapart	Description
VABLPV353596	ACTUATED TRANSFER VALVE (Whole sub-unit) (VA62-01)
VABLSP363579	ELECTRIC ACTUATOR ERS20.12 120VAC

- **Sub-Unit 12: Metering valve - Wetting cone**



Available spare parts:

#Aquapart	Description
VABLPV346917	METERING VALVE- WETTING CONE (VN62-01)
VABLPV346917	METERING VALVE- WETTING CONE (VN62-02)

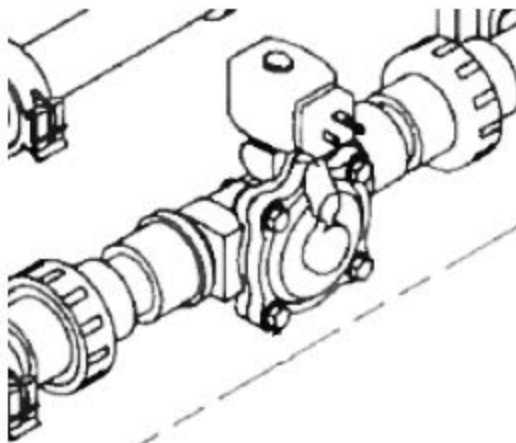
- **Sub-Unit 13: Check Valve - Liquid Polymer**



Available spare parts:

#Aquapart	Description
VANRPV200667	CHECK VALVE- LIQUID POLYMER (VNR62-01)

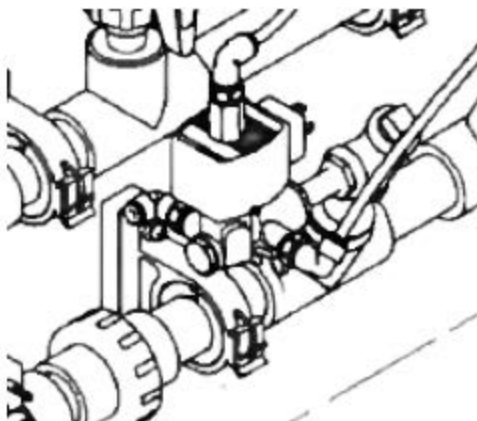
- **Sub-Unit 14: Solenoid Valve - Driving Water**



Available spare parts:

#Aquapart	Description
VASDBR353835	SOLENOID VALVE - DRIVING WATER (VE62-01)

- **Sub-Unit 15: Solenoid Valve - Feeder**

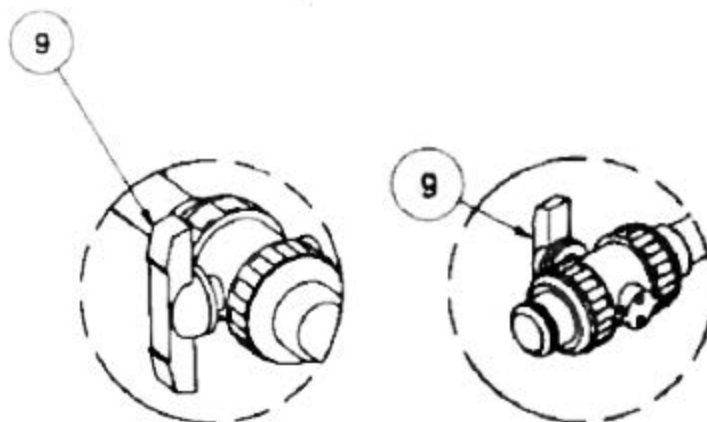


Available spare parts:

#Aquapart	Description
VASDBR353836	SOLENOID VALVE - FEEDER (VE62-02)

4.3.3. Model: C2-500

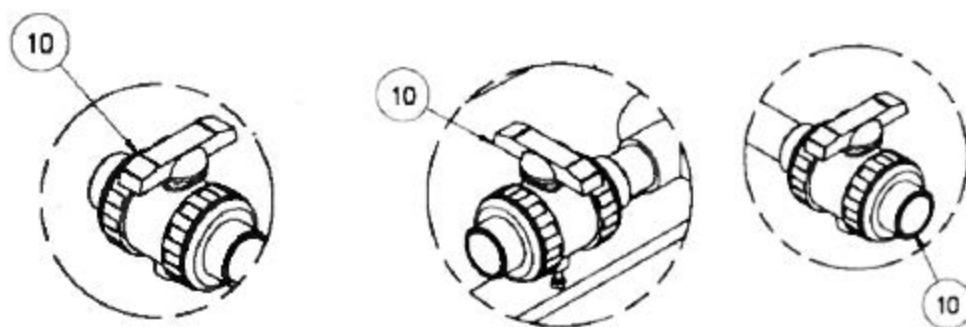
- Sub-Unit 9: Isolation valves Ø1"



Available spare parts:

#Aquapart	Description
VABLPV200251	ISOLATION VALVE - DRIVING WATER (VM62-01)
VABLPV200251	ISOLATION VALVE- TANKS DRAINS

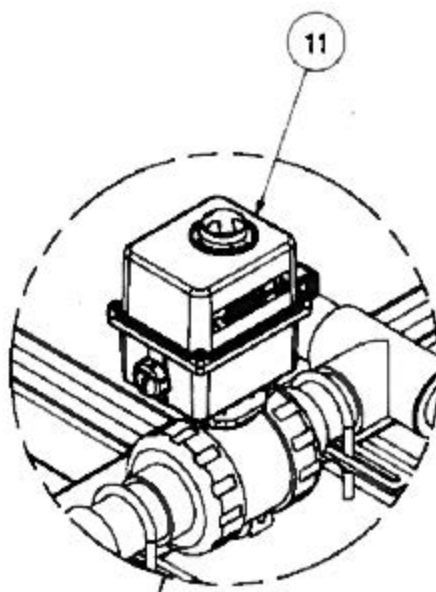
- **Sub-Unit 10: Isolation valves Ø1 1/2"**



Available spare parts:

#Aquapart	Description
VABLPV200253	ISOLATION VALVE- TANKS DRAINS
VABLPV200253	ISOLATION VALVE- TANK OUTLET (VM62-03)
VABLPV200253	ISOLATION VALVE- TANKS DRAINS

