

AGM-02-0204-PLA-P-0000

Nº PLANO:

P-1004 A/S  
LIQUID FUEL FORWARDING SKID DUPLEX PUMP  
DESIGN CAPACITY: 150 GPM [34.07 M<sup>3</sup>/H]  
DESIGN PRESSURE: 67-106.5 psig [462-734.3 kPa]  
DESIGN TEMP: 40-150°F [4-66°C]

P-1005 A/S  
LIQUID FUEL FORWARDING SKID DUPLEX PUMP  
DESIGN CAPACITY: 150 GPM [34.07 M<sup>3</sup>/H]  
DESIGN PRESSURE: 67-106.5 psig [462-734.3 kPa]  
DESIGN TEMP: 40-150°F [4-66°C]

F-1004  
LIQUID FUEL MANAGEMENT SPOOL  
DESIGN CAPACITY: 150 GPM [34.07 M<sup>3</sup>/H]  
DESIGN PRESSURE: 35-70 psig [241-483 kPa]  
DESIGN TEMP: 40-150°F [4-66°C]

F-1005  
LIQUID FUEL MANAGEMENT SPOOL  
DESIGN CAPACITY: 115 GPM [26.12 M<sup>3</sup>/H]  
DESIGN PRESSURE: 69 psig [476 kPa]  
DESIGN TEMP: 40-150°F [4-66°C]

P-0403 A/S  
DEMIN WATER FORWARDING SKID DUPLEX PUMP  
DESIGN CAPACITY: 115 GPM [26.12 M<sup>3</sup>/H]  
DESIGN PRESSURE: 69 psig [476 kPa]  
DESIGN TEMP: 40-110°F [4-43°C]

P-0404 A/S  
DEMIN WATER FORWARDING SKID DUPLEX PUMP  
DESIGN CAPACITY: 115 GPM [26.12 M<sup>3</sup>/H]  
DESIGN PRESSURE: 69 psig [476 kPa]  
DESIGN TEMP: 40-110°F [4-43°C]

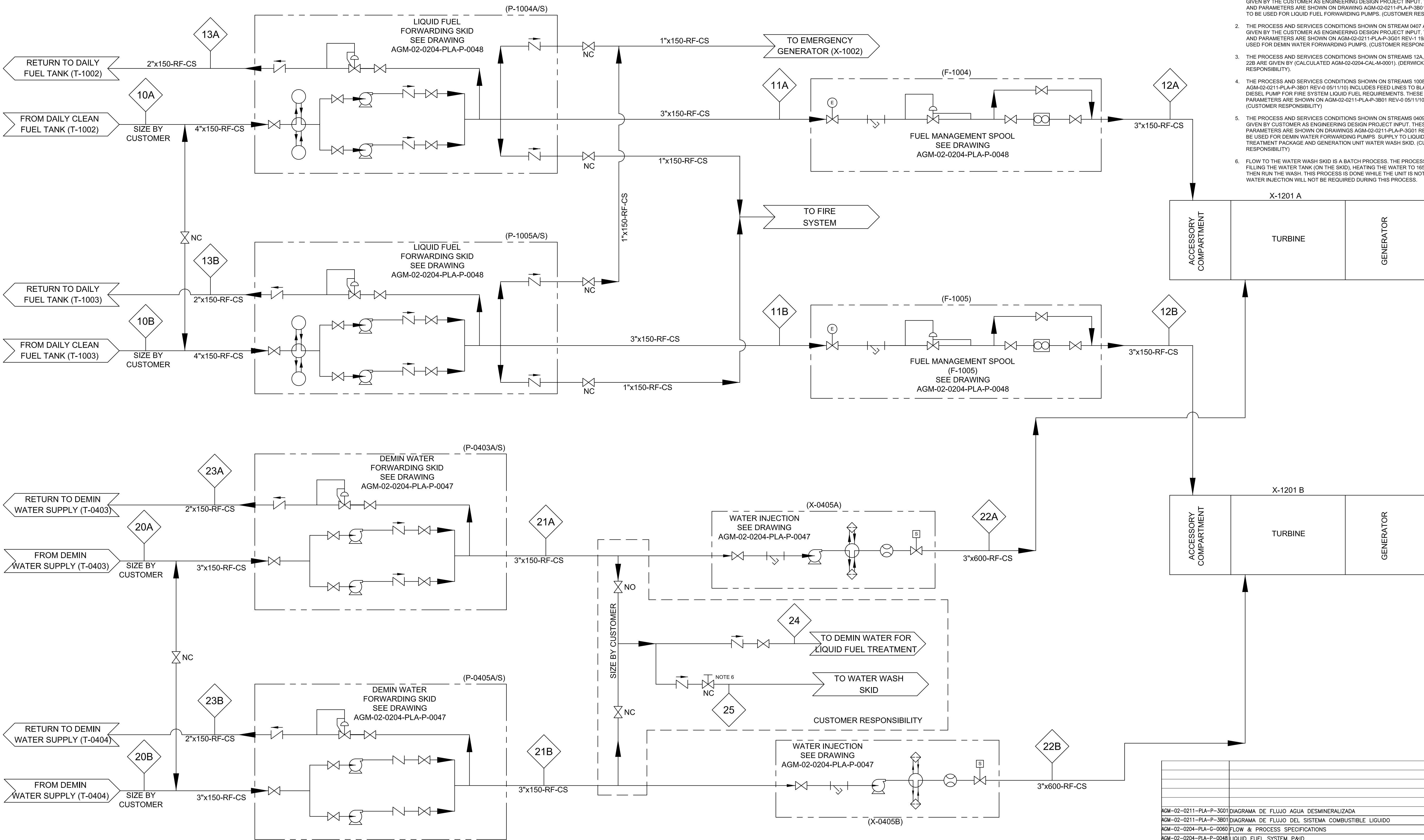
X-0405A  
DEMIN WATER INJECTION SKID  
DESIGN CAPACITY: 115 GPM [26.12 M<sup>3</sup>/H]  
DESIGN PRESSURE: 500 psig [3447 kPa]  
DESIGN TEMP: 40-110°F [4-43°C]

