Base Load Power Hub (BLPH)

TDS - Hydrogen Vent KO Drum - V-43001

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Document Class: 2

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Rev.	Date	Description	Prepared	Reviewed	Approved

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Revision / Change Log

Rev.	Description
00	ISSUE FOR REVIEW (IFR)
01	ACCEPTED FOR CONSTRUCTION (AFC)

HOLDS LIST

No.	Description
1.	
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4.	

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Rev	DESIGN DATA							
1	Design Conditions	Internal	3.5	bar	at		-10 / 80	°C
1		External		bar	at			°C
		Volume	3	m^3				
1	Dimension (Nominal)		0,6 ID x 2,35 T/T					
1	Minimum Design Metal Temp		-29	°C (MDMT)	at		0	bar
1	Operating Conditions	Internal	atm	bar	at		25	°C
	Corrosion Allowance		1	mm				
1	Liquid Specific Gravity		1,0 max					
	PWHT Required		Per ASME Sect VIII Div 1	☑ Service PWHT	Yes			
	Radiography Requirements		Spot (RT-3)					
	Shop Hydrotest Pressure		Per Code					
	Field Hydrotest Pressure		TBC					
1	Painting Per		According to specification 123A90-DDL-MAT-SP-60006					
1	Insulation		YES	mm	**(*) Insulation by others (RM) - Vendor to provide support clips**			
	Fireproofing		N/A	mm				
1	Erection Weight		0	kg (Includes saddles / legs)				
1	Empty Weight		by vendor	kg (Start-Up Ready)				
1	Operating Weight		by vendor	kg -				
1	Test Weight		by vendor	kg				
1	Vessel Designed For Wind		1 Year Return, 3 sec. gust = 35 m/sec, 100 Year Return, 3 sec. gust = 45 m/sec					
	Vessel Designed For Earthquake		N/A					
	Moment At POS	Wind:	0	N-M				
	Shear Force At POS	Wind:	0	N				
	Moment At POS	Earthquake:	0	N-M (Operating)		0		N-M (Empty)
	Shear Force At POS	Earthquake:	0	N (Operating)		0		N (Empty)

Rev	DESIGN CODE & MATERIAL SPECIFICATIONS				
1	Construction Code	2004 ASME Section VIII Div.1 With Latest Addenda + PED 2014/68/EU	YES		
	Materials for Pressure Components and Parts Welded to Pressure Components:				
1	Shell and Heads		SA-516-60 (P355GH)	Thickness (mm)	by vendor
	Standard ANSI Weld Neck and LWN Flanges		SA-105		
	Fittings		General Note VM-8		
	Self Reinforcing & Special Forgings		SA-765-II		
	Nozzle Necks		SA-106-B		
1	Shell Attachments	Plate (Including Wear Plate)	SA-516-60		
		Pipe	SA-106-B		
		Structural Shapes	A-36		
	Materials for Parts Not Welded to Pressure Components:				
	Saddles		A-36		
	Plate		A-516-70		
	Pipe		A-106-B		
	Pressure Bolting		SA-193-B7 / SA-194-2H		
	Internal Bolting		A-193 Gr B6 / A-194 Gr 6		
	Internal Piping		Carbon Steel		
	Other Internals		Carbon Steel		
	Gaskets	Pressure Gaskets	1/16" Flexible Graphite w/ 304 S.S. Insert		
		Non-pressure Gaskets	1/16" Flexible Graphite w/ 304 S.S. Insert		

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GENERAL NOTES (If Applicable)