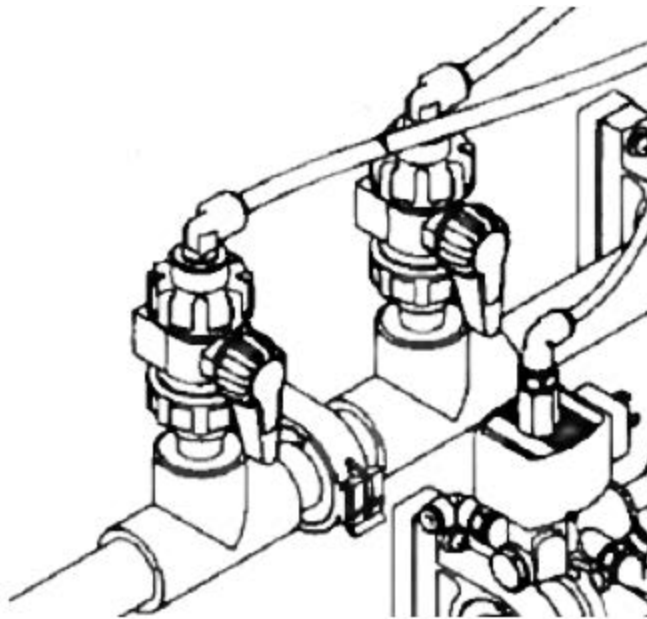
- **Sub-Unit 11: Transfer valve Ø2"**



Available spare parts:

#Aquapart	Description
VABLPV353596	ACTUATED TRANSFER VALVE (Whole sub-unit) (VA62-01)
VABLSP363579	ELECTRIC ACTUATOR ERS20.12 120VAC

- **Sub-Unit 12: Metering valve - Wetting cone**



Available spare parts:

#Aquapart	Description
VABLPV346917	METERING VALVE- WETTING CONE (VN62-01)
VABLPV346917	METERING VALVE- WETTING CONE (VN62-02)

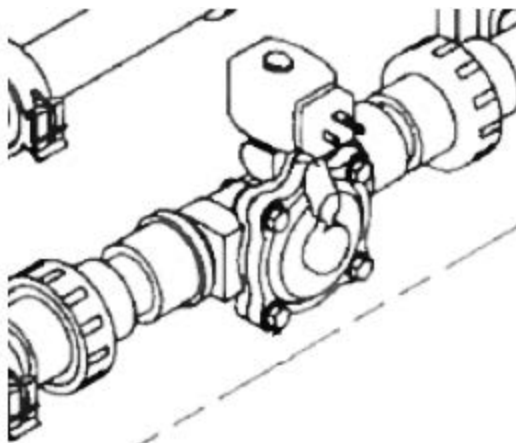
- **Sub-Unit 13: Check Valve - Liquid Polymer**



Available spare parts:

#Aquapart	Description
VANRPV200667	CHECK VALVE- LIQUID POLYMER (VNR62-01)

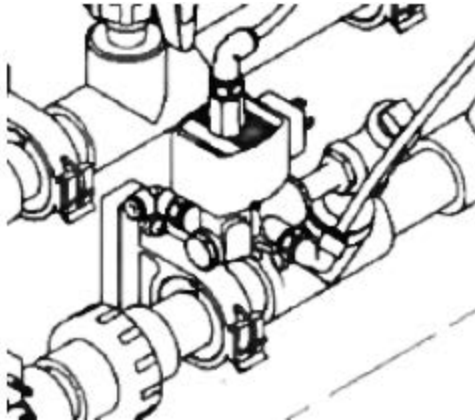
- **Sub-Unit 14: Solenoid Valve - Driving Water**



Available spare parts:

#Aquapart	Description
VASDBR353835	SOLENOID VALVE - DRIVING WATER (VE62-01)

- **Sub-unit 15: Solenoid Valve - Feeder**

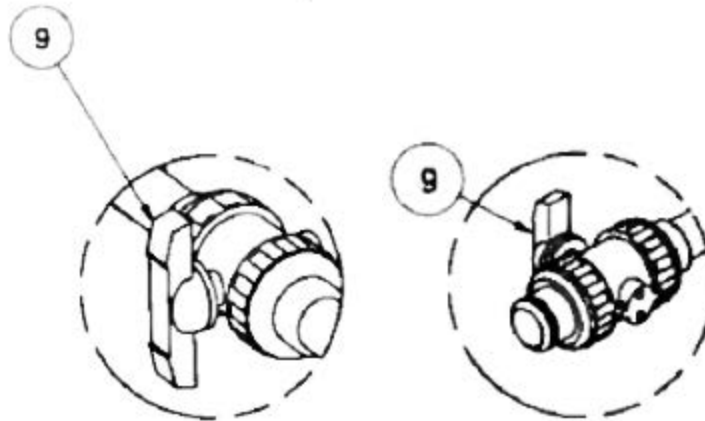


Available spare parts:

#Aquapart	Description
VASDBR353836	SOLENOID VALVE - FEEDER (VE62-02)

4.3.4. Model: C2-1000

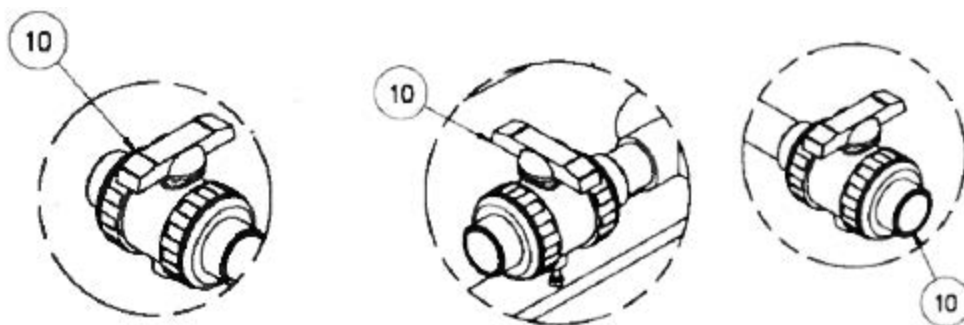
- Sub-Unit 9: Isolation valves Ø1”



