



ROMANIAN ENGINEERING AND DESIGN
INSTITUTE FOR OIL REFINERIES
PLOIESTI - ROMANIA

MATERIAL REQUISITION

NO. 1276.00-36-6013.MR

REV.
1

SHEET 1 OF 4

MAGNETIC LEVEL GAUGE

REV.	DATE	BY	CH'D	APP'D
0	01.2018	MSC	AMA	DCR
1	10.2019	MSC	PAM	AMA
2				
3				
4				

JOB: 1276/2017
CUSTOMER: S.C. PETROTEL LUKOIL S.A.
UNIT: CLOSED BLOWDOWN SYSTEM

SHOP INSPECTION
YES ☐ , NOT ☐

ATTACHMENTS

1. VENDOR'S DRAWINGS AND DATA REQUIREMENTS

NO. 1276.00-36-6013.MR SHEETS 2/4 ÷ 3/4

2. DESIGNER REQUEST NO. 1276.00-36-6013.MR

SHEET 4/4

3. MAGNETIC LEVEL GAUGE -

PROJECT SPECIFICATION NO. 1276.00-36-6014.SP

SHEETS 1/6 ÷ 6/6

FURNISH AND DELIVER THE ITEMS BELOW TO: _____

MATERIAL REQUIRED AT: _____
NOT LATER THAN: _____

ITEM No.	QUANTITY AND UNIT	SIZE AND DESCRIPTION	CODE	
1.	1 SET	VENDOR'S DRAWINGS AND DATA REQUIREMENTS ACC.		
2.		TO NO. 1276.00-36-6013.MR SHEETS 2/4 ÷ 3/4		
1.				
2.	1 LOT	MAGNETIC LEVEL GAUGE AS PER		
3.		PROJECT SPECIFICATION NO. 1276.00-36-6014.SP		
4.		SHEETS 1/6 ÷ 6/6		
5.				
6.	1 SET*	SPARE PARTS LIST FOR TWO YEARS OPERATION		
7.				
8.				
9.				
10.				
11.				
12.				
13.				

NOTES: *WILL BE CONFIRMED BY THE CUSTOMER



DRMU-0845-11.03.20

CODE: 07 936E-08-0

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**MATERIAL REQUISITION
MAGNETIC LEVEL GAUGE****NO. 1276.00-36-6013.MR****REV.****1****SHEET 2 OF 4****VENDOR'S DRAWINGS AND DATA REQUIREMENTS**

DWG. CODE	TYPE OF DRAWINGS/DOCUMENTS DESCRIPTION	DWG. REQ'D. (YES/NOT)	REQ'D NO. OF		NO. OF WEEKS
			CD's	PRINTS	
A1	Arrangement drawings with outline dimensions including details for foundation design	-	-	-	-
B	Cross sections and lists of components	-	-	-	-
C1	Hydrostatic and leak test certificates	YES	1	6	6
C2	Calibration certificates and documents	YES	1	6	6
D1	Interconnection diagrams (electrical)	YES	1	3*/6	2*/4
D2	Wire and cable layouts	-	-	-	-
D3	Piping and instrument diagrams (P&ID)	-	-	-	-
D4	Fabrication acceptance tests (FAT) certificates	YES	1	6	6
E1	Certificates & declarations of conformity (see Notes)	YES	1	3*/6	2*/6
E2	Operating instructions	YES	1	6	4
F	Assembly and installation details	YES	1	3*/6	2*/4
G	Handling drawings (weights and weight centers)	YES	1	6	4
H1	List of recommended priced spare parts	YES	1	6	4
H2	Specifications	YES	1	3*/6	2*/4
J1	Material specifications	YES	1	3*/6	2*/4
J2	Calculation sheets	-	-	-	-
J3	Index of documents	YES	1	3*/6	2*/4
K	Rivet and bolt schedule	-	-	-	-
L	List of special tools and devices	-	-	-	-
M	Store instructions	YES	1	6	4
P	Shipment, installation and start up instructions	YES	1	6	4
Q	Maintenance instructions	YES	1	6	4
R	Trouble shooting manual	YES	1	6	4
T	Vendor data book	-	-	-	-
V					
W					
Z					
Y					

