
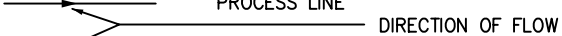
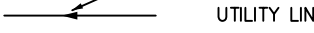

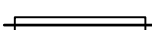

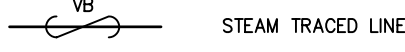
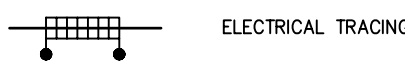

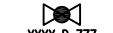


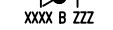



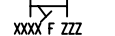

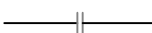


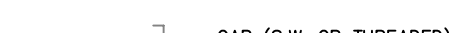






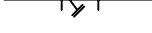





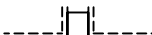




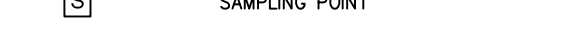




PIPELINE SYMBOLS		LINE LIST SYMBOLS		REMARKS		INSTRUMENT FUNCTIONS					FLUID LIST																						
<div><div> MAIN PROCESS LINE</div><div> PROCESS LINE DIRECTION OF FLOW</div><div> UTILITY LINE</div><div> UNIT BATTERY LIMIT</div><div> JACKETED LINE</div><div> HOT WATER TRACED LINE</div><div> STEAM TRACED LINE</div><div> ELECTRICAL TRACING</div></div>		TRACING DESCRIPTION	ST STEAM TRACED WT WATER TRACED ET ELECTRICAL TRACED SJ STEAM JACKETED WJ WATER JACKETED AJ AIR JACKETED	1) – FOR PIPING CLASSES SEE: 2F11.15,190 2) – FOR PIPING INSULATION SPECIFICATION SEE: NI 80.1 3) – FOR THE SPECIFICATION OF THE STEAM TRACING SEE: TA 50.44 FOR HOT WATER SEE: TA 50.69 FOR ELECTRICAL SEE: ..... 4) – FOR PROPORTIONING PUMP CALIBRATION SYSTEM SEE: ( DETAIL "A" ) 5) – FOR LINES LIST SEE: 2F11.10,132 6) – THE ARRANGEMENT OF PIPING DN≤15 (1/2") FOR HEATING,COOLING TRACING FROM/TO HEATER AND EQUIPMENTS OR JACKET SHALL BE ESTABLISHED ON SITE. 7) – PROVIDE VENTS AT HIGHEST POINT AND DRAINS AT LOWEST POINTS OF LINES. 8) – INSTALL AT THE PIPING INLET A FILTERING NET. 9) – INSTALL THE MAN-HOLE AS NEAR AS POSSIBLE TO BE VALVE.		1st LETTER	2nd LETTER	3d LETTER	4th LETTER	5th LETTER	SIMB.	DESCRIPTION	PIPING CLASS			REV.																	
VALVES AND FITTINGS			TEST	A AIR S STEAM W WATER									N°	BASE MATERIAL	RATING																		
<div><div> GATE VALVE</div><div> GLOBE VALVE</div><div> CHECK VALVE</div><div> BALL VALVE</div><div> BUTTERFLY VALVE</div><div> DIAPHRAGM VALVE</div><div> PLUG VALVE</div><div> FLOW INDICATOR</div><div> FILTER</div></div>													DA DEDUSTING AIR DS SULPHONATED DODECYLBENZENE																				
PIPE CONNECTIONS AND ADDITIONAL SYMBOLS		INSULATION	NOMENCLATURE		DETAIL "A"	I/P = CURRENT TO PRESSURE CONVERTER	INSTRUMENT SYMBOLS					EY ENZYME	125	AISI 304	-	-																	
<div><div> SPECIFICATION CODE VALVE FITTING TYPE (G-D-R-S-B-M-FG-F) VALVE SIZE</div><div> FLANGE</div><div> BLIND FLANGE</div><div> WELDED CAP</div><div> CAP (S.W. OR THREADED)</div><div> HOSE CONNECTION WITH CAP</div><div> HOSE CONNECTION WITHOUT CAP</div><div> REDUCER</div><div> FLEXIBLE HOSE</div><div> "Y" STRAINER WITH DRAIN VALVE</div><div> "Y" STRAINER WITH PLUG BLANK OFF NOZZLE</div><div> REVERSIBLE BLIND</div><div> BLANK DISK</div><div> STEAM CONDENSATE DISCHARGE GROUP</div><div> STEAM TRAP</div><div> DRIP RING</div><div> DRAIN CONNECTION</div><div> MANOMETRIC CONNECTION</div><div> CALIBRATION NOZZLE</div><div> SAMPLING POINT</div><div> TEMPERATURE CONNECTION</div><div> VENT</div><div> TO/FROM EQUIPMENT OR LINE N° P. &amp; I. DWG. N°</div><div> SLOPE</div><div> PIPING SPECIFICATION CHANGE</div></div>																																	
PIPE CONNECTIONS AND ADDITIONAL SYMBOLS			N° Description																														
			11 COOLING WATER SUPPLY																														
			12 COOLING WATER RETURN																														
			13 CHILLED WATER SUPPLY																														
			14 CHILLED WATER RETURN																														
			15 COOLING TOWER WATER SUPPLY																														
			16 COOLING TOWER WATER RETURN																														
			17 HOT WATER SUPPLY																														
			18 HOT WATER RETURN																														
			19 PROCESS WATER																														
			20 DRINKING WATER																														
			21 HIGH PRESSURE STEAM																														
			22 HIGH PRESSURE STEAM CONDENSATE																														
			23 MEDIUM PRESSURE STEAM																														
			24 MEDIUM PRESSURE STEAM CONDENSATE																														
			25 LOW PRESSURE STEAM AT 6 Bar – T: 164°C																														
			26 LOW PRESSURE STEAM CONDENSATE AT 6 Bar – T: 164°C																														
			27 LOW PRESSURE STEAM AT 4 Bar – T: 151°C																														
			28 LOW PRESSURE STEAM CONDENSATE AT 4 Bar – T: 151°C																														
			29 FUEL OIL																														
			30 FUEL GAS																														
			31 INSTRUMENT AIR																														
			32 SERVICE AIR																														
			33 LUBRICATED AIR																														
			34 CLEAN WATER SEWER																														
			35 WASTE WATER SEWER																														
			36 ATMOSPHERE																														
			37 NITROGEN																														