Rev	
	VM-1. All materials shown on this data sheet are to be furnished and installed by the Vessel Supplier unless otherwise noted.
1	VM-2. Substitutions of materials will not be allowed without RM's prior approval. This approval can only be obtained at the time Vessel Supplier submits his quotation.
	VM-3. The inside diameter of manholes shall be equal to the size specified in the table of connections for 18" (450 mm) and smaller size manholes. Manholes size 20" (500 mm) and larger may have a minimum inside diameter 25 mm less than the nominal size listed in the table of connections.
	VM-4. Manholes and handholes shall be furnished with blind flange, bolts and gasket. Each manhole shall be provided with a davit or hinge and internal manhole grip.
	VM-5. Internal ladder rungs shall be provided below the manway.
1	VM-6. Supports for vessel insulation and fireproofing shall be furnished and installed by the Vessel Supplier when vessel is required to be insulated or fireproofed.
1	VM-7. Vessel Supplier to provide vessel grounding lugs.
	VM-8. In addition to meeting Code requirements for fittings, piping fittings shall be made from a material specification listed for plate, forging, or pipe pressure components on page 1 of this data sheet.
	VM-9 Below is not mandatory. Vendor to indicate values relevant to Material Specifications from their material supplier Max hardness in base metal shall be 235 HV10 - Steel shall be HIC resistant to ISO 15156-2 - Impact testing shall be at -46°C for base metal and weld metal in H2 service regardless of MDMT - Phosphorus maximum to be 0.015% (from EIGA 121/14) - Max strength 355Mpa yield - max CE of 0.35 should ideally be by product analysis not ladle analysis

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TABLE OF CONNECTIONS

General Notes for Table of Connections:

A. Connections shown in sketch are diagrammatic only. True location will be shown on Vendor Data Gen Arrangement Drawing
B. Unless otherwise noted the dimensions from the face of flange to inside shall comply with Table 4 of Doc n° 123A90-DDL-MAC-50026
C. All pressure connections are to be flanged.
D. Elevations in the table are to centreline of connection or face of flange unless noted otherwise.
E. For hill side connections see plan or end view.
F. Dimension "A" is the distance from the reference tangent line to the centreline of connection / face of flange.
G. Flanges over 24" shall be per ASME B16.47 Series B.
H. All flange faces shall have a stock finish.
J. For specific notes to TABLE OF CONNECTIONS see next page.

	Mark	Size	Rating	Face	Service	Elevation	Dim"A"	Specific Notes
1	N1	10"	150#	RF	GAS INLET			
1	N2	10"	150#	RF	GAS OUTLET			
1	N3	1"	150#	RF	LIQUID DRAIN			
1	N4	3"	150#	RF	VENT			
1	K1A	1"	150#	RF	LT			
1	K1B	1	150#	RF	LT			
1	K3	1"	150#	RF	PT			
1	K4	1"	150#	RF	LT			
1	H1	6"	150#	RF	HANDHOLE			
1	H2	6"	150#	RF	HANDHOLE			

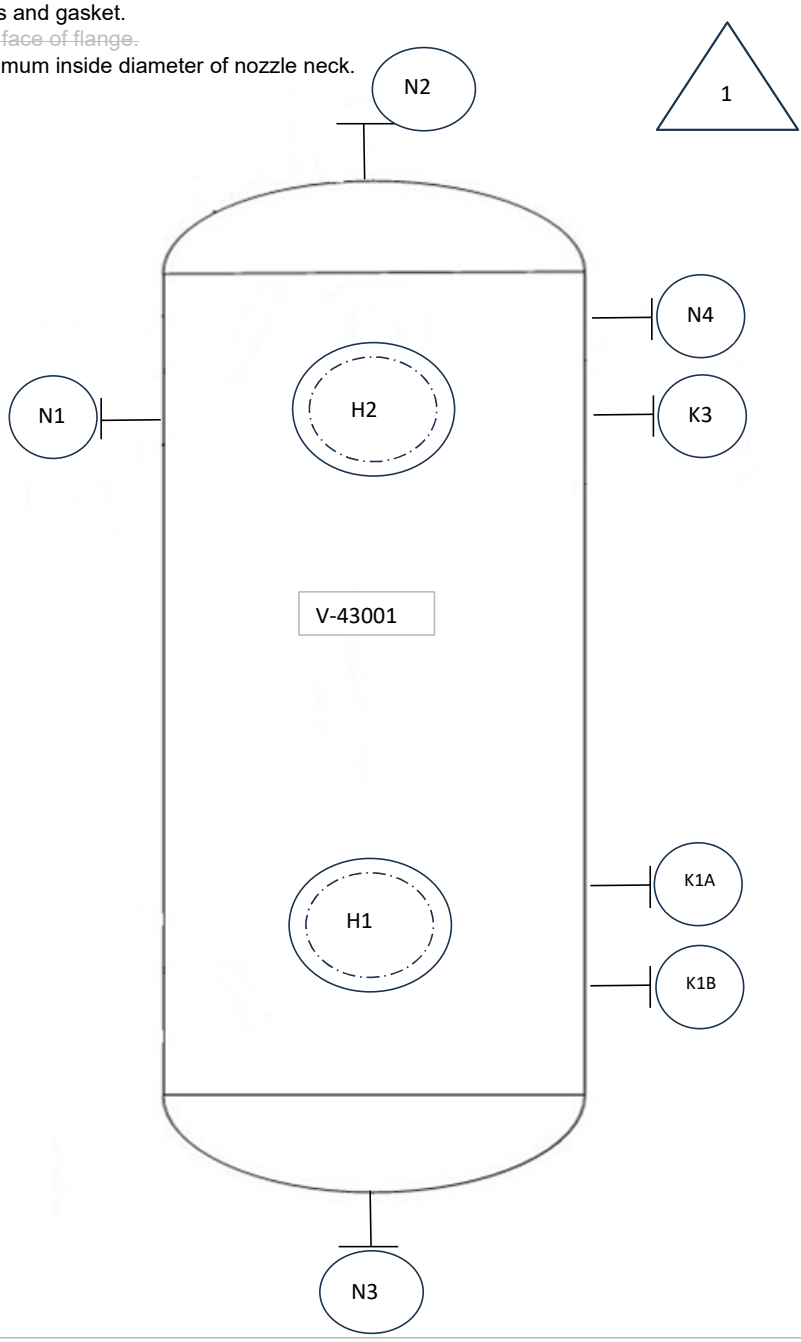
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SPECIFIC NOTES TO TABLE OF CONNECTIONS - SKETCH

