UNIT : BOOSTER/CIP PUMP
TAG NO. : STORE STAND BY
M.O.C. : SS316
CAPACITY : 200m³/hr@3.5kg/cm²
QTY. : 01 No.

UNIT : PRIMING CHAMBER
TAG No. : STORE STAND BY
M.O.C. : MSEP
DIM. : 300Ø x 1200 Lg.
QTY. : 01 No.

UNIT : PRIMING CHAMBER
TAG No. : PC-101 A/B
M.O.C. : MSEP
DIM. : 300Ø x 1200 Lg.
QTY. : 02 Nos.(W)

UNIT : FEED PUMP
TAG NO. : P-101 A/B
M.O.C. : SS316
CAPACITY : 200m³/hr@3.5kg/cm²
QTY. : 02 Nos.(W)

UNIT : FEED WATER STORAGE TANK (EXISTING)
TAG NO. : FWST-101
M.O.C. : RCC
CAPACITY : 10000 KL
QTY. : 01 NO.

UNIT : BACKWASH PUMP
TAG NO. : P-102
M.O.C. : SS316
CAPACITY : 280m³/hr@3.0kg/cm²
QTY. : 01 No.(W)

UNIT : BACKWASH PUMP
TAG NO. : STORE STAND BY
M.O.C. : SS316
CAPACITY : 280m³/hr@3.0kg/cm²
QTY. : 01 No.(W)

UNIT : PRESSURE SAND FILTER
TAG No. : PSF-102 A/B/C/D
M.O.C. : MSEP
DIM. : 3000Ø x 2200 Lg.
QTY. : 04 Nos.(2W+2SB)

UNIT : AIR COMPRESSOR
TAG NO. : STORE STANDBY
M.O.C. : CI
CAPACITY : 310Nm3/hr@ 0.75kg/cm2
QTY. : 01 No.

UNIT : FEED BOOSTER / BACKWASH PUMP
TAG NO. : STORE STAND BY
M.O.C. : SS316
CAPACITY : 200m³/hr@2.0kg/cm²
QTY. : 01 No.

UNIT : AIR COMPRESSOR
TAG NO. : AC-101
M.O.C. : CI
CAPACITY : 310Nm3/hr@ 0.75kg/cm2
QTY. : 01 No. (W)

UNIT : SELF CLEANING FILTER
TAG NO. : ASF-101 A/B
M.O.C. : SS/FRP
CAPACITY : 200m³/hr
QTY. : 02 Nos.(W) + 1 Set Cartridge Store Standby

UNIT : FEED BOOSTER PUMP
TAG NO. : P-103 A/B
M.O.C. : SS316
CAPACITY : 200m³/hr@2.0kg/cm²
QTY. : 02 Nos.(W)

UNIT : AQUALINE CARTRIDGE FILTER
TAG No. : ACF-101 A/B/C
M.O.C. : FRP
QTY. : 04 Set. (2W+2SB)
SIZE : 8"Ø x 60"Lg.
CARTRIDGE : 12 Nos. each (5µ)

SYMBOLS

SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME
01		BALL VALVE FLANGED	08		NEEDLE VALVE	15		CENTRIFUGAL PUMP	22		GLASS TUBE FLOW METER
02		BALL VALVE SOCKET WELD	09		NON RETURN VALVE	16		RECIPROCATING PUMP	23		METAL TUBE FLOW METER
03		BALL VALVE THREADED	10		SAFETY RELIEF VALVE	17		DOSING PUMP	24		FIELD INSTRUMENT
04		GLOBE VALVE FLANGED	11		AUTO BALL VLAVE	18	M	MOTOR	25		PANEL MOUNTED
05		GLOBE VALVE THREADED	12		PID VLAVE	19		DAMPNER	26	FT M	MAGNETIC FLOW TRANSMITTER
06		BUTTERFLY VALVE FLANGED	13		AUTO BUTTERFLY VALVE	20		FLEXIBLE PIPE	27		
07		SAMPLING VALVE	14		MULSIPORT VALVE	21		ACRYLIC FLOW METER	28		

