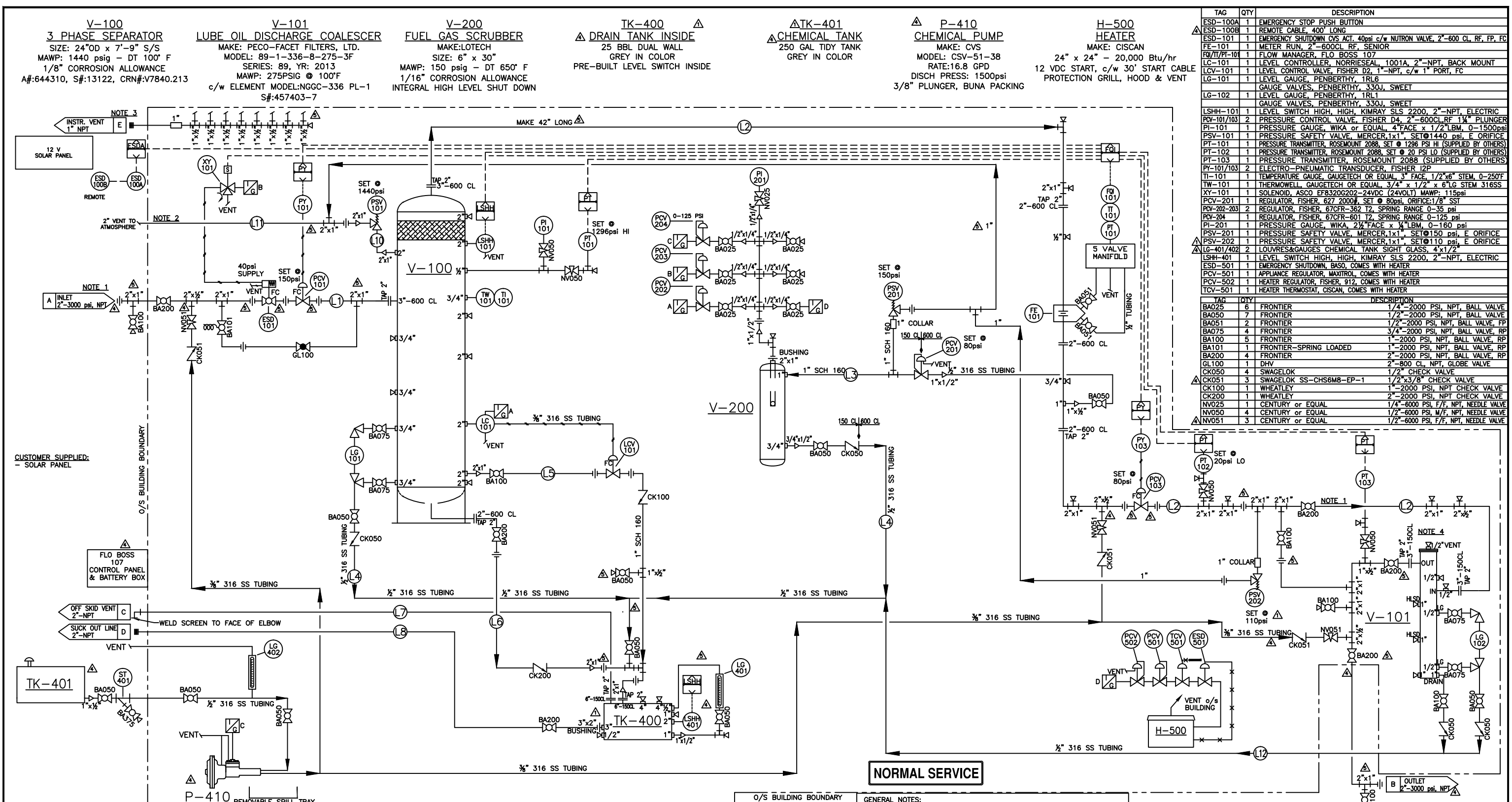


THIS DRAWING IS THE PROPERTY OF TWIST OILFIELD AND MAY NOT BE REPRODUCED WITH OUT THEIR WRITTEN CONSENT



TAG	QTY	DESCRIPTION
ESD-100A	1	EMERGENCY STOP PUSH BUTTON
ESD-100B	1	REMOTE CABLE, 400' LONG
ESD-101	1	EMERGENCY SHUTDOWN CVS ACT, 40psi c/w NUTRON VALVE, 2"-600 CL, RF, FP, FC
FE-101	1	METER RUN, 2"-600CL RF, SENIOR
FM/PT-101	1	FLOW MANAGER, FLO BOSS 107
LC-101	1	LEVEL CONTROLLER, NORRIESEAL, 1001A, 2"-NPT, BACK MOUNT
LCV-101	1	LEVEL CONTROL VALVE, FISHER D2, 1"-NPT, c/w 1" PORT, FC
LG-101	1	LEVEL GAUGE, PENBERTHY, 1RL6
LG-102	1	LEVEL GAUGE, PENBERTHY, 330J, SWEET
LSH-101	1	LEVEL SWITCH HIGH, HIGH, KIMRAY SLS 2200, 2"-NPT, ELECTRIC
PCV-101/103	2	PRESSURE CONTROL VALVE, FISHER D4, 2"-600CL RF, 1 1/2" PLUNGER
PI-101	1	PRESSURE GAUGE, WIKA or EQUAL, 4"FACE x 1/2"LBM, 0-1500psi
PSV-101	1	PRESSURE SAFETY VALVE, MERCER, 1x1", SET@1440 psi, E ORIFICE
PT-101	1	PRESSURE TRANSMITTER, ROSEMOUNT 2088, SET @ 1296 PSI HI (SUPPLIED BY OTHERS)
PT-102	1	PRESSURE TRANSMITTER, ROSEMOUNT 2088, SET @ 20 PSI LO (SUPPLIED BY OTHERS)
PT-103	1	PRESSURE TRANSMITTER, ROSEMOUNT 2088 (SUPPLIED BY OTHERS)
PT-101/103	2	ELECTRO-PNEUMATIC TRANSDUCER, FISHER I2P
TI-101	1	TEMPERATURE GAUGE, GAUGETECH OR EQUAL, 3"FACE, 1/2"x6" STEM, 0-250°F
TW-101	1	THERMOWELL, GAUGETECH OR EQUAL, 3/4" x 1/2" x 6" LG STEM 316SS
XY-101	1	SOLENOID, ASCO EFB320G202-24VDC (24VOLT) MAMP: 115psi
PCV-201	1	REGULATOR, FISHER, 627 2000#, SET @ 80psi, ORIFICE: 1/8" SST