NOTES:

EC marking, declarations of conformity and certificates should comply with:

- Certification Module H
- Declaration of conformity and examination certificate ATEX:94/9/EC
- Declaration of conformity EMC:89/336/EEC with amendments 91/263/EEC, 92/31/EEC, 93/68/EEC
- Material certificate: EN 10204 type as per project spec.
- Declaration of conformity PED:97/23/EC



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**MATERIAL REQUISITION
MAGNETIC LEVEL GAUGE**

NO. 1276.00-36-6013.MR

REV.

1

SHEET 3 OF 4

VENDOR'S DRAWINGS AND DATA REQUIREMENTS

INSTRUCTIONS

1. THE SUPPLY OF VENDOR DRAWINGS AND DATA CALLED FOR HEREIN SHALL BE COMPLETED BEFORE RENDERING FINAL INVOICES.
 2. DOCUMENTS SHALL SHOW EQUIPMENT NUMBERS, PURCHASE ORDER NUMBERS AND VENDOR'S OWN TITLE DRAWING AND REVISION NUMBERS, ALL IN THE LOWER HAND CORNER.
 3. DOCUMENTS SHALL BE ACCOMPANIED BY QUADRUPLICATE COPIES OF A LETTER LISTING PURCHASE ORDER NUMBERS, EQUIPMENT NUMBERS, WORK REFERENCE NUMBER, AND SHALL BE DISPATCHED(BY MAIL) IN THE FOLLOWING MANNER :
 - a) ONE COPY OF ALL DRAWINGS/DOCUMENTS AS LISTED IN THE TABLE ALONGSIDE TO THE FOLLOWING ADDRESS : **TITULAR OF THE PURCHASE ORDER**
 - b) THE REMAINING COPIES OF ALL DRAWINGS/DOCUMENTS TOGETHER WITH THE CD'S AS LISTED IN THE TABLE ALONGSIDE TO THE FOLLOWING ADDRESS:

S.C. "IPIP S.A."
18, DILIGENȚEI STR.
PLOIEȘTI-ROMÂNIA.
- ONE COPY OF ALL DRAWINGS/DOCUMENTS IN ADDITION TO THE NUMBER OF PRINTS LISTED IN THE TABLE ALONGSIDE WILL BE PACKED WITH THE EQUIPMENT / MATERIALS AS PER GENERAL PURCHASE CONDITIONS.
4. DRAWINGS OR DATA RETURNED TO VENDOR FOR REVISION SHALL BE RESUBMITTED WITHIN ONE WEEK. ALL CHANGES INCLUDED IN THE OFFER DURING REVISIONS SHALL BE CLEARLY MARKED WITH REVISION SYMBOL.
 5. CORRESPONDENCE ACCOMPANYNG REVISED DRAWINGS AND DATA MUST SHOW PURCHASE ORDER NUMBER.
 6. OPERATING INSTRUCTIONS SHALL COVER ALL COMPONENTS OF THE ORDER IF THE VENDOR IS FURNISHING SIMILAR EQUIPMENT ON SEVERAL ORDERS FOR THE PROJECT, A COMPOSITE INSTRUCTION MANUAL SHALL BE PROVIDED.
 7. BUYER'S APPROVAL OF DRAWING AND DATA IS REQUIRED PRIOR TO FABRICATION.
 8. BUYER'S APPROVAL OF CERTIFIED DRAWINGS IS REQUIRED PRIOR TO SHIPMENT.
 9. EXTERN RIGHT HAND COLUMN SPECIFIES THE MAXIMUM NUMBER OF WEEKS DURING WHICH THE FINAL DRAWINGS MUST BE COMPLETED FROM THE DATE OF PURCHASE ORDER.
 10. ALL DOCUMENTS TO BE SUBMITTED IN THE ENGLISH LANGUAGE.
 11. DIMENSIONS, WEIGHTS AND MEASURES FOR DRAWINGS, ETC., TO BE METRIC UNITS.
 - 12.* DATA REQUIRED WITH BIDS.