LEGENDS

AR	AIR VEVT	FM	FLOW METER
BW	BACK WASH	FWI	FRESH WATER INLET
CW	CONCENTRATE WATER	HPS	HIGH PRESSURE SWITCH
CLW	CLEANING WATER	IV	ISOLATION VALVE
CIP	CLEANING IN PLACE SYSTEM	LS	LEVEL TRANSMITTER
CV	CONTROL VALVE	LLS	LOW LEVEL SWITCH
CCV	CONCENTRATE CONTROL VALVE	LPS	LOW PRESSURE SWITCH
CdT	Cd TRANSMITTER	LS	LEVEL SWITCH
DP	DOSING PUMP	LI	LEVEL INDICATOR
DR	DRAIN	M	MOTOR
FW	FEED WATER	FT	FLOW TRANSMITTER
AV	AUTO VALVE	PV	PRESSURE VESSEL
PA	PRESSURE ALARM	PW	PERMEATE WATER
FA	FLOW ALARM	pHT	pH TRANSMITTER
LA	LEVEL ALARM	PG	PRESSURE GAUGE
SP	SAMPLING POINT	XL	ELECTRICAL INDICATION
V	VALVE	PID	PROPORTIONAL INTEGRATIVE & DERIVATIVE
DPS	DIFFERENTIAL PRESSURE SWITCH	VFD	VARIABLE FREQUENCY DRIVE

FEED, O/F & DRAIN
REJECT
PERMEATE
BY CLIENT
DOSING
CONTROL LOOP
EQUIPMENT
VALVES & INST.

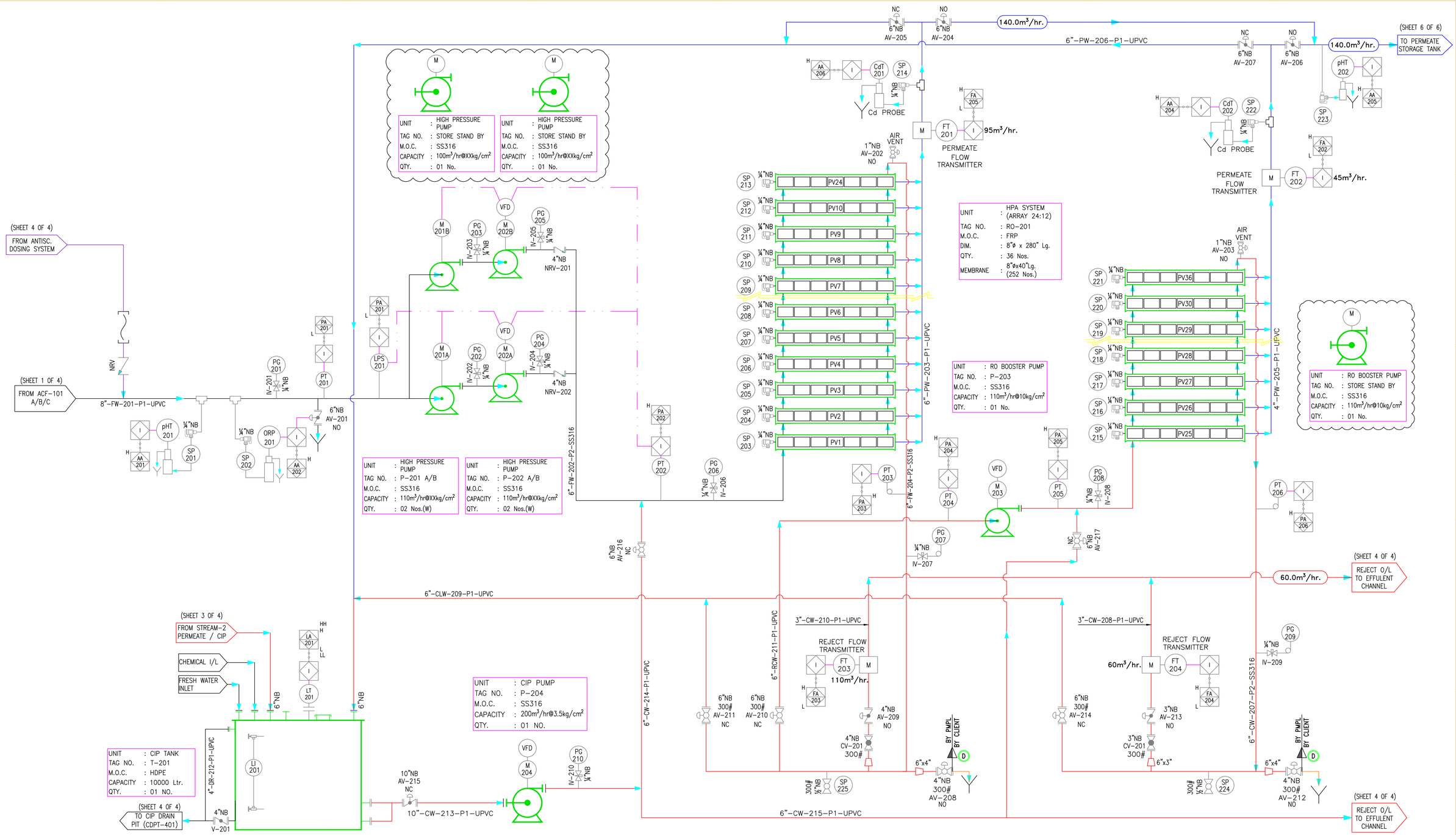
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BY CLIENT

