



REFERENCE DOCUMENTS

SYMBOLS AND ABBREVIATIONS (I-ET-3000.00-1200-941-PPC-002)  
 PFD-GAS COMPRESSION SYSTEM (I-DE-3010.49-1223-943-PPC-002)

EQUIPMENTS				
TAG	DESCRIPTION	TYPE	CAPACITY	
C-UC-122301A/C (3x50%)	GAS COMPRESSION UNIT COMPRESSOR	CENTRIFUGAL	2400000m <sup>3</sup> /d	
P-UC-122301A/C-01 (3x50%)	GAS COMPRESSION UNIT 1st STAGE INLET COOLER	SHELL AND TUBE	4.09 x 10 <sup>6</sup> W	
P-UC-122301A/C-02 (3x50%)	GAS COMPRESSION UNIT 1st STAGE AFTER-COOLER	SHELL AND TUBE	6.33 x 10 <sup>6</sup> W	
P-UC-122301A/C-03 (3x50%)	GAS COMPRESSION UNIT 2nd STAGE COOLER	SHELL AND TUBE	5.57 x 10 <sup>6</sup> W	
P-UC-122301A/C-04 (3x50%)	GAS COMPRESSION UNIT DISCHARGE COOLER	SHELL AND TUBE	7.72 x 10 <sup>6</sup> W	
V-UC-122301A/C-01 (3x50%)	1st STAGE INLET GAS K.O.DRUM	VERTICAL	2400000m <sup>3</sup> /d	
V-UC-122301A/C-02 (3x50%)	1st STAGE DISCHARGE GAS K.O.DRUM	VERTICAL	2400000m <sup>3</sup> /d	
V-UC-122301A/C-03 (3x50%)	2nd STAGE DISCHARGE GAS K.O.DRUM	VERTICAL	2400000m <sup>3</sup> /d	
UC-122301A/C (3x50%)	GAS COMPRESSION UNIT	-	2400000m <sup>3</sup> /d	
LP-122304 (1x100%)	PNA-1 GAS PIPELINE LAUNCHER	-	16"	
T-123301A/C (3x50%)	TEG CONTACTOR	PACKED	2400000m <sup>3</sup> /d	
V-T-123301A/C (3x50%)	TEG CONTACTOR K.O. DRUM	VERTICAL	2400000m <sup>3</sup> /d	

GENERAL NOTES

- VOID.
- THE STREAM CHARACTERISTICS PRESENTED IN THIS FLOW DIAGRAM REFERS TO THE NORMAL COMPRESSOR DISCHARGE CASE OF 17750 kPa abs.
- HYDRATE INHIBITOR AND/OR CORROSION INHIBITOR INJECTION.
- GAS COMPRESSOR SUCTION PRESSURE REPRESENTS MINIMUM OPERATING PRESSURE CASE OF 951 kPa abs. AT THE PACKAGE INLET.
- OIL AND WATER VOLUMETRIC FLOW RATES ARE STANDARD VALUES AT 15.6°C AND 101.3 kPa abs.
- GAS FLOWRATE AT 20°C AND PRESSURE OF 101.3 kPa abs.
- TWO STAGES OF GAS COMPRESSION UNIT TO BE DEFINED BY MANUFACTURERS WILL HAVE BACK-TO-BACK ARRANGEMENT.
- VOID.
- THE GAS COMPRESSION SYSTEM:  
 3 x 50% ELECTRIC MOTOR DRIVEN COMPRESSOR UNITS  
 3 x 50% PROCESS SKIDS
- THE PERFORMANCE CHARACTERISTICS OF EQUIPMENT AND SYSTEMS, AS SHOWN ON THE UPPER PART OF THIS DRAWING ARE DESIGN DATA AND MAY NOT AGREE WITH THE BALANCE INFORMATION HERE UNDER WHICH ARE ACTUAL EQUILIBRIUM VALUES FOR THE CASE SHOWN.
- VOID.
- VOID.
- THE MASS AND ENERGY BALANCE INSIDE OF THE COMPRESSION UNIT PACKAGE IS VENDOR'S RESPONSIBILITY AND SHALL BE REVISED DURING DETAILED DESIGN.
- CHARACTERISTICS OF C12+ FRACTIONS:  
 FROM ENCHOVA PM-560, API-23.69  
 FROM MARLIM PM-550, API-18.80
- MASTER PERFORMANCE CONTROL REFERS TO 17750 kPa abs. AND 20691 kPa abs. COMPRESSOR DISCHARGE PRESSURE HEADERS.
- ACTUAL DENSITY
- VOID.
- THE GAS PROCESS INFORMATION SHALL NOT BE CONSIDERED AS BASIS FOR COMPRESSORS DESIGN. FOR MORE INFORMATION ABOUT THE MOTOCOMPRESSORS PACKAGE, SEE DEMAG DRAWINGS:  
 - DE-0157-P43-A1-101-001  
 - DE-0157-P43-A1-101-002

