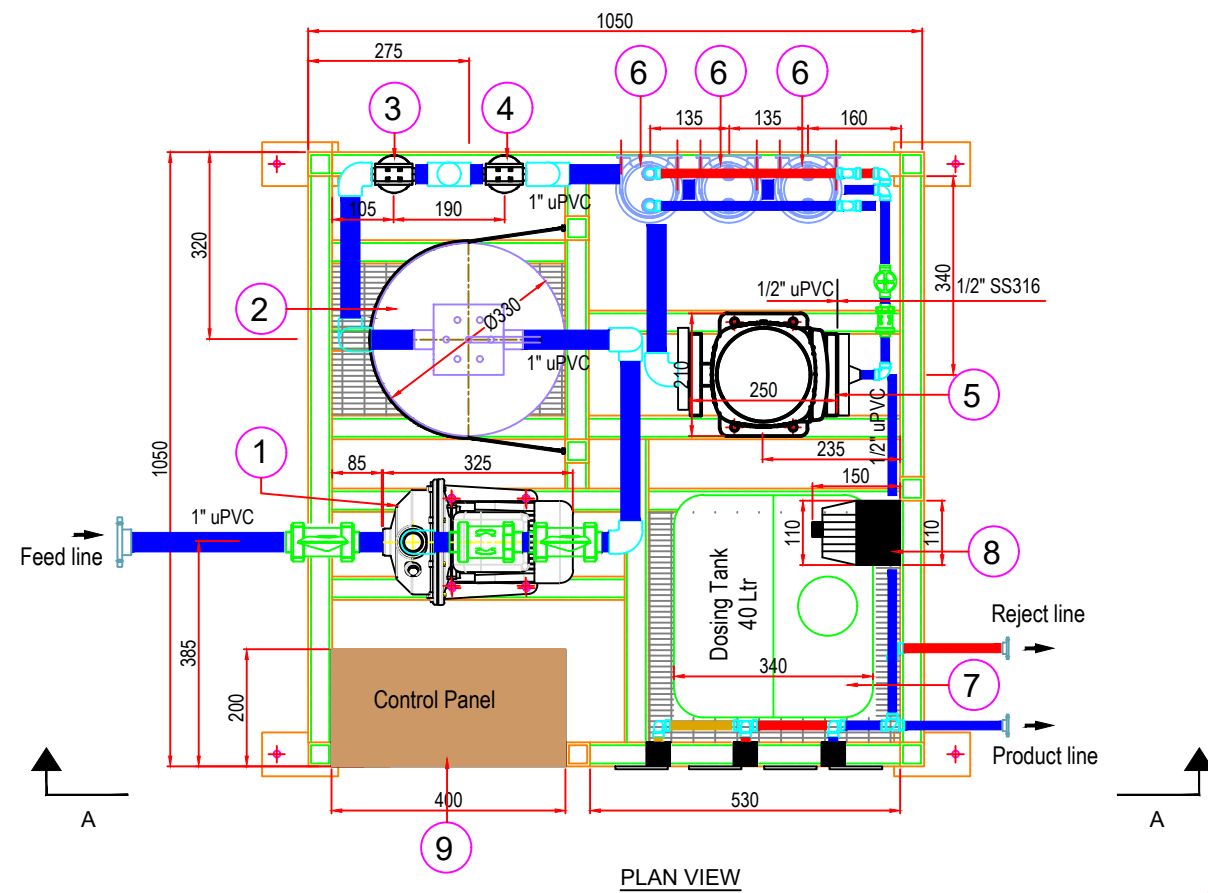
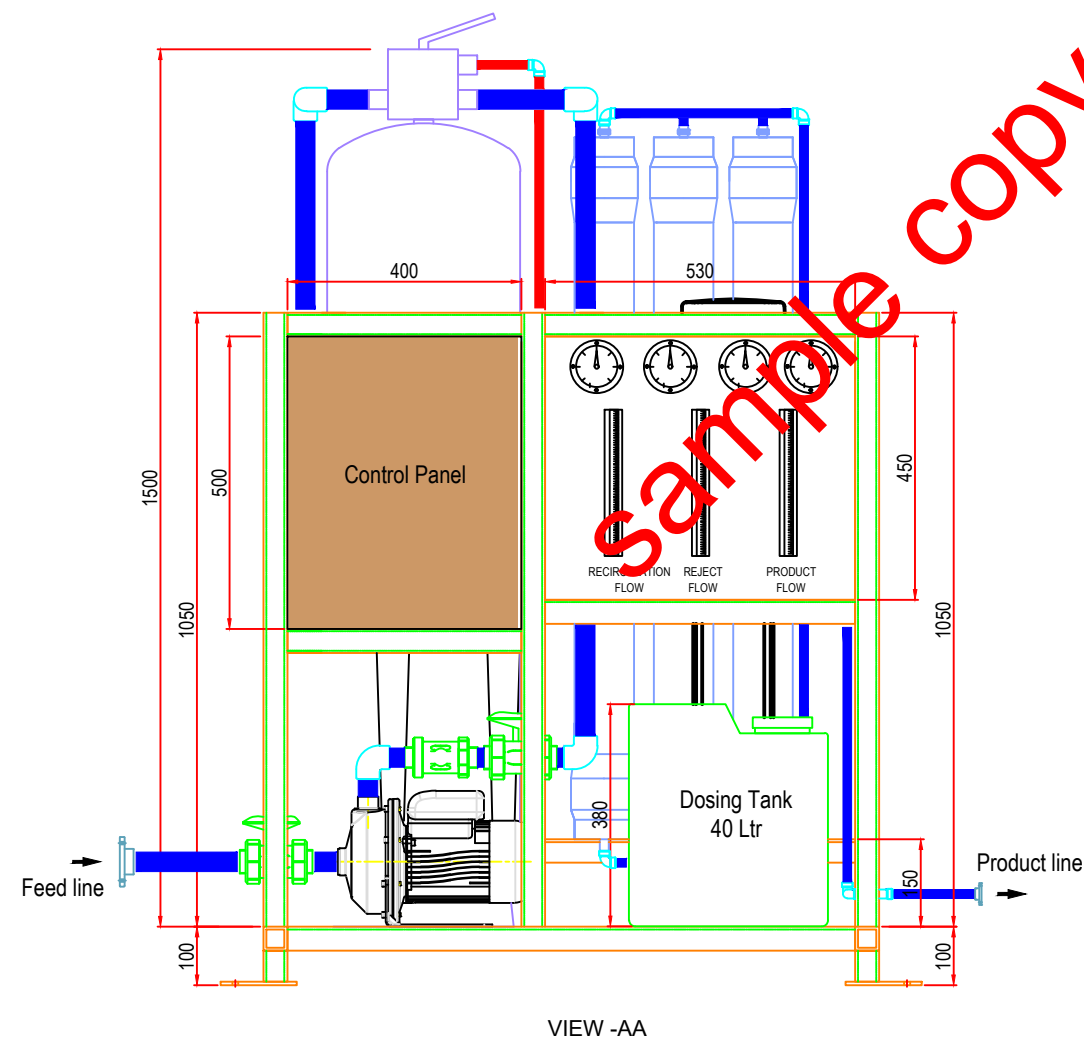
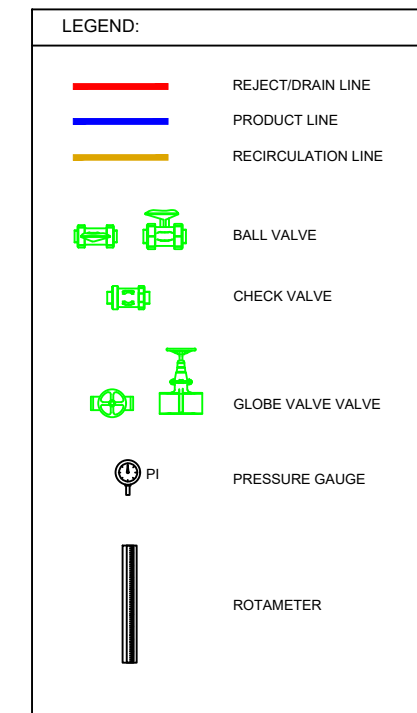