REV.	DATE	REVISION BRIEF RECORD	DRN.	CHK.	APP.
2	.	.	.	.	.
1	05.12.20	REVISED AS PER MARKED	HJM	RO	AS

PERMIONICS MEMBRANES PVT. LTD.
3/29 - 4/19, B.I.D.C, GORWA, BARODA-16

CLIENT'S NAME	M/s NANDESARI INDUSTRIES ASSOCIATION		
REF. DRG. NO.	PD/24XX/1100		
APPD BY	_	TITLE: P&I DIAGRAM OF HPA MEMBRANE SYSTEM	
CHKD BY	_		
DRN BY	AS	27.01.26	
JOB NO.	SCALE	DWG. SIZE	DRG. NO. / REV. NO.
2526XXXX	NTS	A2	PP/24XX/0200(SHEET 1 OF 4) / R0

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SYMBOLS

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01		BALL VALVE FLANGED	08		NEEDLE VALVE	15		CENTRIFUGAL PUMP	22		GLASS TUBE FLOW METER
02		BALL VALVE SOCKET WELD	09		NON RETURN VALVE	16		RECIPROCATING PUMP	23		METAL TUBE FLOW METER
03		BALL VALVE THREADED	10		SAFETY RELIEF VALVE	17		DOSING PUMP	24		FIELD INSTRUMENT
04		GLOBE VALVE FLANGED	11		AUTO BALL VLAVE	18	M	MOTOR	25		PANEL MOUNTED
05		GLOBE VALVE THREADED	12		PID VLAVE	19		DAMPNER	26	FT M	MAGNETIC FLOW TRANSMITTER
06		BUTTERFLY VALVE FLANGED	13		AUTO BUTTERFLY VALVE	20		FLEXIBLE PIPE	27		
07		SAMPLING VALVE	14		MULSIPORT VALVE	21		ACRYLIC FLOW METER	28		

