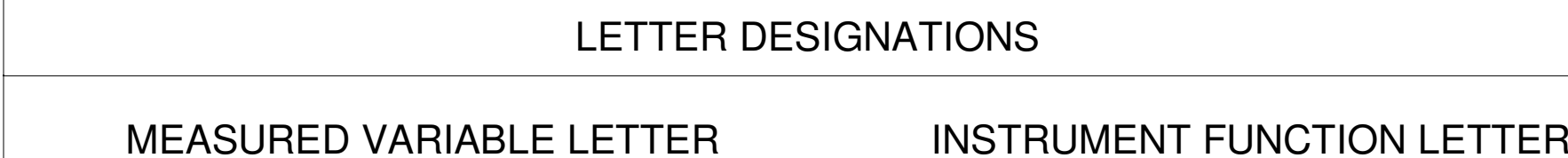
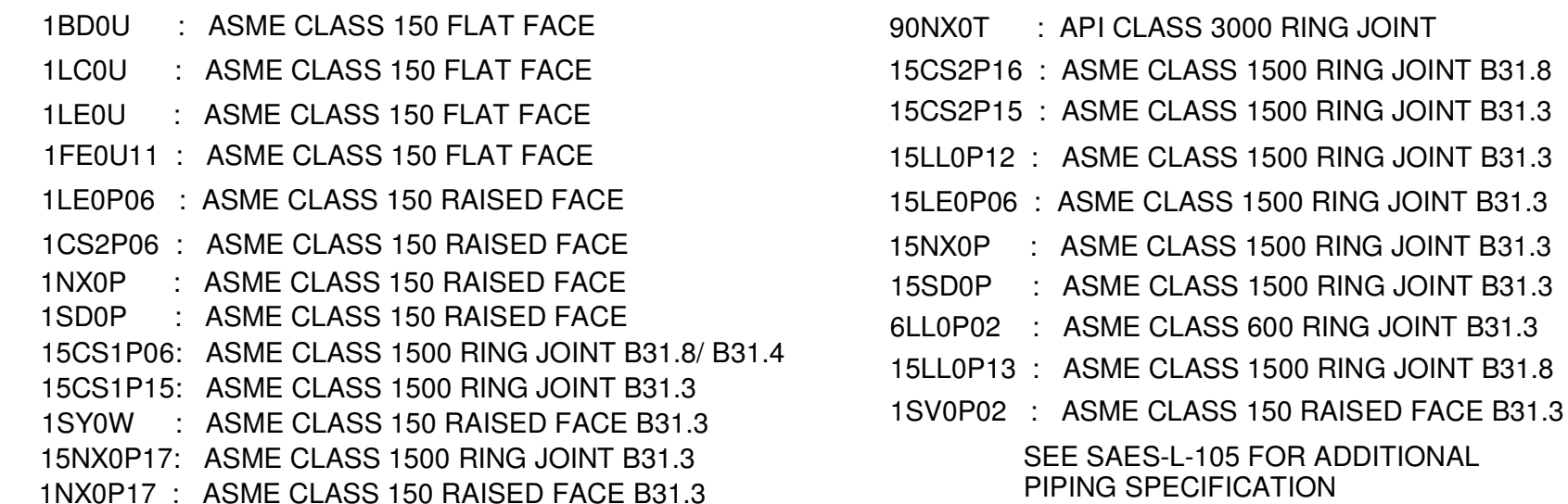