EQUIPMENT SCHEDULE			
SL No.	DESCRIPTION	MODEL No.	QTY (Nos)
01	FEED PUMP	CEA 80/5	1
02	MULTI MEDIA FILTER	13" Dia: x 54" H	1
03	CARBON CATRIDGE FILTER	2.5"x20"(10 µ)	1
04	SEDIMENT FILTER	2.5"x20"(5 µ)	1
05	HIGH PRESSURE PUMP	CRN 1-30-A-CA-G-E-HQQE	1
06	PRESSURE VESSEL	4",1E,300 PSI	3
07	DOSING TANK	40 Ltr	1
08	DOSING PUMP	AKS 603	1
09	CONTROL PANEL	400x200x500mm	1



TK-01 (CLIENT SCOPE)

RAW WATER TANK

P-01

FEED PUMP

FLOW : 0.72 m3/hr
MATERIAL : SS 316
PRESSURE : 3-4 bar
POWER : 0.43 kW
MANUFACTURE : LOWARA
QUANTITY : 1No. (Duty)
MODEL : CEA 80/5

MMF-01

MULTI MEDIA FILTER

SIZE : 13"Ø x 54" HEIGHT
MOC : FRP
OPERATION : MANUAL
MANUFACTURER : PENTAIR
QUANTITY : 1 No. (Duty)

CF-01

CARBON CARTRIDGE FILTER

FLOW : 0.72 m3/hr
SIZE : 2.5"Ø x 20"
FILTRATION : 10 MICRON
MANUFACTURER : AQUA
QUANTITY : 1 No. (Duty)

CF-02

CARTRIDGE FILTER

FLOW : 0.72 m3/hr
SIZE : 2.5"Ø x 20"
FILTRATION : 5 MICRON
MANUFACTURER : AQUA
QUANTITY : 1 No. (Duty)