(All Notes Listed Hereunder Shall Apply Only If Called For By Number In The Table Of Connections)

Rev

1 Use this information for quotation purpose only.
2 Supply blind flange, bolts and gasket.
3 Elevation is given to the face of flange.
4 Nozzle size listed is minimum inside diameter of nozzle neck.
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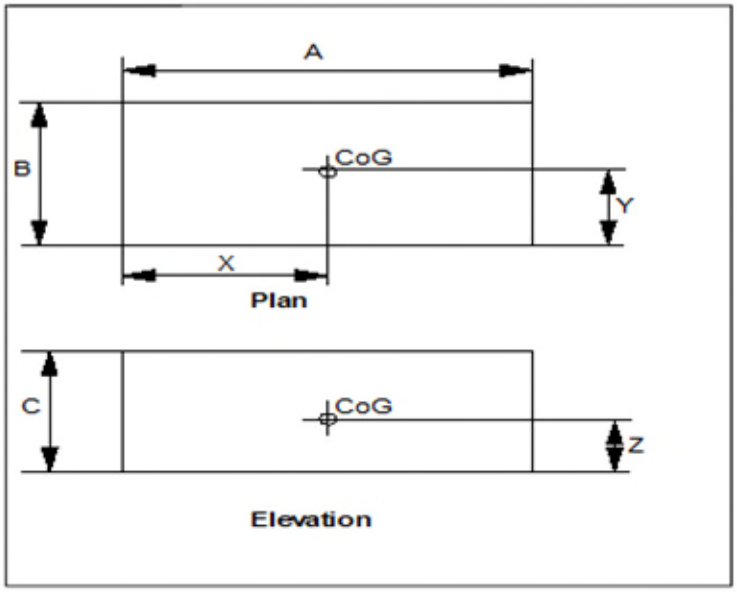
Note : the revision mark on the upper right is referred to the overall vessel sketch

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WEIGHT DATA (kg)

		Areas for input by Supplier
Dry Weight	(I)	kg
Content	(II)	kg
Operating Weight	(I+II)	kg
Auxiliaries' weight, included in I (specify under Notes)		kg
Test weight, i.e. filled with water		kg
Transport weight		kg

CENTRE OF GRAVITY (CoG) DATA FOR INSTALLED DRY CONDITION



Overall dimensions	
A =	mm
B =	mm
C =	mm

CoG location (mm)	
X =	mm
Y =	mm
Z =	mm

NOTES

WEIGHT AND CoG STATUS (TICK OFF AS APPROPRIATE)

☐ Estimated ☐ Calculated

☐ Catalogue data ☐ Weighed

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