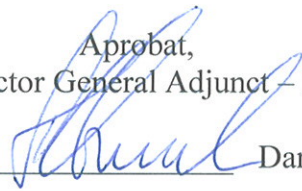


Aprobat,
Director General Adjunct – Inginer Sef


26.01 2016

**Tema Tehnica
pentru descarcare/incarcare adsorbent pentru
sistemul de eliminare a HCl instalatia RC**

1. Beneficiar: PETROTEL-LUKOIL SA Ploiesti, Romania
2. Scopul: Descarcarea si incarcarea adsorbentului de eliminare a HCl din gazele bogate in hidrogen
3. Amplasarea obiectivului: Instalatia RC
4. Termen prezentare oferta comerciala: 15.02.2016
5. Date initiale: 5.1. Cantitatea de adsorbent si material suport inert care se va descarca este :

Denumire	Volum, m ³	Inaltime, mm
<u>04-V13</u>		
Bile ceramice ¾ ”	0,570	150
Bile ceramice ¼ ”	0,570	150
Catalizator	30,411	8000
Bile ceramice ¼ ”	0,556	150
Bile ceramice ¾ ”	0,758	250

Catalizatorul este incarcat prin metoda “sock”.

6. Principalele cerinte:
 - 6.1. Se va prezenta grafic pe etape de efectuare a operatiunilor de descarcare/incarcare in functie de timp;
 - 6.2. Se va curata la interior vasul dupa efectuarea operatiei de descarcare ;
 - 6.3. Oferta tehnica va cuprinde necesarul de utilitati (aer, azot) pentru efectuarea operatiilor de descarcare/incarcare adsorbent.

- 6.4. Se va prezenta raportul final al activitatii de descarcare / incarcare, inclusiv diagrama de incarcare realizata.
- 6.5. Se va asigura toata logistica pentru realizarea lucrarilor de descarcare / incarcare, inclusiv macara, stivuitor si schele.
- 6.6. Se va asigura necesarul de garnituri .
- 6.7. Se vor asigura lucrarile mecanice: blindarea / deblindarea, deschiderea / inchiderea vasului, activitati de demontare / montare echipamente interioare, guri de vizitare, iar dupa montare se va asigura etanseitatea sistemului.
- 6.8. Se va evita pe durata operatiilor de descarcare/ incarcare formarea de praf, se va pastra zona de lucru curata.

7. Observatii:

- 7.1. Pe durata descarcarii se va mentine permanent o purja de azot in vas pentru a reduce la minim posibilitatea intrarii aerului atmosferic;
- 7.2. Adsorbentul descarcat trebuie separat de bile ceramice si depozitat in butoaie metalice etanse inscriptionate corespunzator;
- 7.3. Se vor respecta normele si legislatia de protectie SSM-SU in vigoare.

Director General Adj. Constructii Capitale

Y. I. Erogov

Tehnolog Sef

C. Niculescu

Ing. Sef Adjunct Productie

D. Parnau

Sef Serv. Suport Proiecte de Constructie

C. Dragomir

Sef Serv. Tehnic

S. Calinoiu

CODE: 32.603E-0

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ROMANIAN ENGINEERING AND DESIGN INSTITUTE FOR OIL REFINERIES PLOIESTI-ROMANIA