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**MATERIAL REQUISITION
MAGNETIC LEVEL GAUGE**

NO. 1276.00-36-6013.MR

REV.

1

SHEET 4 OF 4

DESIGNER REQUEST

THE OFFER MUST FULLY COMPLY WITH THE PROJECT SPECIFICATIONS.

IN CASE OF DEVIATIONS FROM THE PROJECT SPECIFICATIONS, THESE DEVIATIONS SHALL BE LISTED SEPARATELY AND EXPLANATIONS INCLUDED (SEE MODEL BELOW).

NO.	SPECIFICATION NO., ARTICLE, PAGE	SPECIFIED REQUIREMENTS	DEVIATIONS	JUSTIFICATIONS

BIDDER'S NAME:

BIDDER'S SIGNATURE:

DATE:

IF THE ABOVE ARE NOT FULFILLED, THE OFFERS SHALL NOT BE TAKEN INTO CONSIDERATION.



DRMU-0845-11.03.20

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ENGINEERING
AND DESIGN INSTITUTE
FOR OIL REFINERIES
PLOIESTI - ROMANIA

PROJECT SPECIFICATION

NR. 1276.00-36-6014.SP

REV.

2

MAGNETIC LEVEL GAUGE

SHEET 1 OF 6

JOB 1276/2017
CUSTOMER SC PETROTEL LUKOIL SA
UNIT CLOSED BLOWDOWN SYSTEM

REV.	DATE	BY	CH'D	APP'D
0	01.2018	MSC	AMA	DCR
1	01.2018	MSC	AMA	DCR
2	10.2019	MSC	PAM	AMA
3				
4				

MAGNETIC LEVEL GAUGE

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DRMU-0845-11.03.20



PROJECT SPECIFICATION
MAGNETIC LEVEL GAUGE

NR.1276.00-36-6014.SP

REV.

2

SHEET 2 OF 6

General notes:

1. Level gauge 02-LG-1302,1309 will be supplied in complete with two flashing ring each (ND40, NP40, B1, X2CrNiMo17-12-2 or equal)
2. All flushing ring will be supplied:
 - With two flushing ports 1/2"NPT female
 - In complete with: with 1/2"Ball valve (BW 1/2 NPT Female) to first port and 1/2"NPT plug at second port

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DRMU-0845-11.03.20

Requisition number:

P. O. number:

Rev. No.	Item Number	Tag Number	Instrument Type	Page No.
2	1	02-LG -1302	LEVEL GAUGE	S-1
2	2	02-LG -1304	LEVEL GAUGE	S-2
(1)	3	02-LDG-1306 - Deleted		
2	4	02-LG -1309	LEVEL GAUGE	S-3
(1)	5	02-LG -1312 - Deleted		
(1)	6	02-LG -1313 - Deleted		



DRMU-0845-11.03.20

Domain: IPIP SA

Plant: SC Petrotel Lukoil SA

Area: DCU

Unit: Closed Blowdown System

				Binder Package	
				Formal issue Date: 2019-10-02	
				Instrument Specification List	
				Project specification - MAGNETIC LEVEL GAUGE	
2	MSC	2019-10-02	For BID inquiry		Page I-1 of 1
1	MSC	2018-01-26	For approval		
0	MSC	2018-01-05	First issue		
No.	By	Date	Description	Doc. No.: 1276.00-38-6014.SP	Rev.: 2