DTK-1

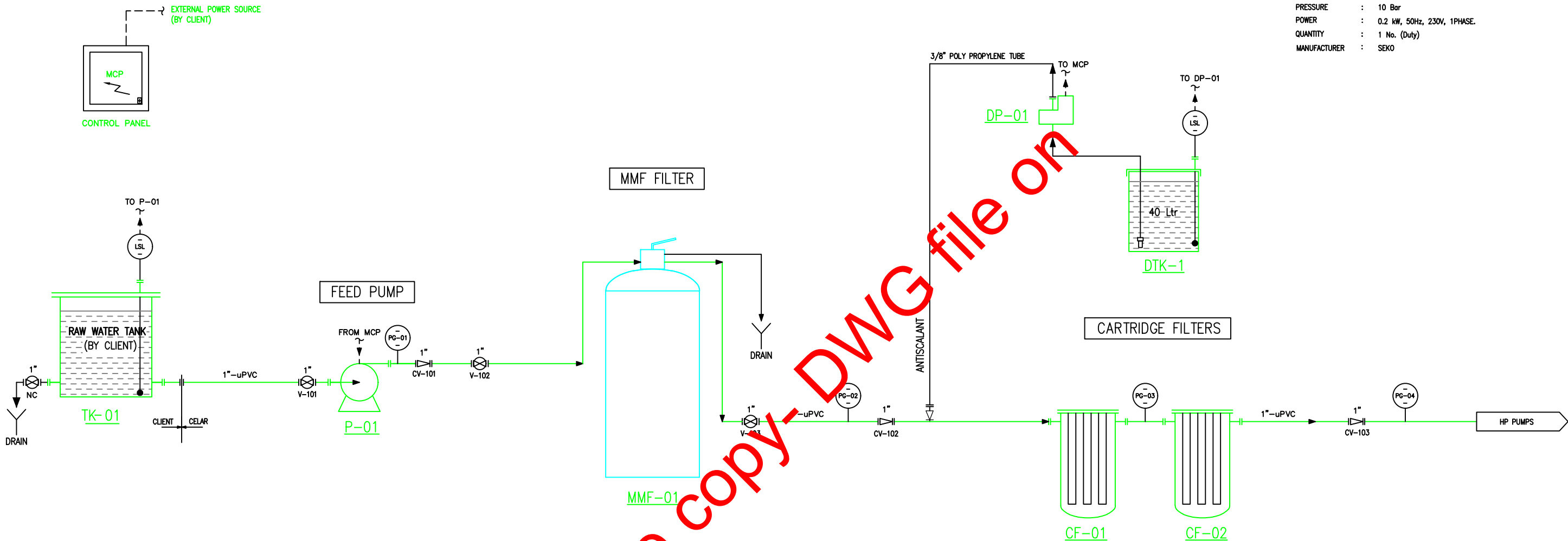
ANTISCALANT DOSING TANK

CAPACITY : 40 Ltr.
MOC : POLYETHYLENE
QUANTITY : 1 No.
MANUFACTURER : JEIMING

DP-01

ANTISCALANT DOSING PUMP

FLOW : 5 Ltr/hr
PRESSURE : 10 Bar
POWER : 0.2 kW, 50Hz, 230V, 1PHASE.
QUANTITY : 1 No. (Duty)
MANUFACTURER : SEKO

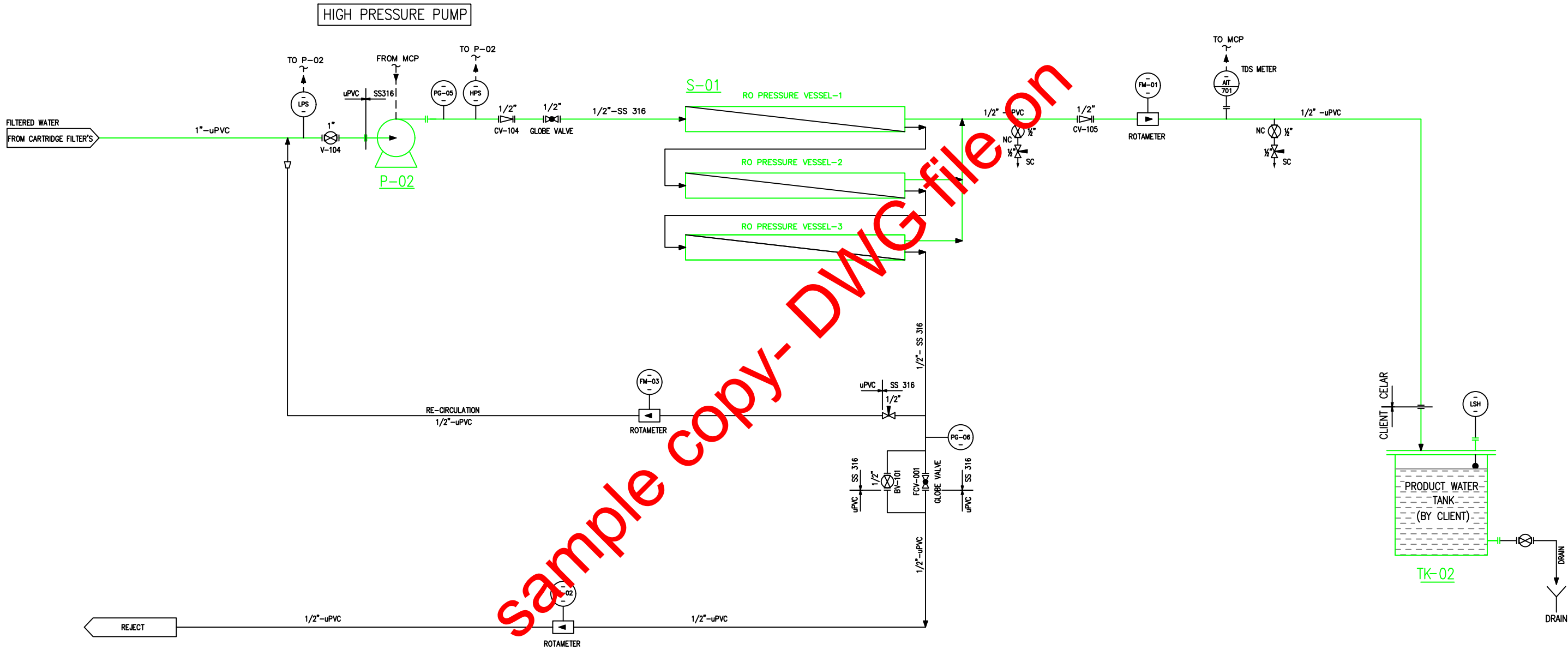


LOAD SCHEDULE :					
Sl No.	EQUIPMENT DETAILS	QTY (Nos)	CONFIGURATION	UNIT LOAD (kW)	TOTAL LOAD (kW)
01	FEED PUMP	01	Duty	0.43	0.43
02	HIGH PRESSURE PUMP	01	Duty	1.50	1.50
03	DOSING PUMP	01	Duty	0.20	0.20
Total Connected Load				2.13	

P-02
HIGH PRESSURE PUMP
FLOW : 0.95 m3/hr
PRESSURE : 15.7 bar
POWER : 1.5 kW
MATERIAL : SS 316
MANUFACTURE : GRUNDFOS
QUANTITY : 1 No. (Duty)
MODEL : CRN 1-30-A-CA-G-E-HQQE

S-01
RO PERMEATORS
No.OF PRESS. VESSELS : 3 Nos. (4")
No. OF MEMBRANES / VESSELS : 1 No.
TOTAL No. OF MEMBRANES : 3 Nos.
PRESSURE VESSEL MOC : FIBERGLASS REINFORCED PLASTIC
PRESSURE VESSEL MANUFACTURER : CODELINE, PENTAIR
MEMBRANE MOC : COMPOSITE POLYAMIDE
MEMBRANE MANUFACTURER : HYDRANAUTICS
MODEL : 4",1E, 300 PSI

