

PRIMARY OPERATING CONDITIONS

LINE / FG 20 LINE
VESSEL No (IPI) SIZE 6"

SERVICE
GAS / VAPOUR
LIQUID
STEAM

PRESSURE NORM 4.3
KG/cm² DESIGN 20.4
DIFFERENTIAL MIN
PRESSURE NORM
DESIGN

TEMPERATURE NORM 120
OC DESIGN 135

PRIMARY ELEMENT

SEALING LIQUID / SG
ISOLATION DAMPENER
SEAL POTS CS SS
DIAPHRAGM SEAL CS SS
W/PHON CS SS

PRIMARY INSTRUMENT

TRANSMITTER OTHER
PNEUMATIC ELECTRONIC
RANGE 0 - 10 kg/cm²
INPUT 0.2 - 1.0 "H₂O
COUNTING YOKE

TAYLOR 210 TF 138
BODY RATING MATL. SS
INDICATOR GLIND
TYPE - GAUGE PRESS.
DIFF. PRESS.
ABS. PRESS.

ELEMENT Bourdon tube
INTERGRATION HOUSING

NOTES:-
1. Vendor to confirm that materials selected are suitable for the operating conditions.
2. See Purch. Spec. Addendum for control valve noise requirements.
3. VALVE STROKING TIME 60 SECS.

CONTROL VALVE

LINE V-23 LINE
NUMBER (IPI) SIZE 6"

ACTUATOR - DIAPHRAGM 667-40
PISTON

ACCESSORIES - BONNET FINS/EXT.
LOCK-UP RELAY
POSITIONER
SIDE HANDWHEEL (NOTE 3)
61-H BOOSTER RELAY

ACTION ON AIR FAILURE
OPEN HOLD CLOSE

HOLD DRIFTS TO OPEN CLOSE
ACT. ON PRESS. RISE OPEN CLOSE

TYPE - STRAIGHT THROUGH ET
ANGLE
BUTTERFLY

SIZE 3" RATING 300 PSI FACING RF

MATERIAL PER PURCH. SPEC
OTHERWISE

TYPE LINEAR - SINGLE ST
REDUCED PORT SIDE 25% CAGE

MATERIAL PER PURCH. SPEC
OTHERWISE AISI 416

PROCESS FLUID FUEL GAS

FLOW AT MIN. NORM
STD. CONDS MAX. NORM
Nm³/h DES. MAX. 4085

SIZING MIN. NORM
ΔP 25/cm² MAX. NORM
DES. MAX. 3.0

INLET PRESSURE 4.2 kg/cm²

TIGHT SHUT-OFF AGAINST

OPERATING TEMP 105 °C

VISCOSITY AT OPER. TEMP.

SP. GR AT OPER. TEMP

UPSTREAM VAPOUR BY WT.

VAPOUR PRESS. AT INLET TEMP.

LIQUID FLOW

LIQUID DENSITY

VAPOUR FLOW

VAPOUR DENSITY

OPERATING TEMP

CALCULATED C₁/C₂/C₃ 3330

SELECTED C₁/C₂/C₃ 3430

P & I DIAG No. 63-D1

PURCHASING SPECIFICATIONS

PRIMARY INSTRUMENT 042 - L2 E

CONTROL VALVE 040 - L1 E

RECEIVER INSTRUMENT 040 - L2 E

REQUISITION No. 0101-021-101
0101-027-101
0101-177-204

RECEIVER DIRECT CONN.

RECORDER CONTROLLER
FBBA2-
23K010

CASE: STD. MIN LARGE

LOCAL BOARD MOUNTED

AUTOMATIC / MANUAL SWITCH

PNEUMATIC ELECTRONIC

SET POINT LOCAL REMOTE

CASCADE

CONTROL ACTION - PROPORTIONAL

INTEGRAL

DERIVATIVE

ON - OFF

ANTI-RESET WIND UP (LO LIMIT)

INPUT SIGNAL 0.2 - 1.0 kg/cm²

CHART SCALE 0 - 10 "

SCALE RANGE/FACTOR kg/cm²

CHART DRIVE - SPRING

PNEUMATIC ELECTRIC

VOLTS 42

TREND REC. DATA SHEET 850A7

ONE PEN TWO PEN THREE

ALSO RECORDS

RECORDS ON

ALARM

ANCILLARY EQUIPMENT

DESCRIPTION	QTY	B	R	DATA SHT
RECEIVER GAUGE	1	L		820C
RECEIVER SWITCH	1			235
SOLENOID VALVE				
AIR SET	1	L		
I/P CONVERTER				
P/I CONVERTER				
INST. POWER PACK				
BOOSTER RELAY				
ALARM UNIT	1			115

INSTRUMENT WIRING OR PIPING

DWG. REF.	DETAIL
861A	P6-6
861A33	P6-7

LABEL ENGRAVINGS

PIC-159
FUEL GAS VENT

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HOMS FERTILIZER PLANT

CREUSOT-LOIRE ENTREPRISES

KELLOGG INTERNATIONAL CORPORATION

BOARD, R - RACK, L - LOCAL

PRESSURE
LOOP DATA SHEET

ISSUED: 29 FEB 72

0 EE149
5168 850A2-159 3

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الشركة العامة للأسمدة

معمل الأمونيا - يوريا قسم المخابرات الكيميائية - مخبر الغاز (الوردية) (5) تاريخ ١٤/١١/٢٠١١