GENERAL	1	Tag Number		02-LG -1302	
	2	Service		Level in 02-C-301	
	3	Location		Field	
	4	Area Classification		Zone 2, Ex d, IIB T4/T6	
	5	Ambient Temperature		-28 + +45°C	
PROCESS CONDITIONS	6	Fluid		Slops	
	7	Oper. Temperature	Max. Temperature	217 °C	450 °C
	8	Oper. Pressure	Max. Pressure	0.88 bar-g	4 bar-g
	9	Oper. Specific Gravity		0.856	
	10	Design Press./Temp. Max.		4Barg / 450°C	
	11				
	12				
GAUGE	13	Type		Magnetic	
	14	Distance from Center Line of Vessel		mm	
	15	Sections Required			
	16	Connection Size	Rating	ND40	NP40
	17	Connection Arrangement		Side-Side	
	18	Body Material		X2CrNiMo17-12-2 or equal	
	19	Cover Material			
	20	Gasket Material			
	21	Float Material		X2CrNiMo17-12-2 or equal	
	22	Shield			
	23	Illuminator	Power Supply		
	24	Jacket or Internal Tracer			
	25	Frost Extension	Length		
	26	Calibration Range Min.	Max.		
	27	Connections Center Line Length		1500mm	
	28				
	29				
VALVES	30	Type		MFR.STD. acc. process conditions	
	31	Number Required			
	32	Body Material		X2CrNiMo17-12-2 or equal	
	33	Trim Material		X2CrNiMo17-12-2 or equal	
	34	Packing Material		MFR.STD.	
	35	Ball Check			
	36	Vessel	Size	Rating	
	37	Connection	Union		
	38	Gauge	Size	Rating	
	39	Connection	Union		
	40	Drain	Size	Rating	ND20 NP40
	41	Connection			
	42	Vent	Size	Rating	ND20 NP40
	43	Connection			
	44				
OPTIONS	46				
	47				
	48				
	49				
	50	Manufacturer		*	
PURCHASE	51	Model		*	
	52	Purchase Order Number			
	53	Price	Item Number		
	54	Serial Number			

Notes:

				INSTRUMENT SPECIFICATION		
				Level Gauge		
2	MSC	2019-10-02	For BID inquiry			Sheet S-1 of 3
1	MSC	2018-01-26	For approval			
0	MSC	2018-01-05	First issue			
No.	By	Date	Revision	Code: 16	Doc. No.: 1276.00-36-6014.SP	Rev.: 2



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GENERAL	1	Tag Number		02-LG -1304	
	2	Service		Level in 02-V-302	
	3	Location		Field	
	4	Area Classification		Zone 2, Ex d, IIB T3/T6	
	5	Ambient Temperature		-28 + +45°C	
PROCESS CONDITIONS	6	Fluid		Water	
	7	Oper. Temperature	Max. Temperature	202 °C	280 °C
	8	Oper. Pressure	Max. Pressure	15 bar-g	16.5 bar-g
	9	Oper. Specific Gravity		0.863	
	10	Design Press./Temp. Max.		16.5Barg / 280°C	
	11				
	12				
GAUGE	13	Type		Magnetic	
	14	Distance from Center Line of Vessel		mm	
	15	Sections Required			
	16	Connection Size	Rating	ND25	NP40
	17	Connection Arrangement		Side-Side	
	18	Body Material		X2CrNiMo17-12-2 or equal	
	19	Cover Material			
	20	Gasket Material			
	21	Float Material		X2CrNiMo17-12-2 or equal	
	22	Shield			
	23	Illuminator	Power Supply		
	24	Jacket or Internal Tracer			
	25	Frost Extension	Length		
	26	Calibration Range Min.	Max.		
	27	Connections Center Line Length		500mm	
	28				
	29				
VALVES	30	Type		MFR.STD. acc. process conditions	
	31	Number Required			
	32	Body Material		X2CrNiMo17-12-2 or equal	
	33	Trim Material		X2CrNiMo17-12-2 or equal	
	34	Packing Material		MFR.STD.	
	35	Ball Check			
	36	Vessel	Size	Rating	
	37	Connection	Union		
	38	Gauge	Size	Rating	
	39	Connection	Union		
	40	Drain	Size	Rating	ND20 NP40
	41	Connection			
	42	Vent	Size	Rating	ND20 NP40
43	Connection				
44					
45					
OPTIONS	46				
	47				
	48				
	49				
PURCHASE	50	Manufacturer		*	
	51	Model		*	
	52	Purchase Order Number			
	53	Price	Item Number		
	54	Serial Number			
Notes:					
				INSTRUMENT SPECIFICATION	
				Level Gauge	
2	MSC	2019-10-02	For BID inquiry		
1	MSC	2018-01-26	For approval		
0	MSC	2018-01-05	First issue		
No.	By	Date	Revision	Code: 16	Doc. No.: 1276.00-36-6014.SP
				Sheet S-2 of 3	
				Rev.: 2	