PCV-202-203	2	REGULATOR, FISHER, 67CFR-362 T2, SPRING RANGE 0-35 psi
PCV-204	1	REGULATOR, FISHER, 67CFR-601 T2, SPRING RANGE 0-125 psi
PI-201	1	PRESSURE GAUGE, WIKA, 2 1/2"FACE x 1/4"LBM, 0-160 psi
PSV-201	1	PRESSURE SAFETY VALVE, MERCER, 1x1", SET@150 psi, E ORIFICE
PSV-202	1	PRESSURE SAFETY VALVE, MERCER, 1x1", SET@110 psi, E ORIFICE
LG-401/402	2	LOUVRES&GAUGES CHEMICAL TANK SIGHT GLASS, 4x1/2"
LSH-401	1	LEVEL SWITCH HIGH, HIGH, KIMRAY SLS 2200, 2"-NPT, ELECTRIC
ESD-501	1	EMERGENCY SHUTDOWN, BASO, COMES WITH HEATER
PCV-501	1	APPLIANCE REGULATOR, MAXITROL, COMES WITH HEATER
PCV-502	1	HEATER REGULATOR, FISHER, 912, COMES WITH HEATER
TCV-501	1	HEATER THERMOSTAT, CISCAN, COMES WITH HEATER

TAG	QTY	DESCRIPTION
BA025	6	FRONTIER 1/4"-2000 PSI, NPT, BALL VALVE
BA050	7	FRONTIER 1/2"-2000 PSI, NPT, BALL VALVE
BA051	2	FRONTIER 1/2"-2000 PSI, NPT, BALL VALVE, FP
BA075	4	FRONTIER 3/4"-2000 PSI, NPT, BALL VALVE, RP
BA100	5	FRONTIER 1"-2000 PSI, NPT, BALL VALVE, RP
BA101	1	FRONTIER-SPRING LOADED 1"-2000 PSI, NPT, BALL VALVE, RP
BA200	4	FRONTIER 2"-2000 PSI, NPT, BALL VALVE, RP
GL100	1	DHV 2"-800 CL, NPT, GLOBE VALVE
CK050	4	SWAGelok 1/2" CHECK VALVE
CK051	3	SWAGelok SS-CHS6M8-EP-1 1/2"x3/8" CHECK VALVE
CK100	1	WHEATLEY 1"-2000 PSI, NPT CHECK VALVE
CK200	1	WHEATLEY 2"-2000 PSI, NPT CHECK VALVE
NV025	1	CENTURY or EQUAL 1/4"-6000 PSI, F/F, NPT, NEEDLE VALVE
NV050	4	CENTURY or EQUAL 1/2"-6000 PSI, M/F, NPT, NEEDLE VALVE
NV051	3	CENTURY or EQUAL 1/2"-6000 PSI, F/F, NPT, NEEDLE VALVE

