



NOTES:

- MEMBRANE MODULES TO BE FITTED WITH TUBING FOR CONNECTION TO MANIFOLDS. PROVISIONS FOR ISOLATION OF EACH MODULE WITH TUBING BALL VALVES.
- A UNIT CONTROL PANEL FOR EACH TRAIN (TOTAL: 2-OFF) LOCATED IN M.E.R. (SAFE AREA) IS PART OF INMACO'S SCOPE OF SUPPLY, FOR CLARITY ONLY UCP AND CONTROL SIGNALS FOR "TRAIN A" ARE SHOWN IN THE P&ID.
- PERMEATE OUTLET CONTAINS OXYGEN ENRICHED GAS WITH APPROXIMATELY 36 VOL % O₂ DURING NORMAL OPERATION. TO BE ROUTED AND VENTED TO ATMOSPHERE (OUTSIDE ROOM) LINE TO BE AT LEAST 4" TO ENSURE MIN. BACK PRESSURE.
- ALL PRESSURE INSTRUMENTS TO BE FITTED WITH 2 OR 5 WAY INSTRUMENT MANIFOLDS.
- PROCESS TAPPING FOR ALL PRESSURE INSTRUMENTS AND SAMPLING GAS TO BE FITTED WITH MODULAR DB&B VALVE.
- ALL EQUIPMENT/INSTRUMENTS ARE SUITABLE FOR ZONE 1 OPERATION
- ACTIVATED BALL VALVES (XV) SHALL BE PROVIDED WITH OPEN (XZSO) AND CLOSED (XZSC) LIMIT SWITCHES.
- ALL INSTRUMENTATION AND WIRING TERMINATES IN JUNCTION BOX AT SKID EDGE.
- 3 WAY BALL VALVE FOR SELECTION OF INSTRUMENT AIR TO CALIBRATION CHECK OF OXYGEN ANALYSER.
- MEMBRANE SEPARATOR UNIT IS NOT CONSIDERED A PRESSURE VESSEL SINCE THE BODY IS OPEN TO ATMOSPHERE.
- SAMPLING GAS, 0.5 LPM IS ROUTED DIRECTLY TO ATMOSPHERE WITHIN THE PACKAGE.
- THE FLOW CONTROL VALVE WILL CLOSE AND GIVE SET POINT FLOW AS MAXIMUM WHEN MEASURED FLOW VIA FLOW TRANSMITTER IS ABOVE SET POINT.
- TAG NUMBERS FOR "TRAIN B" ARE THE SAME AS "TRAIN A" BUT WITH A "B" SUFFIX. LINE NUMBERS 566XX FOR "TRAIN A" AND 567XX FOR "TRAIN B".
- EACH NITROGEN TRAIN HAS SEPARATE INSTRUMENT AIR DISTRIBUTION MANIFOLD

Nexen Petroleum (U.K.) Limited Golden Eagle Area Development				
VENDOR : INMACO AS				
EQUIPMENT TITLE : NITROGEN GENERATION PACKAGE				
EQUIPMENT TAG NO(S) : X-5602				
GEAD Vendor Document Number				
Purchase Order Number	Doc Type	Seq. No	Rev.	DATE
168397-200-PO-3368	MC2	001	06	23.04.12
INCLUDES DOCUMENT CODES :			TOTAL SHEETS : 1	
<input checked="" type="checkbox"/>	F	Final (accepted) - manufacturing may proceed.		
<input type="checkbox"/>	A	Qualified Release - revise and re-submit. Manufacturing may proceed subject to incorporation of comments.		
<input type="checkbox"/>	R	Rejected - revise and re-submit. Manufacturing may not proceed.		
<input type="checkbox"/>	I	Accepted for information only.		
Review of Vendor documents does not relieve Vendor of the responsibility for correctness under the Purchase Order. Permission to proceed does not constitute acceptance of design, detail and calculations, test methods or materials developed or selected by the Vendor and does not relieve the Vendor from full compliance with the Purchase Order or any other obligations, nor detract from any of the Purchaser's rights.				
Engineer :			Date : 04.05.12	

REV.	DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
06	23.04.2012	For review and comment			
05	12.03.2012	For review and comment			
04	01.03.2012	For review and comment			
03	06.01.2012	For review and comment			
02	27.12.2011	For review and comment			
01	13.10.2011	For review and comment			

INMACO		Tag no.:
PACKAGE NO: X-5602		
PROJECT		
Golden Eagle Area Development		
DRAWING TITLE		
P&ID DRAWING NITROGEN GENERATION PACKAGE		
DOCUMENT CATEGORY	DWG SIZE	SUPPLIER DRAWING NO.
CONTRACT NO.	A3	1850-210
SCALE	SYSTEM CODE	DRAWING NO.
NTS	AREA CODE	168397-200-PO-3368-MC2-001
PURCHASE ORDER NUMBER		DOC. TYPE SEQ. NO
		REV.

AIR INLET FILTERS TAG: F-5602A/B	MEMBRANE TAG: Y-5602A/B-01/02/03/04/05	MEMBRANE SEPARATOR PERFORMANCE EACH TRAIN
SIZE OD x TOTAL LENGTH (mm) : 168 x 983	SIZE OD x TOTAL LENGTH (mm) : 244 x 1080	AIR INLET: 830 Sn3/h, 30°C
DESIGN TEMPERATURE (Deg C) : -7.6 / + 65	MAX OPERATING PRESSURE (Barg) : 14	INLET PRESSURE: 11 Barg
DESIGN PRESSURE (Barg) : 14	MAX OPERATING TEMP (Deg C) : 60	CAPACITY: 325 Sn3/h @ > 97% N ₂
MAX. FLOW (SM3/H) : 1030	DESIGN CODE : SEP - NOTE 10	OUTLET PRESSURE: ~9.5 Barg
DESIGN CODE : PED 97/23/EC	DESIGN TEMP (Deg C) : 80	
MANUFACTURER : PARKER	NUMBER OF INSTALLED UNITS : 5 (each train)	
TYPE : AAR	MANUFACTURER : UBE	
PARTICLE SIZE : 0.01 Micron	MODEL : NM-710FSS	

Note: Inlet pressure at skid inlet flange
Outlet pressure at skid outlet flange

NOZZLE SCHEDULE				
NOZZLE	SERVICE	SIZE	RATING	SPEC.
N1	FEED AIR INLET	3"	ANSI B 16.5, Cl. 150 #, RF	
N2	NITROGEN OUTLET	2"	ANSI B 16.5, Cl. 150 #, RF	
N3A/B	PERMEATE / VENT	4"	ANSI B 16.5, Cl. 150 #, RF	
N4A/B	NITROGEN OFF SPEC / VENT	3"	ANSI B 16.5, Cl. 150 #, RF	