GENERAL	1	Tag Number		02-LG -1309	
	2	Service		Level In 02-V-301	
	3	Location		Field	
	4	Area Classification		Zone 2, Ex d, IIB T4/T6	
	5	Ambient Temperature		-28 + +45°C	
PROCESS CONDITIONS	6	Fluid		Slops	
	7	Oper. Temperature	Max. Temperature	55 °C	215 °C
	8	Oper. Pressure	Max. Pressure	0.43 bar-g	4 bar-g
	9	Oper. Specific Gravity		1	
	10	Design Press./Temp. Max.		4Barg / 215°C	
	11				
	12				
GAUGE	13	Type		Magnetic	
	14	Distance from Center Line of Vessel		mm	
	15	Sections Required			
	16	Connection Size	Rating	ND40	NP40
	17	Connection Arrangement		Side-Side	
	18	Body Material		X2CrNiMo17-12-2 or equal	
	19	Cover Material			
	20	Gasket Material			
	21	Float Material		X2CrNiMo17-12-2 or equal	
	22	Shield			
	23	Illuminator	Power Supply		
	24	Jacket or Internal Tracer			
	25	Frost Extension	Length		
	26	Calibration Range Min.	Max.		
	27	Connections Center Line Length		3200mm	
	28				
	29				
VALVES	30	Type		MFR.STD. acc. process conditions	
	31	Number Required			
	32	Body Material		X2CrNiMo17-12-2 or equal	
	33	Trim Material		X2CrNiMo17-12-2 or equal	
	34	Packing Material		MFR.STD.	
	35	Ball Check			
	36	Vessel	Size	Rating	
	37	Connection	Union		
	38	Gauge	Size	Rating	
	39	Connection	Union		
	40	Drain	Size	Rating	ND20 NP40
	41	Connection			
	42	Vent	Size	Rating	ND20 NP40
	43	Connection			
44					
45					
OPTIONS	46				
	47				
	48				
	49				
PURCHASE	50	Manufacturer		•	
	51	Model		•	
	52	Purchase Order Number		•	
	53	Price	Item Number		
	54	Serial Number			

Notes: 2.The material will be in acc. with NACE MR0103 last edition.