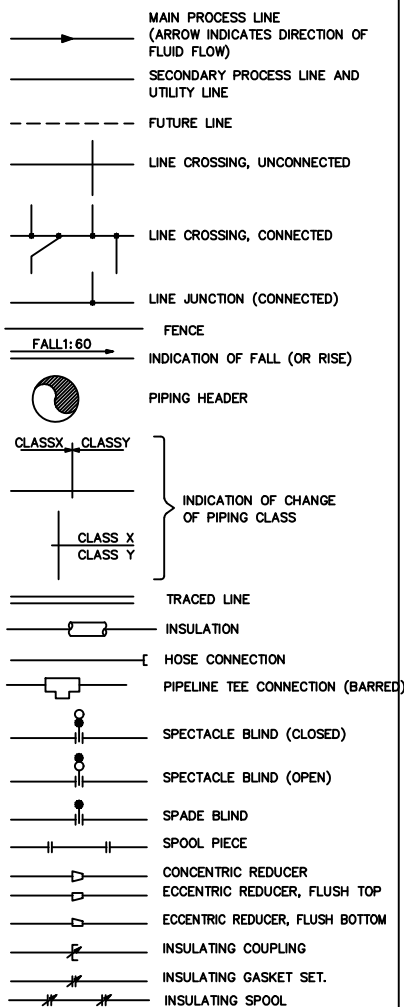
TK-02 (CLIENT SCOPE)
PRODUCT WATER TANK



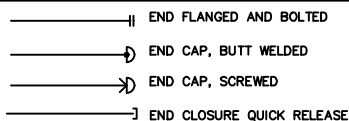
FLWSHEET SYMBOLS

MECHANICAL SYMBOLS

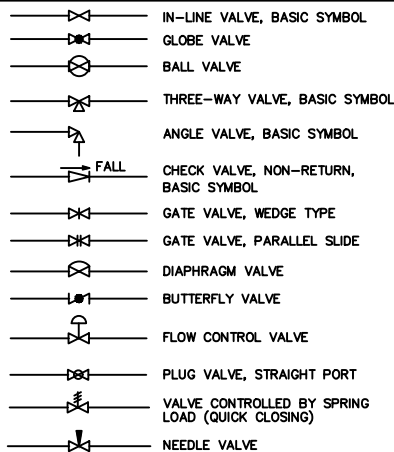
PIPE LINE/PIPING



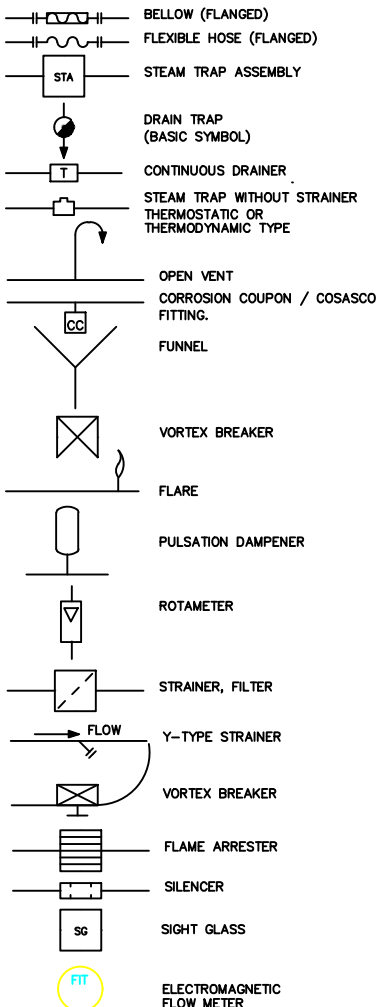
END CLOSURES



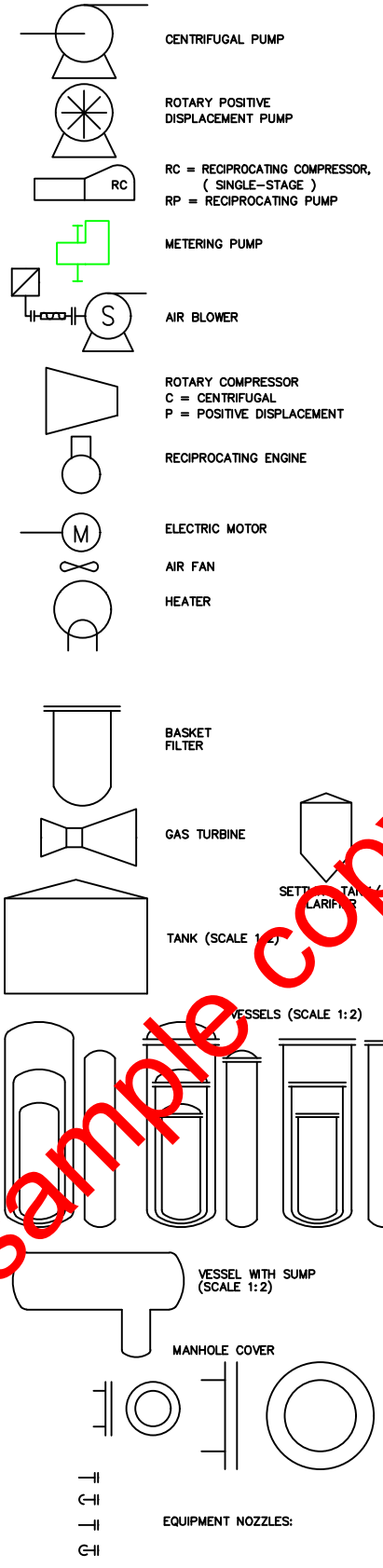
VALVES



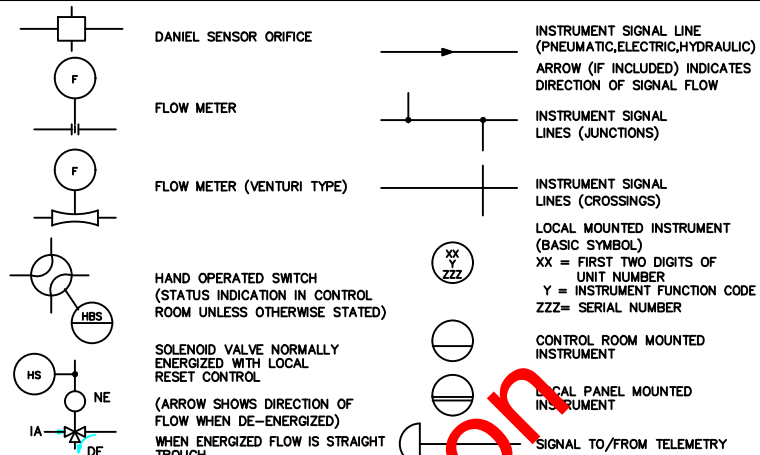
GENERAL



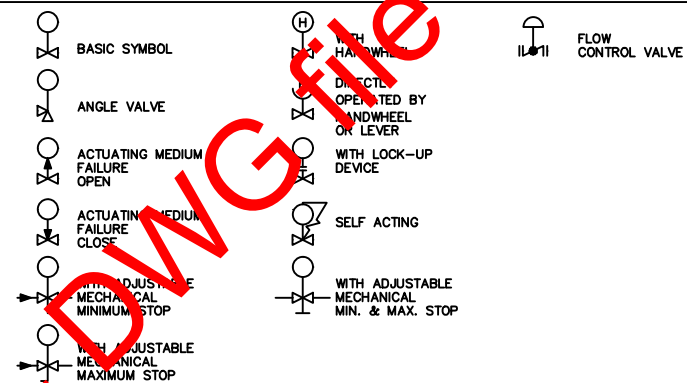
EQUIPMENT



INSTRUMENT SYMBOLS



CONTROL VALVES



INSTRUMENT IDENTIFICATION AND NUMBERING SYSTEM

PROPERTY MEASURED	DESCRIPTION	FIRST LETTER	TRANSMITTER	INDICATING	STATUS DISPLAY	RECORDING	CONTROL-DRIVING	INTEGRATING	SWITCHING	EMERGENCY ACTUATING	ALARM
FLOW		F	FT	FI		FR	FC	FQ	FS	FZ	FA
HAND LEVEL		H	LT	LI	HB	LR	LC	LS	HS	HZ	LA
PRESSURE		P	PT	PI		PR	PC	PS	QS	PZ	PA
