
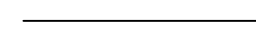
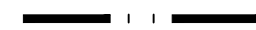


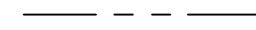


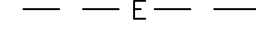
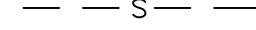














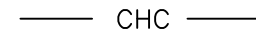







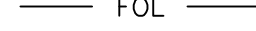
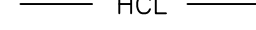

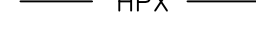
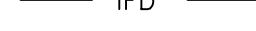
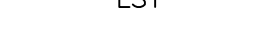
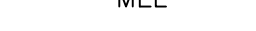
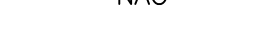
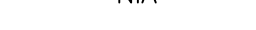










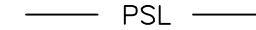




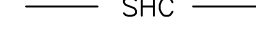
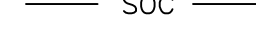
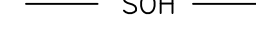

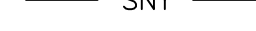


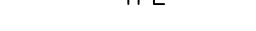




REVISIONS

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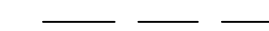
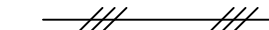
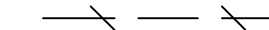
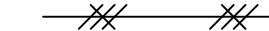
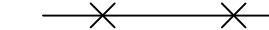
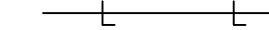
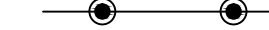
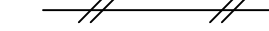
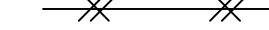
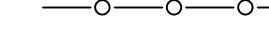
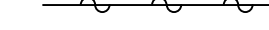


PROCESS LINES

-  PROCESS SUPPLY
-  SECONDARY SUPPLY
-  FUTURE PROCESS SUPPLY
-  FUTURE SECONDARY SUPPLY
-  EXISTING PROCESS SUPPLY
-  EXISTING SECONDARY SUPPLY
-  FLEXIBLE HOSE
-  CHILLED WATER TRACE
-  ELECTRIC TRACE
-  STEAM TRACE
-  ANY GAS
-  ALUMINUM SULPHATE
-  AMMONIUM NITRATE
-  AMMONIUM HYDROXIDE
-  AMMONIUM BIFLUORIDE
-  AMMONIUM SULPHATE
-  ACID SOLUBLE ORGANICS
-  ARGON
-  BACKWASH AIR
-  CALCIUM FLUORIDE
-  COMPRESSED AIR
-  CLEAN BACKWASH WATER

-  CAUSTIC RAW FEED
-  CARBON DIOXIDE
-  CALCIUM HYPOCHLORITE
-  CHLORINE
-  DIRTY BACKWASH WATER
-  DIESEL FUEL
-  EFFLUENT
-  FERRIC CHLORIDE
-  FILTER EFFLUENT WATER
-  FILTER INFLUENT WATER
-  FUEL OIL
-  HYDROCHLORIC ACID
-  HYDROFLUORIC ACID
-  HYDROGEN PEROXIDE
-  INDUSTRIAL RAW FEED
-  LIME SLURRY
-  METHANOL
-  NATURAL GAS
-  NITRIC GAS
-  NITROGEN
-  OIL
-  PLANT AIR

-  POLYMER FEED
-  PHOSPHORIC ACID
-  POTASSIUM FLUORIDE
-  POTASSIUM HYDROCHLORIDE
-  PROCESS DRAIN
-  PROCESS SLUDGE
-  PROCESS VAPOR
-  POTABLE WATER
-  SULFURIC ACID > 75%
-  SULFURIC ACID < 75%
-  SODIUM HYPERCHLORITE
-  SODIUM CARBONATE
-  SODIUM HYDROXIDE
-  STEAM
-  SANITARY SEWER
-  STORM DRAIN
-  SERVICE WATER
-  THERMAL FLUID
-  UTILITY WATER
-  VENT
-  WASTE OIL
-  WASTEWATER




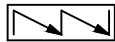
















SIGNAL LINES

-  ELECTRICAL SIGNAL
-  ELECTRICAL SIGNAL
-  ELECTRICAL BINARY
-  ELECTRICAL BINARY
-  CAPILLARY
-  HYDRAULIC
-  MECHANICAL LINK
-  PNEUMATIC
-  PNEUMATIC BINARY
-  SOFTWARE
-  SONIC GUIDED
-  SONIC UNGUIDED
-  UNDEFINED

















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SCALE				SHEET NO.			
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REVISIONS			
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















VALVES

-  3 WAY VALVE
-  4 WAY VALVE
-  ANGLE VALVE
-  BACKFLOW PREVENTER
-  BALL VALVE
-  BELLOWS SEALED VALVE
-  BUTTERFLY VALVE
-  CHECK VALVE
-  DAMPER
-  DAMPER - OPPOSED BLADE
-  DAMPER - PARALLEL BLADE
-  DIAPHRAGM VALVE
-  ECCENTRIC ROTARY DISC VALVE
-  GATE VALVE
-  GLOBE VALVE
-  KNIFEGATE VALVE
-  NEEDLE VALVE
-  PINCH VALVE
-  PLUG VALVE
-  ROTARY VALVE

VALVE ACTUATORS

-  BELLOWS SPRING
-  ELECTRO-HYDRAULIC
-  HANDLE
-  MOTOR
-  LINEAR PISTON
-  LINEAR PISTON POSITIONER
-  ROTARY PISTON
-  ROTARY PISTON POSITIONER
-  PRESSURE BALANCE
-  SPRING DIAPHRAGM
-  SPRING DIAPHRAGM POSITIONER
-  RELIEF
-  PILOT RELIEF
-  SOLENOID
-  SOLENOID - MANUAL OR REMOTE RESET
-  SOLENOID - MANUAL AND REMOTE RESET

PARTIAL STROKE TEST DEVICES



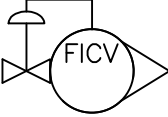
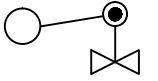



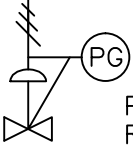







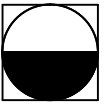




SPRING DIAPHRAGM	PRESSURE BALANCE DIAPHRAGM	LINEAR PISTON	ROTARY PISTON	BELLOWS SPRING OPPOSED	MOTOR	SOLENOID	ELECTRO-HYDRAULIC	
								MANUALLY ACTIVATED
								REMOTELY ACTIVATED