**SKID:**

- 8' WIDE x 25' LONG
- 6" CHANNEL MAIN RAILS AND CROSS MEMBERS
- 3/16" CHECKER PLATE FLOOR
- COMPLETE SKID IS PRIMED AND FINAL COAT IS LIGHT GREY #906

**BUILDING:**

- 8' WIDE x 16' LONG AND 9'-0" x 8'-6" EAVES
- 1 - 3' x 7' DOOR c/w PANIC HARDWARE AND RETAINER
- 2 - 36" x 36" SLIDING WINDOW WITH SCREEN
- 2 WALL VENTS
- 24 GAUGE GALVALUM METAL PANELS - GALVALUM IN COLOUR

**PIPING INFORMATION AND NOTES:**

- WELDED PIPE: SA-106B SCH, 80
- THREADED PIPE: SA-106B 2" & UNDER TO BE SCH. 160
- FLANGES: SA-105N
- WELDED FITTINGS: SA-234-WPB
- THREADED FITTINGS: 3000CL SA-105N
- ALL NECESSARY VALVES, GAUGES, FITTINGS AND PIPE INCLUDED
- PROCESS PIPING TO BE 2" SCH 160
- WATER OUT AND DRAIN LINES TO BE 2" SCH 160
- CODE OF CONSTRUCTION ASME B31.3, 2012

**INSTRUMENTATION AND ELECTRICAL:**

- ALL INSTRUMENTS VENTED TO ATMOSPHERE
- TUBING: 3/8" 316 SS WELDED .035 WALL
- TUBING: 1/2" 316 SS WELDED .049 WALL
- TUBING FITTINGS: SWAGelok SS
- ELECTRICAL PERMIT FOR CATADYNE HEATER INCLUDED

**PAINTING:**

- SPECTRA RUSTEX PRIMER
- SPECTRA RUSTOLEUM #906 WARM GREY ON INTERIOR PIPING

**QUALITY CONTROL / TESTING:**

- PNEUMATIC / HYDROSTATIC TESTING AS PER AQP 21589 PROCEDURE
- NORMAL SERVICE
- DESIGN PRESS. 9928kPag - 1440PSIG
- TEST PRESS. 14893kPag - 2160 PSIG
- PIPING DESIGN TEMPERATURE: -20°F (-29°C) TO 130°F (54.4°C)
- ALL INSTRUMENTATION PNEUMATIC TESTED AND FUNCTIONS TESTED
- 10% X-RAY
- ONE (1) QUALITY CONTROL MANUAL SENT TO CUSTOMER
- ONE (1) PARTS MANUAL SHIPPED IN THE PACKAGE

**GENERAL NOTES:**

- 1) INLET/OUTLET PIPING TO EXIT THE SAME SIDE WALL
- 2) ALL PSV OUTLETS TO EXIT HIGH FROM THE SAME SIDE WALL. ON A SEPARATE WALL THEN INLET/OUTLET PIPING
- 3) VENT HEADER IS TO EXIT THE SAME SIDE WALL AS THE PSV'S
- 4) HIGH SIDE OF BUILDING IS TO BE ON THE SAME END AS V-101
- 5) PT-102/103 - DIFFERENTIAL UPSTREAM & DOWNSTREAM OF THE FILTER BACK TO FLO BOSS FOR A DIFFERENTIAL SHUTDOWN

DATE	REV	DESCRIPTION	DWN	CHKD	APPRVD
15-01-28	6	AS BUILT	LD	DR	X
14-10-28	5	GENERAL REVISION	LD	DR	X
14-09-20	4	REVISED AS PER CLIENT MARK UPS	LD	DR	X
14-09-16	3	TIED ALL PSV'S TOGETHER BEFORE EXITING THE BUILDING	BGE	DR	X
14-09-11	2	REVISED ALL PIPING TO THREADED	BGE	DR	X
14-08-25	1	REVISED PSV-202 TO 110psi, LENGTHENED SKID & ADDED A 2588L TANK & 250GAL TIDY TANK	LD	DR	X
14-07-31	0	ISSUED FOR CONSTRUCTION	LD	DR	X
14-07-16	A	ISSUED FOR CUSTOMER APPROVAL	LD	DR	X



CLIENT	
ICS GROUP	
LSD.	
3 PHASE SEPARATOR (24" x 7'-6")	
DRESSED 2 PHASE	
2" THREADED PIPING	
PIPING & INSTRUMENTATION DIAGRAM	
DATE:	2014-07-16 TWIST OILFIELD JOB#
SCALE:	SEE DWG 14-96
DRAWN BY:	LD
CHECKED BY:	DR
APPROVED BY:	XX
DRAWING NO.:	14-96-PID-01
REV.:	6
SHEET:	1 of 1