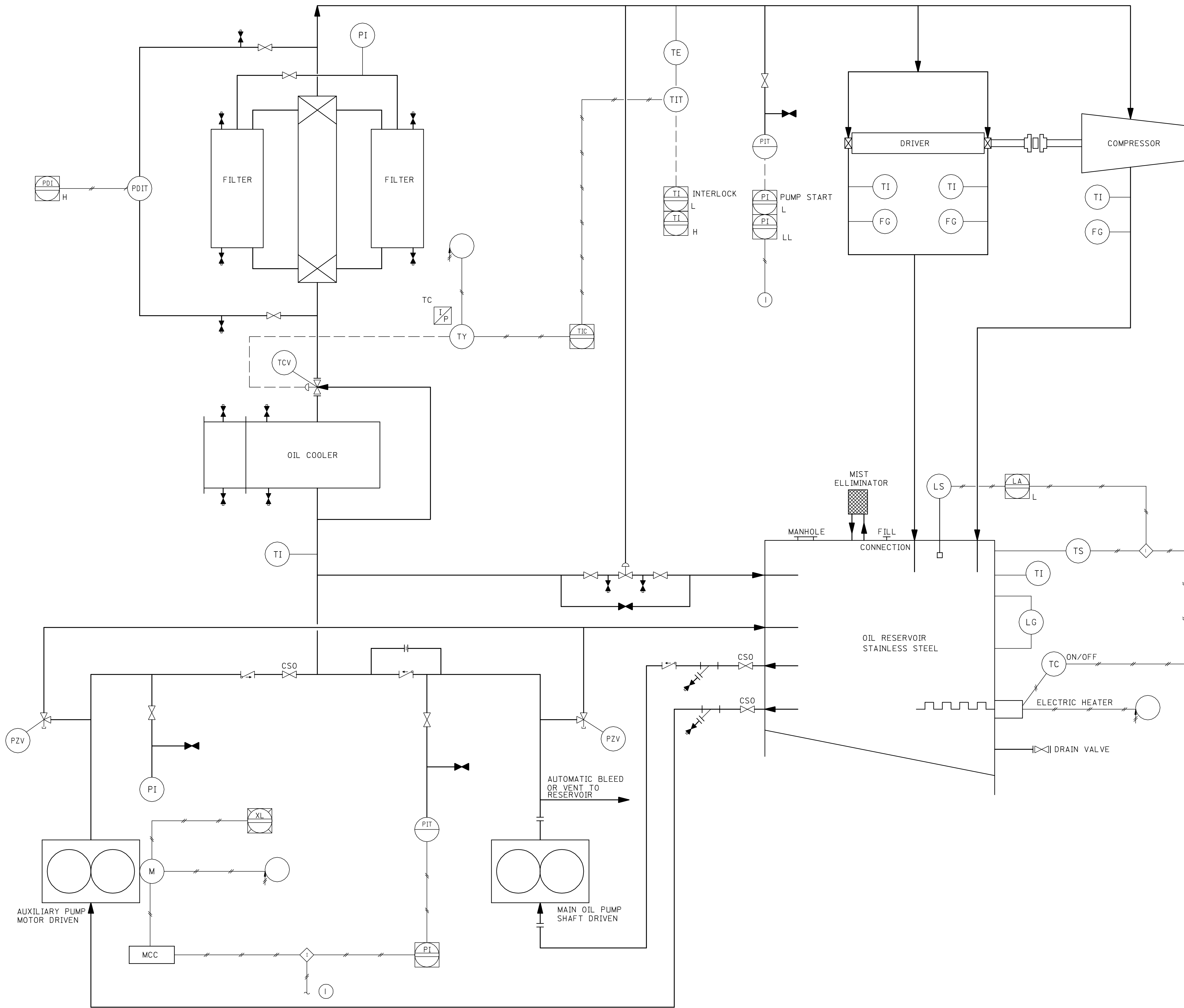


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NOTES:		
 PROCESS LINE  INSTRUMENT AIR LINE  ELECTRICAL LINE  REDUCER  SPECTACLE PLATE-OPEN  SPECTACLE PLATE-CLOSED  GATE VALVE  GLOBE VALVE  CHECK VALVE		
PIPING LEGEND	INSTRUMENT LEGEND	
PIPING MATERIAL SPECIFICATION AES-L-005	INSTRUMENT DEFINITION & SYMBOLS AES-J-004	
AC/AFO -AIR TO CLOSE/ AIR FAILURE OPEN AC/AFS -AIR TO CLOSE/AIR FAILURE STEADY AO/AFC -AIR TO OPEN/ AIR FAILURE CLOSE AO/AFS -AIR TO OPEN/AIR FAILURE STEADY AOV -AIR OPERATED VALVE AT -ANALYZER TRANSMITTER ESC -EMERGENCY SHUTDOWN SYSTEM FDV -FLOW CONTROLLER FCV -FLOW CONTROL VALVE FE -FLOW ELEMENT	TT -TEMP. TRANSMITTER TTd -TEMP. TRANSDUCER TW -THERMOWELL VZV -VACUUM RELIEF VALVE XA -ANNUNCIATOR XLS -LIMIT SWITCH XL -PILOT LIGHT XVE -VIBRATION ELEMENT XVS -VIBRATION SWITCH ZV -SAFETY SHUTDOWN VALVE TTT -TEMP. INDICATING TRANSMITTER PIT -PRESS. INDICATING TRANSMITTER	