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
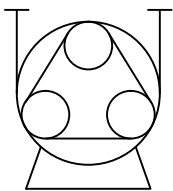
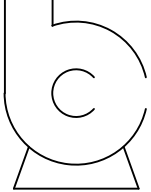
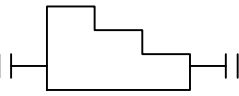
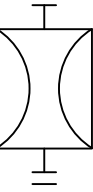
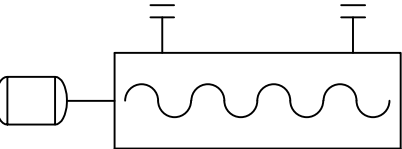
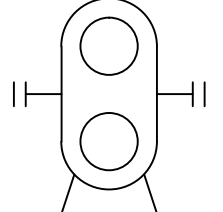
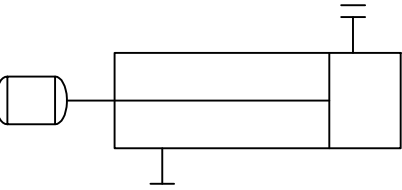
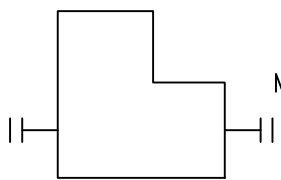
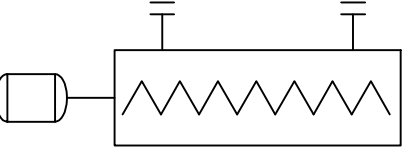
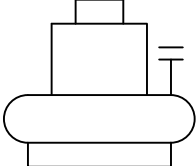

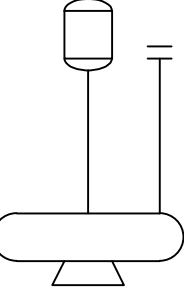
REVISIONS

REV	DESCRIPTION	DATE	APPROVED
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CONTROL VALVES & REGULATORS

	AUTOMATIC FLOW REGULATOR		FLOW SIGHT GLASS
	CONSTANT FLOW REGULATOR		LEVEL REGULATOR
	BACKPRESSURE REGULATOR EXTERNAL TAP		RESTRICTION VALVE W/ ORIFICE
	BACKPRESSURE REGULATOR INTERNAL TAP		PRESSURE REDUCING REGULATOR W/ GAUGE
	DIFFERENTIAL PRESSURE REGULATOR EXTERNAL TAP		PRESSURE RELIEF VALVE
	DIFFERENTIAL PRESSURE REGULATOR INTERNAL TAP		VACUUM RELIEF VALVE
	FLOW METER W/ VALVE		STEAM TRAP
	FLOW ORIFICE		STEAM TRAP
		TRAP	
			TEMPERATURE REGULATOR
	FLOW ORIFICE W/ TRANSMITTER		

