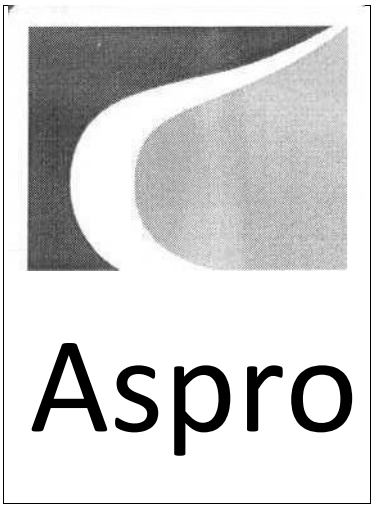


COMPRESSOR C.N-G

ASPRO

IODM 1 15-5-4RE

SERIAL Nr: 4245

- GEORGIA -

COMPRESION S.R.L.

COMPESSORS & DISPENSERS FOR CNG STATIONS.

Aspro

DOCUMENTOS DE FABRICACIÓN ACORDE AL Q.A.P STD
(MANUFACTURING DOCUMENT ACCORDING TO STD Q.A.P)

MAQUINA (Machine) :COMPRESOR (COMPRESSOR)

MODELO (Model) : IODM 115-5-4RE

N O SERIE (Serial Nr) . 4245

COMPONENTÉ E¼COMPRESOR GNC - INDICE

NG COMPRES OR PARTS - INDEX)

Item Nr	DESCRIPCION	DESCRIPTION	Documentos a ser enviados. Documents to be submitted.
	CILINDROS - Ensayo Hidráulico.	CYLINDERS- Hydrostatic test-	14
2	TANQUE PULMÓN - Ensayo Hidráulico.	BLOW DOWN TANK- Hydrostatic test.	14
3	CAÑERiA DE GAS - Ensayo Hidráulico.	GAS PIPING - Hydrostatic test	
4	CONDENSADORES - Ensayo Hidráulico.	CONDENSERS - Hydrostatjc test.	
5	VÁLVULA DE SEGURIDAD - Calibración, Documento aprovado para la instalación.	SAFETY VALVE- Calibration. Approved document for installation_	37, 07
6	MOTOR PRINCIPAL - Certificado del fabricante.	MAIN MOTOR - Manufacturer's certificate.	32
7	MOTOR AEROENFRIADOR - Certificado del fabricante.	AIRCOOLER MOTOR - Manufacturer's certificate.	32
8	MANOMETRO - Certificado del fabricante.	PRESSURE GAUGE - Manufacturer's certificate.	32
9	TERMOMETRO - Certificado del fabricante.	THERMOMETER- Manufacturer's certificate.	32
10	TRANSDUCTORES- Certificado del fabricante.	TRANSDUCERS Manufacturers certificate.	32
Id	DETECTOR DE VIBRACIONES - Certificado de calibración	VIBRATIONS SENSOR- Manufacturer•s certificate.	32

12	CONJUNTO COMPRESOR - Ensayo funcional, Documento aprovado para la instalación.	ASSEMBLY COMPRESSOR- Functional test, Approved document for installation.	28, 07

REFERENCIAS - REFERENCES

CÓDIGOS PARA APLICAR A INSPECCIONES, ENSAYOS, DOCUMENTOS Y CERTIFICADOS

Cód.	Descrpción	Cód.	Descrpción	ICód.	Descrpción	Documentos
Visual		17	Ensaso Vibraciones	32	Certificado ensa'0	01 Plano de la' out
2	Dimensional	18	Aptitud tecnica de items comprados			02 Informacion pianos de
3	Fiiación- alineación	19	Ensayo absorción	33	Certificados de revisión referencialOiseños sella	
4	Ensa'0 físico	20	Ens-ingreso Polvo agua de Auditoría dos por el fabricante			
5	Ensayo químico	21	Ens- Factor Friction	34	Informe de inspección	03 Catalogos
6	Ensago Ultrasonido	22	Ensaso en vacio interna			04 Lista de Mateviales
7	Part. Magnéticas	23	Performance	35	Ensa'0 de dureza	Identificacion (estructura)
8	Radiogr afía		Curvas Caracteristicas	36	Ensaso de chispa	05 Detalles de armado
9	Tinta Penetrante	24	Sin CargatMarcha libre	37	Calibr acion	06 Las out - Diagramas
10	Metalografía	25	Ens_ Carga sobrecarga	38	Ens. de piezas de seguridad	07 Documentos aprobados
11	Calif. Soldadores &	26	Medición de velocidad	39	Mantenimiento para la instalación procesos soldadura	27 Ens. Acustico
		40	Ens- Marcha Mecánica			08 Ordenes de compra
12	Ensa'os a reparac_ Proc. reparaciones	28	Prueba funcional	41	Ensa'0 de desarme	0 requisito de compra
		29	Repetitibidad	42	Ens- parada de emergencia	09 Certif. deCalibracion
13	Trat- Térmico		Posicion- Precisión	43	Ensaso de adherencia	de todos los instrumentos
14	Prueba Hidraulica	30	Ensa'0 de potencia	44	Espesor de pintura	de medición control
15	Pérdidas	31	Ens. Penetracion	45	Apto foria	010 Ooc•.e.to de proceso.
16	Balanceo			46	Certif. "'zona de riesgo	de inspección

CODES FOR EXTENT OF INSPECTION, TEST, TEST CERTIFICATES 8 DOCUMENTS.

Code	Description	Code	Description	Code	Description	Documents
1	Visual (velding. etc.)	17	Vibration Test	32	MFR Test Certificate	D' Approved GA Drawings
2	Dimensional	18	Aptitud Test		For Bougth out ítems	02 Information & other
3	Fitment & Alignement	19	Sponge Test	33	IBU Other Statutor' Agenc' reference dwg'Stamped	4 Phssical Test (Sample) 20 Oust*Vater ingress Test Complance Certificate drg. Released for mfg.
5	Chemical Test (Sample)	21	Friction Factor Test	34	Internal Inspection Report	03 Relevant Catalogue
6	Ultrasonic Test	22	String test b' Contractor		04 Bill of Matu item	7 Magnetic particle Test 23 Perfomance Test' 35 Hardness Test Identification
8	Radiographic Test Characteristics Curve	36	Spark Test for Lining		05 Match Marx Details	9 O'e Penetration Test 24 N-LoadtFree runn Test 37 Calibration 06 Linel La' out Diagrams 10 Metallographic Exam. 25 Load Overload Test 38 Safet' Device Test 07 Approved Erection
11	Velder•s Qualification & Veld Procedure Test	26	Measurement of Speed	39	Exce Maintenance	Documents
12	Approval Of Test & Repair procedure	27	Accoustical Test	40	Mechanical Run Test	08 Unpriced sub PO vith Spec. &amendements
13	Heat Treatment	28	Funcional test positioning Accurac'	41	Strip Test	29 Repeatibilit' & 42 Emergencs Shut Driven Test 09 Calibration Certificate
14	H'drostatic Pressure test	30	Proving Test	44	Paint thickness Instruments and Gauges	15 Leakage Test 31 Penetration Test 45 Apto Coria 010 process documents.
16	Balancing			46	Hazardous zone certification	and Inspection Procedures

AUTOCONTROL – REGISTRO DE INSPECCIÓN Y ENSAYO Y NO-CONFORMIDADES POR OPERACIÓN

SELF CONTROL - INSPECTION, TEST & NON CONFORMITIES RECORD PER OPERATION

PÁGINA Nº / *PAGE No.* 1

SECCIÓN: CELULA Nº3 / *DEPARTMENT*

SUPERVISOR: / *SUPERVISOR* MOSCOSO

CODIGO MAT./OP Nº / *MATERIAL CODE OPERATION No.* 60260-1

DENOMINACIÓN MATERIAL / OPERACIÓN: / *MATERIAL DENOMINATION / OPERATION:* CILINDRO DE PRE-COMPRESOR 700 DB EF

INSTRUCCIÓN Nº / *INSTRUCTION No.*

DESTINO REF.: "A" CONTINUÓ PROCESO C / RETRAB. INMEDIATO - "B" DETENIDO A DECIDIR - "C" RECHAZO A PROVEEDOR - "D" DESCARTADO
DESTINATION REFERENCE: "A" PROCESS CONTINUED WITH IMMEDIATE REWORKING - "B" HOLD UP TO DECIDE - "C" REJECT TO SUPPLIER - "D" LEFT OUT

FECHA *DATE*	NO-CONFORMIDAD / OBSERVACIONES *NON-CONFORMITY / OBSERVATIONS*	REGISTRO *REGISTER*	CANT NOC *NON-CONF. QTY.*	CANT LOTE *BATCH QTY.*	% NOC *NON CON %*	V°B°Opera. / Legajo *OPERATOR OK / DOSSIER*	REF *REF*	N°INF NOC *NON-CONF REPORT No*	V°B° SUP *SUP. OK*	V°B° PL A *PLANT OK*	V°B° ADC *QUALITY CONTROL OK*
29/6/12	-	P078/06/12	-	1	-	1428	-	-			
29/6/12	"	P079/06/12	-	1	-	1428	-	-			
4/7/12	"	P001/07/12	-	1	-	1428	-	-			
31/7/12	"	P002/07/12	-	1	-	1428	-	-			
1/8/12	"	P015/07/12	-	1	-	1428	-	-			
1/08/12	"	P001/08/12	-	1	-	1428	-	-			
1/08/12		P002/08/12	-	1	-	1428					
9/8/12		P009/08/12	-	1	-	1428					

ON

00N

b20c¥)2 ,,,

k20

0

bCOð

下、

門k すート04 く割。・變04 ソ—う4 り十ルー1 り。ノロフス—しいヒ.4 、

ロ.0 朝イイ製 自国イB .ノ42)2 イOIV-

0 ,,,を9Q]

