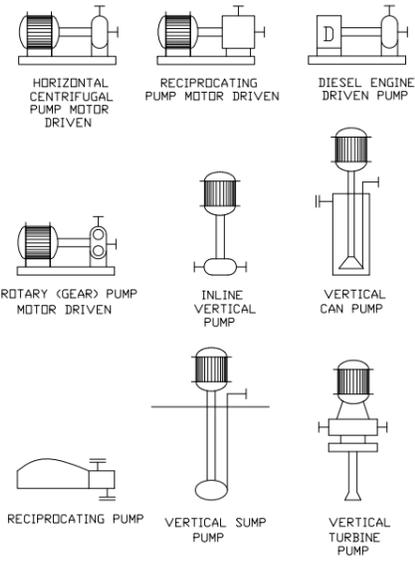
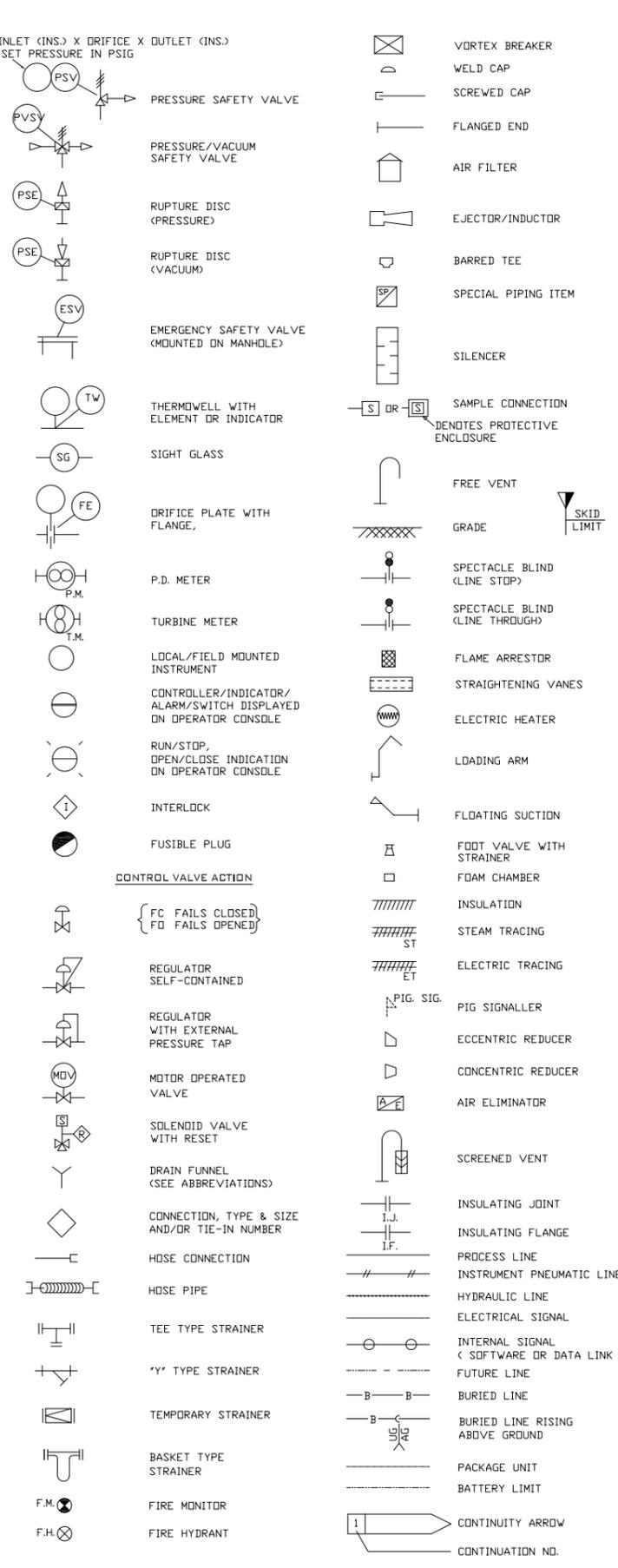


