

STYRENE PARK OFFSITE

Document Title
General Arrangement Drawing-Active Carbon Filter
FOR
Active Carbon Package

R0	2024/04/03	Issued For Approval	M.Teymouri	E.Malek	H.Keshmiri
Rev.	Issued Date	DESCRIPTION	PREPARED	CHECKED	APPROVED



Document Title: General Arrangement Drawing-Active
Carbon Filter for Active Carbon Package

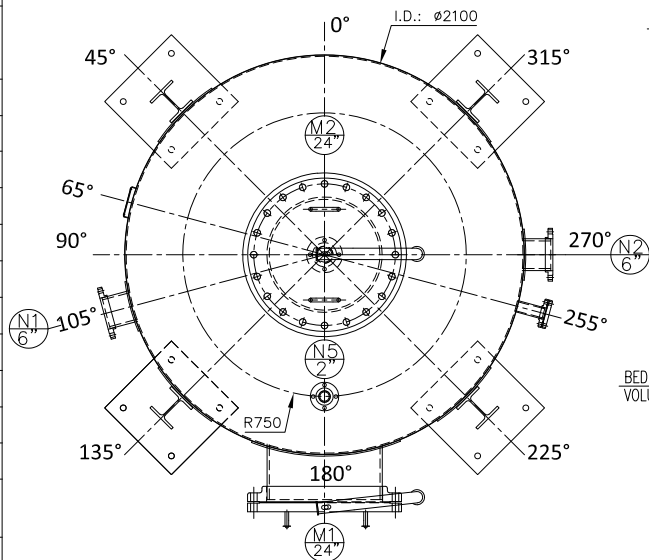
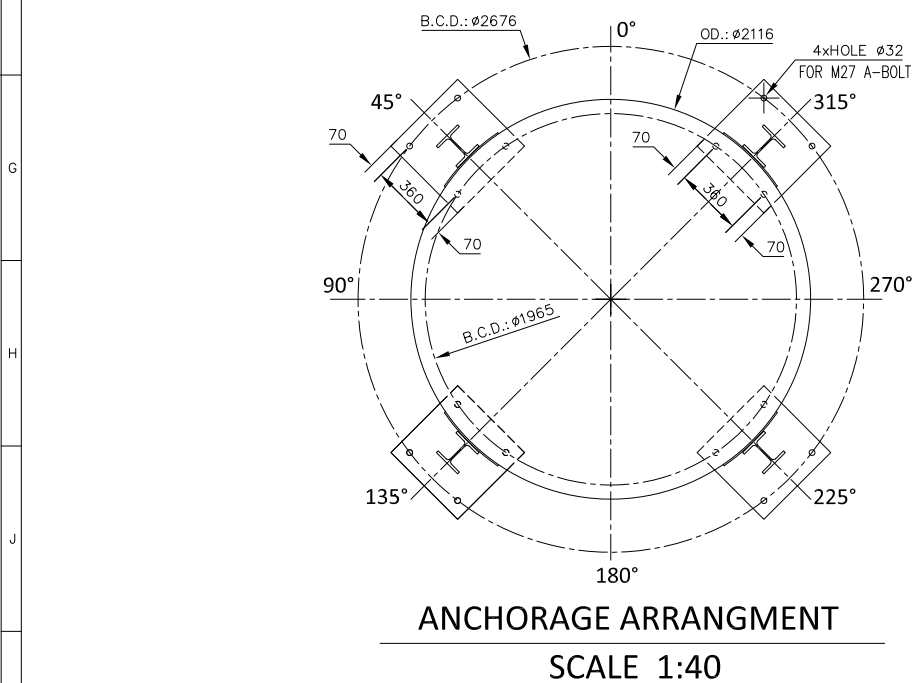