LEGENDS

AR	AIR VEVT	FM	FLOW METER
BW	BACK WASH	FWI	FRESH WATER INLET
CW	CONCENTRATE WATER	HPS	HIGH PRESSURE SWITCH
CLW	CLEANING WATER	IV	ISOLATION VALVE
CIP	CLEANING IN PLACE SYSTEM	LS	LEVEL TRANSMITTER
CV	CONTROL VALVE	LLS	LOW LEVEL SWITCH
CCV	CONCENTRATE CONTROL VALVE	LPS	LOW PRESSURE SWITCH
CdT	Cd TRANSMITTER	LS	LEVEL SWITCH
DP	DOSING PUMP	LI	LEVEL INDICATOR
DR	DRAIN	M	MOTOR
FW	FEED WATER	FT	FLOW TRANSMITTER
AV	AUTO VALVE	PV	PRESSURE VESSEL
PA	PRESSURE ALARM	PW	PERMEATE WATER
FA	FLOW ALARM	pHT	pH TRANSMITTER
LA	LEVEL ALARM	PG	PRESSURE GAUGE
SP	SAMPLING POINT	XL	ELECTRICAL INDICATION
V	VALVE	PID	PROPORTIONAL INTEGRATIVE & DERIVATIVE
DPS	DIFFERENTIAL PRESSURE SWITCH	VFD	VARIABLE FREQUENCY DRIVE

FEED, O/F & DRAIN — DOSING
REJECT — CONTROL LOOP
PERMEATE — EQUIPMENT
BY CLIENT — VALVES & INST.

