



DESIGN DATA TABLE			
DESIGN PARAMETER		DESIGN - FABRICATION AND INSPECTION STANDARD	
CERTIFICATION MARK WITH THE DESIGNATOR YES/NO	YES	1.ASME BOILER AND PRESSURE VESSEL CODE, SECT. VIII DIV. 1, 2017D	
NB REGISTRATION REQUIRED YES/NO	NO		
PARAMETER NAME	SHELL	JACKET	FABRICATION AND INSPECTION REQUIREMENTS
DESIGN PRESSURE	bar	2	6
WORK PRESSURE	bar	0-2	3
MAWP	2 bar AT 40°C		6 bar AT 40°C
DESIGN TEMPERATURE	°C	-10/40	-10/40
WORK TEMPERATURE	°C	-4/40	-4/40
MDMT	-10°C AT 2bar		-10°C AT 6bar
MEDIUM NAME	BEER		GLYCOL WATER
MEDIUM CHARACTERISTIC	Non-lethal		Non-lethal
MEDIUM DENSITY	kg/m³	1040	950
MAIN PRESSURE PART MATERIAL	SA-240 304		SA-240 304
CORROSION ALLOWANCE	0		0
JOINT EFFICIENCY	SHELL/HEAD	0.85	0.8
CAPACITY	9.3BBL		0.03BBL
INSULATION MATERIAL	PIU		
INSULATION THICKNESS	4"		
HEAT TRANSFER AREA	m²	18	
EQUIPMENT NET WEIGHT	kg	450	
WEIGHT FULL OF WATER	kg	/	
OPERATION WEIGHT	kg	/	
		TEST TYPE	SHELL JACKET
		HYDRAULIC TESTING PRESSURE (VHD)	bar 2.6 7.8
		LEAKAGE TESTING PRESSURE	bar / /
		IMPACT TEST	YES/NO EXEMPTED PER UHA-510(D)(6)
		HEAT TREATMENT	YES/NO EXEMPTED PER UHA-320(UH)-4

TECHNIQUE REQUIRED:
 1. THE EQUIPMENT MANUFACTURING HAS BEEN COMPLETED. THE INNER SURFACE HAS NO WELDING GAP AND THE OUTER SURFACE HAS NO SCRATCHES.
 2. BOLT HOLES IN FLANGES SHALL BE STRADDLE THE PRINCIPAL CENTER LINES OF VESSEL.
 3. AFTER FULL WATER TEST, THE WATER SHOULD BE CLEANED. IF CAN NOT MEET THE REQUIREMENTS, THE CHLORIDEION OF WATER SHOULD BE NO MORE THAN 25mg/L.
 4. WHEN ONLY ONE SIDE OF FILLET WELD LEG IS SPECIFIED THE OTHER SIDE SHALL BE CONSIDERED EQUAL HOWEVER, WHEN THE FILLET WELD IS BUILT UP ON GROOVE WELD. THE LEG SIZE OF THIS SIDE MAY BE EQUAL TO GROOVE OPENING WHEN THE GROOVE OPENING IS NOT LESS THAN THE LEG SIZE.
 5. THE INNER SURFACE OF EQUIPMENT INCLUDING ATTACHMENTS ARE POLISHED TO RA<0.6μm EXCEPT 2B PLATE.
 6. ALL RIGHT ANGLES OF INTERIOR EQUIPMENT SHOULD BE ROUNDED REQUIRED.
 7. HOUSING WELD INSPECTION AFTER PASSING THE PACKAGE HOUSING.
 8. STAINLESS STEEL OUTER SURFACE FOR THE INSULATION LAYER BEFORE COATED WITH EPOXY.
 A TOTAL OF PAINTED TWO-STORY, EACH LAYER THICKNESS OF 80μm.
 9. THE ORIENTATION OF THE NOZZLES IS ACCORDING TO TOP VIEW.
 10. INSIDE OF JACKET HAS TAKEN TO PREVENT SHORT-CIRCUITING.
 11. ALL WELDS IN PRESSURE RETAINING PARTS SHALL BE FULL PENETRATION WELDS.

NOZZLE SCHEDULE					
MARK	NPS	CONNECTIONS SIZES STANDARDS	TYPE&FACE	SERVICE	REMARK
N1	2"	3A φ50.8	CLAMP	OUTLET	/
N2	1.5"	3A φ38.1	CLAMP	OUTLET	/
N3	1.5"/3"	3A φ38.1/φ76.2	CLAMP	CIP	/
N4	1.5"	3A φ38.1	CLAMP	INLET	/
N5	2"	3A φ50.8	CLAMP	PRESSURE VACUUM VALVE	/
N6	1.5"	3A φ38.1	CLAMP	CIP	/
N7	1.5"	3A φ38.1	CLAMP	PRESSURE GAUGE	/
N8	1.5"	3A φ38.1	CLAMP	SPUNDING VALVE	/
N10	NPT1/2	/	FEMALE THREAD	THERMOWELL	/
V	1.5"	3A φ38.1	CLAMP	SAMPLING VALVE	/
M	16"	/	/	MAN HOLE	/
P1	NPT3/4	/	MALE THREAD	CONE JACKET INLET	/
P2	NPT3/4	/	MALE THREAD	UPPER JACKET INLET	/
Q1	NPT3/4	/	MALE THREAD	CONE JACKET OUTLET	/
Q2	NPT3/4	/	MALE THREAD	UPPER JACKET OUTLET	/

NOTE: THE FINAL NOZZLE IS DECIDED BY CUSTOMER

		Cedarstone Industry, LLC 7432 Fairbanks North Houston Road Houston, Texas 77040	
		VER. No.	A
DRAW		ITEM No.	
DESN		7BBL FERMENTATION TANK ASSEMBLY DWG	
CHKD			
APPD			
SER.No.		SCALE	DRAW
DWG.No.			