レ4 朝r」932 材 「2「マ7 殉.ヤ明ら陥ゃ.殉 7ム」 2] 0陥ら陥ゃ.殉 7ム」 くハプロレ、

2 ふむゃ4 卅 0 へいこ~28 豊

7 |~0

ン2 ,,,

、

○○Q¥

49 を

N00

A10 |、0 ノ、)60 ,9(、0 S 派芹 SOOC ,

CVEモ ,ヤキH ,0

「モ05モ 、

H0 ,9 」N00 S

0 |

7

1

00NNONI INAI OVA 手 OLO 口「00-NON-N00 」0 H 寺ァ S | | 99 卅 H 図

S ON の ONOV | ヤ ンタ ,H ,ヤ SVA モ S 田田00 、、、~00 ,ヤ ,1 ,0ヤ | 0 -NNONN0 ヤ | 0 -ON

V ,H ,0 モ 田

ヒ ,ヤキ pOd ユヤメ、ロ「| O N 女d H n S ,HN0 YOO へロ

dd ロS NON-

70 ロ「N000 、 ,ヤOd ユヤメ、ロ「| O N 女d H n S ,HN0 YOO へロ

dd ロS NON-

| no | | ・ |

000 ヤ 400d ヤ ,0 | | ヒ 、へ ヤ 国 |

ONNIVAd　NOOO トレ

ON・OONの平0 | 0ONの集ン0化田0dの田0ン化0 | 0平の ON・

020

NOIIVA82dO

田dd 0S0 田S 田 | 」 ン0」N00 ィS 田ィNON ン0 | ィ0 田dSN | ・ロロ0 ン0ィN00」ロ 寺S

ヲIO 林ャ寺OO'、、NO リ〃Q -~ャ寺'n

ヤ・000~NO ロ〃〃〃H 寺」田'、'VO ≒

・ゃOSO | 序ゃャ寺ャ寺HL ロ「ゃS

0』'0 寺「寺ャ0=0・00'0 00 寺 | H リ口0 Hナg°ュ | ・ー0【

ャ08'、 == ・0 寺→』| | ニ 〔H= 」'/' 'Hニ | | 0095W==' 、 | 000 |

『N00~00900 |= ィ↔d= ° 00 寺ヘ NO 寺・芸 」」」 ハYNOON

リ | ィNS リ寺口口0

00~'0'、=0 厘'、=0〕=0=・=| 0 | ovaa0

OAVSNÄ

NQ1003dSNl

田0OËJ.s |

9 田岌一ㄇ0

化ト

ᄒᆞᆫ 글ᄌᆞ로ᄃᆡ 쓰ᄂᆞᆫ 것ᄋᆞᆫ 말ᄉᆞᆷ이ᄀᆞ 아ᄂᆞᆫ 것ᄀᆞᆺ 가ᄐᆞᆫ ᄆᆡᆷᄃᆡ

AUTOCONTROL – REGISTRO DE INSPECCIÓN Y ENSAYO Y NO-CONFORMIDADES POR OPERACIÓN

SELF CONTROL - INSPECTION, TEST & NON CONFORMITIES RECORD PER OPERATION

Aspro GNC

PÁGINA Nº / *PAGE No.* 53

ECCIÓN: CELULA N°5 *EPARTMENT*

UPERVISOR: *UPERVISOR* Moscoso

CODIGO MAT./OP Nº *MATERIAL CODE OPERATION No.* 17002 op 70

DENOMINACIÓN MATERIAL / OPERACIÓN: *MATERIAL DENOMINATION / OPERATION:* CILINDRO DE 2ª ETAPA

INSTRUCCIÓN Nº *INSTRUCTION No.* 16003-00.080

DESTINO REF.: "**A**" CONTINUÓ PROCESO C / RETRAB. INMEDIATO - "**B**" DETENIDO A DECIDIR - "**C**" RECHAZO A PROVEEDOR - "**D**" DESCARTADO
DESTINATION REFERENCE: "A" PROCESS CONTINUED WITH IMMEDIATE REWORKING - "B" HOLD UP TO DECIDE - "C" REJECT TO SUPPLIER - "D" LEFT OUT

EC HA AT E	NO-CONFORMIDAD / OBSERVACIONES *NON-CONFORMITY / OBSERVATIONS*	REGISTRO *REGISTER*	CANT NOC *NON-CONF. QTY.*	CANT LOTE *BATCH QTY.*	% NOC *NON CON %*	V°B°Opera. / Legajo *OPERATOR OK / DOSSIER*	REF *REF*	N°INF NOC *NON-CONF REPORT No*	V°B° SUP *SUP. OK*	V°B° PL A *PLANT OK*	V°B° ADC *QUALITY CONTROL OK*
ost/12	-	P039	-	1	-	1428	-	-			
6/12	-	P042	-	1	-	1428	-	-			
6/12	-	P050	-	1	-	1428	-	-			
6/12	-	P061	-	1	-	1428	-	-			
6/12	-	P062	-	1	-	1428	-	-			
6/12	-	P064	-	1	-	1428	-	-			
6/12	-	P068	-	1	-	1428	-	-			
6/12	-	P069	-	1	-	1428	-	-			
6/12	-	P072/06/12	-	1	-	1428	-	-			
6/12	-	P073/06/12	-	1	-	1428	-	-			
6/12	-	P074/06/12	-	1	-	1428	-	-			
6/12	-	P060/07/12	-	1	-	1428	-	-			
6/12	-	P062/07/12	-	1	-	1428	-	-			
7/12	-	P063/07/12	-	1	-	1428	-	-			
7/12	-	P064/07/12	-	1	-	1428	-	-			
7/12	-	P065/07/12	-	1	-	1428	-	-			

釧

010d

S &

7、駿ゾ」

、4 bood

00 く

Ph アhOc≠ め丁

、Z

ー

ノ一

ア0~)Zh、

ho く沢、

3a2、_ゞリ9) レ3)

ブ

当

70 ら

A-L ロ

00 くヨヨヨANIoN

Lloyo に花Ody

賃ロ0 ロS 寻00

00 =000 0°・」00

ON ー ~ライ井ロ ooNNO.

ト、812~、02(、

ヤ6 ー 0 ら ロ に ナ ら N ー

2 〃

7 ら

ヨ ー SSO ロ、YO NOO、ぃり ~ ぃり0

片01 レ田0P~0~ 卜01 講 講田 斗NOO 訓 訓 講9 田斗

2 あ225do のあ冂、。> 00N ゞLNVO 田ㅏ0 ㄇ

INYOOON 0 ㅏS ㅣ9 山化　S 山NOSNOLL ㅣ

OY> 山広の山の8090、、ゞ0VO 辻n0 ㅣ5 山花

N000 当上N000~ ・ON

ㅓ0ㅡ ㅣ0=ㅣ ㄱㄱ【=00==00=】「00==0=0」、000000「0=0=0」「0=ㅣ→000

=0」、0~00~0=0を0 ㅣ 000000=←0あ「ㅁ」=0=0=

み9 之。あ名0)をも

「圧 2ㄱ0ㄷ井 ON、NO ㄴㅓ ㄴㄱ OVO に異

ㅅㅓㄷㄴ

】NO ㅣ0 ㄴ 田dp、ㅁ ㅣㄱ ㄷㄴㅓㅅ

ONd0 「

田 0007 井 ㄷㄴㅓ

ㅏ0ㄱㄴ 0ㅅ価 dp0 ㄷㄴ文 0~0 に .

片 SO ㅣ ㄴ ㄷㄴㅓ ㅅ ㅇㅅ ㅅ dn ㄷㄴ片 ㅅ0ㅁ

ㅅ ㅣ ㄴㄱㄴ ~ ㅅ ㅍㅍ 田 0

ㅜVIN00 ㅣ 000

ONVN 一 庇

NO 一 OY 比田CIO 化Ods 田口

0 化トN000 トっ

OAVSN3AN 型

00~dSp~00 新00 トの

~ 比一コ

「 ・ 「

900L

O-

gË0

0N

72

h
o

をま　　壁 自　鼻肄　　鮃

0h0

pd

ㅈ0 ヽ ㄴ0　　0 、ㅁ 0 0 0

NO1003dsN

OÅVSNÄ:

ON dO 図00 국S 田 | 고LA0 국NOONONNO | ㅅㅅ 田田dOTNO | ㅅ0 田d 6N トㅁ0 싱ㅅNO0 국ㅁ국6

NO . ON 0 NO0 ㅁ 口田 spOs 싱田dO 싱田을 OV | ON

ONdO、 ㅜVL • N0960O 0 2

NO | OV 국도、ㅁㅅ을국

WO | ㅅㅅ3dO'、~0 냐ㅊN | WOW 3O7 〃국1

0~0 냐ㅊ3dO

국0007 〃국ㅅWV

0~0 냐ㅊ3dO

、Sn jo1 0~0

| N3ㅜㅁ 00 | ONNO

ヒ・ちっ

s ㅁ d 田ᄉ | > | SO区】づ | ON |

00s

o 」ISC ＼

pAOINNNO
p6ㄷ ~0・

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE TANQUE PULMON DE COMPRESOR
TRACEABILITY RECORD FOR COMPRESSOR PACKAGE BLOW OOWN TANK

35032	Descripción / Description: Tanque Pulmon	35032-00.150 35032-00.155

•

MATERIA PRIMA IRACEA

cuERP0 BODY

Descripcion / Description	Identif. de Material / rial identification	O escripci•ån	N° de Identif. de Material / Material identification	Des C	Identif. de Material / rial identification
cuERP0 B0DY	cert] DFKO	CASQ. SEMIELIPTICO SEMIELLIPIECAL HEADER	DELH	CASQ. SEMIELIP' SEMIELLIPTICAL HEADER	cert DELH
cupcA 1/2' NOZZLE	SG52004g21	cupl_A 1/2' NOZZLE	SG52005049	CUPLA •,/2" NOZZLE	cert SG52005049
cupLA NOZZLE	Aã9359			CUPLA NOZZLE	A3935g
cupLA NOZZLE	cert A3935g				
					Cert

CONEXIONES / CONNECTIONS

Descripción / Description	N° de Identif. de Material / Material identification	Descripcion / Description	N° de Identif. de Material / Materiol identification	Descripcion / Description	N° de Identif. de Material / Material Identification
BRIDA2 1,'2" FLANGE		BRIDA 1" FLANGE		2 1/2" FLANGE	
NIPLE2 1/2" NIPPLE	ST2Þ139	CARO 1"	cert: sT4g2g5	NIPPLE	ert; ST2613g
c0002 "2" Etgovi'	DATA			cooo 2 1/2" ELBOW	DATA
cupLA 1 NOZZLE	A25825		cert		

ADORES POR OPERACIöN CAC

OPERACION N° / SEQUENCE Nr.	'ONO
'5	

OPERACION N° / SEQUENCE Nr.	

OAT

PRESIÓN DE TES7 DE PRUEBA / PRESSURE 48 BAR

REALIZó PRLJE3A
PEREZ'1236

MANOMETRO UTILIZADO
0-70

RESULTADO

0BggRVAClOraES

RELEVAMIENTO DE DATOS SOBRE TRAZABILIOAD DE
CAÑERIA DE GAS

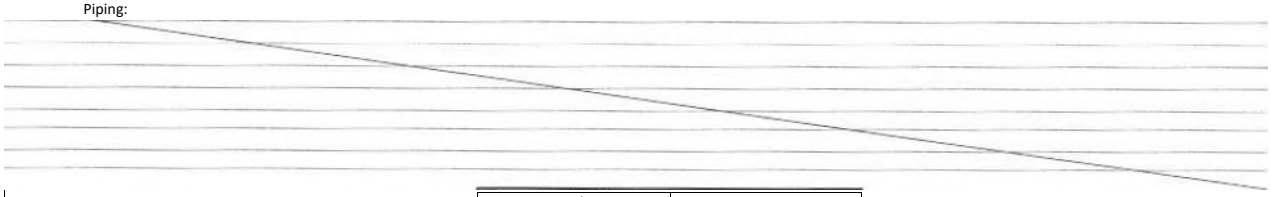
TRACEABILITY RECORD ON GAS PIPING

CODIGO CANERIA:

DESCRIPCION

CAAERIA DE

Piping:



PEREZ/123B cr•ERA00R	FECHA

OPERAOOR

OPERATOR

FORM

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD
CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

COOIGO DESCRIPCION:

DE GAS

Code Piping:

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1
Sheet:
de: of:1

CODIGO CAÑERIA: / Code Piping:	N° DE MAQUINA: / Nr. Machine:	DESCRIPCION: / Description:	
17600-1	-	CAÑERIA DE GAS	IPIE: 13019

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

N° DE SERIE (Serial Nr.)	N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION: CODIGO CAÑO (Code pipe)	BRIDA ENTRADA (Outlet flange)	BRIDA SALIDA (Inlet flange)	CODO ENTRADA (Outlet elbow)	CODO SALIDA (Inlet elbow)	CAÑO (Pipe)	OTROS (Other)	CERTIFICADO OTROS	PRESION DE PRUEBA [BAR] (Test pressure)	REALIZO PRUEBA (Test done by)	MANOMETRO (Pressure gauge data)
P895	17600-1	ER3	ER3	DDJZ	-	-	-	-	29 BAR	VALDEZ/1345	0-70 BAR
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

RELEVAMIENTO DE DATOS SOBRE TRAZABILIOAD DE
CAÑERIA DE GAS

TRACEABILITY RECORD ON GAS PIPING

CODIGO CANERIA: DESCRIPCION

CAAERIA DE

Piping:

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1 Sheet: de: of:1

CODIGO CAÑERIA: Code Piping:	N° DE MAQUINA: Nr. Machine	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE:
17600	-		13019

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| N° DE SERIE Serial Nr. | N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD

CANERIA DE GAS

TRACEABILITY RECORD ON GAS PIPING

CODIGO CASERIA. DESCRIPCION:

DE GAS

Code Piping: N'. Machine:

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS

TRACEABILITY RECORD ON GAS PIPING

Pagina:1 Sheet: de: of:1

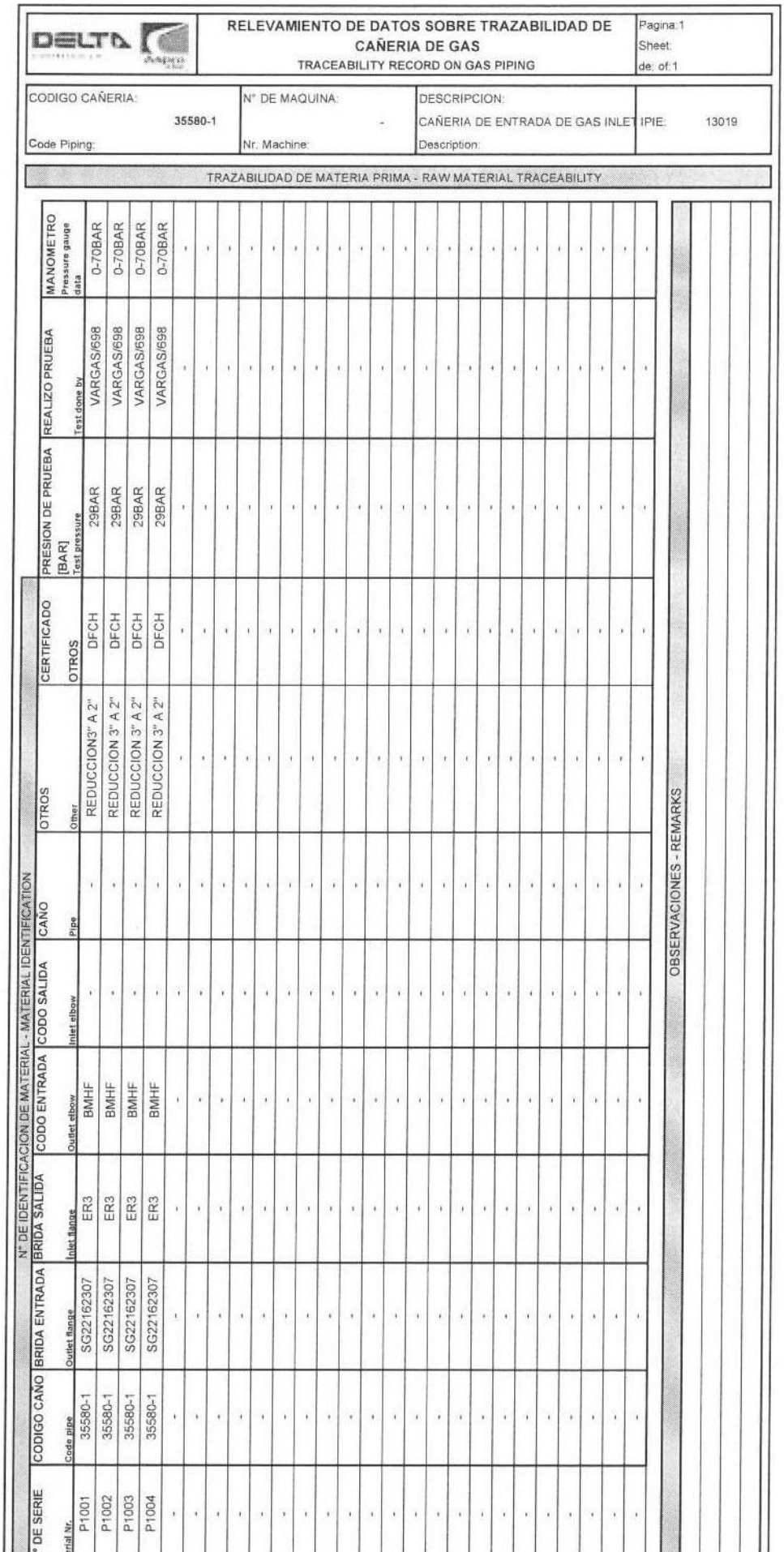
CODIGO CAÑERIA: 35581-4 Code Piping:	N° DE MAQUINA: - Nr. Machine:	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE: PL-35581-4

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| SERIE | N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE
CANERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

COOIGO CAÑERIA: DESCRIPCION
CAÑERIA DE



RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1
Sheet:
de: of:1

CODIGO CAÑERIA: / Code Piping:	N° DE MAQUINA: / Nr. Machine:	DESCRIPCION: / Description:	
35580-1	-	CAÑERIA DE ENTRADA DE GAS INLET	IPIE: 13019

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

N° DE SERIE / Serial Nr.	N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION: CODIGO CAÑO / Code pipe	BRIDA ENTRADA / Outlet flange	BRIDA SALIDA / Inlet flange	CODO ENTRADA / Outlet elbow	CODO SALIDA / Inlet elbow	CAÑO / Pipe	OTROS / Other	CERTIFICADO OTROS	PRESION DE PRUEBA [BAR] / Test pressure	REALIZO PRUEBA / Test done by	MANOMETRO / Pressure gauge data
P1001	35580-1	SG22162307	ER3	BMHF	-	-	REDUCCION3" A 2"	DFCH	29BAR	VARGAS/698	0-70BAR
P1002	35580-1	SG22162307	ER3	BMHF	-	-	REDUCCION 3" A 2"	DFCH	29BAR	VARGAS/698	0-70BAR
P1003	35580-1	SG22162307	ER3	BMHF	-	-	REDUCCION 3" A 2"	DFCH	29BAR	VARGAS/698	0-70BAR
P1004	35580-1	SG22162307	ER3	BMHF	-	-	REDUCCION 3" A 2"	DFCH	29BAR	VARGAS/698	0-70BAR
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

RELEVAMIENTO DATOS SOBRE TRAZABILIDAD

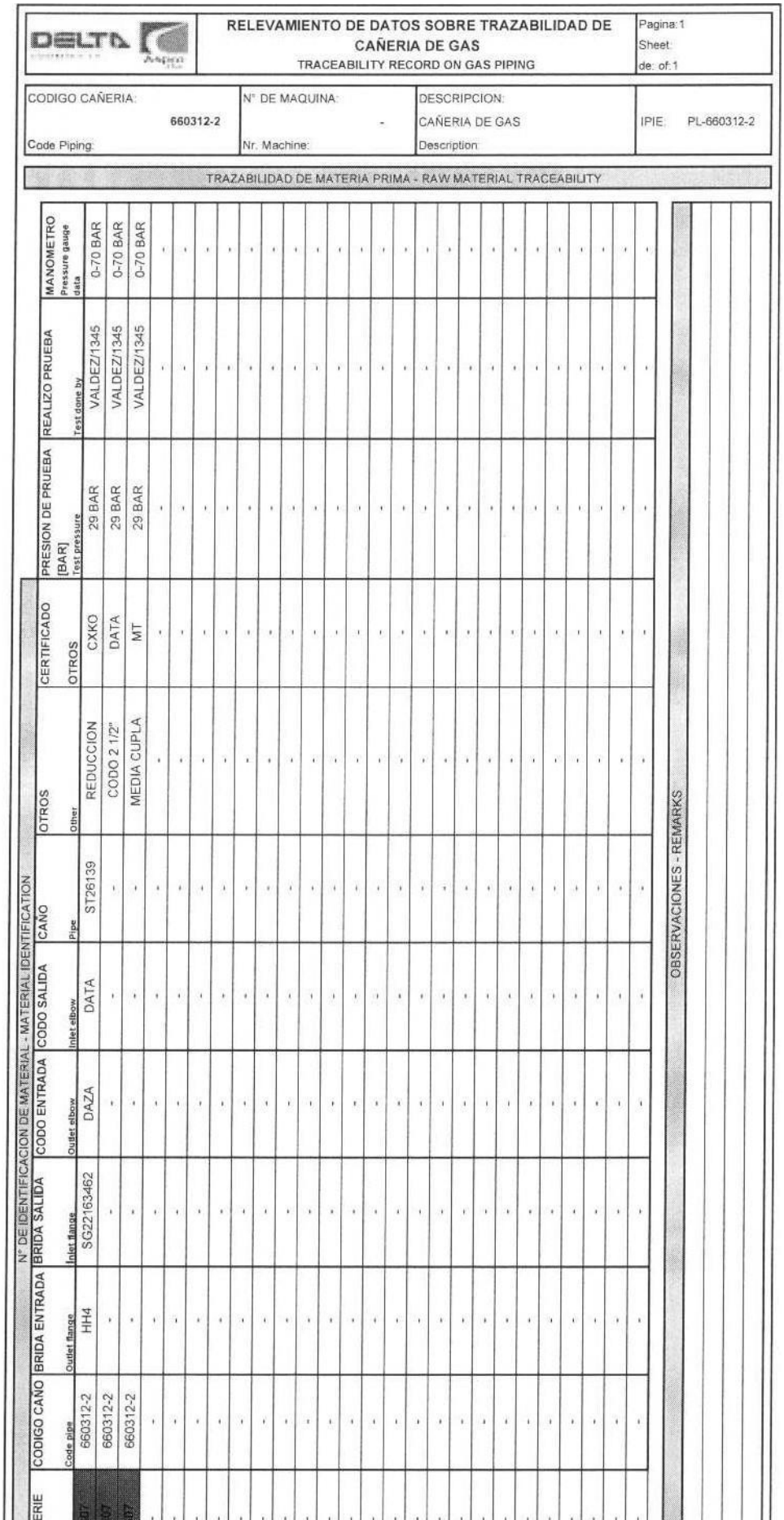
CAÑERIA DE GAS

RECORD ON GAS PIPING

CODIGO CAÑERIA. DESCRIPCION.

CANERIA DE GAS

Code Nr. Machine: Description



RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina: 1
Sheet:
de: of: 1

CODIGO CAÑERIA: / Code Piping:	N° DE MAQUINA: / Nr. Machine:	DESCRIPCION: / Description:	IPIE:
660312-2	-	CAÑERIA DE GAS	PL-660312-2

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE
CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

CODIGO N' DESCRIPCION:

CANERIA DE GAS IPE

Code Nf.

DELTA	RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS TRACEABILITY RECORD ON GAS PIPING	Pagina:1 Sheet: de: of:1

CODIGO CAÑERIA: 660310-7 Code Piping:	N° DE MAQUINA: - Nr. Machine	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE: PL-660310-7

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CANERIA DE GAS

TRACEABILITY RECORD ON GAS PIPING

Sheet:

COOIGO CAÑERIA: N' DE MAQUINA: DESCRIPCION:

CASE-RIA GAS IPE

Code Piping: N'. Machine Description

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1
Sheet:
de: of 1

CODIGO CAÑERIA: 40600-34	N° DE MAQUINA: -	DESCRIPCION: CAÑERIA DE GAS	IPIE: PL-40600-34
Code Piping:	Nr. Machine:	Description:	

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE SOBRE TRAZABILIDAD DE DE GAS

TRACEABILITY ON GAS PIP'NG

CODIGO CANERIA: N' DE DESCRIPCION:

CASIERIA GAS IPE

Code

TRACEABILITY

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS

TRACEABILITY RECORD ON GAS PIPING

Pagina:1 Sheet: de: of:1

CODIGO CAÑERIA: Code Piping:	660324-3	N° DE MAQUINA: Nr. Machine:	-	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE: PL-660324-3

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS Sheet:

TRACEABILITY RECORD ON GAS PIPING do:

CODIGO CAÑER'A: N' DE MAOUINA: OESCRIPCION. CAÑERIA GAS

Code Pip'ng: Machine: Description:

TRACEABILITY

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1 Sheet: de: of:1

CODIGO CAÑERIA: 15247 Code Piping:	N° DE MAQUINA: - Nr. Machine:	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE: 13019