Available spare parts:

#Aquapart	Description
VABLPV200251	ISOLATION VALVE - DRIVING WATER (VM62-01)
VABLPV200251	ISOLATION VALVE- TANKS DRAINS

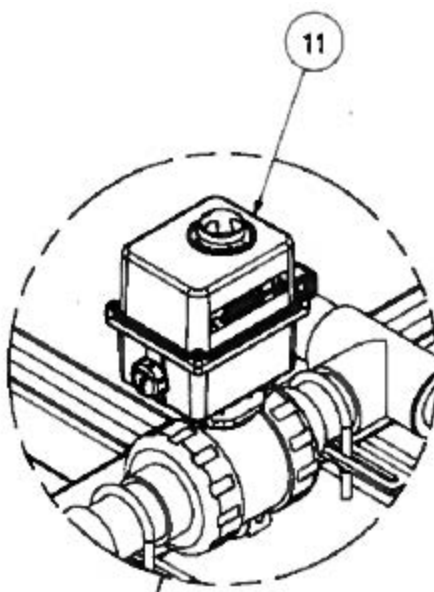
- **Sub-Unit 10: Isolation valves Ø1 1/2"**



Available spare parts:

#Aquapart	Description
VABLPV200253	ISOLATION VALVE- TANKS DRAINS
VABLPV200253	ISOLATION VALVE- TANK OUTLET (VM-62-01)
VABLPV200253	ISOLATION VALVE- TANKS DRAINS

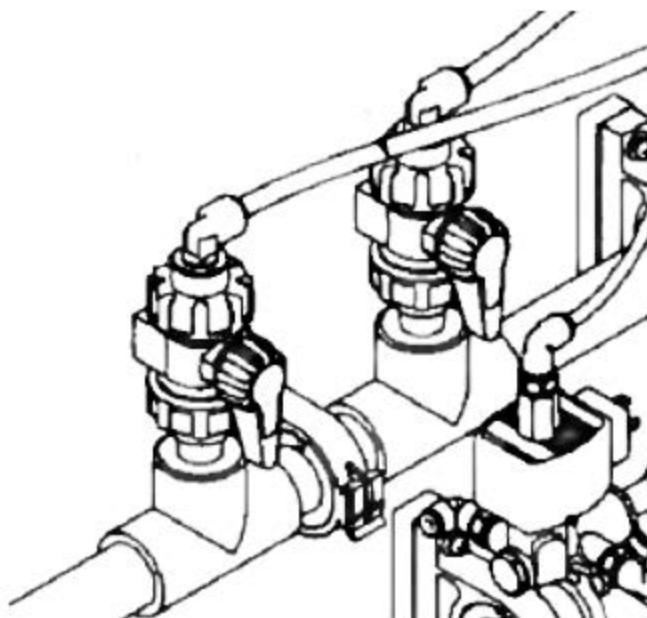
- **Sub-Unit 11: Transfer valve Ø2"**



Available spare parts:

#Aquapart	Description
VABLPV353596	ACTUATED TRANSFER VALVE (Whole sub-unit) (VA62-01)
VABLSP363579	ELECTRIC ACTUATOR ERS20.12 120VAC

- **Sub-Unit 12: Metering valve - Wetting cone**



Available spare parts:

#Aquapart	Description
VABLPV346917	METERING VALVE- WETTING CONE (VN62-01)
VABLPV346917	METERING VALVE- WETTING CONE (VN62-02)

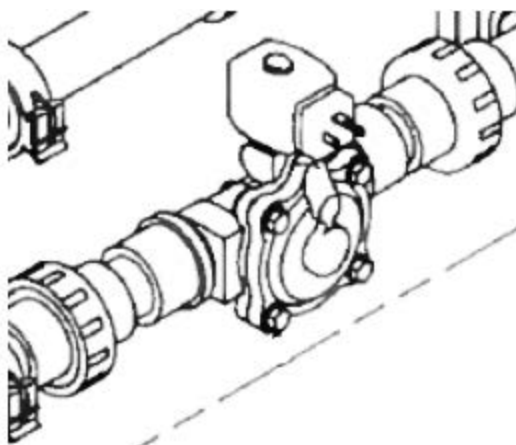
- **Sub-Unit 13: Check Valve - Liquid Polymer**



Available spare parts:

#Aquapart	Description
VANRPV200667	CHECK VALVE- LIQUID POLYMER (VNR62-01)

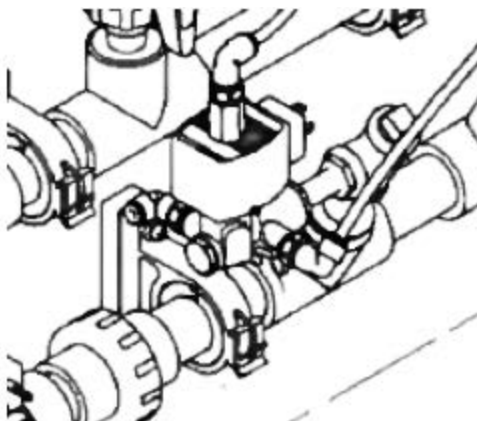
- **Sub-Unit 14: Solenoid Valve - Driving Water**



Available spare parts:

#Aquapart	Description
VASDBR353835	SOLENOID VALVE - DRIVING WATER (VE62-01)

- **Sub-Unit 15: Solenoid Valve - Feeder**

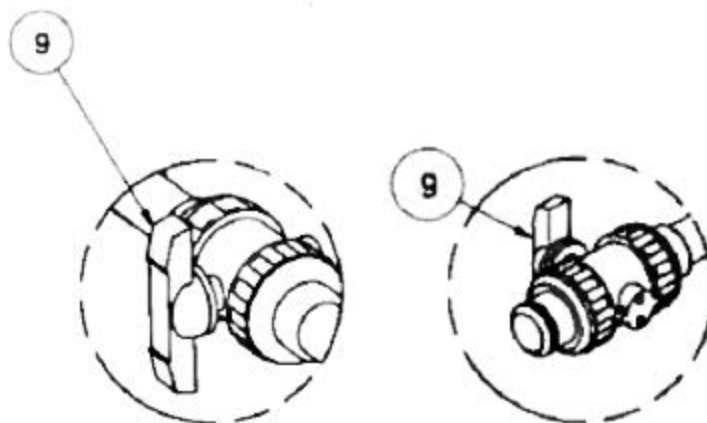


Available spare parts:

#Aquapart	Description
VASDBR353836	SOLENOID VALVE - FEEDER (VE62-02)

4.3.5. Model: C3-500

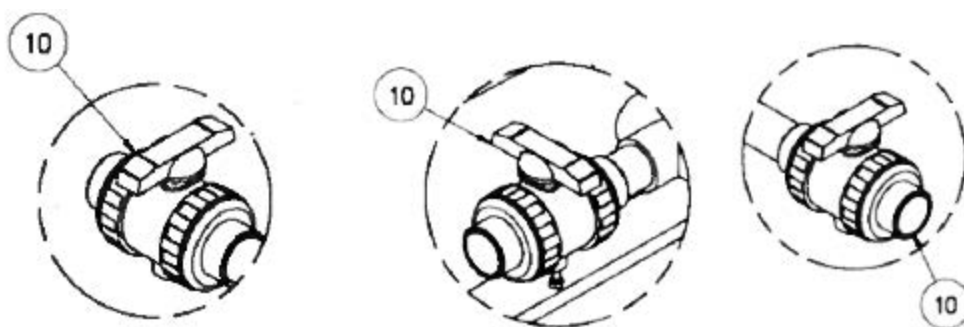
- Sub-Unit 9: Isolation valves Ø1”



Available spare parts:

#Aquapart	Description
VABLPV200251	ISOLATION VALVE - DRIVING WATER (VM62-01)
VABLPV200251	ISOLATION VALVE- TANKS DRAINS

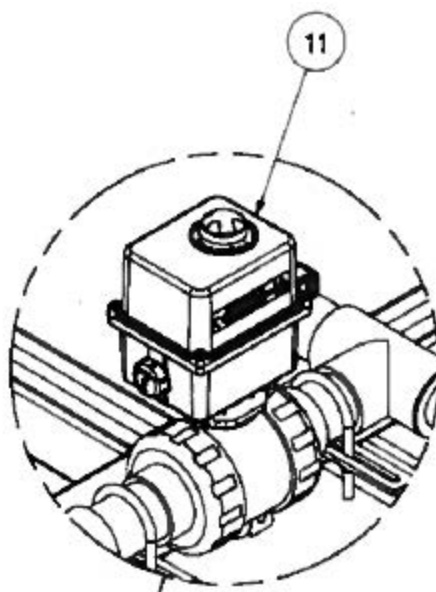
- **Sub-Unit 10: Isolation valves Ø1 1/2"**



Available spare parts:

#Aquapart	Description
VABLPV200253	ISOLATION VALVE- TANKS DRAINS
VABLPV200253	ISOLATION VALVE- TANK OUTLET (VM62-03)
VABLPV200253	ISOLATION VALVE- TANKS DRAINS

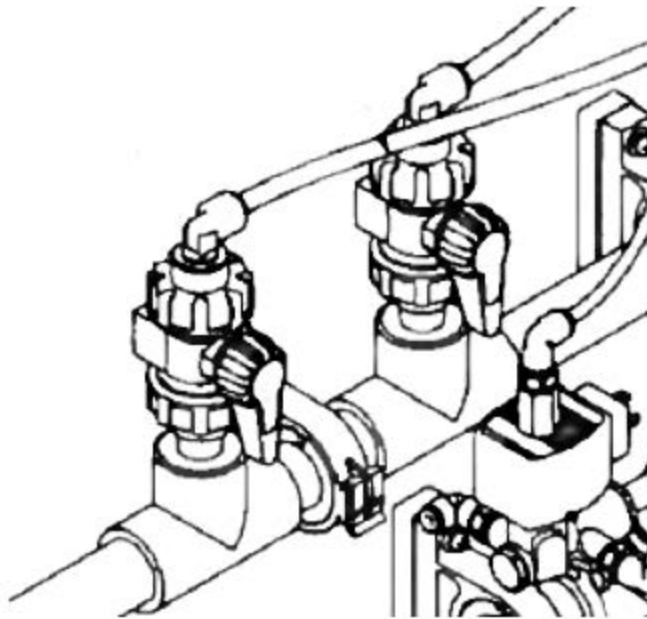
- **Sub-Unit 11: Transfer valve Ø2"**



Available spare parts:

#Aquapart	Description
VABLPV353596	ACTUATED TRANSFER VALVE (Whole sub-unit) (VA62-01)
VABLSP363579	ELECTRIC ACTUATOR ERS20.12 120VAC

- **Sub-Unit 12: Metering valve - Wetting cone**



Available spare parts:

#Aquapart	Description
VABLPV346917	METERING VALVE- WETTING CONE (VN62-01)
VABLPV346917	METERING VALVE- WETTING CONE (VN62-02)

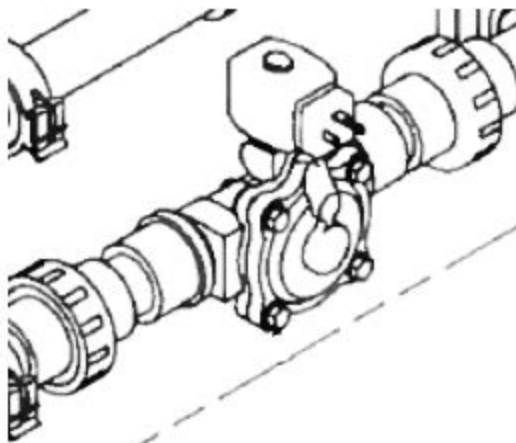
- **Sub-Unit 13: Check Valve - Liquid Polymer**



Available spare parts:

#Aquapart	Description
VANRPV200667	CHECK VALVE- LIQUID POLYMER (VNR62-01)