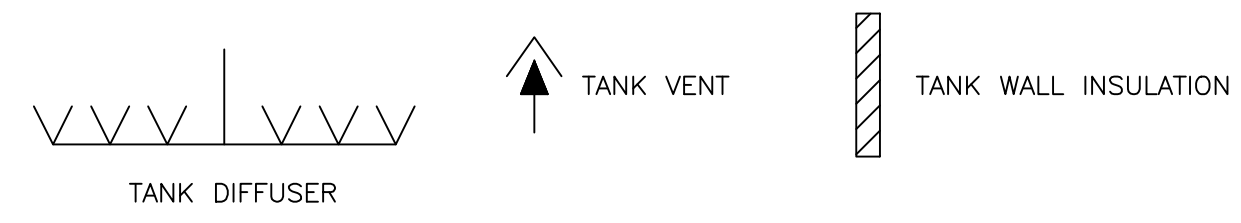
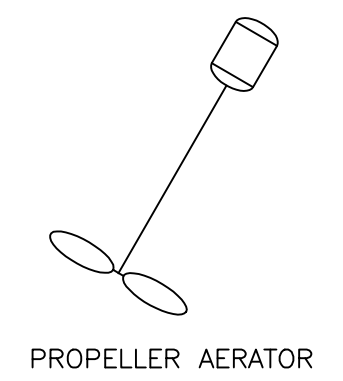
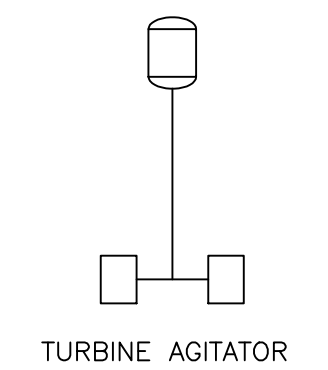
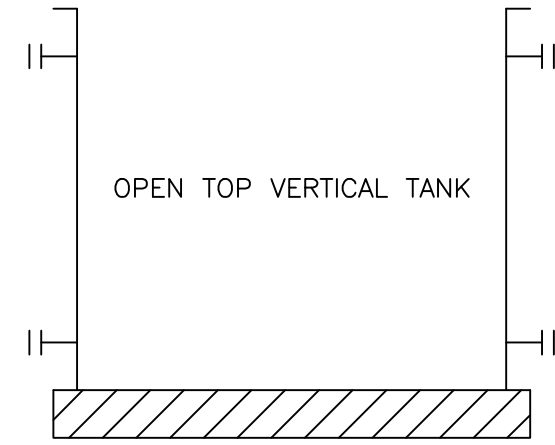
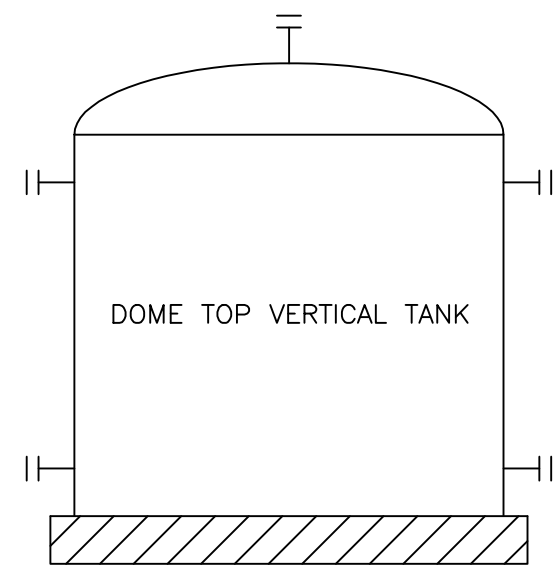
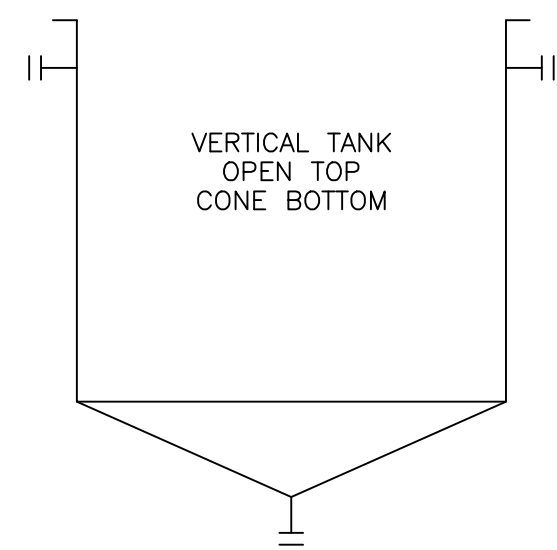
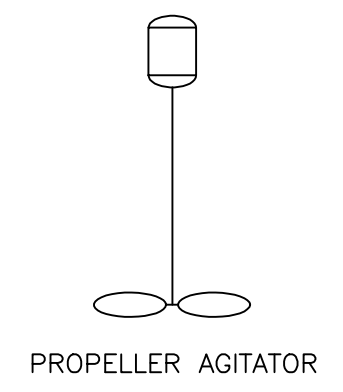
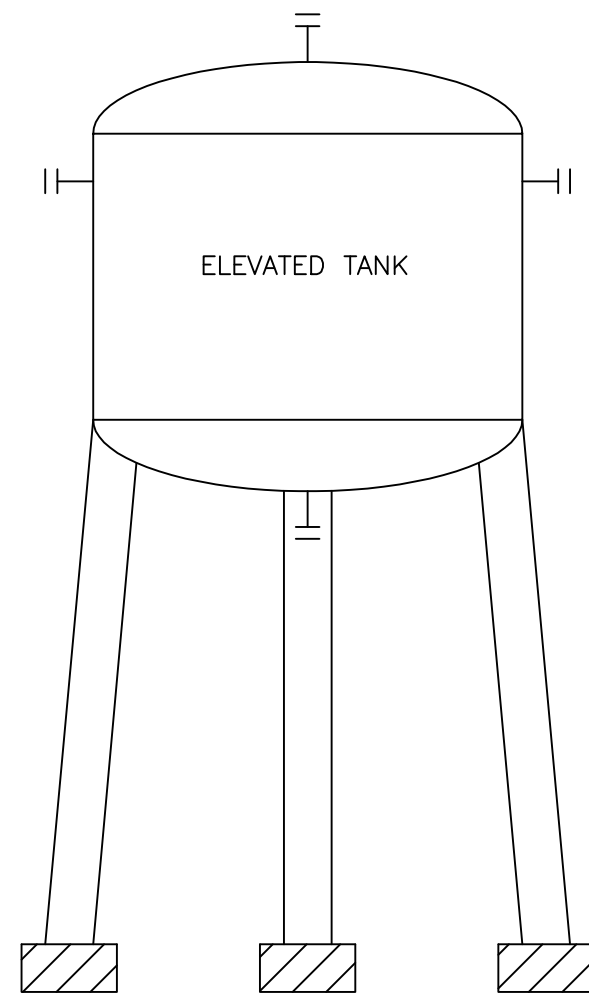
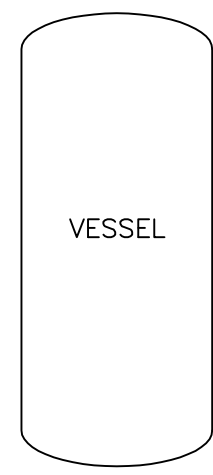
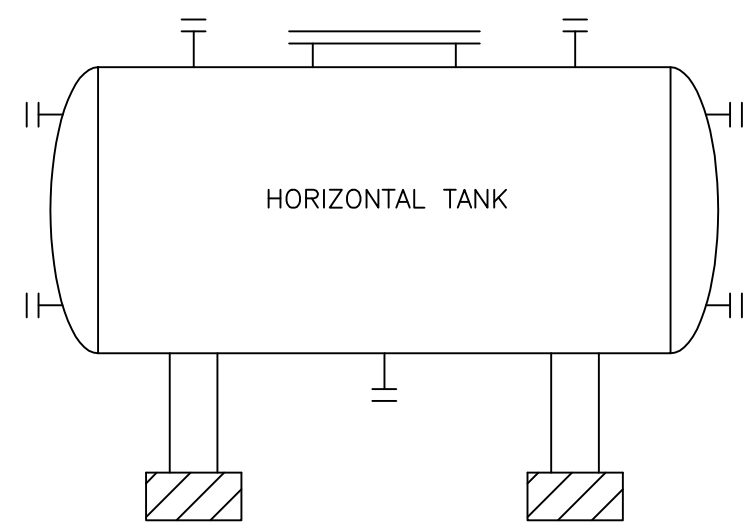
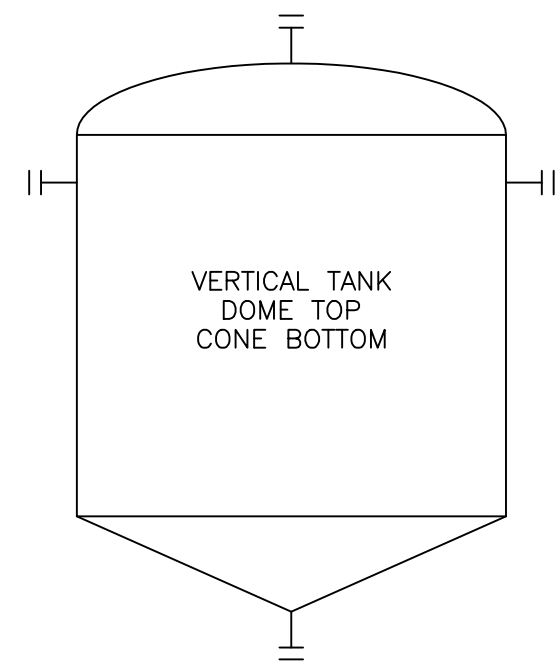
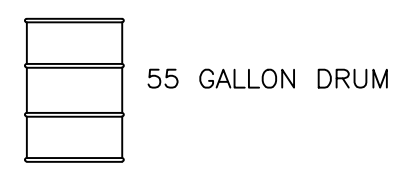
PUMPS

	ELECTRIC MOTOR		PERISTALTIC PUMP
	CENTRIFUGAL PUMP		POSITIVE DISPLACEMENT PUMP
	DIAPHRAGM PUMP		PROGRESSIVE CAVITY PUMP
	GEAR PUMP		RECIPROCATING PUMP
	METERING PUMP		SCREW PUMP
			SUBMERSIBLE PUMP
			VERTICAL TURBINE PUMP
			SUMP PUMP

