

PLANT Chlorine Caustic Soda Plant

DESCRIPTION	Pressure gauge	P&ID N°	See list
SERVICE	See list	Tag.	See list
LOCATION	Field	Q.ty	2

INSTRUMENT

TYPE	Diaphragm
DIAL SIZE	150 mm
ACCURACY	Class 1,6
CASE TYPE	Weatherproof IP 55
CASE MATERIAL	AISI 304 St.St.
ELEMENT MATERIAL	AISI 316 L St. St.PTFE lined
CONNECTION MATERIAL	AISI 316 L St. St.PTFE lined
CONNECTION POSITION	Lower connection
CONNECTION TYPE	Flanged DN 25
CONNECTION RATING	DIN PN10
MOUNTING	Direct
OVER PRESSURE	15%

ACCESSORIES

POS	TAG	SERVICE	FLUID	RANGE	TEMP PRES		p&iid
				mbar	°C	mbar	
					op	op	
					max	max	
1	PI-012269	Flushing to electrolyzers catholyte side	NITROGEN	0+600	30	400	01-AM-2002
2	PI-012270	Flushing to electrolyzers anolyte side	NITROGEN	0+600	30	380	01-AM-2002
3							
4							
5							
6							
7							
8							
9							

OPERATING CONDITION :

TYPE	Bourdon Type
MOUNTING	Local
DIAL DIAMETER	2 "
CASE	Weather Proof IP55
CASE MATERIAL	Black Painted steel or ABS Plastic
ELEMENT MATERIAL	Stainless Steel
TEMP. MAX.	-
RANGE	0 - 30 bar
SERVICE	fuel oil
LIMITS OF ERROR	+/- 2 % of the range
OVER RANGE	30% of the range

CONNECTION :

CONNECTION POSITION	radial
CONNECTION MATERIAL	Stainless Steel
PROCESS CONNECTION	1/4 "
MOVEMENT MATERIAL	-
CAPILLARY LENGHT	-
CAPILLARY TYPE	-
CLASS./PROTEC.	-

ACCESSORIES :

CHEMICAL SEPARATOR	-
TYPE	-
DIAPHRAGM MATERIAL	-
BODY MATERIAL	-
PROCESS CONNECTION	-

PLANT	MEMBRANE CHLORINE CAUSTIC SODA	UNIT	30
NAME	Pressure gauge with separator	QUANTITY	14
SUPPLIED BY	DNP	REF.DWG.	4-AM-1001:5-AM-1006

TYPE	Bourdon with seal and capillary
MOUNTING	Local/Surface
DIAL DIAMETER	6"
CASE	Weather proof IP 55
CASE MATERIAL	AISI 304 st. st. with back flange
ELEMENT MATERIAL	AISI 316 st. st.
PROCESS CONNECTION	NW 25 DIN ND 10
CONNECTION MATERIAL	Carbon steel teflon lined
CONNECTIONS POSITION	Radial
MOVEMENT MATERIAL	AISI 304 st. st.
CAPILLARY	1.5 m
TYPE	Armored
ALARMS	"
LIMIT OF ERROR	+/-1.6% of the range
CHEMICAL SEPARATOR	Required (MGS9/6)
TYPE	Flanged
DIAPHRAGM MATERIAL	AISI 316 st. st. teflon lined
BODY MATERIAL	Carbon steel teflon lined

ACCESSORIES

TAG	TEMP. ! ! MAX. !	RANGE !	SERVICE !	CODE !
PI-040113	! 0-4 bar	! Delivery	F-403 A	! PICCCYPC50BDB17
PI-040114	! 0-4 bar	! Delivery	F-403 B	! PICCCYPC50BDB17
PI-040115	! 0-6 bar	! Delivery	F-401 A	! PICCCYPC50BEB17
PI-040116	! 0-6 bar	! Delivery	F-401 B	! PICCCYPC50BEB17
PI-050110	! 0-4 bar	! Delivery	F-501 A	! PICCCYPC50BDB17
PI-050215	! 0-6 bar	! Delivery	F-502 A	! PICCCYPC50BEB17
PI-050216	! 0-6 bar	! Delivery	F-502 B	! PICCCYPC50BEB17
PI-050403	! 0-10 bar	! Delivery	F-506 A	! PICCCYPC50BFB17
PI-050404	! 0-10 bar	! Delivery	F-506 B	! PICCCYPC50BFB17
PI-050506	! 0-4 bar	! Delivery	F-510 A/B	! PICCCYPC50BDB17
PI-050612	! 0-10 bar	! Delivery	F-507 A	! PICCCYPC50BFB17
PI-050613	! 0-10 bar	! Delivery	F-507 B	! PICCCYPC50BFB17
PI-050614	! 0-4 bar	! Delivery	F-509	! PICCCYPC50BDB17
PI-050615	! 0-4 bar	! Delivery	F-508	! PICCCYPC50BDB17

