

OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT, ISLAMABAD
FOREIGN SECTION E

(To be completed, filled in, signed
and stamped by the principal)

ANNEXURE 'A'

Material CORIOLIS METERS FOR NASHPA
Tender Enquiry No PROC-FE/CB/PROD-3069/2017
Due Date
Evaluation Criteria FULL

SCHEDULE OF REQUIREMENT

Sr No	Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price C & F BY SEA	Total Price C & F BY SEA	Deviated From Tender Spec. If Any
1	CORIOLIS METER, MEASURING TUBE MATERIAL: STANIL. STEEL, MASSFLOW; APPROVAL: XP FM C.I.I DIV. I/CSA C.I.I DIV. I. CD+ZONE1, Details Attached at Annex Z	Number	4					

Note: (1) PURSUANT TO TENDER CLAUSE # 2.2, 11.4, 13 & 35.3.2, BID BOND AMOUNTING TO US\$ 1,360/- (US DOLLAR ONE THOUSAND THREE HUNDRED SIXTY ONLY) SHOULD BE SUBMITTED WITH THE TECHNICAL BID (2) EVALUATION CRITERIA : FULL CONSIGNMENT WISE ON C&F BY AIR, ISLAMABAD (3) TECHNICAL SPECS (02 PAGES) ATTACHED

COROLIS METER SPECIFICATION

SERVICE CONDITIONS

Environmental Conditions

The maximum and minimum ambient temperatures range from 30°F to 130°F and relative humidity is 100%.

Process Data

Pressure

Min 40 Psig
Norm. 47 Psig
Max 70 Psig

Temperature

Min. 30 Deg F
Norm. 110 Deg F
Max. 130 Deg. F

Flow

Min. 75 gpm
Norm. 150 gpm
Max. 300 gpm

Specific Gravity: 0.8 – 0.9

API Gravity @60/60 deg F: 10 - 45

Viscosity Kinematic @100 deg F: 3 - 6

Line Size: 4 inches

Coriolis Meter / Transmitter Data

- Volume flow accuracy: $\pm 0.1\%$ (Previous certificate of accuracy from accredited Lab to be provided with bid)
- Mass Flow Accuracy: $\pm 0.05\%$ certified by the accredited Lab (Previous certificate of accuracy from accredited Lab to be provided with bid)
- Ambient temperature effects on the analog outputs should be at least $\pm 0.005\%$ of span per deg C.
- Humidity limits should be 5 to 100% relative humidity, non-condensing at 60 deg. C.
- Transmitter shall have three independent 4-20 mA DC analog outputs
- Flowtube wetted material: ANSI 316L SS

- End connection: ANSI Class-150 RF flanges to ANSI B16.5 with face finish RA 3.2-6.3 micrometers to ANSI B46.1.
- Companion flanges
- Digital mass flow and density transmitter for liquid flow measurement
- Nominal supply voltage: 220/240 VAC
- Output signals:
 - o Current output/HART
 - o Contact In
 - o Contact out
 - o Pulse out
- Integral display with pushbuttons
- Diagnostic & data logging features
- One set of two years recommended spares with each meter
- Hard copy IOM (installation, operations & maintenance) manual with each meter
- Compliance, material, pressure test, calibration test certificates with each meter

Approvals for custody transfer:

- PTB / METAS / BEV / MID / NTEP / MC

Approvals for hazardous area:

- XP FM Class I Div.1/CSA Cl.I Div.1, CD + Zone 1

Communication Protocols:

- HART, MODBUS

Electronic Protection

IP67, NEMA 4X

Other Standards/Approvals/Test, Certificate:

EN1289-2x (PT) + EN12517-1-1 (RT) meas. tube (PT) +process connection (RT) welding seam, inspection certificate

Special Note: Cost of Spares shall not be the part of financial evaluation; however OGDCL will reserve the right to drop all spares without assigning any reasons.