1247 DAIS 27.10.15

PROJECT SPECIFICATION

No. 0096.00-38-9000.PS-00

ROMANIAN ENGINEERING AND DESIGN INSTITUTE FOR OIL REFINERIES PLOIESTI-ROMANIA

VESSELS

SHEET 1 OF 3

REV	DATE	BY	CHK'D	APP'D
1	06.2012	HM	HM	CPT
2				
3				
4				

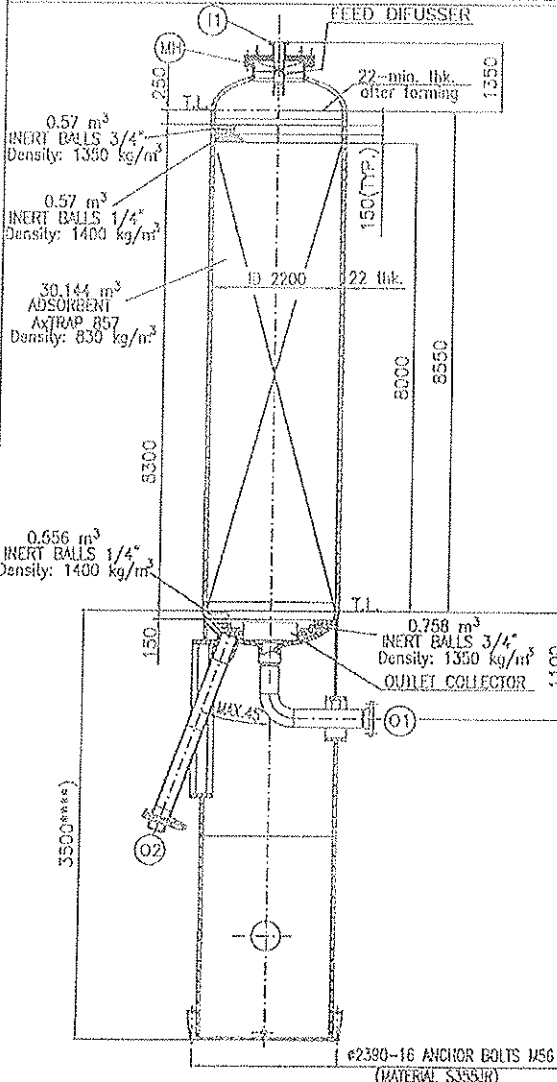
JOB 995/2011-- CHLORIDE REMOVAL FROM HYDROGEN RICH GAS

CUSTOMER S.C. PETROTEL-LUKOIL S.A. PLOIESTI

UNIT CCR PLATFORMING

NAME : HYDROGEN RICH GAS CHLORIDE ADSORBER

ITEM No.: 04-V13



CODE : ASME Code SEC.VIII DIV.1; HG no. 584/2004; HG no.1108/2005		
Design Pressure	MPa(bar)	1.97 (19.7)
Operating Pressure	MPa(bar)	1.25 (12.5)
Hydrst. Test Press.	MPa(bar)	2.9 (29.0)
Design Temperature min/max °C		121/minus 20
Operating Temperature max/min °C		40/38
Fluid		H2+HC *) a)
Specific Gravity	Kg/m³	**)
Corrosion Allowance	mm	3
Joint Efficiency		1
Nondestructive examination	%	100
Postweld Heat Treat		YES
Thermal Insulation	mm	---
Capacity	m³	35.3

MATERIALS FOR	QUALITY	STANDARD
Shell, Heads ***)	SA-516 Gr.60	ASME SA-516
Supports	SA-516 Gr.60/SA-283 Gr.60	ASME SA-516/SA-283
Flanges ***)	SA-350 Gr.LF2 Cl1	ASME SA-350
Fittings ***)	SA-420 Gr.WPL6	ASME SA-420
Pipes ***)	SA-333 Gr.6	ASME SA-333
Stud Bolts	SA-320 Gr.L7	ASME SA-320
Nuts	SA-194 Gr.4	ASME SA-194
Spiral wound gaskets	SS TP 316+graphite filler	---
Internals b)	SS TP 304L	---

NOZZLES AND MANWAYS					
Mark	No	Size	Rating	Facing	Service
11	1	8"	300#		INLET
01	1	8"	300#	RF	OUTLET
02	2	8"	300#		ADSORBENT UNLOADING NOZZLE
MH	1	ID24"	300#		MANHOLE

a) Actual content of HCl in the gas rich in hydrogen.
Content of HCl (ppmv) : normal=2, max=5.
b) Internals according AXENS VESSEL PROCESS DATA SHEET (sheet 1+11)
for vessel item: 04-V13.

ESTIMATED WEIGHT	
Empty	19600 Kg
In service	65000 Kg
Full of water	66600 Kg

REMARKS:
Attachment: AXENS VESSEL PROCESS DATA SHEET (sheet 1+11)
for vessel item: 04-V13.
*** Material shall comply with requirements AXENS
std. material specification no. IN-042.0
*** Will be confirmed by customer.