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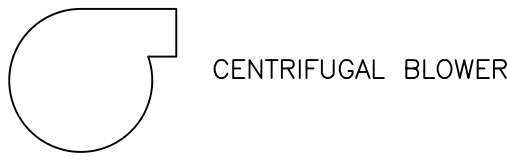
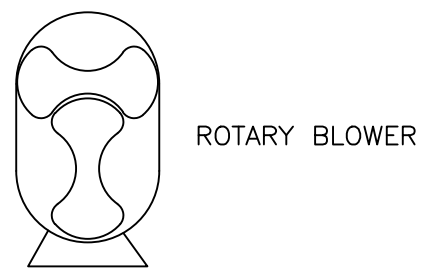
TANKS & TANK COMPONENTS



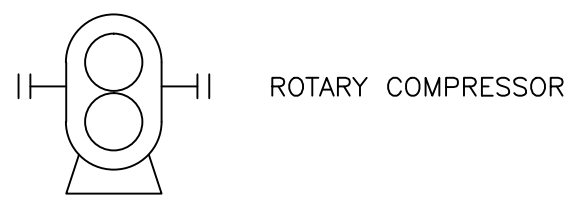
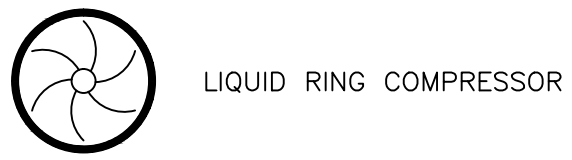
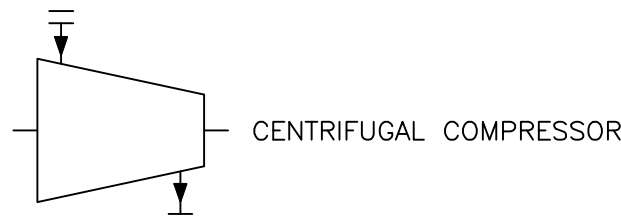
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APPROVED	DATE	SIZE B	CONTRACT NO.	DRAWING NO.	REV.
APPROVED	DATE	SCALE NONE	SHEET NO. 4 of 11		

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REV	DESCRIPTION	DATE	APPROVED

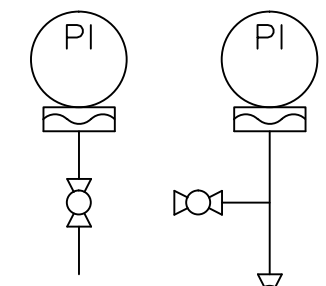
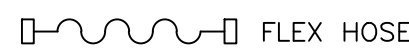
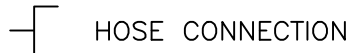
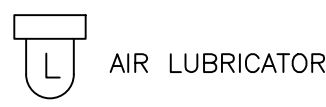
BLOWERS



