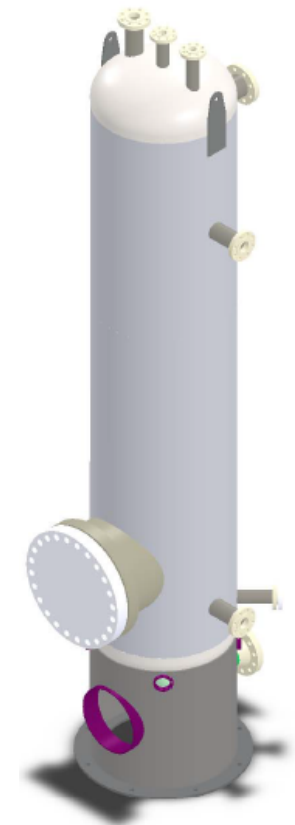


BILL OF MATERIALS

PCMK	STOCK CODE	QTY	SIZE	DESCRIPTION
1	213-115-001	2	36" OD	HEAD, 2:1 ELLIPTICAL, 1.00" MIN, 1.25" MIN, SF", SA-516-70N (HOT FORMED)
2	102-115-001	1	36" OD	ROLLED CYLINDER, 1.00" THICK, x 13'-0" LG, SA-516-70N
3	102-114-002	1	36" OD	ROLLED CYLINDER, 1/2" THICK, x 4'-1" LG, SA-516-70
4	201-106-006	1 L.F.	4"	PIPE, 80 (0.337" WALL) SMLS, SA-106B (ASME B36.10M)
5	201-107-009	2 L.F.	6"	PIPE, 80 (0.432" WALL) SMLS, SA-106B (ASME B36.10M)
6	201-112-003	1 L.F.	10"	PIPE, STD (0.365" WALL) SMLS, SA-106B (ASME B36.10M)
7	290-020-016	1 L.F.	18"	PIPE, STD (0.375" WALL) SMLS, SA-106B (ASME B36.10M)
8	205-104-350	1	20"	FLANGE, R.F.H.B. 600#, 18" L.G., SA-105N (ASME B16.5)
9	205-104-339	1	4"	FLANGE, R.F.L.W.N. 600#, 12" L.G., SA-105N (ASME B16.5)
10	205-104-146	2	3"	FLANGE, R.F.L.W.N. 600#, 12" L.G., SA-105N (ASME B16.5)
11	205-104-145	2	2"	FLANGE, R.F.L.W.N. 600#, 12" L.G., SA-105N (ASME B16.5)
12	205-104-001	1	6"	FLANGE, R.F.W.N., SCH 80 BORE, 600#, SA-105N (ASME B16.5)
13	205-104-060	1	2"	FLANGE, R.F.W.N., SCH 160 BORE, 600#, SA-105N (ASME B16.5)
14	205-104-351	1	20"	FLANGE, R.F.B.F., 600#, SA-105N (ASME B16.5)
15	205-104-011	1	2"	FLANGE, R.F.B.F., 600#, SA-105N (ASME B16.5)
16	205-103-027	1	6"	ELBOW, LRBW, 90 DEGREE, SCH. 80, SA-234 WPB (ASME B16.9)
17	205-109-116	1	6"x2"	WOL, SCH. 80, SA-105 (ASME B16.9)
18	110-001-053	3	20"	GASKET, 304L SPIRAL WOUND, 600#, CS OUTER RING, GRAPHITE FILLED (ASME B16.20)
19	110-001-002	3	2"	GASKET, 304L SPIRAL WOUND, 600#, CS OUTER RING, GRAPHITE FILLED (ASME B16.20)
20	203-102-001	1	-	PLATE, 1/4" x 4" x 6 1/2" LG, SA-36 (NAMEPLATE BRACKET)
21	203-102-001	1	-	PLATE, 1/4" x 6 1/2" SQUARE, SA-36 (NAMEPLATE FACE)
22	203-102-001	2	-	PLATE, 1/4" x 3'-0 1/8" ID x 3'-4" OD, SA-36 (INSULATION RING)
23	203-103-001	1	-	PLATE, 3/8" x 4" SQUARE, SA-36 (TAILING LUG)
24	203-103-001	1	-	PLATE, 3/8" x 8 3/8" x 1'-0" LG, SA-36 (NOZZLE A DIVERTER TOP PLATE)
25	203-103-001	1	-	PLATE, 3/8" x 1'-0" x 1'-4 3/8" LG, SA-36 (NOZZLE A DIVERTER FACE PLATE)
26	203-104-001	2	-	PLATE, 1/2" x 3" x 5" LG, SA-36 (GROUNDING LUGS)
27	636-001-017	2	-	PLATE, 1/2" x 4" x 1'-6" LG, SA-516-70 (PADEYES)
28	203-106-001	1	-	PLATE, 3/4" x 2'-6" ID x 3'-8" OD, SA-36 (BASEPLATE)
29	203-102-001	1	-	PLATE, 1/4" x 1 1/2" x 1'-2 1/2" LG, SA-36 (DAVIT ARM BRACE)
30	203-106-001	1	-	PLATE, 3/4" x 2 1/2" ID x 3 5/8" OD, SA-36 (DAVIT ARM RAIN CAP)
31	-	-	-	DELETED
32	204-050-001	2	-	BAR, 1/2" x 12 1/2" L.G., SA-36 (MANWAY HANDLE)
33	111-002-067	28	-	STUDS, 1 1/4" x 11 1/2" LG., SA-193B7 W/2 HH NUTS EA., SA-194GR2H, BLACK
34	111-002-001	10	-	STUDS, 5/8" x 4" LG., SA-193B7 W/2 HH NUTS EA., SA-194GR2H, BLACK
35	111-011-371	4	-	FLATWASHER, 3/4", CS
36	203-106-001	1	-	PLATE, 3/4" x 2 1/4" x 0'-9" LG, SA-36 (DAVIT ARM SLEEVE BRACKET)
37	636-001-016	1	-	REPAD, 1/2" x 6 3/4" ID x 12 5/8" OD, ROLLED TO 48" ISR, SA-516-70 (NOZZLE B)
38	111-011-372	40	-	NESLON STUDS, 1/8 x 3/8 x 1 1/2" LG, R6P
39	190-045-002	1	-	TAG, 5.5" X 5.5", ASME CODE NAMEPLATE
40	190-100-006	1	4 GAL	SHERWIN WILLIAMS, ZINC CLAD II (PART A B69VZ12 /PART B B69VZ15 /PART F B69D11) W/R7K111 THINNER
41	190-100-005	1	1 GAL	SHERWIN WILLIAMS, HEAT-FLEX HIGH TEMP 500I (B59-810 SERIES)
42	201-103-008	1 L.F.	2"	PIPE, 160 (0.334" WALL) SMLS, SA-106B (ASME B36.10M)
43	205-104-024	1	3"	FLANGE, R.F.L.W.N. 600#, 14" L.G., SA-105N (ASME B16.5)
44	205-104-344	1	2"	FLANGE, R.F.L.W.N. 600#, 14" L.G., SA-105N (ASME B16.5)
45	204-075-001	1	-	BAR, 3/4" x 9" L.G., SA-36 (MANWAY EYE RING)