X-0405B  
DEMIN WATER INJECTION SKID  
DESIGN CAPACITY: 115 GPM [26.12 M<sup>3</sup>/H]  
DESIGN PRESSURE: 500 psig [3447 kPa]  
DESIGN TEMP: 40-110°F [4-43°C]

IMPORTANTE  
ESTE PLANO FUE ELABORADO EN AUTOCAD V.2008  
CUALQUIER MODIFICACIÓN REALIZADA EN CAMPO  
DEBERÁ SER NOTIFICADO A LA UNIDAD  
RESPONSABLE  
QUEDA PROHIBIDO CORREGIR ESTE PLANO SIN  
AUTORIZACIÓN DE ESTA UNIDAD.  
ALL DIMENSIONS IN BRACKETS [ ] ARE  
METRIC, EXPRESSED UNITS ARE  
IMPERIAL

NOTES:

- THE PROCESS AND SERVICES CONDITIONS SHOWN ON STREAM 1006 AND 1007 ARE GIVEN BY THE CUSTOMER AS ENGINEERING DESIGN PROJECT INPUT. THESE VALUES AND PARAMETERS ARE SHOWN ON DRAWING AGM-02-0211-PLA-P-3801 REV-0 05/11/10 TO BE USED FOR LIQUID FUEL FORWARDING PUMPS. (CUSTOMER RESPONSIBILITY).
- THE PROCESS AND SERVICES CONDITIONS SHOWN ON STREAM 0407 AND 0408A ARE GIVEN BY THE CUSTOMER AS ENGINEERING DESIGN PROJECT INPUT. THESE VALUES AND PARAMETERS ARE SHOWN ON AGM-02-0211-PLA-P-3801 REV-1 19/01/11 TO BE USED FOR DEMIN WATER FORWARDING PUMPS. (CUSTOMER RESPONSIBILITY).
- THE PROCESS AND SERVICES CONDITIONS SHOWN ON STREAMS 12A, 12B, 22A, AND 22B ARE GIVEN BY (CALCULATED AGM-02-0204-CAL-M-0001). (DERWICK RESPONSIBILITY).
- THE PROCESS AND SERVICES CONDITIONS SHOWN ON STREAMS 0409 AND 0412 ARE GIVEN BY CUSTOMER AS ENGINEERING DESIGN PROJECT INPUT. THESE VALUES AND PARAMETERS ARE SHOWN ON DRAWINGS AGM-02-0211-PLA-P-3801 REV-1 19/01/11 TO BE USED FOR DEMIN WATER FORWARDING PUMPS. (CUSTOMER RESPONSIBILITY).
- THE PROCESS AND SERVICES CONDITIONS SHOWN ON STREAMS 0409 AND 0412 ARE GIVEN BY CUSTOMER AS ENGINEERING DESIGN PROJECT INPUT. THESE VALUES AND PARAMETERS ARE SHOWN ON DRAWINGS AGM-02-0211-PLA-P-3801 REV-1 19/01/11 TO BE USED FOR DEMIN WATER FORWARDING PUMPS. (CUSTOMER RESPONSIBILITY).
- FLOW TO THE WATER WASH SKID IS A BATCH PROCESS. THE PROCESS CONSISTS OF FILLING THE WATER TANK (ON THE SKID), HEATING THE WATER TO 165°F [74°C] AND THEN RUN THE WASH. THIS PROCESS IS DONE WHILE THE UNIT IS NOT RUNNING THUS WATER INJECTION WILL NOT BE REQUIRED DURING THIS PROCESS.