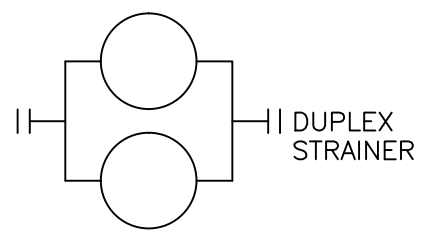
COMPRESSORS



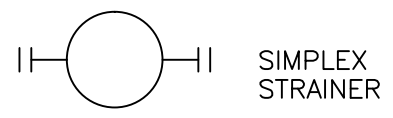
INLINE PIPING COMPONENTS



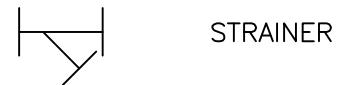
PRESSURE INDICATOR



DUPLEX STRAINER



SIMPLEX STRAINER



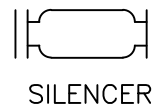
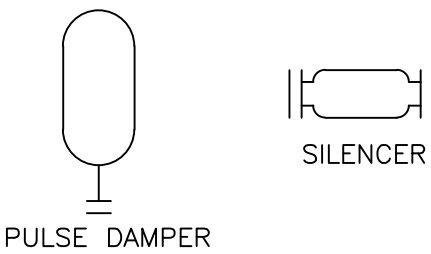
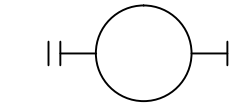
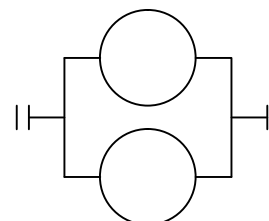
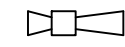
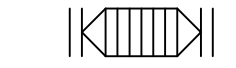
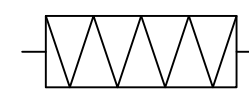
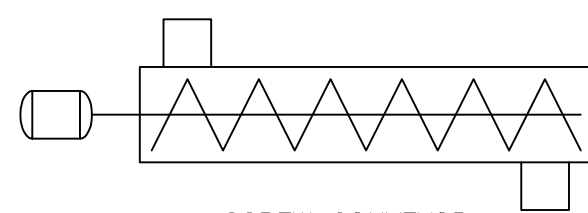
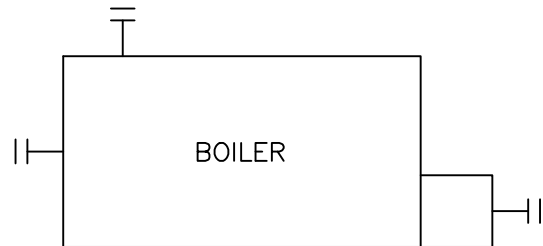
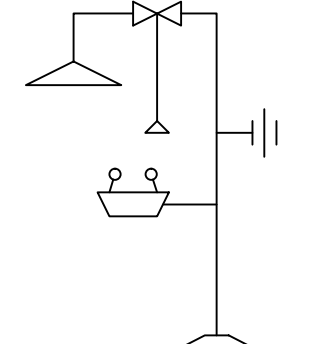
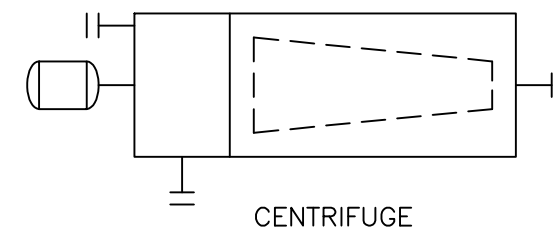
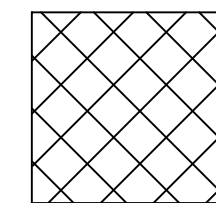
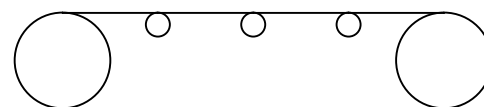
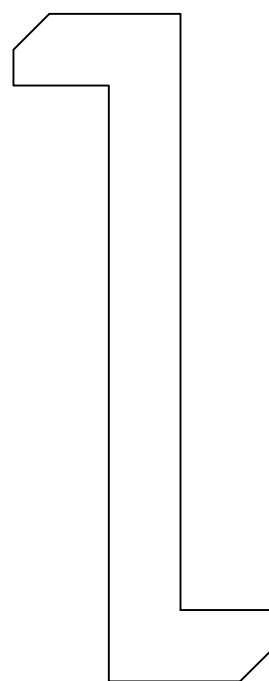
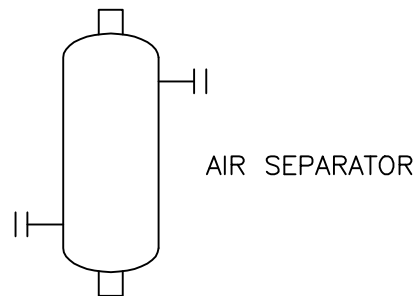
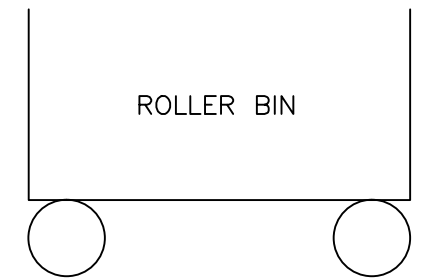
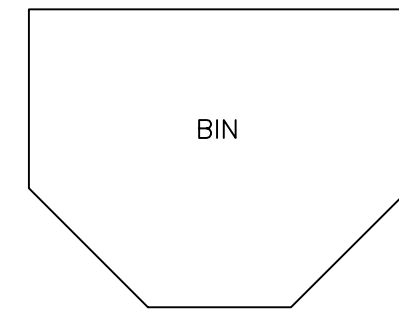
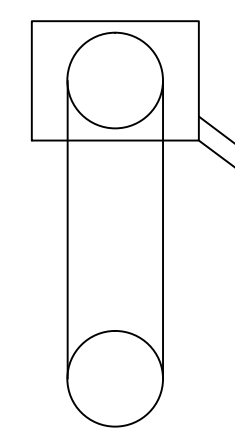
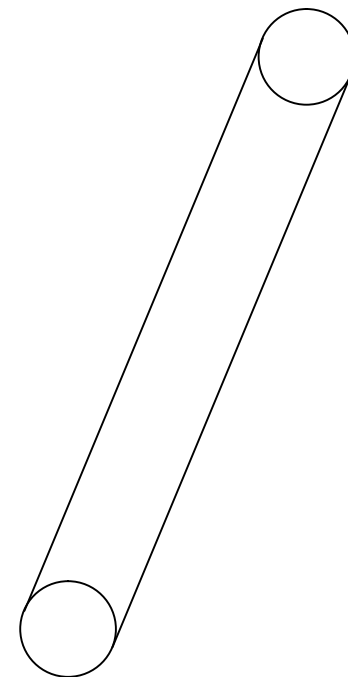
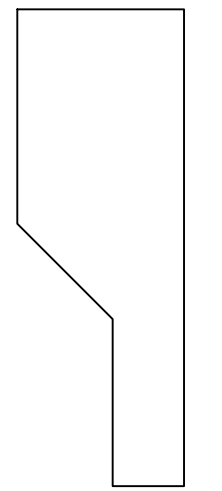
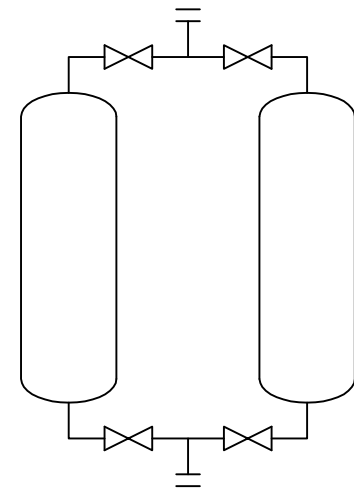
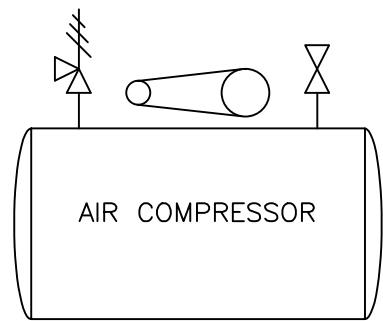
STRAINER

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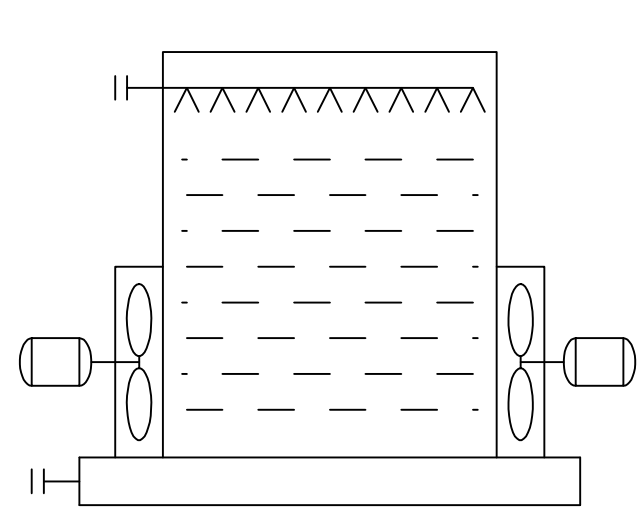
PROCESS EQUIPMENT



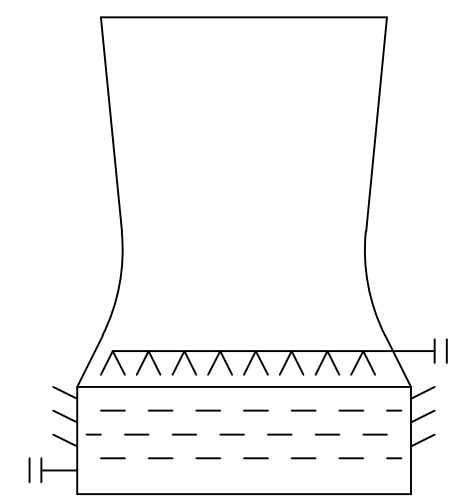
DRAWN	DATE	P&ID SYMBOLS LIBRARY v4.0 SYMBOLS LEGEND CADToolsOnline.com							
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APPROVED	DATE					SIZE B	CONTRACT NO.	DRAWING NO.	REV.
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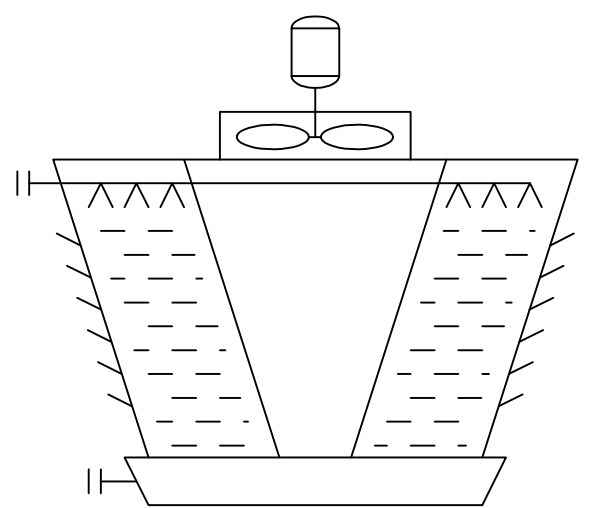
PROCESS EQUIPMENT (CONT.)