Page 2 of 3

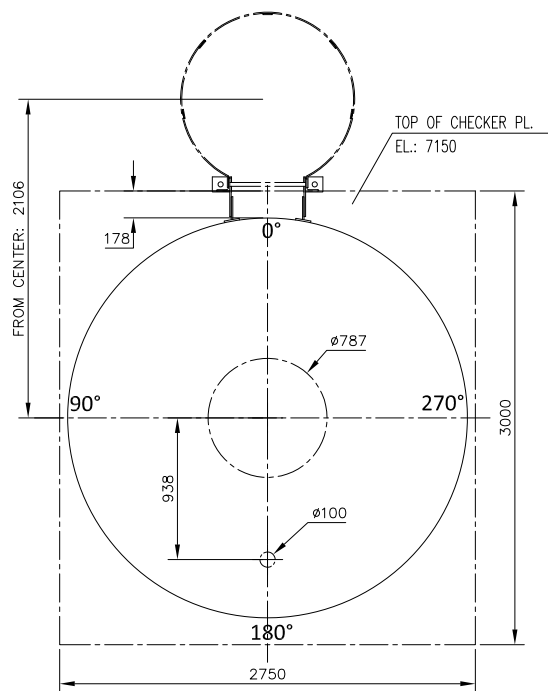
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	1	2	3	4	5	6
	DESIGN DATA					
A	APPLICABLE CODE	ASME, Sec.VIII , Div 1	DESIGN PRESSURE	-0.1~0.2	Bar(g)	
	WIND CODE	UBC	OPERATING PRESSURE	0.07	Bar(g)	
	WIND DESIGN DATA	SPEED:125 Km/hr EXPOSURE: C IMP. FACTOR: 1.15	VOLUME (Uncor./cor.)	21.16/21.3		
			HYDROSTATIC TYPE	UG-99b	Bar(g)	
B	SEISMIC CODE	ASCE/SEI 7-16	HYDRO. TEST PRESSURE/POSITION	2.535/HORIZONTAL	Bar(g)	
	SEISMIC DESIGN DATA	SITE CLASS: C SEISMIC ZONE=1 I=1.25,R:3.0 Fa:1.05/Fv:1.1 Ss:1.31/S1:0.46 z/h:0.0/ap:0.0	M.A.W.P	9.1	Bar(g)	
			J.E (Shell/Head)	0.85/0.85		
			R.T (Shell/Head)	SPOT/SPOT		
			CORROSION ALLOWANCE	3.0	mm	
	SERVICE	VOC ABATEMENT FROM STYRENE STORAGE TANK EFFLUENT	P.W.H.T	NO		
C	LOCATION	OUTDOOR	INSULATION/FIRE PROOF	NO / NO		
	FLUID	Air+Styrene (3.5 g/Nm3)	IMPACT TEST	NO		
	DENSITY (Min.Max.)	1.107/1.295	PAINTING	NO		
	DESIGN TEMP.	85 °C	M.D.M.T(REQU./ Cal)	-5/-48	°C	
	OPERATING TEMP.(Min./Max)	5/52 °C				

