



NOTE: ADD LIFT LUGS TO BOTTOM HEAD FOR TRANSPORTING

NOZZLE SCHEDULE

MARK	SIZE	RATING	TYPE	SERVICE	PRODUCT #1/4		WELD SIZE									
					IN	OUT	T1	T2	T3	T4	T5	T6	T7			
M1	2.0	-	SAN CLAMP	INLET	-	2 1/2"	N-1	-	-	-	-	-	-	-	-	-
M2	3 X 2	-	SAN CLAMP	SPRIBALL (PAR)	-	2 1/2"	N-1	-	-	-	-	-	-	-	-	-
M3	2.0	-	SAN CLAMP	SPARE	-	2 1/2"	N-1	-	-	-	-	-	-	-	-	-
M4	2.0	-	SAN CLAMP	OUTLET	-	4 1/4"	N-1	-	-	-	-	-	-	-	-	-
M5	1.0	-	SAN CLAMP	THERMOWELL	-	4"	N-1	-	-	-	-	-	-	-	-	-
M6	1.0	-	NPT	HIGH LEVEL SWITCH	-	1 3/16"	N-1	-	-	-	-	-	-	-	-	-
M7	4.0	-	RFSO	LEVEL TRANSMITTER	-	5 3/4"	N-1	-	-	-	-	-	-	-	-	-
M8	1.0	-	SAN CLAMP	SWALE CONNECTION	-	4"	N-1	-	-	-	-	-	-	-	-	-
M9	6.0	-	RFSO	AGITATOR	-	5 3/4"	N-3	-	-	-	-	-	-	-	-	-
M10	4.0	-	RFSO	VENT (OUT)	-	1 9/16"	N-1	-	-	-	-	-	-	-	-	-
M11	1.5	-	NPT	SPARE	-	1 1/16"	N-1	-	-	-	-	-	-	-	-	-
M12	2.0	-	NPT	SPARE	-	2 1/2"	N-1	-	-	-	-	-	-	-	-	-
M13	3.0	-	SAN CLAMP	SPARE	-	2 1/2"	N-1	-	-	-	-	-	-	-	-	-
M14	1.0	-	NPT	SPARE	-	4"	N-1	-	-	-	-	-	-	-	-	-
M15	1.0	-	NPT	SPARE	-	1 3/16"	N-1	-	-	-	-	-	-	-	-	-
M16	1.0	-	NPT	SPARE	-	1 3/16"	N-1	-	-	-	-	-	-	-	-	-
M17	1.5	-	NPT	SPARE	-	1 9/16"	N-1	-	-	-	-	-	-	-	-	-
M18	1.5	-	RFSO	SIGHT GLASS	-	5 3/4"	N-1	-	-	-	-	-	-	-	-	-
M19	4.0	-	BW	MANWAY	-	25	25	3125	-	-	-	-	-	-	-	-
M20	2.0	-	NPT	HOT WATER IN	-	6 1/2"	-	-	-	-	-	-	-	-	-	-
J1	2.0	-	NPT	HOT WATER OUT	-	6 1/2"	-	-	-	-	-	-	-	-	-	-
J2	2.0	-	NPT	HOT WATER IN	-	10 7/16"	-	-	-	-	-	-	-	-	-	-
J3	2.0	-	NPT	HOT WATER OUT	-	10 7/16"	-	-	-	-	-	-	-	-	-	-
J4	2.0	-	NPT	HOT WATER OUT	-	10 7/16"	-	-	-	-	-	-	-	-	-	-

STANDARD - USE BURST TEST PROCEDURE #103 DEGREE LOCATION GIVEN IN COUNTER CLOCKWISE DIRECTION STARTING FROM ZERO DEGREES (3 O'CLOCK) (UNLESS NOTED OTHERWISE) NOZZLE LENGTH ON DISH HEADS NOT TO EXCEED 1 1/2 PIPE DIAMETERS FROM LONG SIDE UNLESS NOTED OTHERWISE IN NOZZLE SCHEDULE NOZZLE LENGTH ON SIDE WALLS NOT TO EXCEED 1 1/2 PIPE DIAMETERS FROM LONG SIDE UNLESS NOTED OTHERWISE IN NOZZLE SCHEDULE NOZZLE PROJECTION MEASUREMENTS ARE TAKEN FROM THE INSIDE

BILL OF MATERIAL

ITEM QTY	MATL SPEC.	PART #	DESCRIPTION	NOTES
1	SA-240-316L	10776302-1	INNER SHELL DETAIL	DETAIL
2	SA-240-316L	10776302-2	HEADS, 5/16" #4/2B F80 W/ 4" KR & 1 1/2" SF & 60" CR	SHOP 3
5	SA-240-304	10776302-5	OUTER JACKET, 14GA 2B/2B X 69 7/8" OD	DETAIL
6	SA-240-304	10776302-6	FALSE HEAD, 14GA 2B/2B X 69 5/8" OD F&F W/ 1/8" KR & 7/8" SF	DETAIL
8	SA-240-304	WOOD-00020	BREAST RING, 12GA X 65 3/4" ID X 69 7/8" OD	-
10	-	VNVL	A&B LOGO-LARGE LABEL, VNVL	-
11	-	304	A&B ID TAG	-
12	SA-240-304	-	3/8 X 3.0 X 8.0 LIFTING EYE 304SS	-
13	-	#6 DENSITY	1.5 THK FIBERGLASS TANK WRAP FSK 66 SF	-
14	-	TERMOFLUX 70	TERMOFLUX 70	-
15	-	316L	7GA X 10" X 106 1/2" LG BAFFLES	PLASMA
20	SA-479-316L	CFEM25440	NOZZLE M1, N3, M4-INCLUDES	-
21	SA-479-316L	CFEM25440	NOZZLE M2-INCLUDES	-
22	SA-479-316L	CFEM25449	NOZZLE M5, N6, M14-INCLUDES	-
23	SA-182-316L	ES6L3THCK	NOZZLE M11, M17, M18-INCLUDES	-
24	SA-182-316L	ES6L3THCK	NOZZLE M12, M13, M15-INCLUDES	-
25	SA-182-316L	ES6L3THCK	NOZZLE M6, M15, M16-INCLUDES	-
26	316L	10776302-26	NOZZLE M7, M10, M19-INCLUDES	DETAIL
27	316L	10776302-27	NOZZLE M9-INCLUDES	DETAIL
28	SA-240-316L	ES6L3THCK	NOZZLE M1-INCLUDES	-
29	SA-312-304	PI53-001R	NOZZLE M14-INCLUDES	-
30	SA-479-316L	CFEM25440	NOZZLE M13-INCLUDES	-