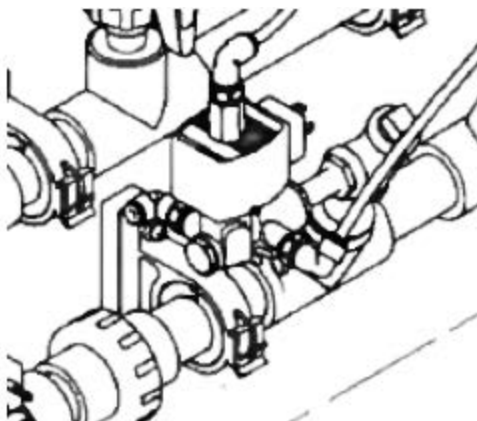
- **Sub-Unit 14: Solenoid Valve - Driving Water**



Available spare parts:

#Aquapart	Description
VASDBR353835	SOLENOID VALVE - DRIVING WATER (VE62-01)

- **Sub-Unit 15: Solenoid Valve - Feeder**

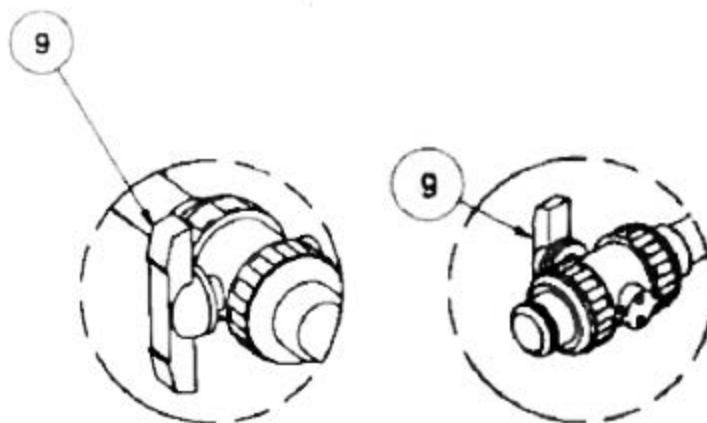


Available spare parts:

#Aquapart	Description
VASDBR353836	SOLENOID VALVE - FEEDER (VE62-02)

4.3.6. Model: C3-1000

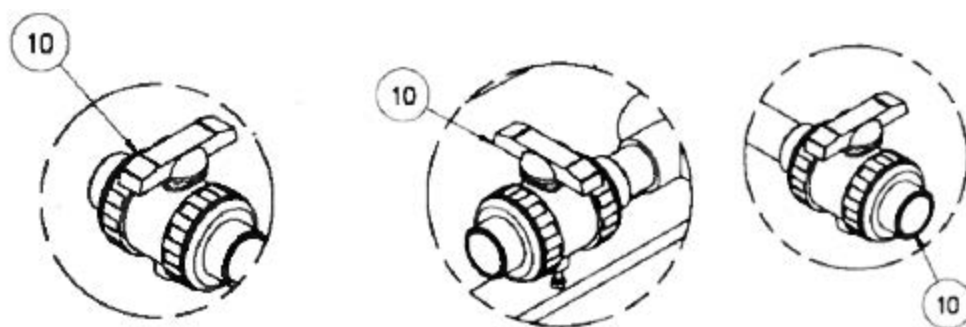
- Sub-Unit 9: Isolation valves Ø1''



Available spare parts:

#Aquapart	Description
VABLPV200251	ISOLATION VALVE - DRIVING WATER (VM62-01)
VABLPV200251	ISOLATION VALVE- TANKS DRAINS

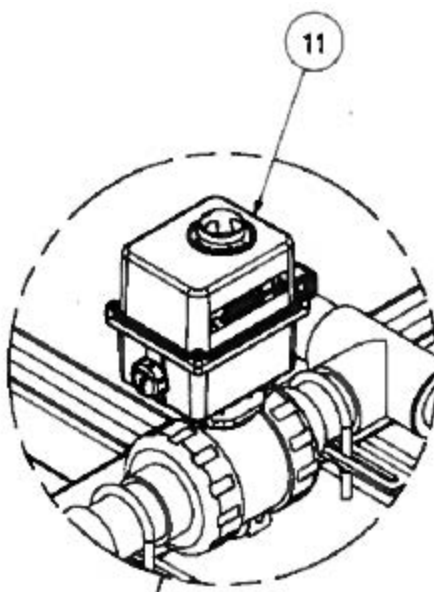
- **Sub-Unit 10: Isolation valves Ø1 1/2"**



Available spare parts:

#Aquapart	Description
VABLPV200253	ISOLATION VALVE- TANKS DRAINS
VABLPV200253	ISOLATION VALVE- TANK OUTLET (VM62-01)
VABLPV200253	ISOLATION VALVE- TANKS DRAINS

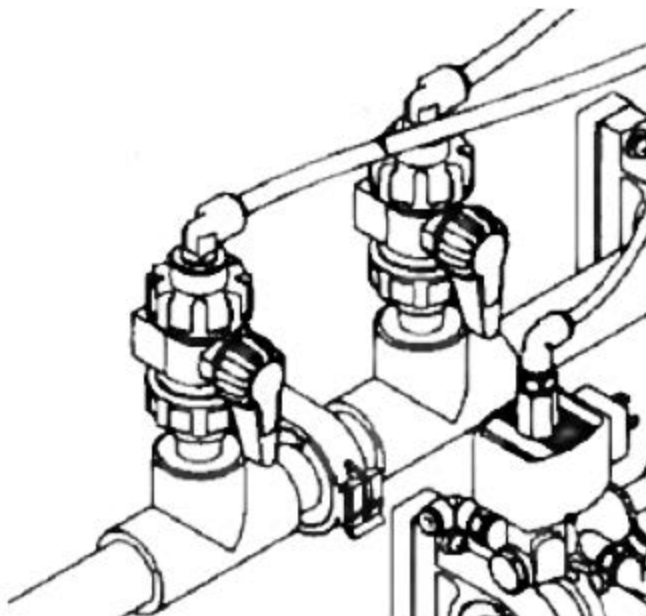
- **Sub-Unit 11: Transfer valve Ø2"**



Available spare parts:

#Aquapart	Description
VABLPV353596	ACTUATED TRANSFER VALVE (Whole sub-unit) (VA62-01)
VABLSP363579	ELECTRIC ACTUATOR ERS20.12 120VAC