NAME pressure gauge bourdon type
ITEM

QUANTITY
REF.DWG

OPERATING CONDITION :

TYPE	Bourdon Type
MOUNTING	Local
DIAL DIAMETER	1 1/2 "
CASE	Weather Proof IP55
CASE MATERIAL	Black Painted steel or ABS Plastic
ELEMENT MATERIAL	Stainless Steel
TEMP. MAX.	-
RANGE	See Remarks
SERVICE	Air
LIMITS OF ERROR	+/- 2 % of the range
OVER RANGE	30% of the range

CONNECTION :

CONNECTION POSITION	back connection
CONNECTION MATERIAL	Stainless Steel
PROCESS CONNECTION	1 / 8 "
MOVEMENT MATERIAL	-
CAPILLARY LENGHT	-
CAPILLARY TYPE	-
CLASS. / PROTEC.	-

ACCESSORIES :

CHEMICAL SEPARATOR	-
TYPE	-
DIAPHRAGM MATERIAL	-
BODY MATERIAL	-
PROCESS CONNECTION	-

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PRESSURE GAUGES

DATA SHEET N° PI-DS-012

DATE 040194 SHEET 1 OF 1

PLANT MEMBRANE CHLORINE CAUSTIC SODA UNIT 30
 NAME Pressure gauge bourdon type QUANTITY 16
 SUPPLIED BY DNP REF.DWG. 7-AM-1004

TYPE Bourdon with seal
 MOUNTING Local
 DIAL DIAMETER 6"
 CASE Weather proof IP 55
 CASE MATERIAL AISI 316 st. st.
 ELEMENT MATERIAL AISI 316 st. st. teflon lined
 PROCESS CONNECTION NW 20 DIN 2635/2512 form N FN40 SmallGroove
 CONNECTION MATERIAL Carbon steel
 CONNECTIONS POSITION Radial
 MOVEMENT MATERIAL AISI 304 st. st.
 CAPILLARY "
 TYPE "
 ALARMS "
 LIMIT OF ERROR +/-2% of the range
 CHEMICAL SEPARATOR Required (MGS9/6)
 TYPE Flanged
 DIAPHRAGM MATERIAL AISI 316 st.st.teflon lined
 BODY MATERIAL Carbon steel

ACCESSORIES

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TAG	TEMP. !	RANGE !	SERVICE !	CODE !
PI07	! MAX. !	!	!	!
0403A1:D1	! ↗	! 0-16 bar	! TK-701 A:D	! PIDUCVAC50BGB07
0403A2:D2	! ↗	! 0-16 bar	! TK-701 A:D	! PIDUCVAC50BGB07
0406A:D	! ↗	! 0-16 bar	! TK-701 A:D	! PIDUCVAC50BGB07
PI-070408	! ↗	! 0-6 bar	! Equalizing line	! PIDUCVAC50BEB07
PI-070409	! ↗	! 0-6 bar	! Equalizing line	! PIDUCVAC50BEB07
PI-070504	! ↗	! 0-16 bar	! Filling station	! PIDUCVAC50BGB07
PI-070505	! ↗	! 0-16 bar	! Filling station	! PIDUCVAC50BGB07
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
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REMARKS

MANUFACTURER NUOVA FIMA
 MODEL MGS18/A + MGS9/6
 CATALOGUE
 REFERENCE DWG.

NAME
ITEM

pressure gauge bourdon type

QUANTITY
REF.DWG

REV. 0

OPERATING CONDITION :

TYPE	Bourdon Type
MOUNTING	Local
DIAL DIAMETER	1 1/2 "
CASE	Weather Proof IP55
CASE MATERIAL	Black Painted steel or ABS Plastic
ELEMENT MATERIAL	Stainless Steel
TEMP. MAX.	-
RANGE	See Remarks
SERVICE	Nitrogen
LIMITS OF ERROR	+/- 2 % of the range
OVER RANGE	30% of the range

CONNECTION :

CONNECTION POSITION	Radial
CONNECTION MATERIAL	Stainless Steel
PROCESS CONNECTION	3/8 "
MOVEMENT MATERIAL	-
CAPILLARY LENGHT	-
CAPILLARY TYPE	-
CLASS./PROTEC.	-