STREAM CHARACTERISTICS	34	35A	35B	35C	36A	37A	38A	39A	40A	41A	42A	43A	44A	45A	46A	47A	48A	49A	50A	51A	52A	53A	44A	55A	56A	57A	57B	57C	57D	57E	57F	57G	57H	57I	57J	57K	57L	57M	57N	57O	57P	57Q	57R	57S	57T	57U	57V	57W	57X	57Y	57Z							
WATER H2O	4.23	4.23	4.23	0.00	4.51	4.51	60.17	60.17	0.79	0.79	0.79	0.87	7.43	7.43	0.25	0.25	0.25	2.05	2.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
NITROGEN N2	0.79	0.79	0.79	0.00	0.73	0.73	0.01	0.01	0.77	0.77	0.77	0.74	0.04	0.04	0.81	0.81	0.81	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
CARBON DIOXIDE CO2	0.26	0.26	0.26	0.00	0.24	0.24	0.01	0.01	0.26	0.26	0.26	0.25	0.07	0.07	0.27	0.27	0.27	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

DD-P-43-P.10-003

REVISED

Rev	Date	Description	BY	CHK	LEAD	WGHT	KBR	OWNER
B01	31 MAY-01	RELEASED FOR DESIGN ADP 0339/01	NSM	GRR	RSS	RAC	RJ	
A01	10 APR-01	FOR COMMENTS	NSM	GRR	RSS	RAC		
001	26 MAR-01	INTER DISCIPLINE CHEC (IDC)	GRR	RSS	RSS	RAC		

THIS DOCUMENT IS THE PROPERTY OF PETROBRAS AND IT IS PROTECTED IN ACCORDANCE WITH PREVALENT LAW. IT SHALL ONLY BE USED FOR THE PURPOSE IT IS DELIVERED.

**PETROBRAS**  
 PETRÓLEO BRASILEIRO S.A.  
 BARRACUDA & CARATINGA Leasing Corporation

**Brown & Root Energy Services**  
 inepar

USER: **E & P BACIA DE CAMPOS**

PROJECT TITLE: **PRODUCTION FACILITIES PROJECT BARRACUDA AND CARATINGA CRUDE OIL FIELDS**

UNIT: **FPSO UNIT - P-43**

DRAWING TITLE: **FIGURA 3.2.3-e PROCESS FLOW DIAGRAM GAS COMPRESSION SYSTEM (MAXIMUM OIL/TOTAL LIQUID CASE YR 2005)**

CS APPROVAL: [ ] OWNER APPROVAL: [ ] COPY TOTAL: [ ] BB: [ ] LIFE CYCLE: [ ] DATE: 26-MAR-01

DRAWN BY: GCR DESIGNED BY: GRR CHECKED BY: GRR APPROVED BY: RSS

PRJ. NUMBER: I-DE-FBT-1223-PR-P.10-002 SCALE: REV.: [ ]

BR NUMBER: I-DE-3010.49-1223-943-IES-002 SHEET: 01 / 02 B01