LOCATION NUMBER	10A	10B	11A	11B	12A	12B	13A	13B	20A	20B	21A	21B	22A	22B	23A	23B	24	25
DESCRIPTION	FROM DAILY CLEAN FUEL TANK T-1002	FROM DAILY CLEAN FUEL TANK T-1003	FROM FORWARDING PUMP P-1004 A/S	FROM FORWARDING PUMP P-1005 A/S	FROM FUEL MANAGEMENT SPOOL F-1004	FROM FUEL MANAGEMENT SPOOL F-1005	RETURN TO FUEL SUPPLY T-1004	RETURN TO FUEL SUPPLY T-1005	FROM TREATED WATER SUPPLY T-0403	FROM TREATED WATER SUPPLY T-0404	FROM DEMIN FORWARDING PUMP P-0403 A/S	FROM DEMIN FORWARDING PUMP P-0404 A/S	FROM WATER INJECTION X-0405A	FROM WATER INJECTION X-0405B	RETURN TO TREATED WATER SUPPLY T-0403	RETURN TO TREATED WATER SUPPLY T-0404	TO LIQUID FUEL TREATMENT (NOTE 5)	TO WATER WASH SKID (NOTE 6)
FLOW RATE	150 (34)	150 (34)	108 (24.5)	108 (24.5)	108 (24.5)	108 (24.5)	42 (9.5)	42 (9.5)	115 (26.2)	115 (26.2)	50 (11.4)	50 (11.4)	94 (21.3)	94 (21.3)	63.55 (14.43)	63.55 (14.43)	1.45 (33)	2.09 (475)
TEMPERATURE	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)	81.14 (27.3)
PRESSURE	2 (14)	2 (14)	78 (538)	78 (538)	78 (538)	78 (538)	2 (14)	2 (14)	62.8 (1006)	62.8 (1006)	62.8 (1006)	62.8 (1006)	62.8 (1006)	62.8 (1006)	62.8 (1006)	62.8 (1006)	62.8 (1006)	62.8 (1006)
DENSITY	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)	53.94 (864)
VISCOSITY	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000	0.004000
TOTAL REQUIRED SOLIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CUSTOMER RESPONSIBILITY  
NOTE 5 & 6

14/09/11	ISSUED FOR CONSTRUCTION			
05/07/11	ISSUED FOR CONSTRUCTION			
23/05/11	ISSUED FOR REVIEW	SAB	CB	TK
15/03/11	ISSUED FOR REVIEW	SAB	CB	TK
REV.	FECHA	REVISIONES O MODIFICACIONES	DIBUJO	REVISO APROBO

REF. FABRICANTE	FABRICANTE	O/C:
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AGM-02-0211-PLA-P-3801

DIAGRAMA DE FLUJO AGUA DESMINERALIZADA

1

19/01/11

AGM-02-0211-PLA-P-3801

DIAGRAMA DE FLUJO DEL SISTEMA COMBUSTIBLE LIGUIDO

0

05/11/10

AGM-02-0204-PLA-G-0060

FLOW & PROCESS SPECIFICATIONS

AGM-02-0204-PLA-P-0048

LIQUID FUEL SYSTEM P&ID

AGM-02-0204-PLA-P-0047

DEMIN WATER FORWARDING/INJECTION SYSTEM P&ID

Nº DE DOCUMENTO	DESCRIPCION	REV	FECHA
DOCUMENTOS DE REFERENCIA			

DERWICK

ProEnergy

CORPOELEC

Electricidad de Caracas

AGENCIA NACIONAL DE INGENIERIA Y PROTECCION

SENECA

AMPLIACIÓN DE LA CAPACIDAD DE GENERACIÓN Y TRANSPORTE DE ELECTRICIDAD EN LA ISLA DE MARGARITA  
FLOW AND PROCESS  
DUAL FUEL MOD. UNITS 298034 & 298035  
(DIAGRAM)

PLANO N°:  
409-2956-1

REV:

PROYECTO N°:  
409-2956-1

REVISADO: C. Brown

DIBUJO: S. Boerckel

APROBADO: T. Koontz

ARCHIVO:

PROYECTO: ESCALA: NONE

FECHA: 14/09/11

DISK N°

ESC./PLOTED:

PLANO N°:  
AGM-02-0204-PLA-P-0009

PAGINA: 1 DE 1

REV: 1