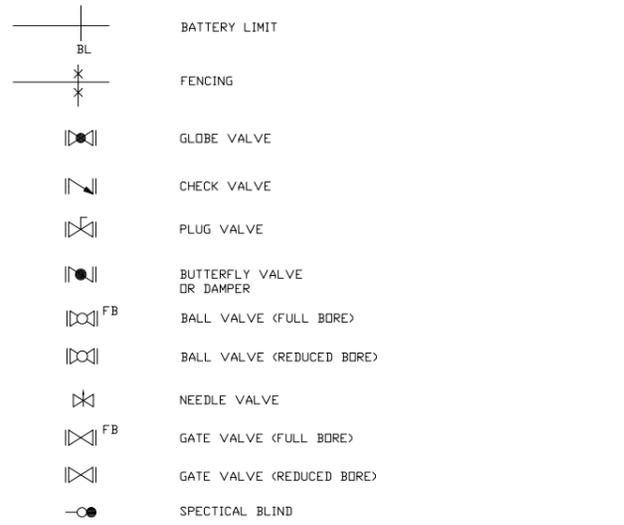
ROTARY EQUIPMENT



PIPING AND INSTRUMENTATION SYMBOLS



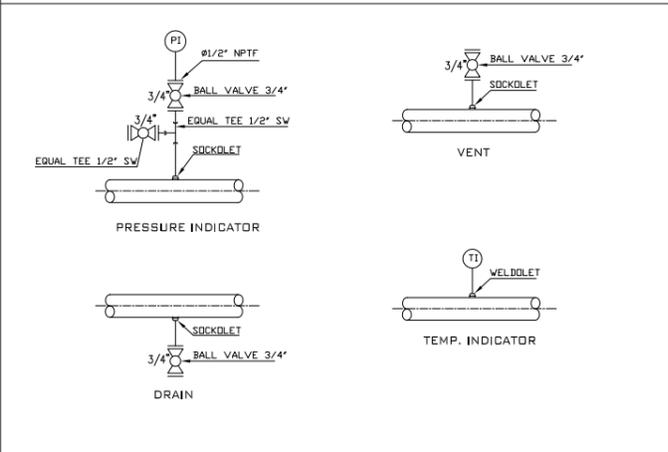
PIPING AND INSTRUMENTATION SYMBOLS



FLOW DIAGRAM IDENTIFICATION LETTERS

LETTER	FIRST LETTER	SUBSEQUENT LETTER
A	ANALYSIS	ALARM
B	BURNER FLAME	BLOCK/BYPASS
C	CONDUCTIVITY (ELECTRICAL)	CONTROLLER/CLOSED
D	DENSITY (SP. GR.)	DIFFERENTIAL
E	VOLTAGE (EMF/ELECTRICAL)	ELEMENT (PRIMARY)
F	FLOW	RATIO (FRACTION)
G	GAUGING (DIMENSIONAL)	GLASS/GAUGE
H	HAND ACTUATED (MANUAL)	HIGH
I	CURRENT (AMPS)	INDICATOR
J	POWER (WATTS)	MULTIPOINT (SCAND)
K	TIME	CONTROL STATION
L	LEVEL	LIGHT/LOW
M	MOISTURE (HUMIDITY)	MIDDLE
N	(UNCLASSIFIED)	(UNCLASSIFIED)
O	(UNCLASSIFIED)	ORIFICE/OPEN
P	PRESSURE/VACUUM	POINT
Q	QUANTITY/NUMBER	TOTALIZER/INTEGRATER
R	RUN/RESTRICTION	RECORDER
S	SPEED/FREQUENCY	SAFETY/SWITCH
T	TEMPERATURE	TRANSMITTER
U	MULTIVARIABLE	MAJFUNCTION
V	VIBRATION/VISCOSITY	VALVE
W	WEIGHT/FORCE	WELL/PROBE
X	(UNCLASSIFIED)	UNCLASSIFIED
Y	(UNCLASSIFIED)	RELAY
Z	POSITION	DRIVE/ACTUATE