DESIGN DATA

DESIGN AND FABRICATION :	ASME SECTION VIII - DIVISION 1
ED. 1998, A-00	
DESIGN PRESSURE, PSIG	20/-15
DESIGN TEMPERATURE, °F	300° F
HOTTEST PRESSURE	26 PSI
M.A.W.P. PSIG	20/-15
M.D.M.T. °F	-20° F
CORROSION ALLOWANCE, IN	-
RADIOGRAPHIC EXAMINATION	NONE
JOINT EFFICIENCY %	-
WIND PRESSURE, LBS/SQ. FT	-
SEISMIC COEFFICIENT	-
DIMPLE PILLOW HEIGHT	-
ERECTOR (SHIPPING) WEIGHT, LBS	6500 LBS
WEIGHT, FULL OF WATER, LBS	20,196 LBS
DATA NOT SHOWN ARE NOT FACTOR IN DESIGN	

NOTES:
 1) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED
 2) EQUIPMENT TO BE INSTALLED SHALL BE SUBJECT TO THE APPROVAL OF THE MANUFACTURER'S REPRESENTATIVE
 3) ALL WELDS SHALL BE THOROUGHLY CLEANED, FREE OF SLAG, UNDERCUTS AND OTHER DEFECTS
 4) VESSEL TO BE THOROUGHLY CLEANED AND DRIED WHERE ACCESSIBLE BEFORE SHIPPING
 5) PROTECT ALL MACHINED SURFACES, AND ALL CONNECTIONS WITH WOOD OR PLASTIC PROTECTORS BEFORE SHIPMENT.
 6) PROTECT ALL MACHINED SURFACES, AND ALL CONNECTIONS WITH WOOD OR PLASTIC PROTECTORS BEFORE SHIPMENT.
 7) BRIDGE PLATE AND OUTSIDE OF INNER SHELL TO HAVE (2) COATS OF THERMOFLUX 70
 8) REINFORCING PLATE AND INSIDE OF INNER SHELL TO HAVE (2) COATS OF THERMOFLUX 70
 9) LOCATED AS LOW AS POSSIBLE IN THE PAD WHEN THE VESSEL IS IN OPERATING POSITION.
 10) OUTER SHELL TO INCLUDE 1" DIA. VENT W/ 1/8" DIA. HOLES LOCATED AT LOWEST POINT
 11) WELD 1/4" X 1 1/2" X 1 1/2" ANGLE TO OUTER SHELL SEAM ON THE INSIDE FOR EXTRA STIFFNESS (OUTER SHELL TO OVERLAP)
 12) ALL DIMENSIONS AS SHOWN UNLESS OTHERWISE NOTED
 13) FLANGE BOLT HOLES SHALL STRADDLE NORMAL VESSEL CENTERLINES UNLESS NOTED.
 14) MATERIAL VISCOSITY:
 15) SPECIFIC GRAVITY:

CERTIFIED BY		A&B PROCESS SYSTEMS	
VESSEL/SHELL		JACKET/TUBE	
W	MAMP: 20/-15 PSI	300	°F
	M.D.M.T.: -20 °F	20/-15	PSI
	MAMP: 75 PSI	350	°F
	M.D.M.T.: -20 °F	75	PSI
SERIAL NO.:	10776302		
YEAR BUILT:	2001		

MATERIAL IS 16 GA. 316LSS 2B/2B
 CHARACTER SIZE: 5/32" DEPTH - 0.0004" (MINIMUM)

FABRICATION HOURS: _____
 COMPONENT HOURS: _____
 BY: _____
 DATE: _____
 APPROVED FOR FABRICATION

MACHINING TOLERANCES		FABRICATION TOLERANCES	
(UNLESS NOTED OTHERWISE)		(UNLESS NOTED OTHERWISE)	
XX± .005	± .010	X OR FRACT. = ±1/8"	HOLE DIAMETS = ±1/16"
X ± .010	± .020	X OR FRACT. = ±.030	±1/32 FOR CENTERS, BORE SIZES
X ± .010	± .030	X OR FRACT. = ±.030	X DEGREE = ± 1 DEGREE

A	B	AS-BUILTS
11/1	1/18	RELEASED FOR FABRICATION
10/30	10/30	ROTATED N2 & N13 45° & ADDED BAFFLES
10/02	10/02	SUBMITTED FOR APPROVAL
NO.	DATE:	REVISION DESCRIPTION:

CUSTOMER NAME/ADDRESS: ALPHAARMA, INC.
 TERRE HAUTE, IN
 1,650 GALLON CLASSIFICATION TANK
 TAG # V-370
 DRAWING # 10776302
 DWG 1 OF 9