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION															OBSERVACIONES - REMARKS
CODIGO CAÑO Code pipe	BRIDA ENTRADA Outlet flange	BRIDA SALIDA Inlet flange	CODO ENTRADA Outlet elbow	CODO SALIDA Inlet elbow	CAÑO Pipe	OTROS Other	CERTIFICADO OTROS	PRESION DE PRUEBA [BAR] Test pressure	REALIZO PRUEBA Test done by	MANOMETRO Pressure gauge data					
15247	SG22164988	R61	-	-	ST47999	-	-	105 BAR	SOSA/1451	0-250 BAR					
-	-	-	-	-	-	-	-	-	-	-					
-	-	-	-	-	-	-	-	-	-	-					
-	-	-	-	-	-	-	-	-	-	-

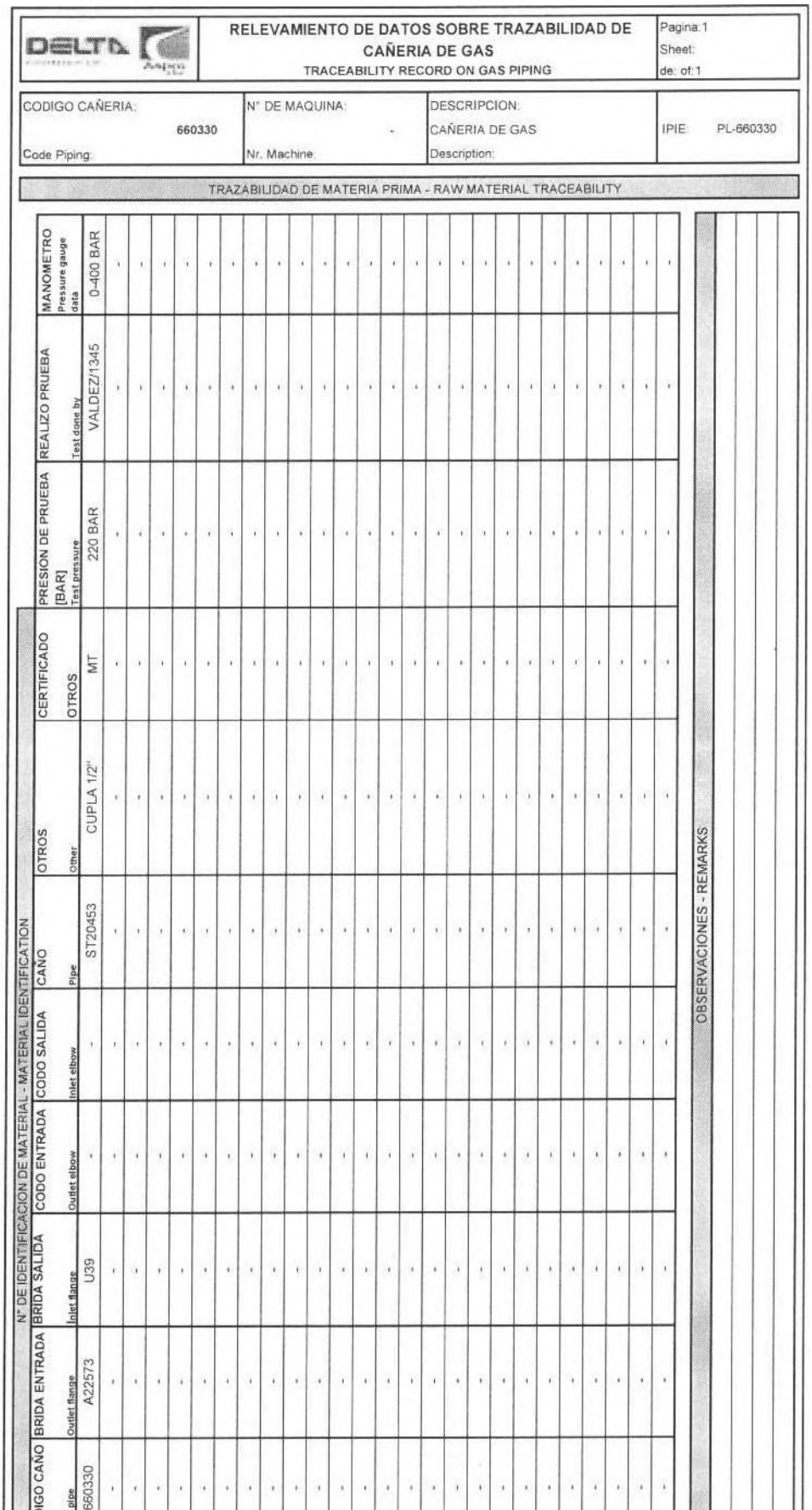
RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS Sheet:

TRACEABILITY RECORD ON GAS PIPING de:

CANE-RIAL DE GAS

Machine

TRACEAAILITY



RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1
Sheet:
de: of:1

CODIGO CAÑERIA: Code Piping:	660330	N° DE MAQUINA: Nr. Machine:	-	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE: PL-660330

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS

Sheet:

TRACEABILITY RECORD ON GAS PIPING

de:

COOIGO CAÑER'A: DE MAQUINA DESCRIPCION:

CAÑERIA GAS

Code Pipqng: Machine:

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1
Sheet:
de: of:1

CODIGO CAÑERIA: 660340-2 (Code Piping:)	N° DE MAQUINA: - (Nr. Machine:)	DESCRIPCION: CAÑERIA DE GAS (Description:)	IPIE: PL-660340-2

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION	CODIGO CAÑO (Code pipe)	BRIDA ENTRADA (Outlet flange)	BRIDA SALIDA (Inlet flange)	CODO ENTRADA (Outlet elbow)	CODO SALIDA (Inlet elbow)	CAÑO (Pipe)	OTROS (Other)	CERTIFICADO OTROS	PRESION DE PRUEBA [BAR] (Test pressure)	REALIZO PRUEBA (Test done by)	MANOMETRO (Pressure gauge data)
	660340-2	U39	SG22164988	DADT	-	ST20453	-	-	100 BAR	VALDEZ/1345	0-250 BAR
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS

TRACEABILITY RECORD ON GAS PIPING

CODIGO CAÑERIA. DE MAQUINA. DESCRIPCION, CAÑERIA GAS

Code Piping: Machine

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina: 1 Sheet: de: of: 1

CODIGO CAÑERIA: Code Piping:	N° DE MAQUINA: Nr. Machine:	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE: PL-660340-3
660340-3	-		

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

| N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION | | |

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE
CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

CODIGO CAÑERIA. DE MAOUINA. DESCRIPCION,
CAÑERIA GAS

Code Piping: Machine

DELTA

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CAÑERIA DE GAS
TRACEABILITY RECORD ON GAS PIPING

Pagina:1
Sheet:
de: of:1

CODIGO CAÑERIA: Code Piping:	N° DE MAQUINA: Nr. Machine:	DESCRIPCION: CAÑERIA DE GAS Description:	IPIE: 13019
34340	-		

TRAZABILIDAD DE MATERIA PRIMA - RAW MATERIAL TRACEABILITY

N° DE IDENTIFICACION DE MATERIAL - MATERIAL IDENTIFICATION																		
N° DE SERIE Serial Nr.	CODIGO CAÑO Code pipe	BRIDA ENTRADA Outlet flange	BRIDA SALIDA Inlet flange	CODO ENTRADA Outlet elbow	CODO SALIDA Inlet elbow	CAÑO Pipe	OTROS Other	CERTIFICADO OTROS	PRESION DE PRUEBA [BAR] Test pressure	REALIZO PRUEBA Test done by	MANOMETRO Pressure gauge data	OBSERVACIONES - REMARKS
P1070	34340	SG22164988	SG12344563	-	-	ST49427	-	-	503 BAR	VALDEZ/1345	0-600 BAR	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-

	Aspro		RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DEL TANQUE DE CHOQUE DEL COMPRESOR TRACEABILITY DATA RECORD FOR KNOCK DOWN TANK FOR COMPRESSOR PACKAGE FORM,V09g-05'2010-og-22

Código: Code:	Descripción: Desc.ription:		Nº de Serie Serial Nr.
91019	Tanque de Choque	91019-00.020 91019-00.025	

TRAZABILIDAD DE MATERIA PRIMA -RAW MATERIAL TRACEABILITY

CUERPO HORIZONTAL HORIZONTAL BODY			CUERPO VERTICAL VERTICAL BODY	
Descripción Description	Nº de Identif. de Material identificati		Descripción Description	Nº de Mate
CUERPO BODY	Cert: ST81504		CUERPO BODY	Cert:
TAPA LDO/C.VERTICAL HEADER (VERT. BODY SIDE)	Cert: SG22164988		BRIDA SUPERIOR uppER HEADER	Cert
TAPA LATERAL HE ADER	Cert SG22164988		NIPLE 1" BSPT l" BspT N lppLE	Cert:
	Cert			Cert:

IDENTIFICACIÓN DE SOLDADORES POR OPERACIÓN (AC ÑA CÁMANENTUO'NTS TRACEABILITY

OPERACI N SEQU£NCE	CUNO N O
FASE N º	23
FASE N º 14	23
FASE N º 20	23
FASE N º 24	23
FASE N° 36	NO 23
FASE N º	

PRUEBAS HIDRAÚCICÀS

DATOS DE - HYDROSTATIC PRESSURE TESTDATA

PRESIÓN DE PRUEBA TEST PRESSURE	REALIZÓ PRUEBA TEST (JONE ay
38 BAR	MARTINEZ/1353

MANÓMETRO UTILIZADO PRESSURE GAUGE DATA	RESULTADO RESÚLT
Rango 0-70 BAR Range:	OK

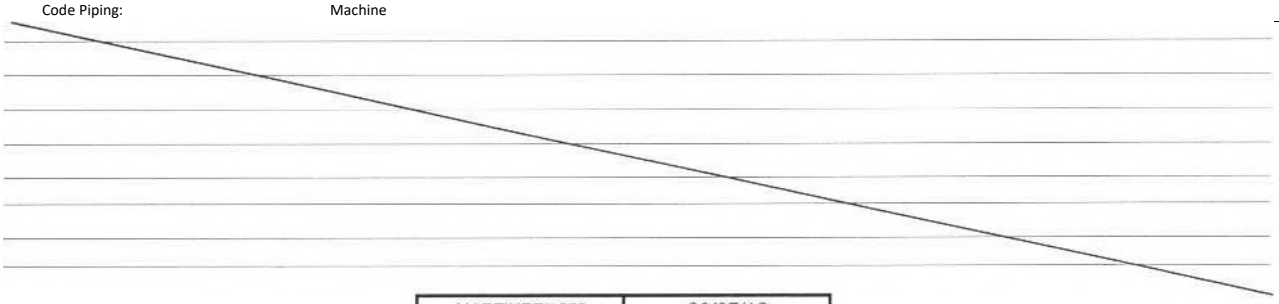
OBSERVACIONES - REMARKS

RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE
CAÑERIA DE GAS

TRACEABILITY RECORD ON GAS PIPING

CODIGO CAÑERIA. DE MAOUINA. DESCRIPCION,
CAÑERIA GAS

Code Piping: Machine



MARTINEZ/1353	20/07/12
Vº Bº OPERADOR OPERATOR OK	FECHA DATE

FECHA

DELTA COMPRESION S.R.L. Aspro	RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAO DE CONDENSADORES DEL COMPRESOR TRACEABLITY RECORD FOR COMPRESSOR PACKAGE CONDENSER	Pagina:

35021	Condensador Precompresor	'PIE N º 35021-00.110 35021-00.115	N" de Serie P869. 0712

TRAZAB'LIDAD DE

CONJUNTO CONDENSADOR	
Descripción Description	Material Identification Nº de Identif. de Material
Ok SALIDA OUTLEI FI_ANG£	cerr SG22163462
CUERPO aoov•	ST54313
TAPA SUPERIOR HEA0kR	cert: AA21196
TAPA LOWER HEADER	cert: A20351
NIPLE 3" SCH 40	ST473g4
MEDIA CUFIA	Cert: A39359
	CerL
	Ceri:
	Cert
	Cerl:
	C ert:

IDENTIFICÁCióN

ILjTY

OPERACION N º SEauENcE	CUÑO Nº STAMP Nr.
N° 40	
40	
N° 65	
100	

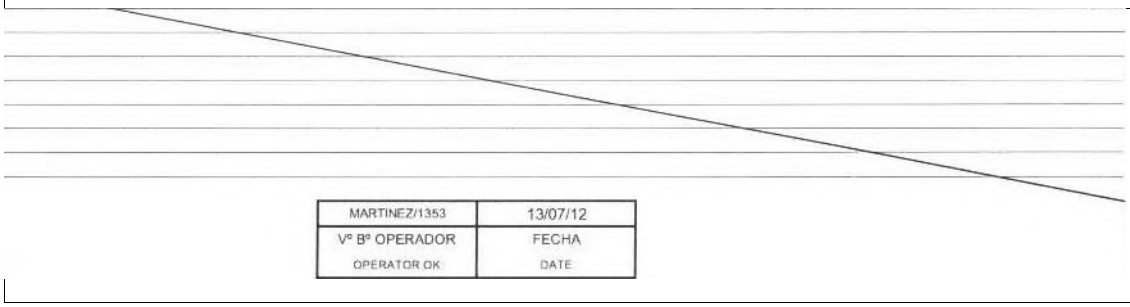
PREsguRË

- HYOROSTAITC DATA

PRESIÓN DE PRUEBA TESI	REALZÓ PRUEBA DONE
go BAR	MARTINEZ,'1353

MANÓMETRO UTILIZADO GAUGE DATA	RESULTADO
Rango: BA	OK

OBSERVACIONES



MARTINEZ/1353	13/07/12
Vº Bº OPERADOR OPERATOR OK	FECHA DATE

	RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CONDENSADORES DEL COMPRESOR TRACEABILITY RECORD FOR COMPRESSOR PACKAGE CONDENSER	Pagina-

Código:	Descripción:		N º de Serie _
15111	Condensador de Description: I • Etapa	15111-00.070 15111. 00.075	puo- 0712

MATER P

B*LIDADOE

CONJUNTO CONDENSADOR ASSEMBLY	
Descripción Description	Nº de Identif. de Material Material Identification
gRi0A SAUDA FLANGE	SG22163462
CUERPO Boay	ST82998
TAPA SUPERIOR UPPER HEADER	cere SG22164988
TAPA INFERIOR	Cart SG22163462
cooo	Cert: CZHD
CAÑo	cert ST43890
	cert ST43890
	certi
	Ceri;
	ceri:
	Certi

LDADORES POR

N DES OPERACION (ACUÑADO)

OPERACiÓN N º SEQUENCE Nr.	CUÑO N º
40	
50	
60	23

TOS PRUEBAS HIDRÅUI_ICAS -

DE HYDROSVAT/C TEST

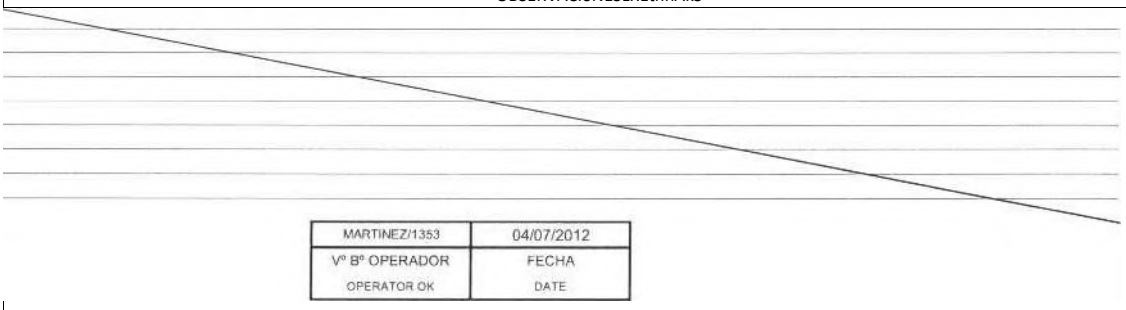
PRESIÓN DE PRUEBA TEST
90 BAR

REALIZÖ PRUEBA TEST DONE 8"
MARTINEZ/1353

MANóMETR0 UTILIZAD GAIJGE DATA
Rango: 0-250 BA

RESULTADO RESULT

OBSERVACIöNESLRËthhÀkS



MARTINEZ/1353	04/07/2012
Vº Bº OPERADOR OPERATOR OK	FECHA DATE

F OR" bFOgT-05,2009aE-3a

	RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CONDENSADORES DEL COMPRESOR TRACEABn-rry RECORD FOR COMPRESSOR PACKAGE CONDENSER roRM	Pagina: Sheet: de: of:

15112	Descrivctry: Condensador do Etapa	15111.00.070 15111. 00.075	Ne P833- 0712

TRAZAa'LIDADDE

MATER PRIMA TMCEA"iLITY

CONJUNTO CONDENSADOR ASSE'.IBLY	
Descripción Description	de identif. de Material Material Identification
gRIDA DE SALEA OUILET FLANGE	Cert: A23923
CUERPO aooy	ST701B7
TAPA SUPERIOR UPPER HEADER	Cert SG221ô49B8
TAPA INFERIOR LOWER	Cert: SG221ô4988
CAÑO	Ccrt, ST42320
	Cort:
	Cert
	Cert.
	Corr.
	Cert:

ICACIóN DE SOLDAOORE o aovrs TRACCAEILITY

OPERACIÖN N" SEOL'ENCE NE	CUÑO N"
40	
50	
N° 60	23

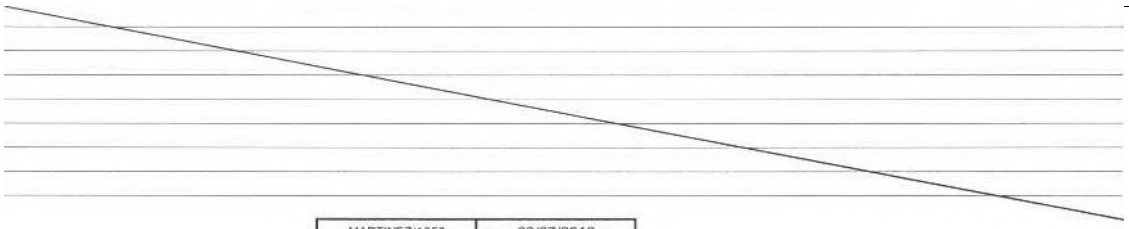
DATOS OE PRUE

PRESON OE PRUEBA PREssuRE
180 BAR

ALIZÓ PRUE PRUEBA REAL TEST DONE BY
MARTINEZ1353

MANÓMETRO UTILIZADO PRE sso•RE DATA
Rango: 0-400 B/

RESULTADO RESULT
OK



MARTINEZ/1353	03/07/2012
Vº Bº OPERADOR OPERATOR OK	FECHA DATE

FORM.Nº097-05/2009-08-18

	RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CONDENSADORES DEL COMPRESOR TRACEABILITYRECORD FOR COMPRESSOR PACKAGE CONDENSER roRM	p agina:

Código:	Descripción:		Ne Serie
15113	Condensador Description: de 3º Etapa	15111-00.070 15111-00.075	P800. 0712

ILIDAD DE TER MATEre.AL

CONJUNTO CONDENSADOR	
Descripción Description	Nº de Identif. de Material Material Identification
SALIDA OUTLEÄ FLANGE	Cert: SG12344563
CUERPO aoay	ST80985
TAPA SUPERIOR UPPER HEAOER	Cert SG22164988
TAPA INFERIOR LOWER HEAOER	SG221649B8
CAÑO	cert: ST31868
	Cert:
	Cert:
	Ceri:
	Cert:
	Cert:

ióN óE ADORES CUÑADO) - .rolNrs TRACEAHLIfY

OPERACIÓN N º	CUÑO Nc
40	
N° 50	
60	N° 7

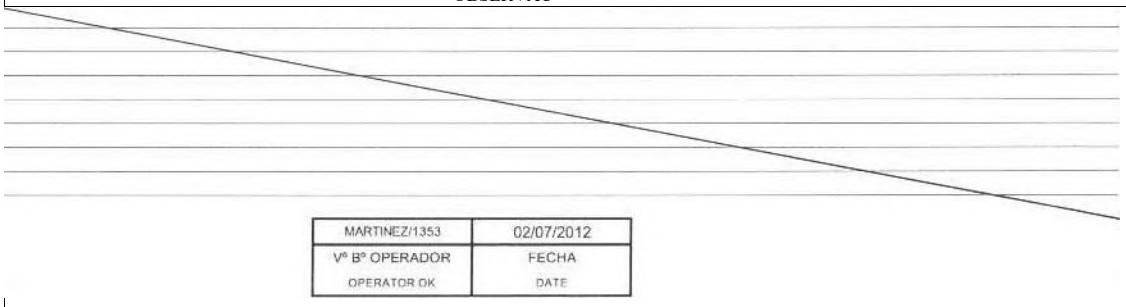
HIDRÁULICAS

DATOS OE - PRESSURETEST

PRESIÓN DE PRUEBA TEST	REALIZO PRUEBA TEST
BAR	MARTINEZ/1353

MANÓMETRO UTILIZADO	RESULTADO RFsutr
Rango' 0-400 B	OK

OBSÉRVÀC



MARTINEZ/1353	02/07/2012
Vº Bº OPERADOR OPERATOR OK	FECHA DATE

DELTA COMPRESSION S.R.L. Aspro GNE	RELEVAMIENTO DE DATOS SOBRE TRAZABILIDAD DE CONDENSADORES DEL COMPRESOR TRACEABLITY RECORD FOR COMPRESSOR PACkAGE CONDENSER		pagr,a.
Código: 15580	Condensador de última Etapa	(PIE N' 15158-00.090 15158-00.095	P904. 0712

TERLAPRIMA -

CONJUNTO CONDENSADOR	
Descripción Description	N° de Identif. de Material Material Identification
BRIDA OE SALIDA OUTLET FLANGE	cert: SG 12344563
CUERPO gaay	Cert: ST36391
TAPA SUPERIOR LIPPER HEADkR	Cert: AA24611
TAPA INFERIOR LOWER HEAOER	cert: SG22164988
	Cort: sT3B979
TAPA	cerl: ;S 103031623%
	Cert:
	certi
	Cert
	C ert

OPERACON (ACUÑADO

OR POR • JOINTS

OPERACION N O SEOuENCE	cuÑa N"
N° 30	
35	23
N° 40	

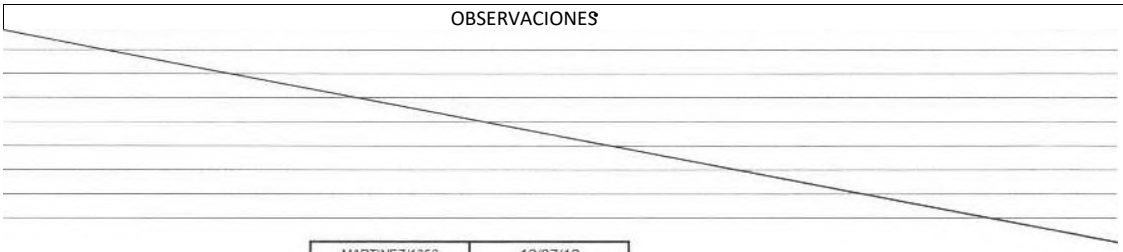
-OATöSÖEP HIDR LILICÅ

UEBAS

PRESIÖN DE PRUEBA TEST PR£gsuRE	REALIZO PRUEBA
503 BAR	MARTINEZ/1353

MANÓMETRO UTILIZADO PRESSLIRE GAUGE	RESULTADO RESULT
Rango: 0-700 B/	

OBSERVACIONES



MARTINEZ/1353	18/07/12
Vº Bº OPERADOR	FECHA
OPERATOR OK	DATE

Aspro	CERTIFICAOO DE CALIBRACION VÁLVULAS DE SEGtJRtDAD ALIVIO SAFETY & RELEASE VALVE SETTING CERTIFICATE		INFORME REPORT NO 29133 /12	
Fecha Date 09/2012	Válvuia Nueva New Valve		Válvuia Recalibrada Re-setting Valve	

Delta Compresión SRL: Certifica que la Válvula de Seguridad abajo detallada ha sido verificada en cuanto a su funcionamiento y calibración nuestros bancos de prueba, de acuerdo a las instrucciones aplicables. Por lo tanto garantizamos su buen funcionamiento en condiciones normales de uso, por el término de un año a partir de la puesta en marcha del equipo.