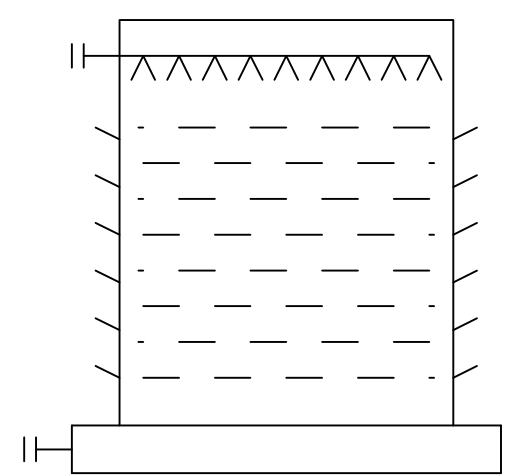
FORCED DRAFT COOLING TOWER



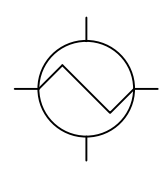
HYPERBOLIC COOLING TOWER



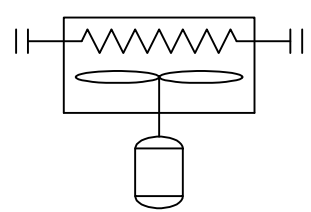
INDUCED DRAFT COOLING TOWER



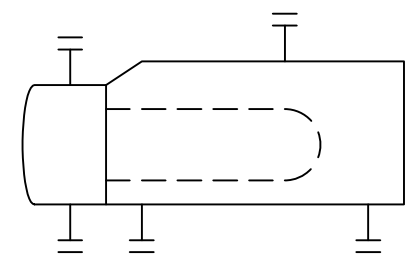
NATURAL DRAFT COOLING TOWER



GENERIC HEAT EXCHANGER



FORCED AIR HEAT EXCHANGER



KETTLE HEAT EXCHANGER

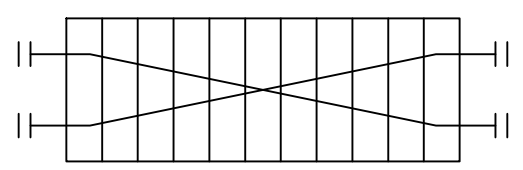
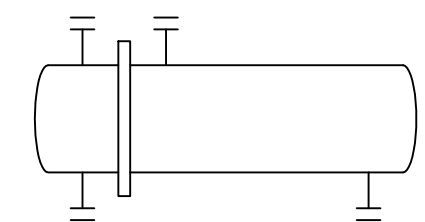
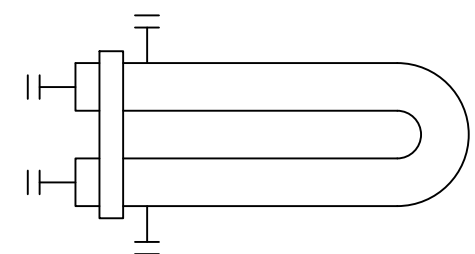


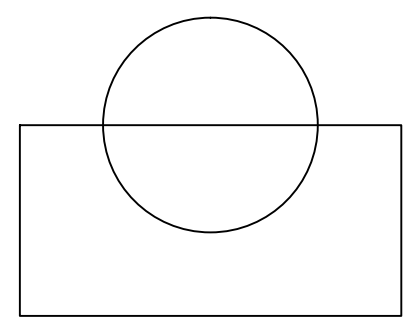
PLATE HEAT EXCHANGER



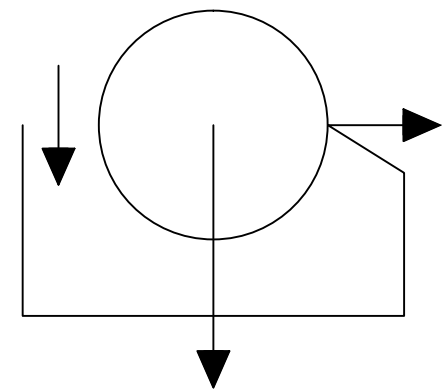
SHELL & TUBE HEAT EXCHANGER



UTUBE HEAT EXCHANGER



ROTARY SCREEN



ROTARY SEPARATOR

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PROCESS EQUIPMENT (CONT.)