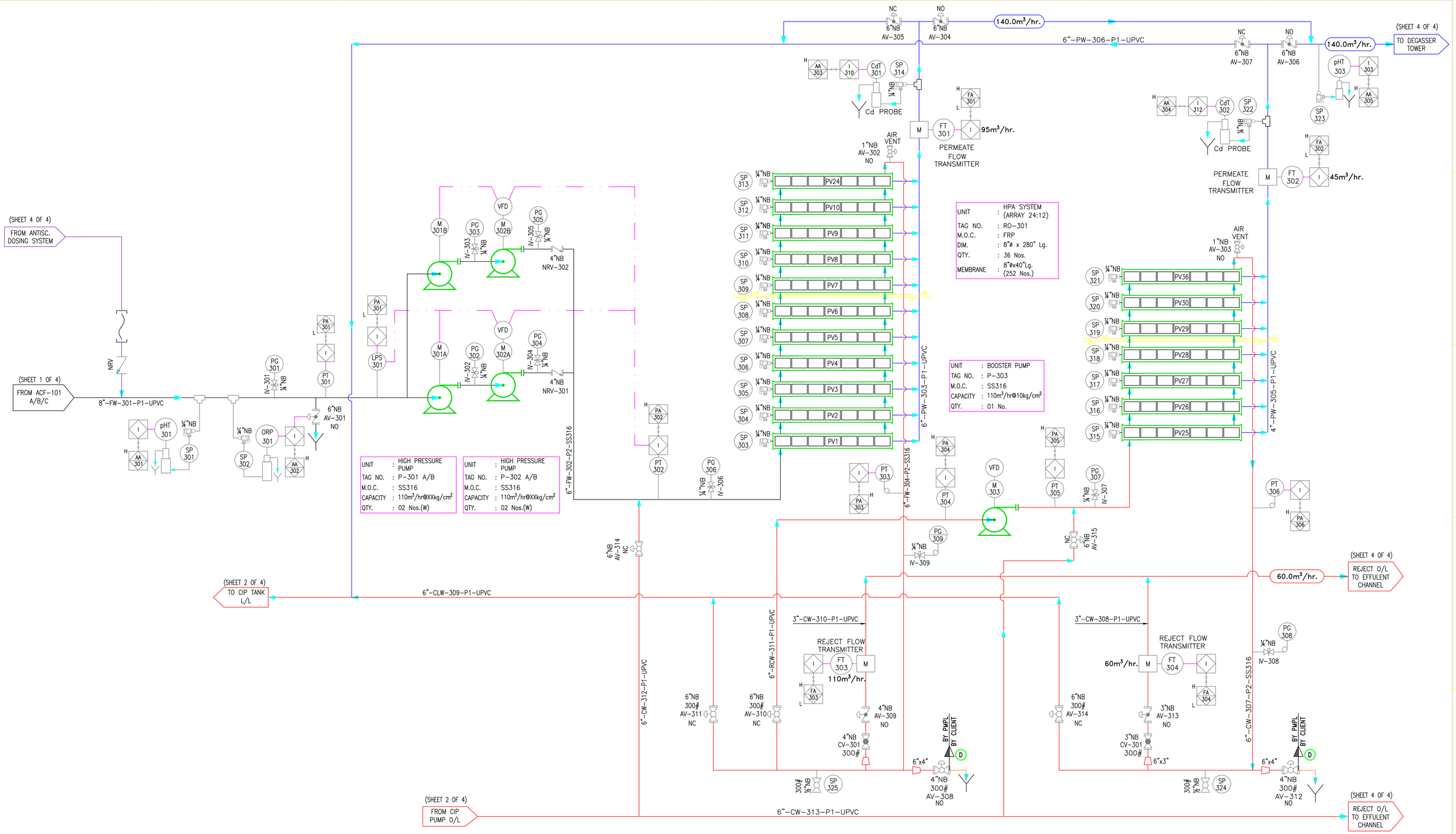
BY PMPL
BY CLIENT

REV.	DATE	REVISION BRIEF RECORD	DRN.	CHK.	APP.
2	30.05.18	REVISED AS PER MARKED	HJM	RO	AS
1	29.03.18	REVISED AS PER MARKED	HJM	RO	AS

PERMIONICS MEMBRANES PVT. LTD.
3/29 - 4/19, B.I.D.C, GORWA, BARODA-16

CLIENT'S NAME	M/s NANDESARI INDUSTRIES ASSOCIATION		
REF. DRG. NO.	PD/24XX/1100		
APPD BY	_	TITLE: P&I DIAGRAM OF HPA MEMBRANE SYSTEM	
CHKD BY	_		
DRN BY	AS	27.01.26	
JOB NO. 2526XXXX	SCALE NTS	DWG. SIZE A2	DRG. NO. PP/24XX/0200(SHEET 2 OF 4) REV. NO. R0

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SYMBOLS

SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME
01		BALL VALVE FLANGED	08		NEEDLE VALVE	15		CENTRIFUGAL PUMP	22		GLASS TUBE FLOW METER
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06		BUTTERFLY VALVE FLANGED	13		AUTO BUTTERFLY VALVE	20		FLEXIBLE PIPE	27		
07		SAMPLING VALVE	14		MULSIPORT VALVE	21		ACRYLIC FLOW METER	28		

LEGENDS

AR	AIR VEVT	FM	FLOW METER
BW	BACK WASH	FWI	FRESH WATER INLET
CW	CONCENTRATE WATER	HPS	HIGH PRESSURE SWITCH
CLW	CLEANING WATER	IV	ISOLATION VALVE
CIP	CLEANING IN PLACE SYSTEM	LS	LEVEL TRANSMITTER
CV	CONTROL VALVE	LLS	LOW LEVEL SWITCH
CCV	CONCENTRATE CONTROL VALVE	LPS	LOW PRESSURE SWITCH
CdT	Cd TRANSMITTER	LS	LEVEL SWITCH
DP	DOSING PUMP	LI	LEVEL INDICATOR
DR	DRAIN	M	MOTOR
FW	FEED WATER	FT	FLOW TRANSMITTER
AV	AUTO VALVE	PV	PRESSURE VESSEL
PA	PRESSURE ALARM	PW	PERMEATE WATER
FA	FLOW ALARM	pHT	pH TRANSMITTER
LA	LEVEL ALARM	PG	PRESSURE GAUGE
SP	SAMPLING POINT	XL	ELECTRICAL INDICATION
V	VALVE	PID	PROPORTIONAL INTEGRATIVE & DERIVATIVE
DPS	DIFFERENTIAL PRESSURE SWITCH	VFD	VARIABLE FREQUENCY DRIVE

FEED, O/F & DRAIN — DOSING
REJECT — CONTROL LOOP
PERMEATE — EQUIPMENT
BY CLIENT — VALVES & INST.