Delta Compresión SRL: Hereby certify that the Safety Valve detailed below has been checked regarding its working condition and setting in Test Bench, according the applicable instructions.- Thus we guarantee its good working conditions under normal conditions, for one year since the start up of the equipment. en

Marca	ASPRO		NO de Serie Serial Number	291 33
Mode'o Código Model / Code	26116 Válvu'a tipo Type Valve		Fluido	Gas Natural Flatural Gas
Conexioneg Entrada / Salida Outlët connections		1" BSPT	Presión ae Calibración Setting Pressure	10 BAR
Tipo de Conexión Connection Type	Rosca NPT	Fosca BSFT	Sobrepres•on Over pressure	

Ensayos Operacionales en el Banco Hidroneumático (A.P.l.527)
F'_inctiana' Testa on Teet (A.F'.US27)

Disparos Shotte		Aprobado	Resultado Resa t	Satistac torto Satisfactory	
	2	Aprobado			
	3	Aprobado Aa ved	Núrnero de Precinto Number ot St		ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 10.094 HIU 18.655 ING. CLAUDIO MC.TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIU 18110
Estanqueidad		Aprobado	03601 9		

Cliente. Client'	N^{O} de Màquina• Machine N^{O} - 4248

Aspro	CERTIFICADO DE CALIBRACION VÁLVULAS DE SEGURIDAD Y ALIVIO SAFETY & RELEASE VALVE SETTING CERTIFICATE FORM		INFORME REPORT 29133 '12	
Fecha Oate 09/2012	Válvula Nueva New Valve		Válvula Recalibrada Re-setting Valve	

Delta

Ita Compresión SRL: Certifica que la Válvula de Seguridad abajo detallada ha sido verificada en cuanto a su funcionamiento y calibración en nuestros bancos de prueba, de acuerdo a las instrucciones aplicables. Por lo tanto garantizamos su buen funcionamiento en condiciones normales de uso, por el término de un año a partir de la puesta en marcha del equipo.

Delta Test

Ita Compresión SRL: Hereby certify that the Safety Valve detailed below has been checked regarding its working condition and setting in our Bench, according the applicable instructions.- Thus we guarantee its good working conditions under normal conditions, for one year since the start up of the equipment.

Marca	ASPRO		NO de Serie Sena' Number	29133
Mode'o / COdigo Model Code	26116 Válvula tipo		Fluido	Gas Natural Natura/ Gas
Conexiones Entrada / Inlet / Outlet cannectic"ns		aspr	Presión de Calibración Setting Pregsure	10 BAR
Tipo de Conexión Connection Type	Rosca	Rosca BSPT	Sobrepresion Overpressure	

Ensayos Operacionales en el Banco Hidroneumático (A.P.I.527)
Teate on the H dra Eurnatic Test

Disparos Shcwts		Aprobado	Resultado	Sat'sractorio Satisfactory	
	2	Aprobado A roved			
	a	Aprobado	Núrnero de Precinto Namber o' St		
Estanqueidad ht		Aprobado A rovect	036011 g		

ING. JORGE BATTISTA
REPRESENTANTE TECNICO MATRICULA COPIME 16.955
ING. CLAUDIO MC TEDESCHI
REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIJ 16110
CC•PIME 0 094 Hit]

ente C'ient:	COF E N^{O} de Máquina: Machine N ^{O} 1426

Aspro

CERTIFICADO DE CALIBRACION
VÁLVULAS DE SEGURIDAD Y ALIVIO
SAFEIY & REI FASE VALVE SETTING CERTIFICATE
FORM NO 0-20

INFORME
REPORT
NO 28802 112

Fecha Date 08/2012	Válvula Nueva New Valve	x	Válvula Recalibrada Re-setting Valve	

Della CompreSOn SRI_: Certifica que la Vávula de Seguridad abajo detanada ha SidO veñticada en cuanto a tuncionamieñto y catbración en nuestros bancos de prueba. de acuerdo a las instruccionea aplicables_ Por 10 tanto garantizamos su buen fiancionamienta condiciones normales de par término de un aho a partir de la puesta en marcha del equipo.

Delta CompreSón SAL: Hereby certify that the Safety Valve detailed below has been checked regarding its workng condition and ætting in our
Test accoœing the applicable instructions.- Thus we guarantee its good won-Ong conditions under normal conditions, tar one year since the up ot the equipment.

Marca	ASPHO		NO de Serie Ser al Nu ber	28802
Modelo / Código Model / Code	26100 Vátvula tipo 26099 Type valve		Fluid	Gas Natural Natural Gas
Conexiones Entrada / Salida inlet / Outlet connections	NPT	1" BSPT	Presión de Calibración Setting Pressure	18
Tipo de Conexión Connection Type	Rosca NPT	Rosca BSPT	Sobrepresion	10%

Ensayos Operacionales en el Banco Hidroneumático (A.P.I.527)
Functional Tests on the ropneumatic Test Bench AP _1.527

Disparos Shoote		Aprobado	Resultado Result	Satisfactorio Satisfactory	
	2	Aprobado A roved			

	3	Aprobado	Número de Precinto Number Of St in	ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 18.655 ING. CLAUDIO MC TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIU 18110 COP'ME O.094 HIU
Estanqueidad		Aprobado Ved	0122263	

Cliente: Client:	N O de Máquina. Machine N O 4245

Aspro	CERTIFICADO DE CALIBRACI N VÁLVULAS DE SEGURIDAD Y ALIVIO SAFETY & RELEASE VALVE SETTING CERTIFICATE FOAM NO 055-15/201 0-10-20	INFORME REPORT NO 28802 112

Fecha Date 09/2012	Válvula Nueva New Valve		Válvula Recalibrada Re-setting Valve	

Delta Compresiôn SRI_; Certifiça que la Válvula de Seguridad abajo detallada ha venfjcada en cuanto a SLI funcianamienta y calibración en

nuestros bancos de ptl'eba, de acuerda a las instrucciones apticaòles. Por 10 tanto garantizamos su buen tuncionamiento en condicioneS notmales de par el términ0 un año a partir pueSta en mar-cha del equlçx).

Delta Compresión SRL: Hereby certify that the Safety Valve detailed below has been checked regart:ding its Wori<jnO condition and ættjng in our
Teat Bench, according the applicable instructiona- Thus we guarantee its wod<ng conditions under normal Conditions, for One year Since the Start up Ot the equipment.

Marca	ASPRO		Serial Number	28802
Modelo / Código Mcdel / Code	261 00 Válvula tipo 26099 Type valve		Fluid	Gas Natural Natural Gas
Conexiones Entrada / Salida Inlet / Outlet conna:tions	NPT	1" BSPT	Presión de Calibración Setting Pressure	BAR
Tipo de Conexión Connection Type	Rosca NPT	Rosca BSPT	Sobrepresion Overpressu re	

Ensayos Operacionales en el Banco Hidroneumático (A.P.l.527)
Functional Tests on the Hydro umatic Test AP .1.527

Disparos Shoots		Aprobado	Resultado Result	Satisfactorio Satisfactory	
	2	Aprobado A roved			
	3	Aprobado	Número de Precinto Nurnær ot St		JORGE BATTISTA BEFRESEruTANTE TECNICC MATHCtJLA 0_oøa '-flu ING CLW_OO MC.IEDESCHI REPRESENTANTE
Estanqueidad		Aprobado	0122263		

Cliente, Client:	N O de Máquina: dus Machine N O'

Aspro	CERTIFICADO DE CALIBRACI N VÅLVULAS DE SEGURIDAD Y ALIVIO SAFETY & RELEASE VALVE SETTING CERTIFICATE FORM NO 055-15,2010-10-20	INFORME REPORT 28839 /12	

Fecha Date 09/2012	Vátvula Nueva New Valve	X	Válvula Recalibrada Re-setting Valve	

Delta Compresión SAL: Certifca que la Válvula de Seguridad abajo detallada ha sido verificada en cuanto a su tuncionamiento y calibraciOn en nuestros banc0s de prueba. de acueña a las instrucciones aplicables. Por 10 tanto gar-antizamas Su Ouen funcicnamiento en condiciones ncxmales de por termino de un año a partir de la puesta en martha de' equign.

Delta Compreš&l SRI_: Hereby certify that the Safety Valve detailed below has bæn Checked regarffng its '*Kirkng condition and ætting in
Test Bench. according the applicable instructrons.— Thus we guarantee its good conditions under normal conditions, fCN• One year Snce the start up at the equipment.

Marca	ASPRO	NO de sene	28839

Modelo / Código Model / Code	26115 Válvula tipo 26099 Type valve		Fluido Fluid	Gas Natural Natural Gas
Conexiones Entrada / Salida Inlet / Outlet connections	NPT	BSPT	Presión de Calibración Setting Pressure	26 BAR
Tipo de Conexión Connection Tyv*	Rosca NPT	Rosca BSPT	Sobrepresion Overpressure	

Ensayos Operacionales en el Banco Hidroneumático (A. ?.1.527)
Functional the umatic Test Bench A.P.l.527

Disparos Shoots		Aprobado	Resultado Result	Satisfactorio Satisfactory	
	2	Aprobado			
		Aprobado	Número de Precinto Number of St		ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 18.655 ING. CLAUDIO MC.TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIU 18110 10-094
Estanqueidad		Aprobado	012071 2		

Cliente: Client	N^{O} de Måquina: Machine N^{O}' 14 24

Aspro	CERTIFICADO DE CALIBRACI N VÁLVULAS DE SEGURIDAD Y ALIVIO SAFETY & RELEASE VALVE SETTING CERTIFICATE FORM NO 055-15,201 0-20	INFORME REPORT NO 28839 ,'12

Fecha Date 08/2012	Válvula Nueva New Valve	X	Válvula Recalibrada Re-setting Valve	

CEta CompreSón SRL: Certihca que la Válvula de Seguhdad abaia detal'ada ha sido verificada en cuanto a tuncionamiento y calibración en nuestros bancos de prueba, de acuerdo a las instrucciones apliCableS. Por 10 tanta garantizamos su buen funcionarniento en condiciones normales de por el termino de un añO a partir de la puesta en mar-Cha del equipo,

Delta CompreSón SAL: Hereby certify that the Safety Valve detailed has been checked regarding its working Condition and ætting in our

Test Bench. acconiing the applicable nstructions.-Thus we guarantee Its working conditions under normal conditions, tor one year since the Start up Of the equipment.