- **Sub-Unit 12: Metering valve - Wetting cone**



Available spare parts:

#Aquapart	Description
VABLPV346917	METERING VALVE- WETTING CONE (VN62-01)
VABLPV346917	METERING VALVE- WETTING CONE (VN62-02)

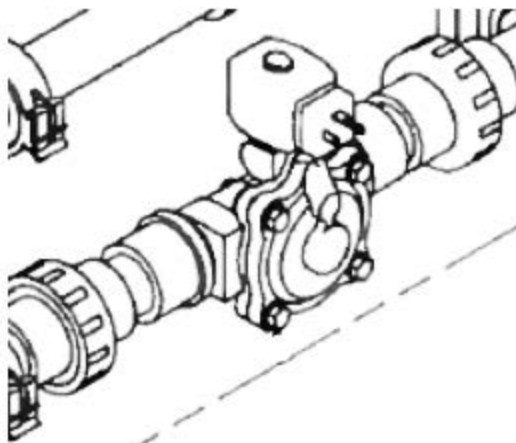
- **Sub-Unit 13: Check Valve - Liquid Polymer**



Available spare parts:

#Aquapart	Description
VANRPV200667	CHECK VALVE- LIQUID POLYMER (VNR62-01)

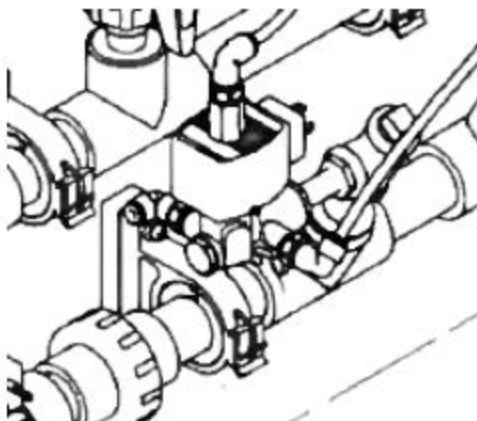
- **Sub-Unit 14: Solenoid Valve - Driving Water**



Available spare parts:

#Aquapart	Description
VASDBR353835	SOLENOID VALVE - DRIVING WATER (VE62-01)

- **Sub-Unit 15: Solenoid Valve - Feeder**



Available spare parts:

#Aquapart	Description
VASDBR353836	SOLENOID VALVE - FEEDER (VE62-02)

4.4. Miscellaneous

- Sub-Unit 16: Instrument and Valve Cables

Available spare parts:

#Aquapart	Description
CECAGU333286	ELECTRIC CABLE
CECAGU333288	ELECTRIC VALVE CABLE
CECKGU333284	ELECTRIC VALVE CABLE ADAPTER



TRANSMITTAL NOTICE

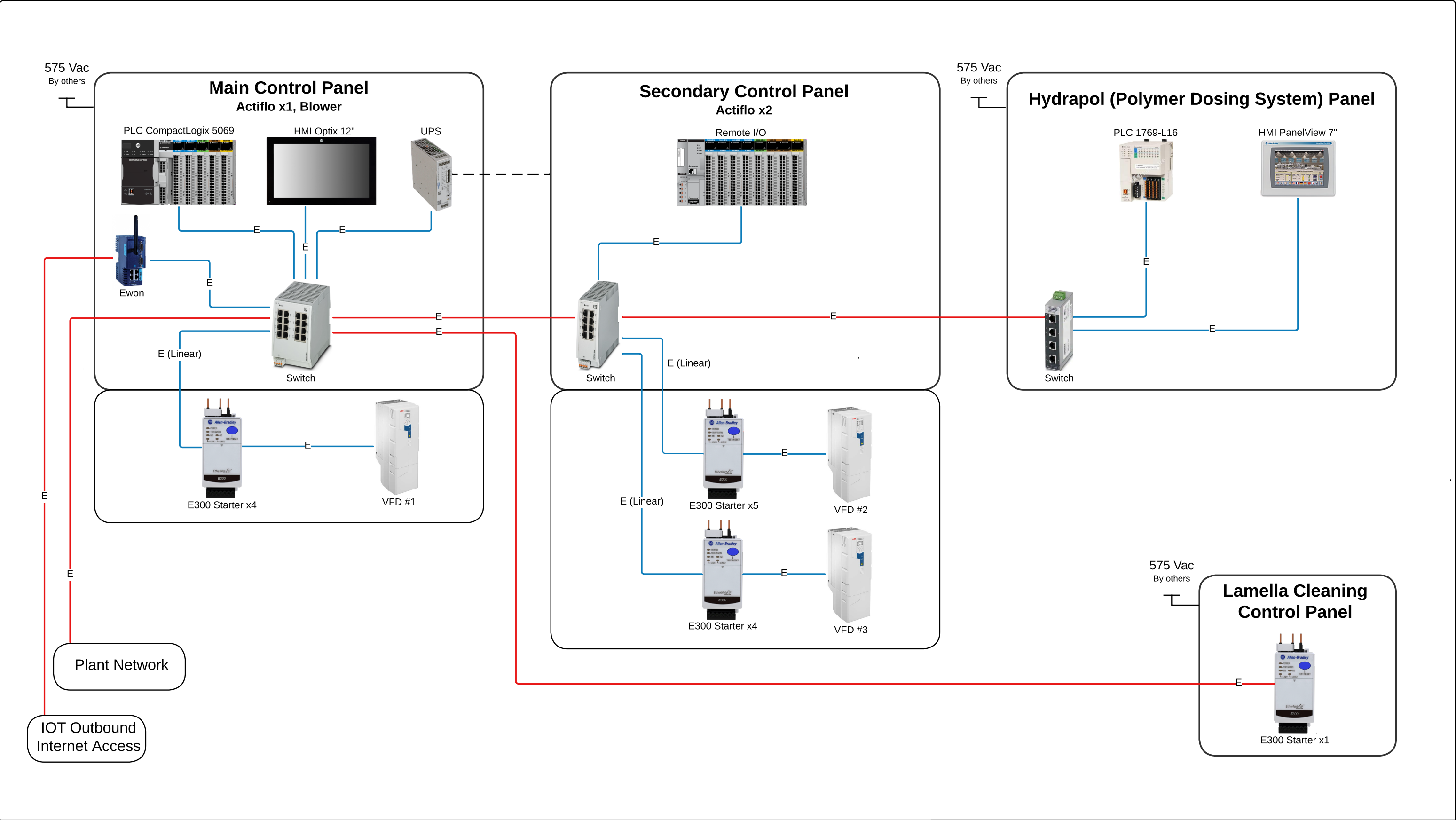
PROJECT TITLE:	5000225027 Deep River, ON
CONTRACT NO.	SUBMITTAL No. :
	5000225027-VWT-TRN-0005
SENDER: Veolia Water Technologies Canada inc 4105 Sartelon Saint-Laurent, Qc H4S 2B3	RECIPIENT: Amy Seymour David McCarthy Bradley Young Mohamad Alzayed