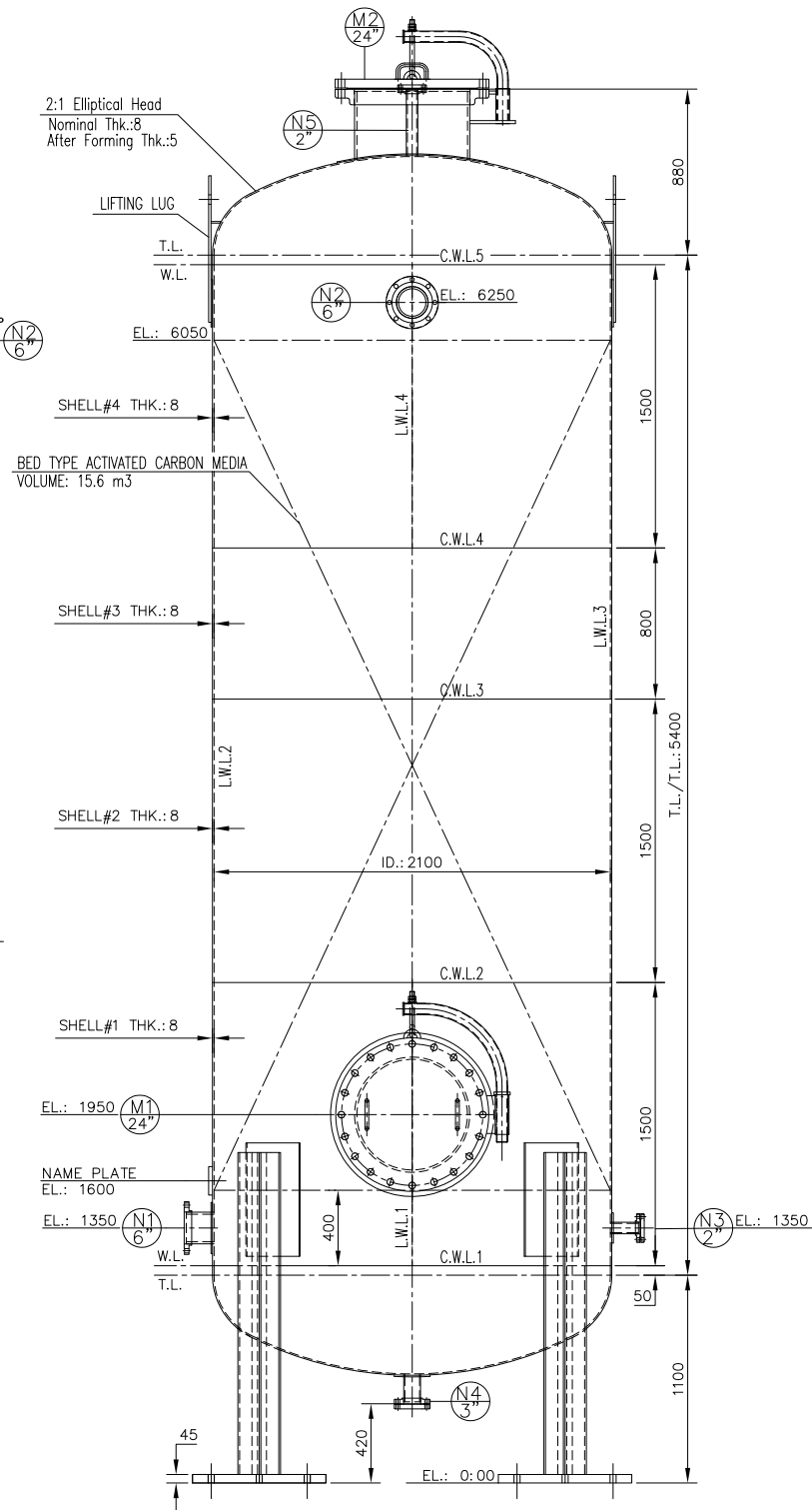
D	MATERIAL LIST			
	SHELL/HEAD	SA-516 70	ANCHOR BOLT	SA-36
E	FORGED FLANGE/BLIND	SA-105	LIFTING LUG/EARTH LUG	SA-516 70/S.S
	PIPE	SA-106 B	NAME PLATE	SS 304
	FITTING	A234 WPB	INTERNAL WELDED ATTACHMENT	SA-516 70
	NOZZLE WELDED NECK	SA-516 70	CORROSION ALLOWANCE	3.0
	GASKET	S.W. Type, Graphite filled with inner/outer S.S. rings.	P.W.H.T	NO
	REINFORCING PAD	SA-516 70	INSULATION/FIRE PROOF	NO/NO
	BODY FLANGE	N.A.	IMPACT TEST	NO
F	STUD BOLT/NUT	SA-193 B7/SA-194 2H	PAINTING	NO



NOZZLE ORIENTATION
SCALE 1:40



LADDER & PLATFORM LOCATION
SCALE 1:40



GENERAL FRONT VIEW
SCALE 1:40

14	15	16	
REFERENCE DRAWING	DWG NO.	REV.	
P&ID	EI0127-ENR-VD-PR-PID-003	RO	
Equipment Data Sheet-Active Carbon Filter	EI0127-ENR-VD-ME-DSH-001	RO	A
Strength Calculation-Active Carbon Filter	EI0127-ENR-VD-ME-CAL-003	RO	
GAD For Package	EI0127-ENR-VD-PI-DWG-001	RO	

LEGENDS :			
EL:	ELEVATION	UNCRR:	UN CORRODED
ID:	INTERNAL DIAMETER	CRR:	CORRODED
OD:	OUTSIDE DIAMETER	M.A.W.P:	MAX. ALLOWABLE WORKING PRES.
T.L:	TANGENT LINE	J.E.:	JOINT EFFICIENCY
W.L:	WELD LINE	R.T.:	RADIOGRAPHY TEST
C.W.L:	CIRCUMFERENTIAL WELD LINE	P.W.H.T:	POST WELD HEAT TREATMENT
L.W.L:	LONGITUDINAL WELD LINE	M.D.M.T:	MIN. DESIGN METAL TEMP.
B.C.D.:	BOLT CENTER DIAMETER		

NOTES :