M arca	ASPRO	NO de Serie Serial Number	28839
Modelo / Código Mode / Code	26115 Válvula tipo 26099 Tycœ valve	Fluido Fluid	Gas Natural Natural Gas
Conexiones Entrada / Salida Inlet / Outlet connections	NPT 1" BSPT	Presión de Calibración Setting Pressure	BAR
Tipo de Conexión Connection Type	Rosca NPT Rosca BSPT	Sobrepresion Overpressu re	

Ensayos Operacionales en el Banco Hidroneumático (A.P.l.527)
Functional Tests an the Hyd eumatic Test Bench A-P _ I .52

Disparos Shcots		Aprobado d	Resultado Result	Satisfactorio Satisfactory	
	2	Aprobado			
		Aprobado	Número de Precinto Num ær of Stra		REPRESE ING. JORGE BATTISTA IESENTANTE TECNICO MATRICULA COPIME 10.094 HIU 18.655 ING. CLAUDIO MC.TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIU 18110 ME 786
Estanqueidad		Aprobado	0120712		

Cliente: Client:	N^{O} de Máquina: Machine N^{O} ' 4245

Aspro	CERTIFICADO DE CALIBRAC'ON VÁLVULAS DE SEGURIDAD Y ALIV'O SAFETY & RELEASE VALVE SETTING CERTIFICATE 055-7 5001 a-1 0-20	INFORME REPORT 29041 /12

Fee ha Date 2012	Válvula Nueva New Valve	X	Válvula Recalibrada Re- setting Valve	

Delta SRL: cp_jë de Seguñdad abajo deta"ada ha sido verificada en Guanta a su tuncianarniento y caliöración en a (as agic•ables. tanta garantizamos Su en condicianes normaie-s de usn, año a partir de la puasta en marcha de: equipc_

Deita SAL: Hereby cert"y that the Safety Valve detailed has bEen checked regarúrhg its workng condition and ætting in our Teat according Thus guarantee its good under tor one year Since the start up at the

Marca	ASPRO		Serial Number	29041
Modelo / Códjgo Model / Code	261 oa Válvula tipo 26098 Type valve		Fluido Fluid	Gas Natural Natural Gas
Conexiones Entrada / Calida Outlet connections	1/2" NPT	BSPT	Presión de Calibración Setting Pressure	
Tipo de Concxlón ConnectionTyne	Bosca NPT	BSPT	Sobrepresion Overpressu re	

Ensayos Operacionales en el Banco Hidroneumático (A.P.l.527) H cir00r1Eumatic aenç h (A.P.I.527

DIs paros Shoots		Aprobado	Resultado	Satisfactorio Satisfactory	
	2	Aprobado			
	3	Aprobado	Número de Precinto Number af St		ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 18.655 ING. CLAUDIO MC TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIU 18110 r 0094
Estanqueidad		Aprobado	0120463		

Cliente: Client:	N^{O} de Máquina_ Machine N^{O} ' 4245

Aspro	CERTIFICADO DE CALIBRACION VALVULAS DE SEGURIDAD Y ALIVIO SAFETY & RELEASE VALVE sETTING CERTIFICATE	INFORME REPORT NO 29041 H2

Fecha 09/2012	Válvu'a Nueva New Valve	X	Válvula Recalibrada Re- setting Valve	

C'egta SRL: Cue Cie abajo Cetanada ha veriticada en Cuar'to a funcior,amiento calibrac.ibn en muestms hancos a instruccinnes Par lanto garantizarnas Buen turcionãmientoan e' têt'tn'no un a oartir de puesta en del

Delta Compresitn Sat_: Hereby that the Safety Valve cietailed below has been checked regarding 'ts workng condition and ætt.ng in our rest Ser-,crv the Instructions.- Thus we guarantee its good working condit.c,ns under conditions, for year since start Ot the equipment.

M arca	ASPAO		NO de Serie Serial Number	29041
Modelo / Código Model / Code	261 03 Válvula tipc 26098 valve		FILlid0	Gas Natural Natural Gas
Conexiones Entrada Sathda v EJL/t'E;f_ connections	1/2" NPT	BSPT	Presión de Calibración Setting pressure	BAR
Tivo de Conexién Corlnectian Type	Rosca NPT	Rosca BSPT	Sobrepresion OverpresSu re	

Ensayos Operacionales en el Banco Hidroneurnático (A.P.l.527)
the rc neumanc Test Bench A F , 1.527}

Disparos Shcx3ts		Aprobado		Satistac torio Satisfactory	

	2	Aprobado raved	Resultado Result	
		Aprobado	Número de Precinto Number at St	BArnsra
Estanqueidad		Aprobado	01 20463	
Cliente: Client:			N^{O} de Máquina. Machine N^{O} '	4245

Aspro	CERTIFICADO DE CALIBRACION VÁLVULAS DE SEGURIDAD Y ALIVIO SAFETY & RELEASE VALVE SETTING CERTIFICATE 0-1 0-20			INFORME REPORT NO 28945 112	
Fecha Date 09/2012	Válvu!a Nueva New Valve	x	Válvuia Recalibrada Re-getting Valve		

Delta CompreSór' SAL: que 'a de Seguñdad abaja datallaCa ha sido venticaaa en cuanto a Su tuncianamtento y ca'ibración bancos de prusàa, de a •as instruccic•nes tanta garantiza.maa au buen tuncianarnianta en de el de un aha a partir Cie 'a puesta marcha de' equiÇC.

SRL: that the Safety Valve below has checked its condition and ætt•ng our Test Bench. accort:iit-lg the applicable instructions.- Thus we guarantee its gac:d warÝing Conditions under normal one year stnce the start up ot the

Marca	ASPRO		No de Serial Number	28945
Mode'o / Cádigo Mr:de' / Code	261 07 Vátvula tipo Type valve	26097	Fluido Fluid	Gas Natural Natural Gag
Conexiones Entrada / Sa/ida CSut'E•t connections	1/2" NPT	1" BSPT	Fresión de Calibración Setting Pressure	BAR
Tipo de Conexión Connection	Rosca NPT	Rosca BSPT	Sobrepresion u re	

Ensayos Operacionates en Banco Hidraneumáttco (A.P.I.527)
Functional Tests an the H Circ nsumattc re-st

Disparos Shoots		Aprabado	Resultado Resu't	Satisfactorio Satisfactory	
	2	Aprobado A roved			
	3	Aprobado A Ved	Número de Precinto Number at St		ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 10.094 HIU 18.655 ING. CLAUDIO MC.TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7997 HIU 18110
Estanqueidad		Aprobado	0120042		
Cli ente_ Cli ent			N^{O} de Máquina. Machine N ^{O}'		4245

Aspro	CERTIFICADO DE CALIBRACION VÁLVULAS DE SEGUR'DAD Y ALIVIO SAFETY & RELEASE VALVE SETTING CERT!FICATE 055-35,201 a-l a-2a			INFORME REPORT 28945 112
Fecha Date 09	Válvula Nueva New Valve		Vátvula Recalibrada Re-setting Valve	

SRI_: Oe'lifica cue 'a Válvula de Seguñdad abaja detal;ada ha sicio ventlcacia en cuanto a eu tunczanamianto y caliaración de 'Se a lae apl'cabiaE_ Par tan'o buen gor tdrmino de uh partir

Oelta Compregión Hereby r.e'tity that the Safety below has regarding its canditecffi and ætting In our Test Bench. accorü/ng the Applicable Thus we guarantee its good working conditions under not-mal tor year the start up at the equipment.

Marca	AS PRO		NO de Serie er a umber	28945
Modelo / Código Model	261 07 Vátvu'a tipo 26097 Type valve		Fluido Fluid	Gas Natural Natural Gas
Conexiones Entrada / Sat'da 'n'et / Outlet connections	NPT	1" BSPT	Presión de Calibración Setting Pressure	BAR
Tipo de Conexión Connection Type	Rosca NPT	BSPT	Sobrepresion Overpressure	

Ensayos Operacionales en e' Banco Hidroneumático (AP-1.527)
Tests an the pneumatfC Test Berx:h (A F .1.527)

Disparos Shcats		Aprobado	Resultado	Satisfactorio Satisfactory	
	2	Aprobado			
		Aprobado A rr_wed	Número de Precinto Number Ot St		ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 1 18.655 ING. CLAUDIO MC.TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIU 1A110 10.094
Estanqueidad T htn		Aprobado	0120042		

Cliente: Client:	N^{O} de Máquina Machine N ^{O}: 4245

	CERTIFICADO DE CALIBRACION VALVULAS DE SEGURIDAD Y ALMO SAFETY & RELEASE VALVE SETTING CERTIFICATE			INFORME REPORT 29088 '12
Fecha Datc 09/2012	Vátvu'a Nueva New Va	X	Válvula Recalibrada Re- setting Valve	

ceta SAC: SeguriCad detanada ha eida veriticaaa en cuanto SQ.' 'uncionarniento y calibracidn en a Par 'a tanto au tuncionamiento en condiciones narma/es gar E.' un a parTir 'a puesta del

SBC: Hereby certify that the Safety Valve deta'led below has checked regarding its worRing cand'tion arid —tting in our TESt the applicab4e instructions.- Thus we guarantee conditions under normal conditions. tar year slr-,ce the start up ot the ævipment_

Marca	ASPRO		NC' de Seria Seri I Numbor	29088
Modelo / Código / Cooe	26110 Válvula tipo 26097 Type valve		Fluido	Gas Natural Natural Gas
Conexiones Entrada / Salida 'nee! Outlet connections	1/2" NPT	1" BSPT	Presión de Calibración Setting Pressure	289 BAR
Tipo de Conexión ConnectionType	Rosca	Rosca BSPT	Sobrepresion Overpressure	

Ensayos Operacionales en el Banco Hidroneumático (A.P.L527)
Functicnal Tests Teet Bench A -P 1327

Disparos		Aprobado	Resultado	Sa tistactOrio SatiStactory	
	2	Aprobado			
	3	Aprobado	Número cfc Precinto Nurnbar St		ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 10.094 HIU 18.655 ING. CLAUDIO MC.TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7987 HIU 1A110
Estanqueidad		Aprobado A raved	0360651		

ente. Client:	7997 N ^{O} de Máquina Machine N $^{O'}$ 4245

Aspro	CERTIFICADO DE CALIBRACION VÁLVULAS DE SEGURIDAD Y At-MO SAFETY & RELEASE VALVE SETTING CERTIFICATE 055-1 E;2a1	INFORME REPORT 29088 /12

Fecha Date 09	Vátvu\a Nueva New Valve		Válvula Recalibrada Re-setting Valve	

Deta que la de abajr• detaHada ha Ver,ftcada cuanto a su lanciorlamiento y calibracitn acuerüo a tanto garantlzamos Su tuncionarnientr—' r:.ondiCianes de pore un aria a part"' de la puesta En del equipa-

Delta Campreåón SAL: Hereay certify that Sat—ty Value detailed has been checked regatziing its WOrgan•g condition and—tt'ng in our Teat Bench, the we guarantee its gocd conditions under normal corvdltians, tor an—year the equipment, up Ot the

Marca	ASPRO		de sene Serial Number	29088
Modelc Código Model / Code	26110 Válvula tipo 26097		Fluido Fluid	Gas Natural Natural Gas
Conexiones Entrada Saitda Out'ët connections	1/2" NPT	BSPT	Presión de Calibracjón Setting Pressure	SAR
Tipo de Canexián Connection Type	Rosca N	BSPT	Sobrepresion Overpressu re	

Ensayos Operaciona'es en el Banco Hidroneumátlco (AP 1527)
Functional an the Crooneumatic T•st Bench (A.

Disparos Shoots		Aprobado	Resultado	Satisfactorio Satisfactory	
	2	Aprobado			
	3	Aprobado	Número de Precinto Numt•er Of Stra		ING. JORGE BATTISTA REPRESENTANTE TECNICO MATRICULA COPIME 10.094 18.855 ING. CLAUDIO MC.TEDESCHI REPRESENTANTE TECNICO MATRICULA COPIME 7982 HILLA110
Estanqueidad		Aprobado	0360631		Siu

Cliente.
Client:

N^{O} de Máquina_
Machine N ^{O}• 4245

CERTIFICATE O

EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 94/9/EC

EC-Type Examination Certificate number:

CESI 01 ATEX 101

Equipment: Three-phase asynchronous motors series T. 355 M/L supplied by mains or inverter

Manufacturer: WEG MOTORES Ltda

Address: Rua Joinville 3000 - Jaraguà do Sul, BRAZIL

This equipment or protective system and any acceptable variation thereto is specified ill the schedule to this certificate and the documents therein referred to.

CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and consttuctic.n of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex Il to the Directive.