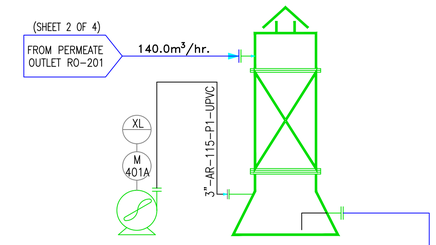
BY PMPL
BY CLIENT

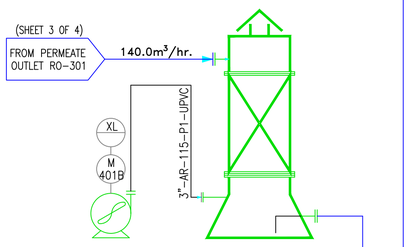
REV.	DATE	REVISION BRIEF RECORD	DRN.	CHK.	APP.
2	30.05.18	REVISED AS PER MARKED	HJM	RO	AS
1	29.03.18	REVISED AS PER MARKED	HJM	RO	AS

PERMIONICS MEMBRANES PVT. LTD.
3/29 - 4/19, B.I.D.C, GORWA, BARODA-16

CLIENT'S NAME	M/s NANDESARI INDUSTRIES ASSOCIATION		
REF. DRG. NO.	PD/24XX/1100		
APPD BY	_	TITLE: P&I DIAGRAM OF HPA MEMBRANE SYSTEM	
CHKD BY	_		
DRN BY	AS	27.01.26	
JOB NO.	SCALE	DWG. SIZE	DRG. NO. / REV. NO.
2526XXXX	NTS	A2	PP/24XX/0200(SHEET 3 OF 4) / R0

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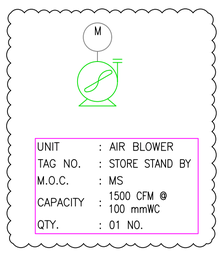


UNIT	: AIR BLOWER
TAG NO.	: AB-401 A/B
M.O.C.	: MS
CAPACITY	: 1500 CFM @ 100 mmWC
QTY.	: 02 Nos.(W)

UNIT	: DEGASSER TOWER
TAG NO.	: DGT-401 A/B
M.O.C.	: FRP
CAPACITY	: 1600Ø x 3300 Lg.
QTY.	: 02 Nos.(W)

6"NB UPVC

6"NB UPVC



UNIT	: AIR BLOWER
TAG NO.	: STORE STAND BY
M.O.C.	: MS
CAPACITY	: 1500 CFM @ 100 mmWC
QTY.	: 01 NO.

HH H L LL LA 401 I LT 401

UNIT	: PERMEATE WATER STORAGE TANK (BY CLIENT)
TAG NO.	: PWST-401
M.O.C.	: RCC
CAPACITY	: 500 KL
QTY.	: 01 NO.

FROM PSF B/W O/L

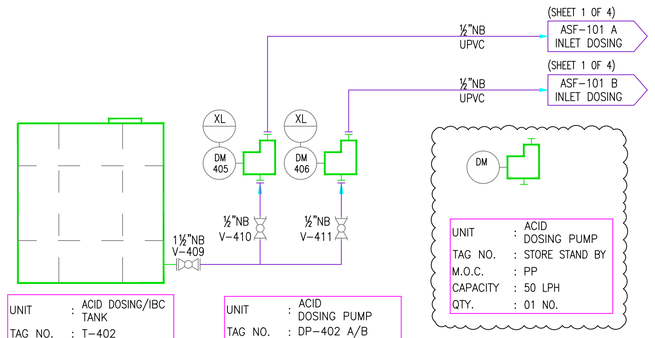
HH H L LL LA 402 I LT 402

UNIT	: BACKWASH COLLECTION PIT (BY CLIENT)
TAG NO.	: CDPT-401
M.O.C.	: RCC
CAPACITY	: 200 KL
QTY.	: 01 NO.