Time	Sample	CO2%	O2% +Ar	CO%	H2%	CH4%	N2%	NH3%	Remarks
	101B								
	103D								
	104DA								
	104DB								
	118F								
	104F								عينة لينة
	105 Inlet								
	105 outlet								
	108F		2.80		61.79	6.93	22.18	1.26	
	107F		2.98		59.93	12.51	22.18	11.4	
	P.Gas		2.28		61.82	2.00	26.60	2.8	
	102D مدخل H2S								
	102D مخرج H2S								

POTASSIUM CARBONATE

Time	sample	KOH gr/l	K2CO3 gr/l	KHCO3 gr/l	SP.G	Total as K2CO3 %	V2O5 ppm	D.E.A %	Remarks
	AA								
	BA								
	128								

ملاحظات

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PREFIX

NH

HOMS FERTILIZER PLANT
 FLOWSHEET NOMENCLATURE CREUSOT LOUVE ENTRE PRISES
 1000 MTPD AMMONIA PLANT

LINE			LINE DESCRIPTION			MAX. OPER		EMERG.		MIN. OPER		FLD. TEST		FLOW DIAG.	FLEX CALC.
No.	SIZE	SPEC.	FLO MED	FROM	TO	Temp	Press	Temp	Press	Temp	Press	Test Med	Press		
NH-1	3"	3PI	L	106-F	SPEC BRK	-23	14.4	50	17.7	-29		H	22.0	62-D10	
	4"	3RIB	1/2	SPEC BRK	SPEC BRK	-23	16.1	50	20.4	-29		H	24.5	62-D10	
	4"	1PI	1/2	SPEC BRK	107-F	-23	16.1	50	20.4	-29		H	24.5	62-D10	
NH-2	4"	1PI	L	107-F	SPEC BRK	-23	16.1	50	20.7	-28		H	24.5	62-D10	
	8"	1RIB	1/2	SPEC BRK	112-F	-33	0.7	50	9.8	-40	O	H	10.0	62-D10/D11	
NH-3	4"	1RIB	1/2	125-C	NH-28	-33	0.8	35	9.8	-40	O	H	10.0	62-D10/D11	
NH-4	1 1/2"	3RIB	L	108-F	SPEC BRK	-23	13.2	60	16.2	-40		H	26.0	62-D10	
		3RIB	L	SPEC BRK	NH-1	-23	16.1	60	20.4	-40		H	24.5	62-D10	
NH-5	24"	1RIB	V	112-F	105-J	-33	0.1	35	9.4	-40	O	H	9.5	62-D11	
NH-6	16"	1PI	V	111-F	105-J	-7	2.3	35	9.4	-18		H		62-D11	
NH-7	20"	1PI	V	105-J (1st)	105-J (2nd)	82	4.4	95	9.4			H		62-D11	
NH-8	18"	1PI	V	105-J	128-C	124	6.3	130	9.4			H		62-D11	
NH-9	18"	1PI	V	128-C	105-J	41	6.2	130	9.4			H		62-D11	
NH-10	12"	1PI	V	110-F	NH-9	13	6.0	35/0	9.4			H	9.5	62-D11	
NH-11	14"	3PI	V	105-J	127-CA/B	135	16.9	160	20.4			H	25.5	62-D11	
		3RIB	V	SPEC BRK	SPEC BRK	-33	16.9	35	20.4	-40		H	25.5	62-D11	
	10"	1RIB	V	SPEC BRK	119-C	-33	0.6	35	9.8	-40	O	H	10.0	62-D11	
	6"	1PI	V	SPEC BRK	117-C	13	6.1	35	9.8	0		H	10.0	62-D11	
NH-12	8"	1PI	V	127-CA/B	109-F	40	16.0	135	20.4			H	25.5	62-D11	
	2"	1PI	V	109-F	126-C	40	15.7	55	20.4			H	25.5	62-D11	
NH-14	1"	1PI	V	126-C	SG-27	1	15.6	50	20.4	0		H	25.5	62-D11/63-D1	
	4"	3PI	L	EAST B.L.	NH-19	35	17.0	50	25	-5		H	25.5	62-D11	
	6"	1PI	L	109-F	117-J/JA	40	13.8	55	20.7			H	25.5	62-D11	
NH-17	4"	3PI	L	117-J/JA	EAST B.L.	40	20.7	55	27.6			H	31.0	62-D11	
		1PI	L	SPEC BRK	109-F	40	14.1	55	20.7			H	21.0	62-D11	
		6PI	L	SPEC BRK	0-27	34.9	37.4	365	44.9			H	56.5	62-D4	
NH-18	4"	1PI	L	109-F	CONTR. VA LRC-128	40	13.8	55	20.7			H	21.0	62-D11	
	8"	1PI	1/2	CONTR. VA LRC-128	110-F	13	6.1	55	9.4			H	10.0	62-D11	
NH-19	12"	1PI	L	126-C	CONTR. VA LC-166	1	15.7	50	20.4	0		H	26.0	62-D11	
	1 1/2"	1PI	1/2	CONTR. VA LC-166	NH-19	1	6.1	50	9.4	0		H	10.0	62-D11	
NH-20	6"	1PI	L	110-F	117-C	13	6.4	35	9.9	0		H	10.0	62-D11	
NH-21	10"	1PI	1/2	117-C	110-F	13	6.1	35	9.8	0		H	10.0	62-D11	

ISSUE

DATE

BY

REV

1	2	3	4	5	6
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ENGINEERED BY: EBS

CHECKED BY: EBS

APPROVED BY: E.R. Kilian

DATE: 26 NOV 76

DESIGN ISSUE:

CONST. ISSUE: 26 AUG 77

CLASS: M

JOB No. 5168-100

9146

EE-149

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PAGE No. 28A

LINE PREFIX: NH

FLWSHEET NOMENCLATURE