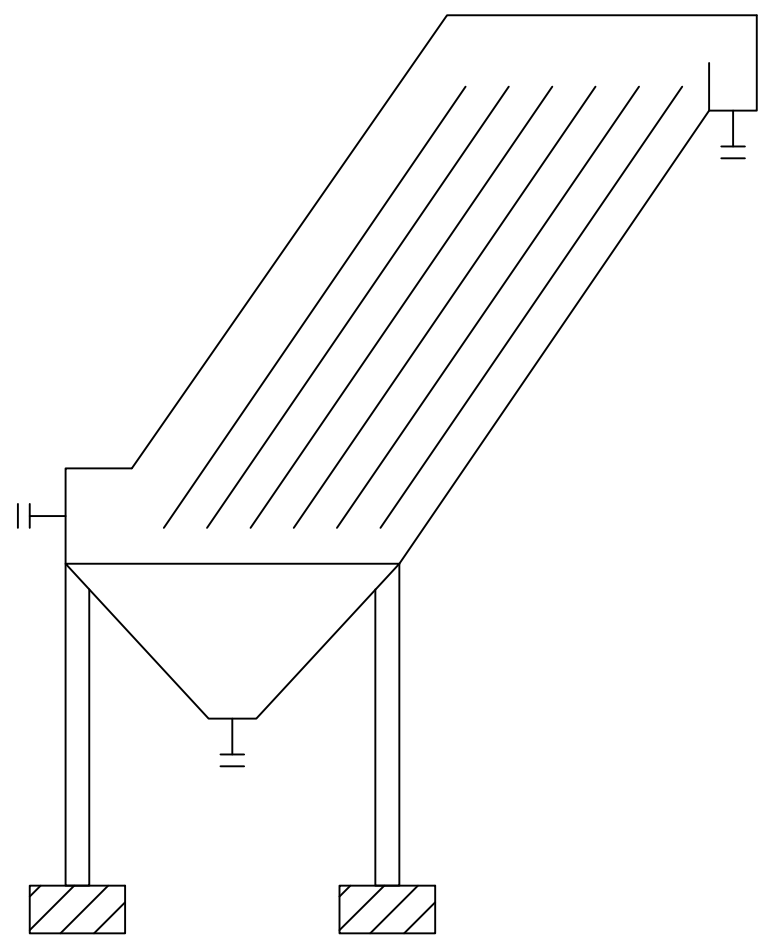


PLATE SEPARATOR

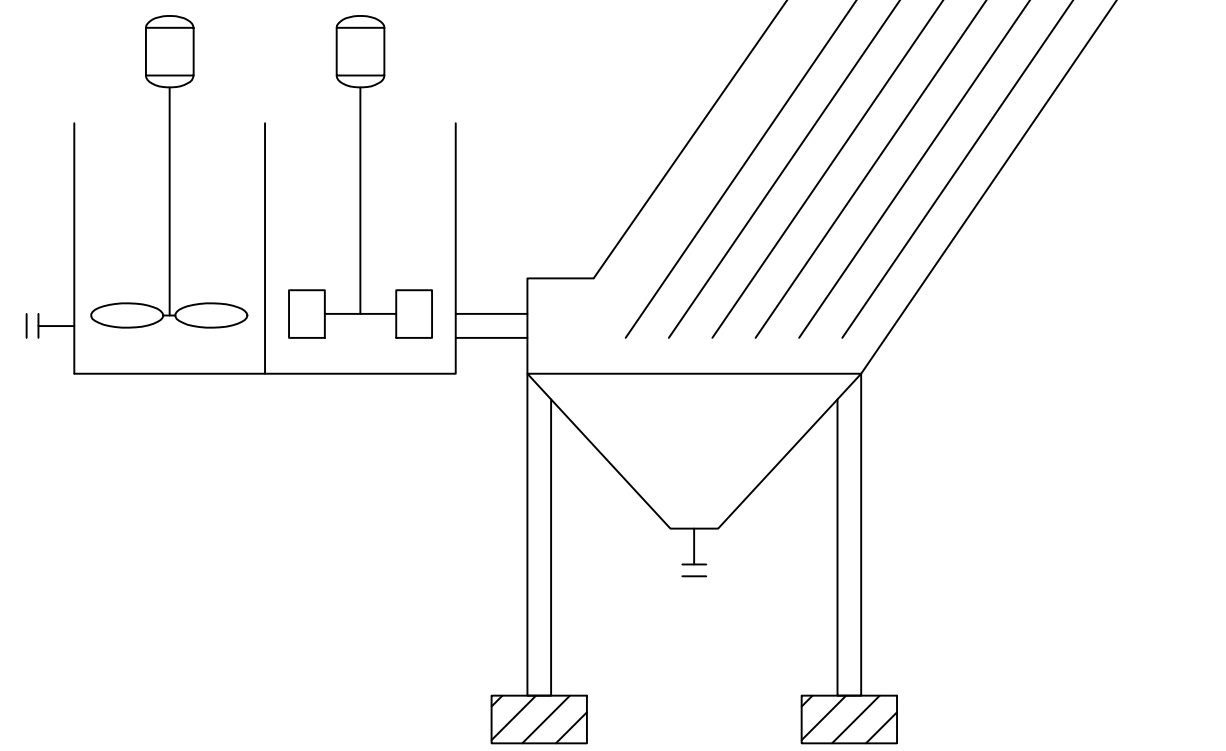
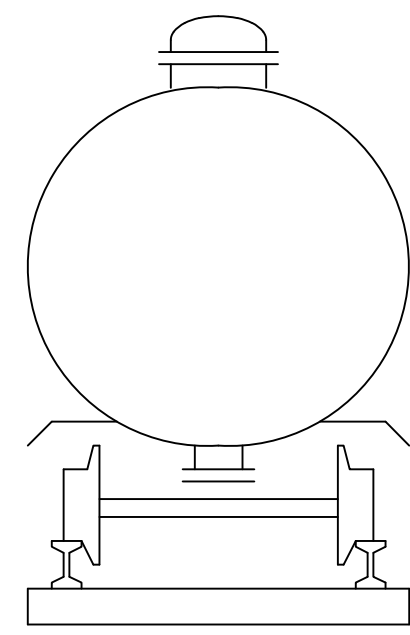
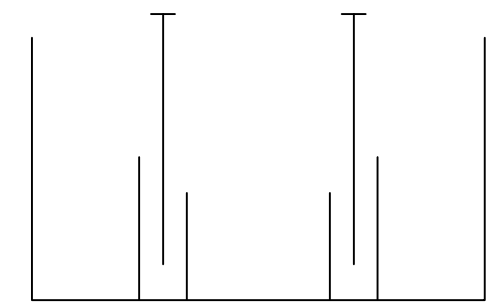


PLATE SEPARATOR
W/ FLUSH AND FLOCC TANK



RAIL CAR



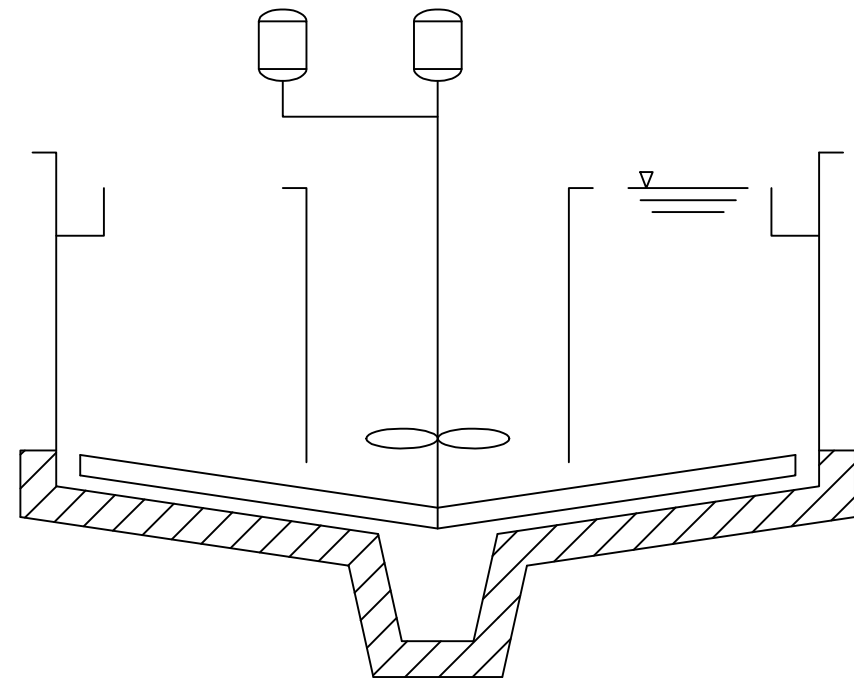
SPLITTER BOX

DRAWN	DATE	P&ID SYMBOLS LIBRARY v4.0 SYMBOLS LEGEND CADToolsOnline.com			
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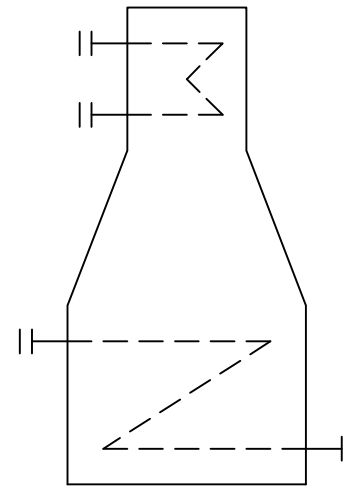
REVISIONS

