



OGDCL PAKISTAN:  
OIL & GAS DEVELOPMENT  
COMPANY LIMITED

## NASHPA COMPRESSION PROJECT PHASE-II

**ISSUE FOR TENDER**

0	9-Mar-18	ISSUED FOR TENDER	SJA	NAS	SJA	MHQ	AHB		
A	21-Jan-18	ISSUED FOR REVIEW	SJA	NAS	SJA	MHQ	AHB		
REV	DATE	DESCRIPTION	ORIG	CHKD	LE	QA	PM	LOCAL REPR.	PROJ. MAN



ENAR Petrotech Services (Pvt.) Limited ,  
7-B , Sector 7-A , Korangi Industrial Area ,  
Karachi Pakistan

**DOCUMENT TITLE:  
DATA SHEET OF VORTEX FLOW METER**

CONTRACT NO. 14-0193

	193	DS	6000	0	
	CODE	TYPE	SEQ NO.	REV	.



ENAR PETROTECH SERVICES (PVT.) LTD.

VORTEX FLOWMETER

DATA SHEET NO.	0193-DS-6000
SHEET NO.	2 OF 2
DATE	9/3/2018
REV.	0
PREPARED BY	SJA
CHECKED BY	NAS
APPROVED BY	AHB

OWNER:	OIL & GAS DEVELOPMENT COMPANY LIMITED (OGDCL)
PROJECT:	NASHPA COMPRESSION PROJECT PHASE-II

1	Quantity			1
2	Tag Number			FT-2010
3	Service			COMPRESSORS COMBINE LIQUID HEADER OUTLET
4	Line No.			3"-P-105-A2
5	P&ID No.			0193-PB-2101
6	<b>PROCESS SERVICE CONDITIONS</b>			
7	Fluid			Condensate + Water
8	State			Liquid (partially flash vapour)
9	Flow Max.		bpd	1369
10	Flow Min.		bpd	228
11	Pressure Max.		Psig	260
12	Pressure Oper.		Psig	150
13	Pressure Min.		Psig	120
14	Temperature Max.		°F	165
15	Temperature Oper.		°F	150
16	Temperature Min.		°F	60 (minimum ambient 35 F)
17	Specific Gravity at Oper. Cond.		-	0.21 - 0.80
18	Viscosity at Oper. Cond.		cP	0.300 - 0.500
19	<b>BODY</b>			
20	Sensor Type			Vortex Shedder Bar
21	Sensor Material			316SS
22	Body Type			Flanged
23	Body Size		(Note - 3)	VTA
24	Body Material			316SS
25	Flange Size / Rating / Face Finish		(Note - 1,2)	Flanged / 150# RF
26	<b>TRANSMITTER</b>			
27	Digital Indicator			Yes
28	Unit		(Note - 4)	Lb/hr
29	Mounting			Inline
30	Calibrated Range		bpd	0-1369
31	Measuring Range Limit		bpd	=/> Twice of Calibration Range
32	Over Pressure Limits			Twice Max Pressure
33	Power Supply (Loop Powered)			24 VDC
34	Output Signal			4-20 mA with HART protocol
35	Accuracy			0.075 % of Calibrated Span
36	Electrical Connection		(Note - 5)	M20 x 1.5
37	Enclosure Material			Cast Aluminium
38	Enclosure Protection Rating			IP65
39	Tropicalization			Yes
40	Electrical Classification		(Note - 6)	EEEx'd' IIB T3
41	<b>ACCESSORIES</b>			
42	Temperature Compensation			Not Required
43	Tag Plate			Yes - SS
44	NACE Compliance			Not Required

45	<b>NOTES:</b>			
	1-	Flange construction shall be in accordance with ASME B16.5.		
	2-	Vendor shall provide flanged connection as mentioned. If calculated body size is less than, vendor shall offer reduced body flowmeter.		
	3-	Vendor shall submit vortex sizing sheet for review with technical bid. Error and permanent pressure loss shall be available on the sizing sheet.		
	4-	Flowmeter shall have multiple selectable standard engineering units e.g. lb/hr, MMSCFD etc.		
	5-	Vendor shall provide Ex'e' metallic plugs for spare electrical connection.		
	6-	Approval for Electrical / Hazardous Area Classification shall be from CENELEC, ATEX, Factory Mutual (FM), IEC or Canadian Standards Association (CSA).		
	7-	This Data Sheet is developed based on preliminary information, Contractor shall develop detail Data Sheet and confirm all parameters during detail engineering stage.		
		N/A - Not Applicable		
		VTA - Vendor to Advise		