BILL OF MATERIALS

PCMK	STOCK CODE	QTY	SIZE	DESCRIPTION
46	111-011-370	1	-	EYEBOLT, GALVANIZED, 3/4"x 8", CROSBY TYPE G291
47	111-010-369	1	-	GREASE ZERK, STRAIGHT, 1/4"-28 NPT, STEEL ZINC (FASTENAL SKU# 58805)
48	201-103-007	5 L.F.	2"	PIPE, XXS (0.436" WALL) SMLS, SA-106B (ASME B36.10M)
49	201-104-001	1 L.F.	2 1/2"	PIPE, STD (0.203" WALL) SMLS, SA-106B (ASME B36.10M)
50	205-103-043	1	2"	ELBOW, LRBW, 90 DEGREE, SCH. XXS, SA-234 WPB (ASME B16.9)



DO NOT DUPLICATE

ASME U W RT-3

Certified By: **SUMMIT ENERGY EQUIPMENT**
41 PIONEER PKWY 903 951 1217
SULPHUR SPRINGS, TX 75482

0.125"	14.7 PSIG	725°F
C.A. HEAD, SHELL	M.A.E.W.P.	AT TEMP.
1.00"	-20°F	683 PSIG
Head W.T.	M.D.M.T.	AT P.S.I.
1.00"	021-010-001	2015
Shell W.T.	SERIAL NO.	YEAR BUILT
-	374-D-PV-221	EQUIPMENT NO.
ASSET NO.		