PRESSURE DIFFERENTIAL		PD	PDT	PDI		PDR	PDC	PDS	PDZ	PDA	
QUALITY ANALYSIS OR CONCENTRATION		Q	QT	QI	QB	QR	QC	QS	QZ	QA	
SPEED		S	ST	SI		SR	SC	SS	SZ	SA	
TEMPERATURE		T	TT	TI		TR	TC	TS	TZ	TA	
MOVEMENT DISPLACEMENT		G	GT	GI	GB	GR			GZ		
WEIGHT, MASS OR LOAD		W	WT	WI		WR	WC	WS	WZ	WA	
ANY OTHER PROPERTY		X	XT	XI		XR	XC		XZ	XA	
MULTI VARIABLE		U									
COMPUTING FUNCTION		Y						YS	YZ	YA	

NOTES

1) INSTRUMENTS ARE NUMBERED SEQUENTIALLY ACCORDING TO THE PROPERTY MEASURED (FIRST LETTER CODE)

2) SEPARATE GROUPS ARE TO BE FORMED BY:

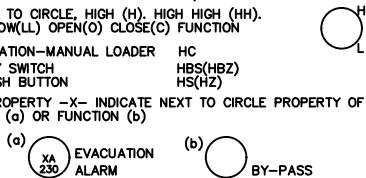
- PRIMARY FLOW ELEMENTS
- PRESSURE POINT (WITH ELEMENT)
- LOCAL PRESSURE GAUGES
- PRESSURE POINT (WITHOUT ELEMENT)
- TEMPERATURE POINT (THERMOWELLS WITH ELEMENT)
- LOCAL TEMPERATURE INDICATORS
- TEMPERATURE POINT (THERMOWELLS WITHOUT ELEMENT)