Reference	Revision	Title	Purpose of Issue	
5000225027_CA_0001_AU_VWT	1	Control Architecture	For approval	
5000225027_ELE_0001_AU_VWT	1	Automation Parts Data Sheet	For approval	
5000225027_PSDS_0001_AU_VWT	1	Process Data Sheet Automation	For approval	

NOTE:	DISTRIBUTION
<i>The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.</i>	

ISSUED BY	
NAME :	Lina Morrone
DATE :	05 November 2025

TRANSMITTAL NOTICE	AVIS DE TRANSMISSION	TRANSMITTAL NOTICE
PROJECT TITLE:	TITRE PROJET:	PROJECT TITLE:
CONTRACT NO.	NO. CONTRAT:	CONTRACT NO.
SUBMITTAL No. :	NO. SOUMISSION:	SUBMITTAL No. :
SENDER:	EMETTEUR:	SENDER:
RECIPIENT:	DESTINATAIRE:	RECIPIENT:
Reference	Référence	Reference
Revision	Révision	Revision
Title	Titre	Title
Purpose of Issue	Raison de l'émission	Purpose of Issue
The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.	Les documents joints remplacent toutes révisions antérieures. Il est de la responsabilité du destinataire de s'assurer que les versions ne sont plus utilisées. Retour du reçu une copie de cet avis de transmission sera considérée comme une preuve que cela a été fait.	The attached documents supersede any earlier revision. It is the responsibility of the recipient to ensure that superseded versions are removed from use. Return of the receipt copy of this Transmittal Notice will be taken as evidence that this has been done.
ISSUED BY	DÉLIVRÉ PAR	ISSUED BY
NAME :	NOM :	NAME :
For approval	Pour approbation	For approval
For information	Pour information	For information
For installation	Pour installation	For installation
For construction	Pour construction	For construction
Final 100%	Final 100%	Final 100%
As Built	Tel que construit	As Built



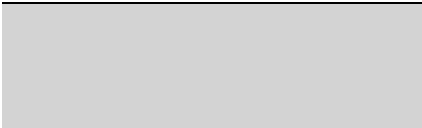
Legend E CAT6a by Veolia E CAT6a by others FO Fibre Optic by Veolia FO Fibre Optic by others Cabling by Veolia Cabling by others	Network Subnet Mask : 255.255.255.0 Default Gateway : TBD CAT6 cable length is limited to 300 feet Maximum	VEOLIA				TITLE Deep River, ON			
						CLIENT CIMA+			
		DATE: 2025-11-04		Drawn by A. Elshebshiry, CPE	Prepared by A. Elshebshiry, CPE	Verified X. Monette, Eng.	Project 5000225027	DRAWING 5000225027_CA_0001_AU_VWTC	SHEET 1 OF 1



DOCUMENT TITLE :	Electrical Components List	PROJECT :	DEEP RIVER, ON
VWT DOC NO. :	5000225027_ELE_0001_GEN_AU_VWT	PROJECT # :	5000225027

REV	DESCRIPTION:	DATE:	PREPARED BY:	CHECKED BY:	APPROVED BY:
1	For approval	11/4/2025	A. Elshebshiry, CPE	A. Elshebshiry, CPE	X. Monette, Eng.