ACCESSORIES :

CHEMICAL SEPARATOR	-
TYPE	-
DIAPHRAGM MATERIAL	-
BODY MATERIAL	-
PROCESS CONNECTION	-

NAME pressure gauge bourdon type
ITEM

QUANTITY
REF.DWG

OPERATING CONDITION :

TYPE	Bourdon Type
MOUNTING	Local
DIAL DIAMETER	1 1/2 "
CASE	Weather Proof IP55
CASE MATERIAL	Black Painted steel or ABS Plastic
ELEMENT MATERIAL	Stainless Steel
TEMP. MAX.	-
RANGE	See Remarks
SERVICE	Air
LIMITS OF ERROR	+/- 2 % of the range
OVER RANGE .	30% of the range

CONNECTION :

CONNECTION POSITION	back connection
CONNECTION MATERIAL	Stainless Steel
PROCESS CONNECTION	1 / 8 "
MOVEMENT MATERIAL	-
CAPILLARY LENGHT	-
CAPILLARY TYPE	-
CLASS. / PROTEC.	-

ACCESSORIES :

CHEMICAL SEPARATOR	-
TYPE	-
DIAPHRAGM MATERIAL	-
BODY MATERIAL	-
PROCESS CONNECTION	-

PLANT	MEMBRANE CHLORINE CAUSTIC SODA	UNIT	30
NAME	Pressure gauge with separator	QUANTITY	14
SUPPLIED BY	DNP	REF.DWG.	9-AM-1003

TYPE	Bourdon with seal and capillary
MOUNTING	Local/Surface
DIAL DIAMETER	6"
CASE	Weather proof IP 55
CASE MATERIAL	AISI 316 st. st. with back flange
ELEMENT MATERIAL	AISI 316 st. st. tantalum
PROCESS CONNECTION	NW 25 DIN ND 10
CONNECTION MATERIAL	Carbon steel teflon lined
CONNECTIONS POSITION	Radial
MOVEMENT MATERIAL	AISI 304 st. st.
CAPILLARY	1.5 m
TYPE	Armored
ALARMS	-
LIMIT OF ERROR	+/-1.6% of the range
CHEMICAL SEPARATOR	Required (MGS9/6)
TYPE	Flanged
DIAPHRAGM MATERIAL	AISI 316 st. st. teflon lined
BODY MATERIAL	Carbon steel teflon lined

ACCESSORIES

TAG	! TEMP. !	RANGE	!	SERVICE	!	CODE
	! MAX. !		!		!	
PI-090306	!	!0-6 bar	!	Delivery P-901 A	!	!PICCCYPC50BEB17
PI-090307	!	!0-6 bar	!	Delivery P-901 B	!	!PICCCYPC50BEB17
PI-090308	!	!0-4 bar	!	Delivery P-902 A-B	!	!PICCCYPC50BDB17
PI-100105	!	!0-4 bar	!	Delivery P-1001 A	!	!PICCCYPC50BDB17
PI-100106	!	!0-4 bar	!	Delivery P-1001 B	!	!PICCCYPC50BDB17
PI-100210	!	!0-6 bar	!	Delivery P-1003 A	!	!PICCCYPC50BEB17
PI-100211	!	!0-6 bar	!	Delivery P-1003 B	!	!PICCCYPC50BEB17
PI-100308	!	!0-4 bar	!	Delivery P-1004 A	!	!PICCCYPC50BDB17
PI-100309	!	!0-4 bar	!	Delivery P-1004 B	!	!PICCCYPC50BDB17
PI-100412	!	!0-4 bar	!	Delivery P-1005 A-B	!	!PICCCYPC50BDB17
PI-100413	!	!0-4 bar	!	Delivery P-1006 A-B	!	!PICCCYPC50BDB17
PI-100602	!	!0-4 bar	!	Delivery P-1008 A-B	!	!PICCCYPC50BDB17
PI-120207	!	!0-4 bar	!	Delivery P-1216 A-B	!	!PICCCYPC50BDB17
PI-120404	!	!0-6 bar	!	Delivery P-1225 A-B	!	!PICCCYPC50BEB17
!	!	!	!	!	!	!