DESIGN DATA	
ASME SECTION VIII, DIV. 1 2015 EDITION	P.W.H.T.: NO
INTERNAL DESIGN PRESSURE: 675 PSI	RT - 3
DESIGN TEMP.: 725 F	N.D.E.: -
EXTERNAL DESIGN PRESSURE: 14.7 PSI @ 300F	M.A.W.P.: 683 PSIG
HYDROTEST CONDITIONS: [1.064 PSIG] @ AMB.	WPS: SEE WELD MAP DWG# 300-021-010-001-01
COR. ALLOW: [0.125"] NOZZLE NECKS: [0.125"]	

PAINTING SPECIFICATIONS	
EXTERIOR:	SURFACE PREPARATION: SSPC SP-10 (NEAR WHITE BLAST CLEANING)
	PRIME COAT: INORGANIC ZINC, SHERWIN WILLIAM ZINC CLAD II PLUS, 2-4 MILS
	INTERMEDIATE COAT: NONE
	FINISH COAT: SILICONE - SHERWIN WILLIAMS HEAT-FLEX HIGH TEMP 500 1-1.5 MILS (SHALE GRAY)
INTERIOR:	SURFACE PREPARATION: NONE
	PRIME COAT: NONE
	FINISH COAT: NONE

REV	DATE	REVISIONS	DWN	CHK	APP
3	01/28/16	REVISED HYDRO TEST PRESSURE	TB		
2	01/05/16	REVISED NOZZLE M IN NOZZLE SCHEDULE	TB	-	-
1	12/21/15	REVISED NAMEPLATE PSI & ADDED DAVIT ARM MATERIAL	TB	-	-
0	12/3/15	ISSUE FOR FABRICATION	TB	-	-
A	11/04/15	ISSUE FOR APPROVAL	TB	-	-

SUMMIT ENERGY EQUIPMENT
41 HC PIONEER PKWY
SULPHUR SPRINGS, TX 75482
PH: 903-951-1217
www.summitenergyequipment.com

MARK	QTY	SERVICE	SIZE	RATING	TYPE	BORE	SCH	WALL	LG	O.D.	MAT'L	OD&THK	MAT'L	BOM #	O.S.	I.S.	TYPE	W1	W2	W3	W4	W5	REMARKS
V	1	VENT	2"	600#	RFLWN	2.00"	-	0.655"	13 3/8"	3 5/16"	SA-105N	-	-	44	SEE ELEV	FLUSH	III	3/8	FP	-	-	-	-
U	1	UTILITY CONNECTION	2"	600#	RFLWN	2.00"	-	0.655"	11 1/8"	3 5/16"	SA-105N	-	-	11, 15, 19, 34	10"	FLUSH	III	3/8	FP	-	-	-	W/BLIND
R	1	RELIEF	3"	600#	RFLWN	3.00"	-	0.810"	13 1/2"	4 5/8"	SA-105N	-	-	43	SEE ELEV	FLUSH	III	3/8	FP	-	-	-	-
L1&2	2	LEVEL BRIDLE	3"	600#	RFLWN	3.00"	-	0.810"	11 3/16"	4 5/8"	SA-105N	-	-	10	10"	FLUSH	III	3/8	FP	-	-	-	-
M	1	MANWAY	20"	600#	RFBH	20.00"	-	2.970"	18"	25 15/16"	SA-105N	-	-	8, 14, 18, 33	10"	1/2"	II	3/8	FP	3/8	-	-	W/BLIND & DAVIT ASSY (SEE DETAIL)
D	1	DRAIN	2"	600#	RFWN	160	160	0.344"	SEE DETAIL	-	SA-105N	-	-	13, 17, 42	SEE ELEV	-	I	FP	-	-	-	-	-
C	1	VAPOR EQUALIZATION	2"	600#	RFLWN	2.00"	-	0.655"	11"	3 5/16"	SA-105N	-	-	11	SEE ELEV	FLUSH	III	3/8	FP	-	-	-	-
B	1	LIQUID OUTLET	6"	600#	RFWN	80	80	0.432"	SEE DETAIL	6 5/8"	SA-106B	12 5/8" X 1/2"	SA-516-70	5, 12, 16	SEE ELEV	FLUSH	V	7/16	3/8	FP	FP	-	-
A	1	INLET	4"	600#	RFLWN	4.00"	-	1.00"	11 3/8"	6.00"	SA-105N	-	-	9	10"	FLUSH	III	3/8	FP	-	-	-	W/INLET DIVERTER (SEE DETAIL)

KPE
KP ENGINEERING

NOZZLE SCHEDULE

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

PROPRIETARY AND CONFIDENTIAL

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HOLLY FRONTIER J-1422 B
DEBUTANIZER REBOILER CONDENSATE POT
TAG# 374-D-PV-221

DESIGN AND BILL OF MATERIAL DRAWING

PROJECT NUMBER	QUALITY CONTROL APPROVED	SHEET	REV.	DRAWING NUMBER
11392	DATE _____ BY _____	1 of 1	3	100-021-010-001-01