- 1- ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 2- ALL THICKNESS SHOWN ON THIS DOCUMENT SHALL BE CONSIDERED AS A MINIMUM REQUIRED THICKNESS AFTER FORMING.
- 3- FLANGE BOLT HOLES SHALL BE STRADDLE TO EQUIPMENT MAIN AXIS.
- 4- FLANGE SURFACE FINISH ACCORDING TO ASME B16.5
- 5- HYDROSTATIC TEST PRESSURE SHALL BE ACCORDING TO UG-99 (B)
- 6- ONE EARTH LUGS HAS BEEN CONSIDERED ON LEG.
- 7- BOTTOM OF BASERING PLATES HAS ELEVATION OF EL. 0.00 mm
- 8- ALL PROJECTIONS OF THE NOZZLES ON THE SHELL ARE MEASURED FROM THE FLANGE FACE TO THE VESSEL CENTERLINE.
- 9- ALL PROJECTIONS OF THE NOZZLES ON THE HEAD ARE MEASURED FROM THE FLANGE FACE TO THE LOWER HEAD T.L. (E.O.L.).
- 10- THE MANHOLE INCLUDES BLIND FLANGE WITH DAWK, GASKET, STUD BOLTS, AND NUTS.
- 11- ALL REMOVABLE INTERNALS (IF ANY) WILL BE DESIGNED TO PASS THROUGH THE MANHOLE.
- 12- SPIRAL WOUND GASKETS ARE MADE FROM S.S. 316 FOR INNER RING, GRAPHITE FIBER FOR WINDING, AND C.S. FOR OUTER RING.
- 13- ANY MATERIAL DIRECTLY WELDED TO THE BODY SHALL BE THE SAME AS THE BODY MATERIAL.
- 14- THE REPORTED M.A.M.P. BELONGS TO THE VESSEL'S BODY.
- 15- PAINTING IS CONDUCTED AS PER THE "TEST PROCEDURES" DOC. MENTIONED IN THE REFERENCE DOC. LIST.
- 16- ALLOWABLE NOZZLE LOADS ARE APPLIED TO THE JUNCTION OF THE NOZZLE NECK WITH THE VESSEL.
- 17- ALL REINFORCEMENT PADS SHALL HAVE ONE VENT HOLE OF 6mm IN DIAMETER. THE HOLE SHALL BE FILLED WITH ANTI-CORROSION MATERIAL E.G. GREASE, AFTER AIR SOAP TEST.

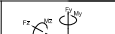
KEY PLAN :	G
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R0	04-Mar-24	Issued for Approval	M.T.	E.M.	H.K.	HRCO
REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	COMPANY

<p>CLIENT:</p> <div data-bbox="2549 1692 2638 1711">  <p>پٹرولیم کمپنی پاکستان مکتی گورنر اعلیٰ</p> </div>	<p>CONSULTING ENGINEER:</p> <div data-bbox="2689 1692 2751 1711">  </div>
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PROJECT:	<i>STYRENE PARK OFFSITE</i>
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DRAWING TITLE:				
<i>General Arrangement Drawing-Active Carbon Filter</i>				
DRAWING NO.		REV.	SIZE	SCALE
EI0127-ENR-VD-ME-DWG-005		R0	A3	AS DWG
			SHEET	
			3 of 3	

NOZZLES DATA TABLE											 ALLOWABLE NOZZLE LOADS								
ITEM	QTY.	TITLE	SIZE	FLANGE			SCH/THK	REINFORCING PAD	PROJ./EL.	ORIENTATION	NAME	SIZE	(Kg _f)			(Kg-m)			
				RATING	TYP.	FACE	- /mm	(OD/THK.)					F _x	F _y	F _z	M _x	M _y	M _z	
L	N1	1	Gas Inlet	6"	#150	S.O.	R.F	80/-	270/8	150/1350	105° (SHL)								
	N2	1	Gas Outlet	6"	#150	S.O.	R.F	80/-	270/8	150/1350	270° (SHL)	N3/N5	2"	64.8	-51.8	64.8	11.0	17.5	13.9
	N3	1	Utility Connection	2"	#150	S.O.	R.F	80/-	160/8	150/6250	270° (SHL)	N4	3"	95.4	-76.2	95.4	23.6	38.3	30.2
	N4	1	Drain	3"	#150	S.O.	R.F	STD/-	190/8	150/AS DWG	0° (BHD)	N1/N2	6"	180.7	-144.4	180.7	84.4	136.2	106.9
M	N5	1	Vent	2"	#150	S.O.	R.F	80/-	160/8	AS DWG	180° (SHE)								
	M1	1	Manhole	24"	#150	S.O.	R.F	- /8	1000/8	250/1950	180° (SHE)								
	M2	1	Manhole	24"	#150	S.O.	R.F	- /8	1000/8	350/AS DWG	0° (THD)								

WEIGHTS (Kgf)			
FABRICATED		4900.8	
EMPTY		13122.0	
OPERATING		14392.2	
FIELD TEST		26170.9	
UN-FACTORED FOUNDATION LOADS ON TOP OF ALL LEGS			
WIND SHEAR LOAD (Kgf)	1847.0	SEISMIC SHEAR LOAD (Kgf)	7867.0
WIND MOMENT LOAD (Kg-m)	4627.0	SEISMIC MOMENT LOAD (Kg-m)	26065.0