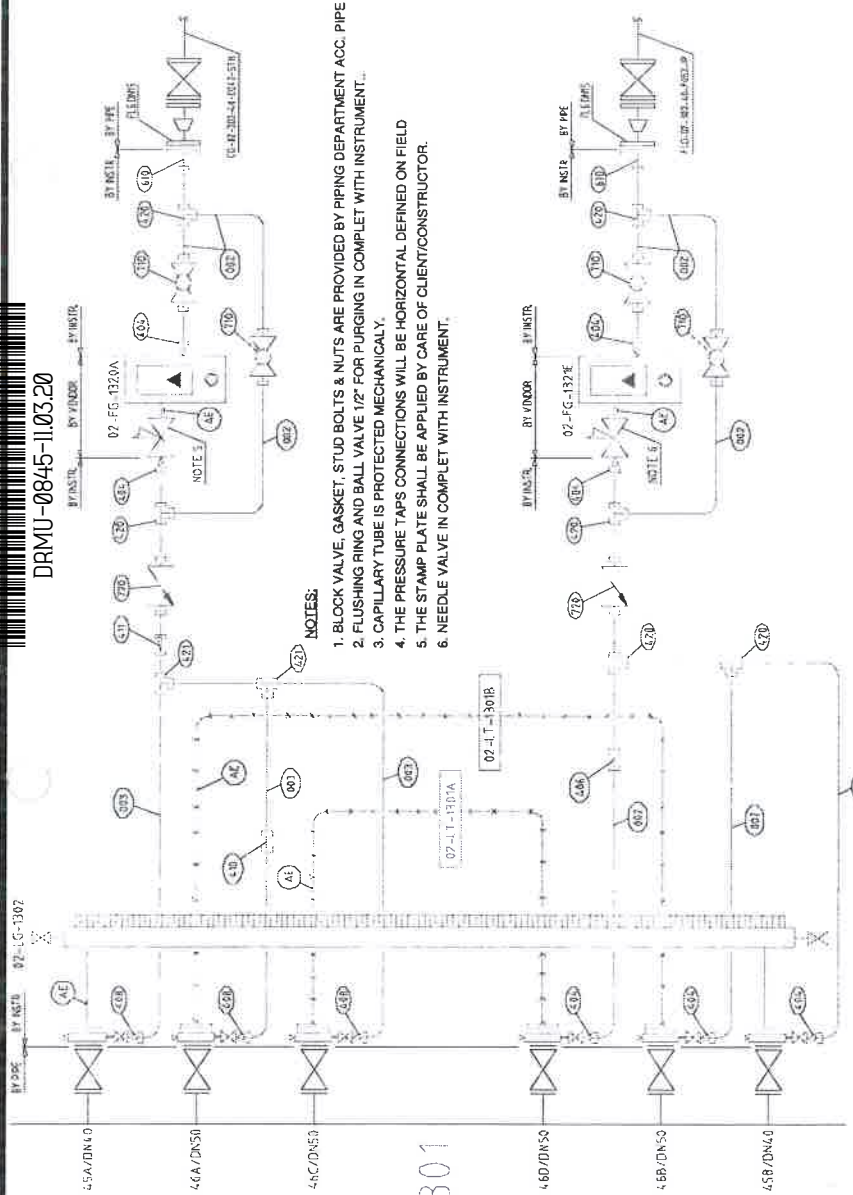
				INSTRUMENT SPECIFICATION		
				Level Gauge		
2	MSC	2019-10-02	For BID inquiry			
1	MSC	2018-01-26	For approval			
0	MSC	2018-01-05	First issue			Sheet S-3 of 3
No.	By	Date	Revision	Code: 16	Doc. No.: 1276.00-36-6014.SP	Rev.: 2



DRMU-0845-1103.20



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NOTES:

1. BLOCK VALVE, GASKET, STUD BOLTS & NUTS ARE PROVIDED BY PIPING DEPARTMENT ACC. PIPE CLASS.
2. FLUSHING RING AND BALL VALVE 1/2" FOR PURGING IN COMPLET WITH INSTRUMENT.
3. CAPILLARY TUBE IS PROTECTED MECHANICALLY.
4. THE PRESSURE TAPS CONNECTIONS WILL BE HORIZONTAL DEFINED ON FIELD
5. THE STAMP PLATE SHALL BE APPLIED BY CARE OF CLIENT/CONSTRUCTOR.
6. NEEDLE VALVE IN COMPLET WITH INSTRUMENT.