NAME
ITEM

Pressure gauge bourdon

QUANTITY
REF.DWG

OPERATING CONDITION :

TYPE	Pressure gauge bourdon with seal and cap.
MOUNTING	Local
DIAL DIAMETER	6 "
CASE	Weater proof IP 55
CASE MATERIAL	AISI 304 st.st.
ELEMENT MATERIAL	AISI 316 st.st.
TEMP. MAX.	-
RANGE	0 - 6 Bar
SERVICE	
LIMITS OF ERROR	+/- 2 % of the range
OVER RANGE	30.00%

CONNECTION :

CONNECTION POSITION	Radial
CONNECTION MATERIAL	AISI 316 st.st. PTFE Lined
PROCESS CONNECTION	DN 25 DIN PN16
MOVEMENT MATERIAL	AISI 304 st.st.
CAPILLARY LENGHT	1500 mm
CAPILLARY TYPE	Armord
CLASS. / PROTEC.	

ACCESSORIES :

CHEMICAL SEPARATOR	Required
TYPE	Flanged
DIAPHRAGM MATERIAL	AISI 316 st.st. teflon lined
BODY MATERIAL	carbon steel teflon lined
PROCESS CONNECTION	DN 25

DESCRIPTION	pressure gauge	Tag.	See below
SERVICE	See below	Q.ty	5
LOCATION	Field	P&ID N°	D281403/750

INSTRUMENT

TYPE	Bourdon
DIAL SIZE	100 mm
ACCURACY	+/- 1% of the range
CASE TYPE	Weatherproof IP 54
CASE MATERIAL	Stainless Steel
ELEMENT MATERIAL	Aisi 316 St. St.
CONNECTION MATERIAL	Aisi 316 St. St.
CONNECTION POSITION	Radial
CONNECTION TYPE	See seal
CONNECTION RATING	See seal
OVER PRESSURE	25%

SEAL

BODY MATERIAL	1.4301
DIAPHRAGM MATERIAL	hastelloy c
CONNECTION TYPE	Flanged DN25
CONNECTION RATING	DIN PN40 /PTFE LINED
CAPILLARY	Not required

MODEL

ACCESSORIES

TAG.	TEMP. MAX °C	RANGE barg.	SERVICE
PI-5201	80	0 ~ 16	NAOH 33% FROM P203N
PI-5202	120	-1 ~ 10	NAOH 33% TO E1308A
PI-5229	120	-1 ~ 10	NAOH 50% TO E1308B
PI-5203	120	0 ~ 16	NAOH 50% FROM P1305N
PI-5223	140	0 ~ 16	NAOH 65% FROM P1302N

PLANT Chlorine Caustic Soda Plant

DESCRIPTION	Pressure gauge with separator	Tag.	See below
SERVICE	See below	Q.ty	5
LOCATION	local/surface	P&ID N°	2-AM-1001/750
		8-AM-1002/750	13-AM-1001/750
	13-AM-1001/750		

INSTRUMENT

TYPE	Bourdon with seal and capillary
DIAL SIZE	150 mm
ACCURACY	+/- 1.6% of the range
CASE TYPE	Weather proof IP 55
CASE MATERIAL	AISI 304 st.st with back flange
ELEMENT MATERIAL	Hastalloy C
PROCESS CONNECTION	DN25 DIN PN10
CONNECTION MATERIAL	carbon steel teflon lined
CONNECTION POSITION	RADIAL
MOVEMENT MATERIAL	AISI 304 st.st.
CAPILLARY	1.5m
TYPE	Armored
ALARMS	
CHEMICAL SEPARATOR	Required
TYPE	Flanged
DIAPHRAGM MATERIAL	Hastalloy C
BODY MATERIAL	carbon steel teflon lined

ACCESSORIES

TAG.	TEMP. MAX °C	RANGE bar	SERVICE
PI-0201553	88	0~10	CATHOLITE PUMP P210N A , DISCHARGE
PI-0201554	88	0~10	CATHOLITE PUMP P210N B , DISCHARGE
PI 1301510	30	0~10	CATHOLITE PUMP P1301N A , DISCHARGE
PI 1301511	30	0~10	CATHOLITE PUMP P1301N B , DISCHARGE
PI 0802506	35	0~10	PUMP P803N A/B , DISCHARGE

PLANT	Chlorine Caustic Soda Plant		
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DESCRIPTION	Pressure gauge with separator	Tag.	See below
SERVICE	See below	Q.ty	6
LOCATION	local/surface	P&ID N°	5-AM-1001/750
	5-AM-1008/730	9-AM-1003/750,	5-AM-1003/750

