



ZZZ-1400 PRODUCED WATER TREATMENT PACKAGE	ZBM-1420A/B DEOILING HYDROCYCLONE	PBA-1415A/B/C WATER COLLECTION / SKIM VESSEL PUMP	MBM-1410 WATER COLLECTION / SKIM VESSEL	PBA-1435A/B FLOTATION CELL PUMP	MBM-1430 FLOTATION CELL	HPL-1440A/B PRODUCED WATER COOLER
	CAPACITY, STDm ³ /d: 14,621 EACH DP, kPag / DT, °C: 1,650 / 125.0 OP, kPag / DT, °C: 920 / 53-95 CONFIGURATION: 2x50% MATERIAL: BODY: DUPLEX SS LINER: DUPLEX SS	CAPACITY, m ³ /d: 14,621 EACH DP, kPa: 520 POWER, kW: 85 TYPE: CENTRIFUGAL CONFIGURATION: 3x50% MATERIAL: API 610 D-1	DP, kPag / DT, °C: 690 / 125.0 OP, kPag / DT, °C: 400 / 53-95 CONFIGURATION: 1x100% MATERIAL: BODY: CARBON STEEL + 904L CLADDING INTERNAL: DUPLEX SS	CAPACITY, m ³ /d: 11,448 DP, kPa: 350 POWER, kW: 90 TYPE: CENTRIFUGAL CONFIGURATION: 2x100% MATERIAL: API 610 D-1	DP, kPag / DT, °C: 690 / 125.0 OP, kPag / DT, °C: 174 / 53-95 CONFIGURATION: 1x100% MATERIAL: BODY: CARBON STEEL + 904L CLADDING INTERNAL: DUPLEX SS	DUTY kW: 27,514 HOT DP, kPag / DT, °C: 1,600 / 125 HOT OP, kPag / DT, °C: 154 / 81 COLD DP, kPag / DT, °C: 1,600 / 125 COLD OP, kPag / DT, °C: 549 / 40 CONFIGURATION: 2x50% NOTE 4 MATERIAL: FRAME: CARBON STEEL + 3mm-CA PLATES: TITANIUM GASKET: HNBR

- NOTES:
- DELETED.
 - DELETED.
 - DEOILING HYDROCYCLONE BYPASS DURING START UP.
 - TO ACHIEVE 40°C PRODUCED WATER OUTLET TEMPERATURE BOTH COOLERS HPL-1440A AND B SHALL OPERATE. FOR ONE COOLER OPERATION THE PRODUCED WATER OUTLET TEMPERATURE WILL BE 60°C.
- REFER VENDOR DOCUMENT 0428-90-1400-G12-0007 FOR MASS BALANCE.

HOLDS: 1. DELETED

ISSUED FOR CONSTRUCTION
25 AUGUST 2015

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REV	DATE	REVISION DESCRIPTION	ORIG	CHKD	LDE	EM
0	25AUG15	IFC	VPN	LAL	SVK	TXM
C1	13APR15	REVISED - IFD	VPN	SAH	SVK	TXM
C	19JAN15	IFR	VPN	SAH	SVK	TXM
B4	04NOV14	IFR	VPN	KN	MY	TXM

Schahin **MODEC**

Drawn by: V. NUESTRO
Checked by: S. ANAND
Date: 03 NOVEMBER 2014
Scale: NONE

MODEC DRG FILE: 0428-MI20-90DP-3021-01-0.dwg

PETROBRAS
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PROJECT: FPSO Cidade de Campos dos Goytacazes MV29

TITLE: PROCESS / UTILITY FLOW DIAGRAM
PRODUCED WATER SYSTEM

MODEC DOCUMENT NUMBER: 0428-MI20-90DP-3021
REV: 0