Symbol	Function	Notes
	GATE VALVE	
	ANGLE VALVE	
	RELIEF VALVE	
	MOTOR OPERATED VALVE	
	PISTON OPERATED VALVE	
	CONTROL VALVE	
	BALL TYPE CONTROL VALVE WITH POSITIONER	
	SOLENOID VALVE	
	VALVE NORMALLY CLOSED	
	TRANSDUCER	
	FLOW INDICATOR CONTROLLER	
	FLOW METER	
	FLOW TOTALIZER INDICATOR	
	FLOW RECORDER	
	FLOW TRANSMITTER	
	FLOW RELAY	
	HAND INDICATOR CONTROLLER	
	HAND SWITCH	
	LEVEL ALARM	
	LEVEL CONTROL VALVE	
	LEVEL GAUGE GLASS	
	LEVEL INDICATOR CONTROLLER	
	LEVEL INDICATOR	
	LEVEL RECORDER	
	LEVEL SWITCH	
	LEVEL TRANSMITTER	
	LEVEL TRANSDUCER	
	MOTOR OPERATED VALVE PUSHBUTTON	
	PRESSURE CONTROLLER	
	PRESSURE CONTROL VALVE	
	PRESS. DIFF. CONTROLLER	
	PRESS. DIFF. INDICATOR	
	PRESSURE DIFFERENTIAL INDICATOR CONTROLLER	
	PRESSURE DIFFERENTIAL INDICATOR SWITCH	
	PRESS. DIFF. TRANSMITTER	
	PRESS. DIFF. TRANSDUCER	
	PRESSURE GAUGE	
	PRESSURE INDICATOR	
	PRESSURE INDICATOR CONTROLLER	
	PRESSURE RECORDER	
	PRESSURE SWITCH	
	PRESSURE TRANSMITTER	
	PRESS. COMPUTATION MOD.	
	PRESSURE POINT	
	PRESSURE RELIEF VALVE	
	RESTRICTION ORIFICE	
	RESIST. TEMP. DETECTOR	
	DATA LOGGER POINT	
	F-FLOW P-PRESS.	
	L-LEVEL T-TEMP.	
	M-MISC. A-ALARM	
	LOCAL PANEL MOUNTED INSTR.	
	BOARD MOUNTED INSTRUMENT	
	R/G STATUS LIGHTS	
	R-RED, G-GREEN	
	LOCAL MOUNTED INSTRUMENT	
	MOUNTED BEHIND LOCAL PANEL	
	RACK MOUNTED (OR BACK OF PANEL)	
	ELECTRICAL SUPPLY REQUIRED	
	INSTRUMENT AIR SUPPLY REQUIRED	
	H HIGH	
	L LOW	
	TWO PEN RECORDER	
	SIGNAL CONVERTER CURRENT TO PRESS.	

REFERENCE DRAWINGS	
LETTER IDENTIFICATION OF LINES	AC-036204
PIPING SYMBOLS	AB-036227
EQUIPMENT SYMBOLS	AB-036305
INSTRUMENT SYMBOLS	AC-036950
PIPING LAYOUT INDEX	
PLOT PLAN	
PROCESS FLOW DIAGRAM	
HYDROSTATIC TEST DIAGRAM	
DRAWING CONTROL JOB ORDER NO.	
INSTRUMENT INSTALLATION SCHEDULES	

REV. NO.	DATE	JG/EWO	DESCRIPTION	ENGG.	CERT.	PMT	OPRNS			
THIS REVISION IS NOT TO BE USED FOR CONSTRUCTION UNTIL CERTIFIED AND DATED.						DESIGN CERTIFICATION	REVIEW FOR KEY DRAWINGS			

DESIGN CERTIFICATION

DRAWN BY	<u>M.H. JANJUA</u>	CHECKED BY	<u></u>
DATE STARTED	<u>8TH SEPT. 2002</u>	DATE COMPLETED	<u></u>
DISCIPLINE ENGINEER	<u></u>		
PROJECT ENGINEER	<u></u>		

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNTIL CERTIFIED AND DATED.	CERTIFIED BY: _____ (NAME) SIGNATURE _____ DATE _____
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SAUDI ARABIAN OIL COMPANY		
REVIEW FOR KEY DRAWINGS	REQUIRED ☐	NOT REQUIRED ☐
CONSTRUCTION AGENCY _____		
OPERATIONS _____		
OTHER _____		

LUBE OIL SYSTEM	DRAWING TYPE STD
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PLANT INSTRUMENT AIR COMPRESSOR

STD. DWG.		SAUDI ARABIA		
PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.
990	A	AA-036638	002	00