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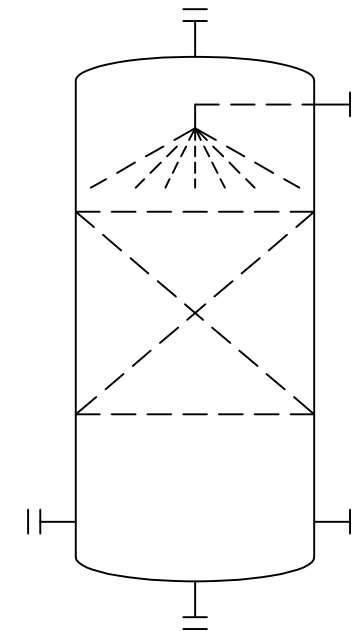
PROCESS EQUIPMENT (CONT.)



CLARIFIER



FURNACE



GAS SCRUBBER

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CHECKED		DATE					
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APPROVED		DATE		SCALE			SHEET NO.
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INSTRUMENTATION

FIELD ACCESSIBLE	FRONT MAIN ACCESSIBLE	REAR MAIN INACCESSIBLE	FRONT SECONDARY ACCESSIBLE	REAR SECONDARY INACCESSIBLE	
					COMPUTER/SOFTWARE
					DISCRETE
					PLC
					SHARED
					PILOT LIGHT

INSTRUMENT CONNECTIONS POINTS

FLANGED	SOCKET	THREADED	WELDED	PATCHBOARD
				INTERLOCK

































FUNCTION

	AVERAGE		TIME
	CONVERSION		UNSPECIFIED
	DERIVATIVE		ANALOG SIGNAL GENERATOR
	DERIVATIVE		BINARY SIGNAL GENERATOR
	DIFFERENCE		HIGH SIGNAL MONITOR
	DIVISION		LOW SIGNAL MONITOR
	EXPONENTIAL		HIGH/LOW SIGNAL MONITOR
	INTEGRAL		HIGH SIGNAL SELECT
	INTEGRAL		MEDIUM SIGNAL SELECT
	MULTIPLICATION		LOW SIGNAL SELECT
	PROPORTION K		HIGH LIMIT
	PROPORTION P		LOW LIMIT
	REVERSE PROPORTION -K		NEGATIVE BIAS
	REVERSE PROPORTION -P		POSITIVE BIAS
	ROOT EXTRACTION		SIGNAL TRANSFER
	SUMMATION		VELOCITY LIMITER
			VELOCITY LIMITER








































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CHECKED	DATE				
APPROVED	DATE	SIZE B	CONTRACT NO.	DRAWING NO.	REV.
APPROVED	DATE	SCALE NONE		SHEET NO. 10 of 11	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

MEASUREMENT

-  CIRCLE QUADRANT ORIFICE PLATE
-  CONCENTRIC CIRCLE ORIFICE PLATE
-  ECCENTRIC CIRCLE ORIFICE PLATE
-  ORIFICE PLATE
-  INTEGRAL ORIFICE PLATE
-  MULTI-HOLE ORIFICE PLATE
-  QUICK-CHANGE FITTING ORIFICE PLATE
-  ANNULAR ORIFICE METER
-  OPEN CHANNEL FLUME
-  CORIOLLIS FLOWMETER
-  FLOW NOZZLE
-  FLOW TUBE
-  MAGNETIC FLOWMETER
-  AVERAGING PITOT TUBE
-  PITOT TUBE
-  POSITIVE DISPLACEMENT FLOWMETER
-  SONIC FLOWMETER
-  TARGET FLOWMETER
-  THERMAL MASS FLOWMETER
-  TURBINE FLOWMETER
-  VARIABLE AREA FLOWMETER
-  VENTURI TUBE
-  VORTEX SHEDDING FLOWMETER
-  WEDGE FLOWMETER
-  OPEN CHANNEL WEIR PLATE
-  DUAL ELEMENT SENSING PROBE
-  SINGLE ELEMENT SENSING PROBE
-  FIBEROPTIC SENSING PROBE
-  BALL FLOAT
-  DIP TUBE W/ STILLING WELL
-  DISPLACER - INTERNAL
-  FLOAT W/ GUIDE WIRES

ELECTRICAL SCHEMATIC

-  PUSHBUTTON SWITCH OPEN
-  PUSHBUTTON SWITCH CLOSED
-  PUSHBUTTON SWITCH OPEN/CLOSED
-  SINGLE POLE TOGGLE SWITCH OPEN
-  SINGLE POLE TOGGLE SWITCH CLOSED
-  SINGLE POLE TOGGLE SWITCH OPEN/CLOSED
-  ROTARY SELECTOR SWITCH
-  PUSHBUTTON SWITCH ACTUATOR 2 POSITION
-  PUSHBUTTON SWITCH ACTUATOR 3 POSITION
-  PUSHBUTTON SWITCH ACTUATOR PRESSURE
-  PUSHBUTTON SWITCH ACTUATOR DIFFERENTIAL PRESSURE
-  LIQUID LEVEL SWITCH ACTUATOR
-  TEMPERATURE SWITCH ACTUATOR
-  FLOW SWITCH ACTUATOR
-  FOOT SWITCH ACTUATOR
-  RELAY OPERATOR COIL
-  RELAY CONTACT OPEN
-  RELAY CONTACT CLOSED
-  RELAY CONTACT OPEN/CLOSED
-  RELAY COIL ENERGIZED SET TIME
-  RELAY COIL DEENERGIZED SET TIME
-  SINGLE POLE CIRCUIT INTERRUPT
-  THREE POLE CIRCUIT INTERRUPT
-  SINGLE POLE CIRCUIT BREAKER
-  THREE POLE CIRCUIT BREAKER
-  BATTERY
-  BELL
-  BUZZER
-  FUSE
-  FUSE
-  GROUND
-  HORN/SIREN
-  INTERLOCK
-  PILOT LIGHT
-  THERMAL OVERLOAD
-  TRANSFORMER
-  SOLENOID COIL
-  VARIABLE FREQUENCY DRIVE
-  WIRE CONNECTION POINT

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				NONE		11 of 11	