Tag List
02-FG-1320A
02-FG-1321E
02-LG-1302
02-LT-1301A
02-LT-1301B

Number	Description	Size	Material	Rating	Quantity	UOM	Manufacturer	Model
AE	STAMP PLATE, ACC.HG.123	by customer	DS-34.297-4	*	5	pcs	LATER	mfr std
406	UNION	12mmX12mm	ASTM A182 F316	*	3	pcs	LATER	mfr std
002	TUBING STEINLESS STEEL	12mm O.D. X 15mm THK	ASTM A268 TP316	*	20	m	LATER	mfr std
404	MALE CONNECTOR	1/2" NPT-M X 12mm	ASTM A182 F316	*	7	pcs	LATER	mfr std
410	UNION FOR TUBING	10mm X 10mm	ASTM A182 F316	*	7	pcs	LATER	mfr std
003	TUBING STEINLESS STEEL	8mm OD X 1mm THK	ASTM A 268 TP316	*	40	m	LATER	mfr std
408	MALE CONNECTOR	1/2NPT-M X 10mm	ASTM A182 F316	*	3	pcs	LATER	mfr std
420	UNION TEE FOR TUBING	12mmX12mm	ASTM A182 F316	*	6	pcs	LATER	mfr std
710	COMP. BALL VALVE WITH	12mm OD	ASTM A182 F316	*	4	pcs	LATER	mfr std
720	CHECK VALVE WITH TUBE	12mm OD	ASTM A182 F316	*	2	pcs	LATER	mfr std
610	FLANGE ADAPTOR	DN 5PN40, B1X12mmOD	ASTM A182 F316	WITH COMPRES FITTING	2	pcs	LATER	mfr std
421	UNION TEE FOR TUBING	6mmX6mm	ASTM A182 F316	*	2	pcs	LATER	mfr std
411	REDUCING UNION WITH	12mm X 6mm	ASTM A182 F316	*	1	pcs	LATER	mfr std

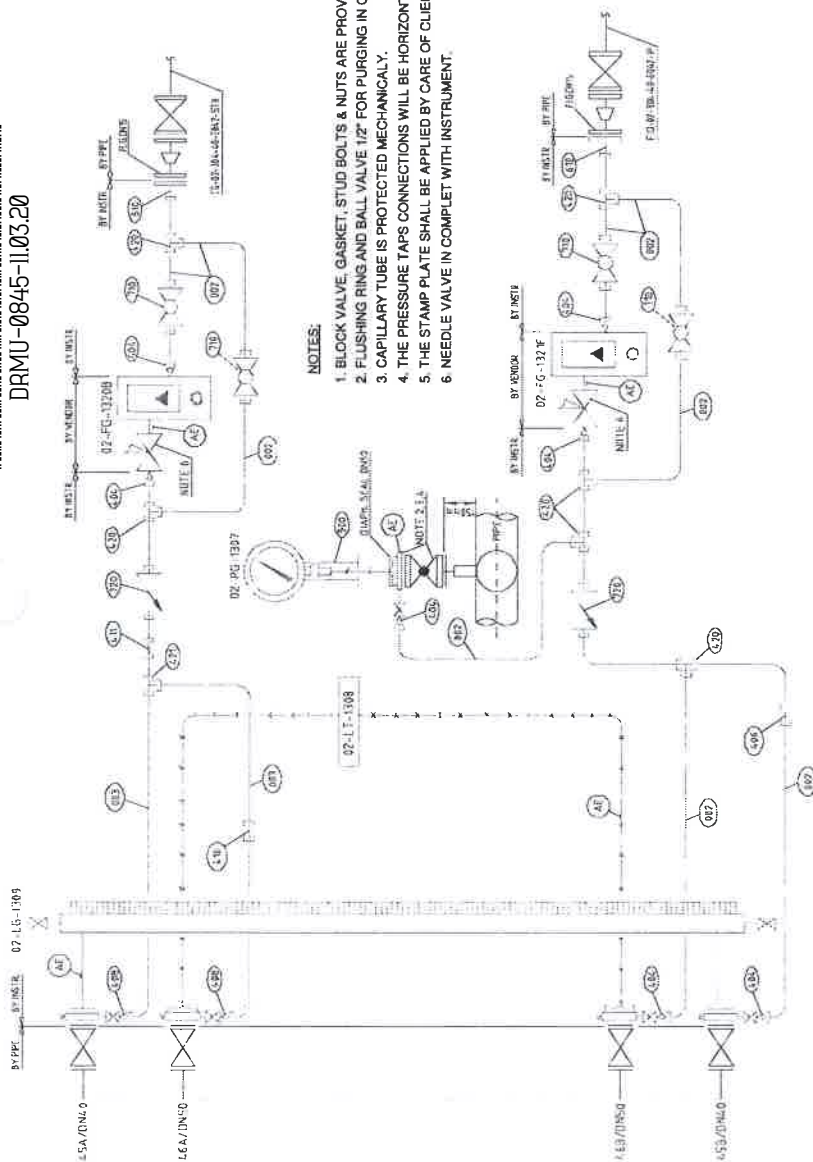
Customer: SC Petrotel Lukoil SA		Hook-Up Name : LG and LT with washing	
Project: 1276/2017		Drawing Name : 1276.00-36-6057.00	
Domain: Closed Blowdown System		Sheet 1 of 1	
No.	By	Chk	App
2	PAM	SSC	AMA
Date		12/12/2019	
For approval			
Revision			