INSTRUMENT			
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TYPE	Bourdon with seal and capillary
DIAL SIZE	150 mm
ACCURACY	+/- 1.6% of the range
CASE TYPE	Weather proof IP 55
CASE MATERIAL	AISI 304 st.st with back flange
ELEMENT MATERIAL	tantalum
PROCESS CONNECTION	DN25 DIN PN10
CONNECTION MATERIAL	carbon steel teflon lined
CONNECTION POSITION	RADIAL
MOVEMENT MATERIAL	AISI 304 st.st.
CAPILLARY	3m
TYPE	Armored
ALARMS	
CHEMICAL SEPARATOR	Required
TYPE	Flanged
DIAPHRAGM MATERIAL	tantalum
BODY MATERIAL	carbon steel teflon lined

ACCESSORIES			
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TAG.	TEMP. MAX °C	RANGE bar	SERVICE
PI-0501506	81	0~10	DELIVERY P518
PI-0503504	68	0~10	DELIVERY P512A
PI-0503505	68	0~10	DELIVERY P512B
PI-0508516	58	0~16	DELIVERY P517N A
PI-0508517	58	0~16	DELIVERY P517N B
PI 0903508	40	0~10	DELIVERY P902N A/B

PLANT MEMBRANE CHLORINE CAUSTIC SODA
 NAME U tube manometer
 SUPPLIED BY DNP

UNIT 30
 QUANTITY 12
 REF.DWG. 6-AM-1001

TYPE U
 MOUNTING Field
 TUBE SIZE Glass tube 8 mm dia.
 WETTED PART MATERIAL Glass/PVC
 BASE PLATE MATERIAL Painted steel by epoxy coat
 GRADUATED SCALE MAT. PVC
 SCALE GRADUATION mm
 PACKING Viton
 CONNECTIONS 1/4" NPT-F
 STATIC PRESSURE
 TEST PRESSURE

ACCESSORIES
 MOUNTING YOKE
 ZERO ADJUSTING Required
 THREE VALVE MANIFOLD
 VALVE MATERIAL
 VALVE CONNECTIONS

TAG	FILL.	RANGE	SERVICE	CODE
DPI-060102	H2O	!600-0-600 mm	! F-601	!PUIFDC L1A1233
DPI-060116	H2O	!600-0-600 mm	! DH-601/DH-602	!PUIFDC L1A1233
DPI-060204	H2O	!600-0-600 mm	! Chlorine to E-601	!PUIFDC L1A1233
DPI-060208	H2O	!600-0-600 mm	! Chlorine to E-602	!PUIFDC L1A1233
DPI-080119	H2O	!600-0-600 mm	! Chlorine to F-601	!PUIFDC L1A1233
PI-010205	H2O	!400-0-400 mm	! Wet chlorine header	!PUIFDB L1A1233
PI-060105	H2O	!600-0-600 mm	! C-604	!PUIFDC L1A1233
PI-060107	H2O	!600-0-600 mm	! C-605	!PUIFDC L1A1233
PI-060114	H2O	!600-0-600 mm	! Vent from C-603	!PUIFDC L1A1233
PI-060317	H2O	!600-0-600 mm	! C-801	!PUIFDC L1A1233
PI-080120	H2O	!1000-0-1000mm	! Outlet C-801	!PUIFDE L1A1233
PI-090116	H2O	!400-0-400 mm	! C-901	!PUIFDB L1A1233
!	!	!	!	!
!	!	!	!	!
!	!	!	!	!

DESCRIPTION	Pressure gauge bourdon type	Tag	See below
SERVICE	See below	Q.ty	5
LOCATION	local	P&ID N°	5-AM-1005/750 7-AM-1002/750

INSTRUMENT

TYPE	Bourdon with seal
DIAL SIZE	150 mm
ACCURACY	+/- 2% of the range
CASE TYPE	Weather proof IP 55
CASE MATERIAL	AISI 316 st st
ELEMENT MATERIAL	AISI 316 St. St. teflon lined
PROCESS CONNECTION	DN25. DIN PN10
CONNECTION MATERIAL	carbon steel
CONNECTION POSITION	RADIAL
MOVEMENT MATERIAL	AISI 304 st st.
CAPILLARY	
TYPE	
ALARMS	
CHEMICAL SEPARATOR	Required
TYPE	Flanged
DIAPHRAGM MATERIAL	tantalum
BODY MATERIAL	carbon steel

ACCESSORIES

TAG	TEMP OP °C	RANGE bar	SERVICE
PI-0505519	60	0~10	F527N A ← لايف ايدل
PI-0505520	60	0~10	F527N B ←
PI-0505516	60	0~10	F527N A ←
PI-0505517	60	0~10	F527N B ←
PI-0702502		0~10	CHLORINE RECYCLE LINE