*)CHEMICAL COMPOSITION: H2:81.67 mol%; C1:5.41 mol%; C2:5.67 mol%; C3:4.19mol%; iC4:1.0 mol%; nC4:1.31 mol%; iC5:0.46 mol%; nC5:0.25mol%; mBC6:0.01 mol%; sbC6:0.02 mol%; nC6:0.01 mol%;
(*) 69.93, 299.7, 356, 507.2, 562.5, 583.8, 622.1, 630.4, 666.7, 657.3, 663.3.

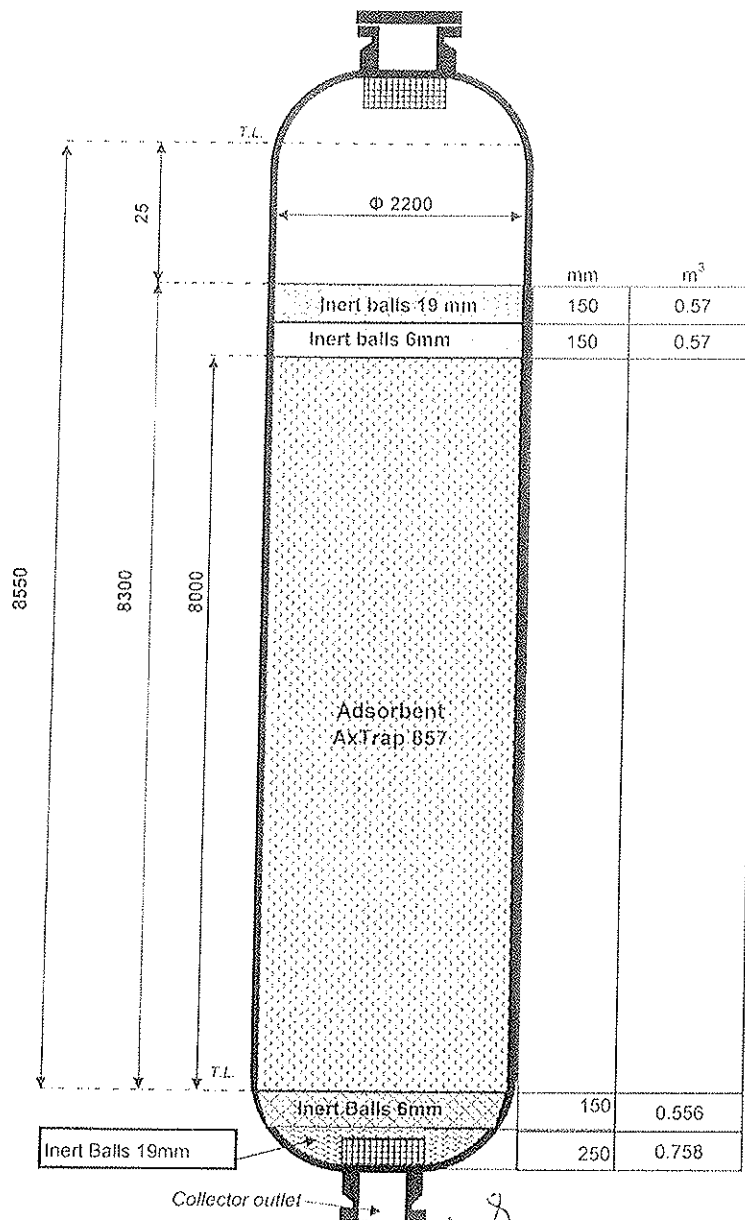
ACCESSORIES APPLIED BY FABRICATOR	
Ladder & Platform Clips	Yes
Fireproofing Insulation Clips	Yes
Davit Support	---

e2390-16 ANCHOR BOLTS M56 (MATERIAL SUPPLY)

Aprobat
Prim Adj. al Directorului General
Ing. Sef - D. Danulescu

DIAGRAMA DE INCARCARE A ADSORBERULUI

04-V13
DECEMBRIE 2012



Avizat:

Infocmit:

C. Niculescu

N. Sturzu