	BALL VALVE		FIBER OPTIC
	CHECK VALVE		SOFTWARE/SERIAL LINK
	NON-SLAM CHECK VALVE		ELECTRICAL TRANSMISSION OR INSTRUMENTATION ELECTRICAL LINE
	GATE VALVE		PNEUMATIC TRANSMISSION OR INSTRUMENT AIR LINE
	GLOBE VALVE		HYDRAULIC SIGNAL
	NEEDLE VALVE		RADIO SONIC OR LIGHT SIGNAL
	PLUG VALVE		CONNECTION TO PROCESS OR MECHANICAL LINE
	THREE-WAY VALVE		LOCAL MOUNTED INSTRUMENT
	ANGLE CHOKE VALVE		CONTROL ROOM BOARD MOUNTED INSTRUMENT
	INTEGRAL TYPE DOUBLE BLOCK AND BLEED		INSTRUMENT MOUNTED ON BACK OF PANEL
	THREADED VALVE NORMALLY CLOSED		LOCAL PANEL MOUNTED INSTRUMENT
	FLANGED VALVE NORMALLY OPEN		INSTRUMENT MOUNTED BEHIND LOCAL PANEL
	QUICK EXHAUST VALVE		INSTRUMENT WITH TWO FUNCTIONS
	FLANGED Y TYPE STRAINER WITH BLOW-OFF VALVE (DELETE FLANGES IF SCREWED)		STATUS LAMP (R-RED, G-GREEN, A-AMBER)
	REDUCER CONCENTRIC		STATUS LAMP
	REDUCER ECCENTRIC (FLAT ON BOTTOM)		ORIFICE FLANGE
	REDUCER ECCENTRIC (FLAT ON TOP)		ORIFICE PLATE QUICK CHANGE FITTING
	SPECTACLE PLATE OPEN		VORTEX FLOW METER
	SPECTACLE PLATE CLOSED		FLOW INDICATOR ROTAMETER
	SWIVEL FLANGE		VENTURI
	INSULATING FLANGE		RUPTURE DISC FOR PRESSURE RELIEF
	GRAYLOC CLAMPS		RUPTURE DISC FOR VACUUM RELIEF
	FLAME ARRESTOR		FLOW STRAIGHTENING VANES
	HOSE CONNECTION		CHEMICAL SEAL
	J.O. NUMBER TIE-IN NUMBER		ELECTRICAL SUPPLY REQUIRED
	PLANT NUMBER		INSTRUMENT AIR SUPPLY REQUIRED
	SPECIALTY ITEM		PRESSURE OR VACUUM RELIEF VALVE
	VELOCITY CHECK VALVE		PRESSURE AND VACUUM RELIEF VALVE
	RECIPROCATING PUMP		HAND CONTROL VALVE
	METERING PUMP		DIAPHRAGM OPERATED CONTROL VALVE (FC-FAIL CLOSED, FO-FAIL OPEN, FL-FAIL LAST) (POSITION DOES NOT CHANGE)
	PUMP VERTICAL CENTRIFUGAL W/MOTOR		SELF CONTAINED BACK PRESSURE CONTROL VALVE
	MOTOR DRIVER FOR PUMP		DOUBLE DIAPHRAGM CONTROL VALVE
	ELECTRIC MOTOR VALVE ACTUATOR		FILL IN RECTANGLE AQ, GO, HO, OR MO FOR AIR, GAS, HYDRAULIC OR MOTOR OPERATED VALVE
	PIPING SPEC BREAK		SOLENOID OPERATED CONTROL VALVE
	UNION THREADED		THREE-WAY SOLENOID VALVE LATCH TYPE WITH MANUAL RESET WITH ELECTRICAL RESET INDICATES NORMALLY CLOSED PORT INDICATES DEENERGIZED/ENERGIZED DIRECTIONS
	NIPPLE SWAGE		CONTROL VALVE WITH POSITIONER (DIAPHRAGM OPERATED BALL VALVE)
	CONNECTOR		CONTROL VALVE WITH POSITIONER (PISTON OPERATED BALL VALVE)
	HOSE REEL		
	PULSATION DAMPENER		
	BARRED TEE		
	LIQUID SEAL		
	CALIBRATION POT		



THE ABOVE SECTION HAS BEEN DIVIDED INTO TWO UPPERCASE LETTER GROUPINGS. THE FIRST DEFINES THE MEASURED VARIABLE OR VARIABLES, AND THE SECOND DEFINES THE INSTRUMENT FUNCTION, A SPECIAL GROUP OF LOWER CASE LETTERS IS GIVEN WHICH, IF REQUIRE

AC	AIR TO CLOSE
AF	AIR FAIL CLOSED
AFD	ADJUSTABLE FREQUENCY DRIVE (ESP ALSO REFERRED TO AS VSD)
AFL	AIR FAIL LOCKED
AFO	AIR FAIL OPEN
AFS	AIR FAIL STEADY
AO	AIR TO OPEN
AS	AIR SUPPLY
ASD	ADDITIONAL SAFETY DEVICE
AVT	AUTOMATIC VENT TRAP
BC	BATTERY CHARGER
BD	BLOWDOWN
BF	BLIND FLANGE
BL	BATTERY LIMIT
BT	BARRLED TEE
CD	CLOSED DRAIN, PRESSURE SEWER
CH	CHAIN OPERATED
CIU	CORROSION INHIBITOR INJECTION UNIT
C.O.	CLEAN OUT
CSC	CAR SEAL CLOSED
CSO	ALIGN CAR SEAL OPEN
D	DRAIN CONNECTION
DS	DOWN HOLE SMART COMPLETION
ECC	ECCENTRIC
EDT1	EAST DRAIN TROUGH
ESD	EMERGENCY SHUTDOWN
ESP	ELECTRICAL SUBMERSIBLE PUMP
EIV	EMERGENCY ISOLATION VALVE
FO	FAIL OPEN
FB	FULL BORE
FC	FAIL CLOSED
FV	FIRE SAFETY VALVE
(F)	FURNISHED WITH EQUIPMENT
GOV	GAS OPERATED VALVE
HCX	HOSE CONNECTION
HU	HARMONIC FILTER UNIT
HHHLL	HIGH HIGH HIGH LIQUID LEVEL
HLLL	HIGH HIGH HIGH LIQUID LEVEL
HH	HAND HOLE
HLL	HIGH LIQUID LEVEL
HIPS	HIGH INTEGRITY PROTECTION SYSTEM
HT	"H" ISOLATION SPOOL
HOA	MANUAL STATION FOR SELECTION OF OFF-ON-AUTOMATIC MODE OF OPERATION
LAT	LOWEST ASTRONOMICAL TIDE (SAUDI ARAMCO TIDE DATUM)
LC	LOCK CLOSED
LL	LOW LIQUID LEVEL
LLLL	LOW LOW LIQUID LEVEL



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