DRMU-0845-11.03.20

07-LG-1309

Tag List
02-FG-1320B
02-FG-1321F
02-LG-1309
02-LT-1308
02-PG-1307



- NOTES:
1. BLOCK VALVE, GASKET, STUD BOLTS & NUTS ARE PROVIDED BY PIPING DEPARTMENT ACC. PIPE CLASS.
 2. FLUSHING RING AND BALL VALVE 1/2" FOR PURGING IN COMPLETE WITH INSTRUMENT.
 3. CAPILLARY TUBE IS PROTECTED MECHANICALLY.
 4. THE PRESSURE TAPS CONNECTIONS WILL BE HORIZONTAL DEFINED ON FIELD
 5. THE STAMP PLATE SHALL BE APPLIED BY CARE OF CLIENT/CONSTRUCTOR.
 6. NEEDLE VALVE IN COMPLETE WITH INSTRUMENT.

Number	Description	Size	Material	Rating	Quantity	UOM	Manufacturer	Model
AE	STAMP PLATE, ACC.HG.123	by customer	DS-34.297-4	-	5	pcs	LATER	mfr. std
900	INSTRUMENT SUPPORT	H=1700mm	-	-	1	pcs	LATER	ST17-2
406	UNION	12mm X 12mm	ASTM A182 F316	-	3	pcs	LATER	mfr. std
002	TUBING STEINLESS STEEL	12mm O.D. X 15mm THK	ASTM A269 TP316	-	20	m	LATER	mfr. std
404	MALE CONNECTOR	1/2" NPT-M X 12mm	ASTM A182 F316	-	5	pcs	LATER	mfr. std
410	UNION FOR TUBING	10mm X 10mm	ASTM A182 F316	-	5	pcs	LATER	mfr. std
003	TUBING STEINLESS STEEL	6mm OD X 1mm THK	ASTM A 269 TP316	-	30	m	LATER	mfr. std
408	MALE CONNECTOR	1/2NPT-M X 10mm	ASTM A182 F316	-	2	pcs	LATER	mfr. std
420	UNION TEE FOR TUBING	12mmx12mm	ASTM A182 F316	-	6	pcs	LATER	mfr. std
710	COMP. BALL VALVE WITH	12mm OD	ASTM A182 F316	-	4	pcs	LATER	mfr. ad.
720	CHECK VALVE WITH TUBE	12mm OD	ASTM A182 F316	-	2	pcs	LATER	mfr. ad.
610	FLANGE ADAPTOR	DN15PN40, B1X12mmOD	ASTM A182 F316	WITH COMPRES FITTING	2	pcs	LATER	mfr. std.
421	UNION TEE FOR TUBING	6mmx6mm	ASTM A182 F316	-	1	pcs	LATER	mfr. std.
411	REDUCING UNION WITH	12mm X 6mm	ASTM A182 F316	-	1	pcs	LATER	mfr. std.

Customer: SC Petrotel Lukoil SA

Project: 1276/2017

Domain: Closed Blowdown System

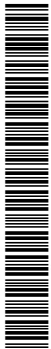
Hook-Up Name : PG, LG and LT with washing

Drawing Name : 1276.00-36-6057.00

ipip S.A.

Diligentei Street, No.18, Ploiesti, Romania

Sheet 1 of 1



DRMU-0845-11.03.20