3) INDICATE NEXT TO CIRCLE, HIGH (H), HIGH HIGH (HH), LOW (L), LOW LOW (LL) OPEN (O) CLOSE (C) FUNCTION

4) HAND OPERATION-MANUAL LOADER

- KEY SWITCH HBS(HBZ)
- PUSH BUTTON HS(HZ)

5) ANY OTHER PROPERTY -X- INDICATE NEXT TO CIRCLE PROPERTY OF MEASUREMENT (a) OR FUNCTION (b)

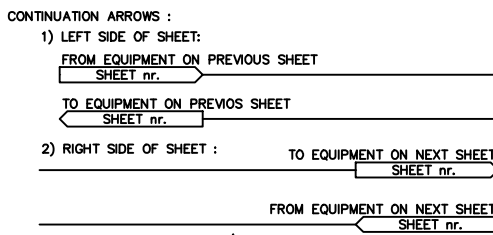


SERVICE INDICATION

P = PROCESS
G = INERT GAS
S = STEAM / CONDENSATE
W = WATER
A = AIR
D = DRAIN
F = FUEL

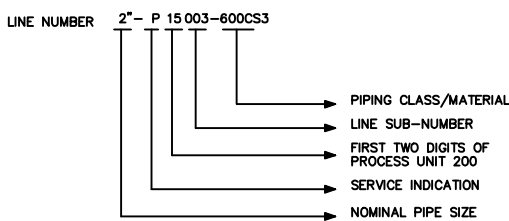
R = REFRIGERANT
B = BLOW-DOWN AND RELIEF
K = KILL LINE
C = CHEMICAL

GENERAL



REVISION TRIANGLE

PIPING IDENTIFICATION



ABBREVIATION (GENERAL)

A/G - ABOVE GROUND	RE - REFERENCE ELECTRODE
B/G - BELOW GROUND	RO - RESTRICTION ORIFICE
CC - CORROSION COUPON	RV - RELIEF VALVE
CI - CHEMICAL INJECTION	SC - SAMPLE CONNECTION
CK - CASTELLOC KEYED VALVE	SCR - SCREWED CONNECTION
D - DRAIN	SP - SET POINT
EL - ELEVATION	TSO - TIGHT SHUT OFF
FB - FULL BORE	UC - UTILITY CONNECTION
FO - FLUSHING OUT	V - VENT
GO - GEAR OPERATED	
HC - HOSE CONNECTION	
IH - INSPECTION HOLE	CS - CARBON STEEL
LC - LOCKED CLOSED	PE - POLY ETHYLENE
LO - LOCKED OPEN	PP - POLY PROPYLENE
M - MOTOR	GRE - GLASS REINFORCED EPOXY
MH - MAN HOLE	SS - STAINLESS STEEL
MOV - MOTOR OPERATED VALVE	CS3 - CARBON STEEL WITH 3MM CORROSION ALLOWANCE
NC - NORMALLY CLOSED	CS1D(PE) - CARBON STEEL WITH 1MM CORROSION ALLOWANCE & POLYETHYLENE LINED
NNF - NORMALLY NO FLOW	
NO - NORMALLY OPEN	
PVV - PRESSURE VACUUM VALVE	

ABBREVIATIONS (INSTRUMENTS)

ARW - ANTI-RESET WIND-UP	TVP - TRUE VAPOUR PRESSURE
DE - DE-ENERGIZED	L - LOW
DIR - DIRECT ACTION	LL - LOW LOW
ESD - EMERGENCY SHUTDOWN	MR - MANUAL RESET
H - HIGH	MV - MEASURED VALUE
HH - HIGH HIGH	
O/C - LIMIT SWITCHES FOR OPEN/CLOSE POSITION OF VALVE	