REV	CONTROL PANEL	MANUFACTURER	MODEL NO.	DESCRIPTION	DATASHEET LINK
1	05-AG20-03/M1/VFD	ABB	ACQ580-01-02A7-6	ACQ580 2HP 575V	https://d2i37d29h80q1n.cloudfront.net/CS-674-ACQ580.pdf
1	06-AG20-03/M1/VFD	ABB	ACQ580-01-02A7-6	ACQ580 2HP 575V	https://d2i37d29h80q1n.cloudfront.net/CS-674-ACQ580.pdf
1	07-AG20-03/M1/VFD	ABB	ACQ580-01-02A7-6	ACQ580 2HP 575V	https://d2i37d29h80q1n.cloudfront.net/CS-674-ACQ580.pdf
1	CP9-521	ALLEN BRADLEY	2711P-T7C22D9P	Graphic Terminal 7 inches Performance	https://d2i37d29h80q1n.cloudfront.net/CS-925-PVP7P.pdf
1	CP9-521	ALLEN BRADLEY	1769-L16ER-BB1B	CompactLogix Controller 384 KB	https://d2i37d29h80q1n.cloudfront.net/CS-925-1769-L.pdf
1	CP9-521	ALLEN BRADLEY	1734-TBS	Terminal Base	https://d2i37d29h80q1n.cloudfront.net/CS-926-1734.pdf
1	CP9-521	PHOENIX CONTACT	1085039	FL SWITCH 1005N Narrow Switch 5 ports 10/100 Mbps	https://d2i37d29h80q1n.cloudfront.net/CS-925-FL1005N.pdf
1	CP9-521	ALLEN BRADLEY	1734-IE2C	Point I/O 1734 2 Analog Inputs	https://d2i37d29h80q1n.cloudfront.net/CS-926-1734.pdf
1	PLC-CP	ALLEN BRADLEY	5069-L340ERP	3MB Enet Process Controller	https://d2i37d29h80q1n.cloudfront.net/CS-925-5069-L.pdf
1	PLC-CP	ALLEN BRADLEY	2800S-121DS-N15	Optix Standard 12 inches	https://d2i37d29h80q1n.cloudfront.net/CS-925-2800S.pdf
1	PLC-CP	PHOENIX CONTACT	2702903	FL SWITCH 2016 Managed Switch 16 ports 10/100 Mbps	https://d2i37d29h80q1n.cloudfront.net/CS-925-FL2016.pdf
1	PLC-CP	HMS INDUSTRIAL	Flexy20500	Ewon Flexy205	https://d2i37d29h80q1n.cloudfront.net/CS-925-Flexy20500.pdf
1	PLC-CP	ALLEN BRADLEY	193-ECM-ETR	Ethernet/P Communication Module	https://d2i37d29h80q1n.cloudfront.net/CS-925-193.pdf
1	PLC-CP	ALLEN BRADLEY	193-ESM-I-30A-C23	Current IEC 0.5-30A Sensing Module	https://d2i37d29h80q1n.cloudfront.net/CS-925-193.pdf
1	PLC-CP	PHOENIX CONTACT	2907074	UPS 24 V DC / 20 A EthernetIP	https://d2i37d29h80q1n.cloudfront.net/CS-925-QUINT4-UPS_24DC_24DC_20_EIP.pdf
1	PLC-CP	PHOENIX CONTACT	1274119	Battery 24DC/12AH	https://d2i37d29h80q1n.cloudfront.net/CS-925-BAT_PB_24DC_12AH.pdf
1	PLC-CP	ALLEN BRADLEY	5069-RTB64-SPRING	Spring RTB	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP	ALLEN BRADLEY	5069-RTB18-SPRING	18 Spring RTB	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP	ALLEN BRADLEY	193-EIO-26-24D	E300 IO Module 6 Digital Inputs 3 Digital Output	https://d2i37d29h80q1n.cloudfront.net/CS-925-193.pdf
1	PLC-CP	ALLEN BRADLEY	5069-OF8	CompactLogix 5380 8 Analog Outputs	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP	ALLEN BRADLEY	5069-OB16	CompactLogix 5380 16 Digital Outputs	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP	ALLEN BRADLEY	5069-IF8	CompactLogix 5380 8 Analog Inputs	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP	ALLEN BRADLEY	5069-IB16	CompactLogix 5380 16 Digital Inputs	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP2	ALLEN BRADLEY	5069-AENTR	EtherNet/IP Adapter	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP2	PHOENIX CONTACT	2702324	FL SWITCH 2008 Managed Switch 8 ports 10/100 Mbps	https://d2i37d29h80q1n.cloudfront.net/CS-925-FL2008.pdf
1	PLC-CP2	ALLEN BRADLEY	193-ECM-ETR	Ethernet/P Communication Module	https://d2i37d29h80q1n.cloudfront.net/CS-925-193.pdf
1	PLC-CP2	ALLEN BRADLEY	193-ESM-I-30A-C23	Current IEC 0.5-30A Sensing Module	https://d2i37d29h80q1n.cloudfront.net/CS-925-193.pdf
1	PLC-CP2	ALLEN BRADLEY	5069-RTB5-SPRING	5 Spring RTB	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf
1	PLC-CP2	ALLEN BRADLEY	5069-RTB18-SPRING	18 Spring RTB	https://d2i37d29h80q1n.cloudfront.net/CS-926-5069.pdf



DATASHEET FOR
CABINET

Project	DEEP RIVER, ON	Document N°	5000225027_PSDS_0001_AU_VWT
		System	Concrete Actiflo #1
Project N°	5000225027	Cabinet Identification	PLC-CP

						REV
1	General	Voltage	Total Connected Power	kW	575V/3Ph/60Hz	1
2		Panel Enclosure	Material		NEMA 4Carbon Steel	1
3		Panel Type	Cable Entry		Free StandingBottom	1
4		Control Panel Approval			CSA	1
5		Wires Color			Veolia Standard	1
6		Junction Boxes	Pre-Wiring		NoNo	1
7		Pre-Wire Cable Type				1
8		Panel Dimensions		in	60x72x16	1
9		UPS	Voltage		Yes24V,D(Normal)	1
10		Motor Control			Control Panel	1
11		Remote Access			Veolia Ewon	1
12	Environnement	Panel Location			Indoor	1
13		Min. Temperature		degC	5	1
14		Max. Temperature		degC	25	1
15		Max. Humidity		%	95	1
16		Freeze			No	1
17		Comments				1
18	Safety	Electrical Classification			Non-hazardous area	1
19		Province/State			Ontario	1

20	Note:					
21						
22						
23						
24						
25						

REV	DESCRIPTION	DATE	DESIGN BY:	CHECKED BY:	APPROVED BY:
1	For approval	11/4/2025	A.Elshebschiry, CPE	X. Monette, Eng.	X. Monette, Eng.

					System		Concrete Actiflo #2, #3	
Project N°		5000225027			Cabinet Identification		PLC-CP2	
							REV	
1	General	Voltage		Total Connected Power	kW	575V/3Ph/60Hz		1
2		Panel Enclosure		Material		NEMA 4	Carbon Steel	1
3		Panel Type		Cable Entry		Free Standing	Bottom	1
4		Control Panel Approval				CSA		1
5		Wires Color				Veolia Standard		1
6		Junction Boxes		Pre-Wiring		No	No	1
7		Pre-Wire Cable Type						1
8		Panel Dimensions			in	60x72x16		1
9		UPS		Voltage		Yes	24V,D(Normal)	1
10		Motor Control				Control Panel		1
11		Remote Access				Veolia Ewon		1
12	Environnement	Panel Location				Indoor		1
13		Min. Temperature			degC	5		1
14		Max. Temperature			degC	25		1
15		Max. Humidity			%	95		1
16		Freeze				No		1
17	Comments						1	
18	Safety	Electrical Classification				Non-hazardous area		1
19		Province/State				Ontario		1
20	Note:							
21								
22								
23								
24								
25								
REV	DESCRIPTION		DATE		DESIGN BY:		CHECKED BY:	APPROVED BY:
1	For approval		11/4/2025		A.Elshebschiry, CPE		A.Elshebschiry, CPE	X. Monette, Eng.