FROM RO REJECT & COMMON CIP DRAIN O/L

HH H L LL LA 403 I LT 403

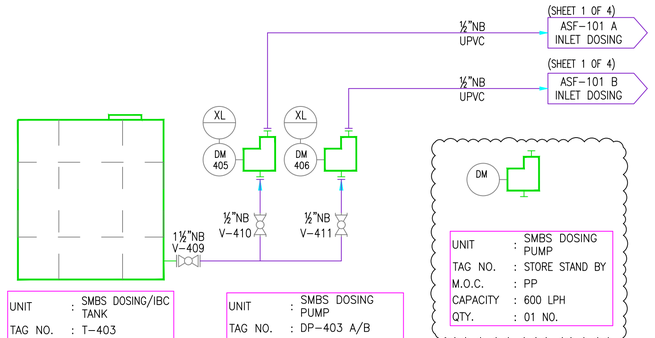
UNIT	: REJECT WATER STORAGE TANK (BY CLIENT)
TAG NO.	: RWST-401
M.O.C.	: RCC
CAPACITY	: 200 KL
QTY.	: 01 NO.



UNIT	: ACID DOSING/IBC TANK
TAG NO.	: T-402
M.O.C.	: PE
CAPACITY	: 1000 LTR
QTY.	: 01 NOS

UNIT	: ACID DOSING PUMP
TAG NO.	: DP-402 A/B
M.O.C.	: PP
CAPACITY	: 50 LPH
QTY.	: 02 Nos.(W)

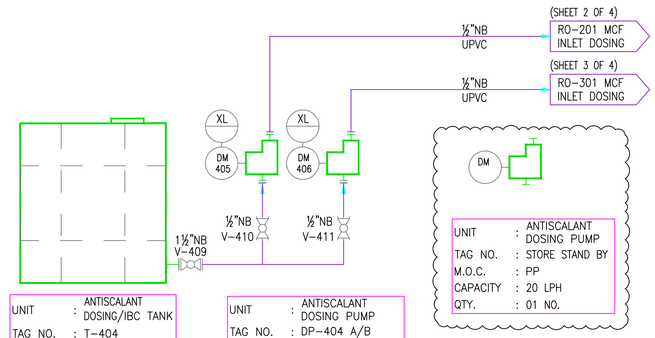
UNIT	: ACID DOSING PUMP
TAG NO.	: STORE STAND BY
M.O.C.	: PP
CAPACITY	: 50 LPH
QTY.	: 01 NO.



UNIT	: SMBS DOSING/IBC TANK
TAG NO.	: T-403
M.O.C.	: PE
CAPACITY	: 1000 LTR
QTY.	: 01 NOS

UNIT	: SMBS DOSING PUMP
TAG NO.	: DP-403 A/B
M.O.C.	: PP
CAPACITY	: 560 LPH
QTY.	: 02 Nos.(W)

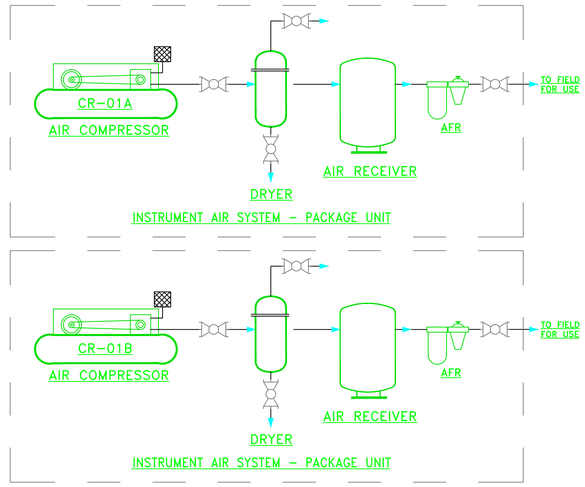
UNIT	: SMBS DOSING PUMP
TAG NO.	: STORE STAND BY
M.O.C.	: PP
CAPACITY	: 600 LPH
QTY.	: 01 NO.



UNIT	: ANTISCALANT DOSING/IBC TANK
TAG NO.	: T-404
M.O.C.	: PE
CAPACITY	: 1000 LTR
QTY.	: 01 NOS

UNIT	: ANTISCALANT DOSING PUMP
TAG NO.	: DP-404 A/B
M.O.C.	: PP
CAPACITY	: 20 LPH
QTY.	: 02 Nos.(W)

UNIT	: ANTISCALANT DOSING PUMP
TAG NO.	: STORE STAND BY
M.O.C.	: PP
CAPACITY	: 20 LPH
QTY.	: 01 NO.