VENT AND DRAIN DETAILS

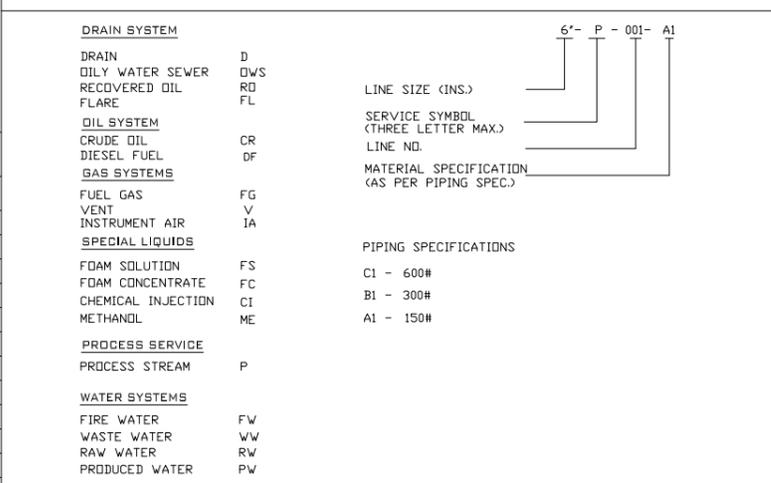


HEADER SIZE	DRAIN SIZE	VENT SIZE
3/4"-4"	3/4"	3/4"
6"-10"	3/4"	3/4"
12"-ABOVE	1 1/2"	3/4"

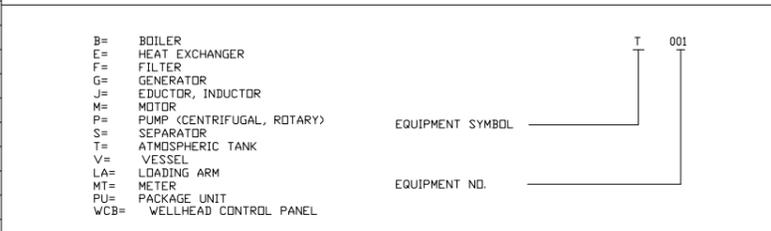
PIPING ABBREVIATIONS

AG - ABOVE GROUND	IJ - INSULATING JOINT	TIP - TIE-IN POINT
ATM - ATMOSPHERE	HC - HOSE CONNECTION/ HALF COUPLING	T-T - TANGENT TO TANGENT
BF - BLIND FLANGE	UC - UTILITY CONNECTION	UG - UNDERGROUND
BL - BATTERY LIMIT	LC - LOCKED CLOSE	V - VENT
CD - CHAIN OPERATED	LD - LOCKED OPEN	VB - VORTEX BREAKER
CSC - CAR SEAL CLOSED	LDR - LOCAL-OFF-REMOTE	RW - RAW WATER
CSD - CAR SEAL OPEN	LP - LOW PRESSURE	P - PLUGGED
DR - DRAIN	MDV - MOTOR OPERATED VALVE	RO - RESTRICTION ORIFICE
DPI - DIFFERENTIAL PRESSURE INDICATOR	NC - NORMALLY CLOSED	TS - TEMPORARY STRAINER
FB - FULL BORE	NO - NORMALLY OPEN	TYP - TYPICAL
FC - FAIL CLOSED	PP - PERSONNEL PROTECTION	ESD - EMERGENCY SHUT DOWN
FD - FAIL OPEN	SC - SAMPLE CONNECTION	
FDB - FLAT ON BOTTOM	S-S - SEAM TO SEAM	
FDT - FLAT ON TOP	SWS - STORM WATER SEWER	
GOV - GEAR OPERATED VALVE		
HP - HORSE POWER OR HIGH PRESSURE		
IFC - INTERNAL FLOATING COVER		
F/W - FILTER WATER		

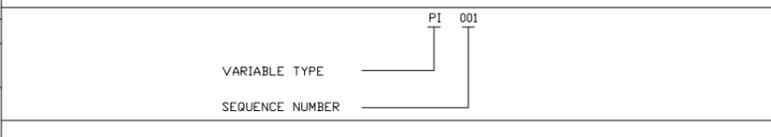
LINE NUMBER IDENTIFICATION



EQUIPMENT NUMBER IDENTIFICATION



INSTRUMENT NUMBER IDENTIFICATION



REV.	DATE	DESCRIPTION OF REVISION	PREP'D	CHECK	APPR.
1	28-12-2018	RE-ISSUED FOR REVIEW			
0	02-08-2018	ISSUED FOR REVIEW			

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CLIENT : **OGDC OIL & GAS DEVELOPMENT COMPANY LTD.**

PROJECT : **SINJHORO PLANT PRODUCED WATER DISPOSAL**

TITLE : **PIPING AND INSTRUMENTATION DIAGRAM LEGEND SHEET**

JOB NO	DRAWING NO	SHEET NO	SCALE	SHEET SIZE	REV
4946	4946-PID-000	1 OF 1	NTS	A3	1

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