UNIT	: AIR COMPRESSOR
TAG NO.	: AC-101 A/B
M.O.C.	: CI
CAPACITY	: 16CFM @ 8-10bar
QTY.	: 02 Nos.(1W+1SB)

SYMBOLS

SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME	SR.NO.	SYMBOL	NAME
01		BALL VALVE FLANGED	08		NEEDLE VALVE	15		CENTRIFUGAL PUMP	22		GLASS TUBE FLOW METER
02		BALL VALVE SOCKET WELD	09		NON RETURN VALVE	16		RECIPROCATING PUMP	23		METAL TUBE FLOW METER
03		BALL VALVE THREADED	10		SAFETY RELIEF VALVE	17		DOSING PUMP	24		FIELD INSTRUMENT
04		GLOBE VALVE FLANGED	11		AUTO BALL VLAVE	18	M	MOTOR	25		PANEL MOUNTED
05		GLOBE VALVE THREADED	12		PID VLAVE	19		DAMPNER	26	FT M	MAGNETIC FLOW TRANSMITTER
06		BUTTERFLY VALVE FLANGED	13		AUTO BUTTERFLY VALVE	20		FLEXIBLE PIPE	27		
07		SAMPLING VALVE	14		MULSIPORT VALVE	21		ACRYLIC FLOW METER	28		

LEGENDS

AR	AIR VEVT	FM	FLOW METER
BW	BACK WASH	FWI	FRESH WATER INLET
CW	CONCENTRATE WATER	HPS	HIGH PRESSURE SWITCH
CLW	CLEANING WATER	IV	ISOLATION VALVE
CIP	CLEANING IN PLACE SYSTEM	LS	LEVEL TRANSMITTER
CV	CONTROL VALVE	LLS	LOW LEVEL SWITCH
CCV	CONCENTRATE CONTROL VALVE	LPS	LOW PRESSURE SWITCH
CdT	Cd TRANSMITTER	LS	LEVEL SWITCH
DP	DOSING PUMP	LI	LEVEL INDICATOR
DR	DRAIN	M	MOTOR
FW	FEED WATER	FT	FLOW TRANSMITTER
AV	AUTO VALVE	PV	PRESSURE VESSEL
PA	PRESSURE ALARM	PW	PERMEATE WATER
FA	FLOW ALARM	pHT	pH TRANSMITTER
LA	LEVEL ALARM	PG	PRESSURE GAUGE
SP	SAMPLING POINT	XL	ELECTRICAL INDICATION
V	VALVE	PID	PROPORTIONAL INTEGRATIVE & DERIVATIVE
DPS	DIFFERENTIAL PRESSURE SWITCH	VFD	VARIABLE FREQUENCY DRIVE

	FEED, O/F & DRAIN
	REJECT
	PERMEATE
	BY CLIENT
	DOSING
	CONTROL LOOP
	EQUIPMENT
	VALVES & INST.

BY PMPL
BY CLIENT

REV.	DATE	REVISION BRIEF RECORD	DRN.	CHK.	APP.
2	30.05.18	REVISED AS PER MARKED	HJM	RO	AS
1	29.03.18	REVISED AS PER MARKED	HJM	RO	AS

PERMIONICS MEMBRANES PVT. LTD.
3/29 - 4/19, B.I.D.C, GORWA, BARODA-16

CLIENT'S NAME	M/s NANDESARI INDUSTRIES ASSOCIATION		
REF. DRG. NO.	PD/24XX/1100		
APPD BY	–		TITLE: P&I DIAGRAM OF HPA MEMBRANE SYSTEM
CHKD BY	–		
DRN BY	AS	27.01.26	
JOB NO. 2526XXXX	SCALE NTS	DWG. SIZE A2	DRG. NO. PP/24XX/0200(SHEET 4 OF 4)
			REV. NO. R0

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