The examination and test results are recorded in confidential report n. EX-A 1/039417,

Compliance with the Essential Health and Safëty Requirements has been assured by compliance with:

EN 50014: 1997 -FAI.,A2 EN 50018: 2000 EN 50019: 2000

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule tc this certi ficate.

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examinatior and tests of the specified equipment or protective system in accordance to the Directive 94/9!EC. Further requirements of the Directive apply to the manufacturing process and supply ol' this equipment or protective system, These are not covered by this certificate.

The marking of the equipment or protective system shall include the following:

〈Ex 11 2 G EEx d 11B T4, T3 Ex 11 2G EEx de 11B T4, T3

This certificate may only be reproduced in its entirety and without any change, schedulc included.

CESI
Centro Elettrotecnico
Sperimentale Italiano
Giacinto Motta SpA

Via R. Rubattino 54
20134 Milano - Italia
Telefono +39 022125.1
Fax +39 0221255440
www.cesi.it

Capitale sociale 8 550 000 €
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

Schema di certificazione

CESI ATEX

Il CESI è stato autorizzato dal governo italiano ad operare quale organismo di certificazione di apparecchi e sistemi destinati a essere utilizzati in atmosfera potenzialmente esplosiva con D.M. 1/3/1983, D.M. 19/6/1990, D.M. 20/7/1998 e D.M. 27/9/2000

[1]

[2]

[3]

[4]

[5]

[6]

[7]

[8]

[9]

[10]

[11]

[12]

Date 26.05.2004 (Rev. 01 of the certificate issued on 21.12.2001)
Translation issued on 26.05.2004

Prepared	Verified	Approved
Sergio Mezzetti	Mirko Baraz	Ulisse Colombo

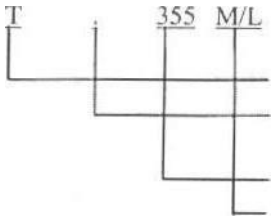
CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione
Il Responsabile

Schedule

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 101

[14)

[151 Description of equipment



Three-phase asynchronous motor
EX: motor and terminal box With type of protection "EEx d"
EXe: motor with type or protection ' 'EEx d" and terminal box "El-ix c"
center height ;winding length

The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the Elix d terminal box and according to EN 5001/1 and EN 50019 standards for the de" terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be madc according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

- Maximum rated voltage: 690
- Maximum rated power: 315 kW
- Rated current (at 400 V): 538
- Rated frequency: 50 / 60 H
- Rated speed (at 50 1"lz): 735 + 2985 rpm
- Duty:
- Ambient temperature: -20 +60 °c

- Insulation class: F with the temperature limit specified for insulation class B

The antieondensate heaters installed inside the motor can have a maximum power of 180 W.

Motors supplied by inverter:

Type or protection: EExd 11BT3 and EExde11BT3

- In alternative, the three-phase asynchronous motors Can be supplied by inverter. In this case the electr ical characteristics are indicated on a suitable label. For the other electrical characteristics see the docum:nts annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- Thc PTC thermal detectors are calibrated ror an operation temperature of 155 °C. The protection circuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 °c according to JEC 61508.
- The operation Of the thermal detector shall guarantee the disconnection of the supply; the resetting Of the supply shall not be automatic.

This certificate may only be reproduced in its entirety and without any change, schedule included.

Schedule

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 101

[13]

[14]

[15) Description of equipment (follows)

Warning label
"Use screws quality 12.9 ISO/R 898/1 and R 898/11"

For temperature class T3:
"The supply cable must be suitable for an operating temperature not less than 80 ^{0}C"

For motor supply by inverter:

"Winding protected with PTC thermistors•
or
"Winding protected with PT 100 detectors. Calibrate at 155 °c"

In case of use of anticondensate heaters: "Attention
— energized resistors".

161 Report n. EX-A I 1 7

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproofjoints and with bearmgs g •ease inside seal gasket or inside external labyrinth. as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection IP 55.

Individual tests

The mamtlhcturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out With the static method at 15 bar on the motor enclosure and at 1 1,5bar on the "EEx d" terminal box (paragraph 15.1.3. I or EN 50018 standard).

The dielectric test with applied voltage shall be performed at (2U 1000 V) with a minimum value Of V between the supply terminals and earth (U rated voltage) on the "EEx e" terminal box .

[14]

This certificate may only be reproduced in its entirety and without any change, schedule included.

Schedule

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 101

[16] Report n. EX-A 1/039417 (follows)

Descriptive documents (prof. EX-A 11039431)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. TB-0832	dated	11.04.2001
- n. TB-0835	dated	20.04.2001
- n. TB-0837	dated	23.04.2001
- n. '[13-08.38	dated	23.04.200]
- n. TB-0090 Rev. 04	dated	01 . 11.2001
-n. TB-0091 Rev. 06	dated	12.09.2001
- n. TB-0092 Rev. 02	dated	18.07.2000
- n. "113-0093 Rev. 02	dated	17.04.2001
• n. TB-0094 Rev. 01	dated	21.08.1991
- n. TB-0095 Rev. 04	dated	15.052001
- n. TB-0287	dated	07.06.1993
- n. TB-0288 Rev. 01	dated	05.04.1994
- n. '113-01 Rev. 07	dated	25.09.2001
- n. "113-02 Rev. 07	dated	25.09.2001
- n. TB-03 Rev. 07	dated	25.09.2001
-n. '113-04 Rev. 07	dated	25.09.2001
- n. '1'B-05 Rev. 07	dated	25.09.2001
- Instructions for the installation (I I sheets)	dated	04.2001
- declaration of conformity	dated	30.10.2001

One copy of all documents is kept in CESI files.

[171

Special conditions for safe use

None.

118] Essential Health and Safety Requirements Covered by standards indicated at page l.

This certificate may only be reproduced in its entirety and without any change, schedule included.

Schedule

EC-TYPE EXAMINATION C

This certificate may only be repr

EXTENSION 04/08

CESI

n. Ex

to EC-Type Examination Certificate CESI OIATEXIOI

Equipment: Three-phase asynchronous motors series T. 355 M/L supplied by mains or inverter

Manufacturer: WEG Equipamentos Elcctrieos SIA - Motores

Address: Av. Pref. Waldemar Grubba 3000 — Cx. P .42 — 89.256-900 — Jaraguà do Sul BRAZIL

Admitted variation

- Updating to EN 60079-0 (2006). EN 60079-1 (2007) and EN 60079-7 (2007) Standards. - Use of draining devices
- Constructive variations for operating at minimum ambient temperatures Ta — 40 °c and Ta - 55 °c
- Change of name Company from "WEG Motores" to WEG Equipamentos Electricos SIA Motores"

Identification and Equipment description

Three-phase asynchronous motors frame 355 shall include the following markings:

o 11 2G Ex de 11B T4

O 11 2G Ex d 11B 14 or

Electrical characteristics (main supply)

690
315
537
50ž60
735 * 2999

O Maximum rated voltage (V):

- Maximum rated power (kW):
- Rated current (at 400 V):
- Rated frequency (Hz):
- Rated speed (rpm):
- Duty:
- Ambient Temperature (°c): 60

60 opp. —40 *+60 opp.

- Insulation class: F with temperature limit for class B
- Degree Of protection . IP55 or IP56 or 11[3]65 or 11[3]66

Electrical characteristics (inverter supply)

Unchanged

EXTENSION 04/08

Th is extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI OIATEXIOI .

This document may only be reproduced in its entirety and without any change.

date	17/12/2008 - translation issued the 17/12/2008
prepared	Sergio Mezzetti
verified	Mirko Balaz
approved	Fiorenzo Bregani

CESI S.p.A.
Energy Division
"Certification Technical Department"
The Manager

CESI
Centro Elettrotecnico Sperimentale Italiano
Giacinto Motta SpA

Via R. Rubattino 54
20134 Milano - Italia
Telefono +39 022125.1
Fax 439 0221255440 www.cesi.it

Capitale sociale 8 550 000 Euro
interamente versato
Codice fiscale e numero iscrizioneCC-IAA00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. ITOC793SB0150

CESI

---

n.

to EC-Type Examination Certificate CESI 01 ATEX 101

Identification and Equipment description (follows)

Constructive. characteristir„c

Three-phase asynchronous motors frame 355, both in Standard and "Premium Efficiency" configuration, have been subjected to the following variations:

- dimensional variations of flame-joint and gap - the draining devices type WEG TB- 1584 are constituted by sintered bronze tablet encapsulated in a brass threaded enclosure suitable for assembling on the flameproof motor enclosures of group 11B.
- use of materials, components and accessories suitable for ambient temperature ranges Ta -40 °c + +60 °c and
- Ta -55 +60 °c.

The admitted variation are described, in detail, in the descriptive documents annexed to this extension

Warning label

"Winding protected with PTC thermistors" or

"Winding protected with PT 100 detectors. Calibrate at 130 for temperature class T4 (T 135 °c)

for ambient temperature Ta - 40 °c

"All motor joints must be lubricated with LUMOMOLY PT/04 grease at even opening for ensure the degree of protection IP56 or IP65 or IP66" for ambient temperature Ta 2-55 °c

EXTENSION n. 04/08

' •All motor joints must be lubricated with MOL Y COTE 033 grease at even opening for ensure the degree of protection IP56 or IP65 or IP66"

Installation conditions

The characteristics of cables and accessories used for cable entries be suitable for the admitted ambient temperature The accessories used for cable entries and for unused holes shall be subject of separate certification in compliance to the following standards:

EN 60079-0 (2006); EN 60079-1 (2007); for terminal boxes with protection mode Ex d

EN 60079-0 (2006): EN 60079-1 (2007); EN 60079-7 (2007): for terminal boxes with protection mode Ex d e

In both cases they shall guarantee a minimum degree of protection IP declared on motor nameplate according to: EN 60034-5 (2001) and EN 60529 (1991) Standards.

Report 11 ^{0}. EX-A8037182

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 (2006) Standards.

The manufacturer is exempted from the overpressure test both on the motor enclosure and on terminal box. since they have been submitted, with good outcome, to the overpressure test (static method) at a pressure corresponding to 4 time the reference pressure at ambient temperature of— 55 ^{o}c.

This document may only be reproduced in its entirety and without any change..

to EC-Type Examination Certificate CESI 01 ATEXIOI

Descriptive documents (prot. EX-A8037179)

- Technical Note TB-1873/2007 (6 pg.)	Rev. oo	dated	03/04/2008
- Technical Note n^{o} TB-1875 (5 pg.)	Rev. 00	dated	30/05/2008
- TB 1641	Rev. 00	dated	28/06/2006
- TB 1584	Rev. 03	dated	06/06/2007
- TB 01	Rev. 09	dated	12/12/2008
- TB 02	Rev. 09	dated	12/12/2008
- TB 03	Rev. 09	dated	12/12/2008
- TB 04	Rev. 09	dated	12/12/2008
- TB 06	Rev. 01	dated	12/12/2008

may only be reproduced in its entirety and without any change..

EXTENSION 04/08

- TB 07	Rev. 02	dated	12/12/2008
- TB 08	Rev. 02	dated	12/12/2008
- TB 09	Rev. 01	dated	12/12/2008
- TB 0286	Rev. 07	dated	24/08/2007
- TB 0832	Rev. 03	dated	20/12/2007
- TB 0835	Rev. 03	dated	20/08/2007
- TB 0837	Rev. 03	dated	20/08/2007
- TB 0838	Rev. 03	dated	20/08/2007
- TB 0090	Rev. 06	dated	20/12/2007
- TB 0091	Rev. 07	dated	21/12/2007
- TB 0092	Rev. 04	dated	24/08/2007
- TB 0093	Rev. 02	dated	17/04/2001
- TB 0095	Rev. 05	dated	28/08/2007
- TB 0287	Rev. 00	dated	07/06/1993
- TB 0288	Rev. 01	dated	05/04/1994
- TB 1235	Rev. 01	dated	05/01/2008
-TB 1259	Rev, 00	dated	26/02/2004
-TB 1355	Rev. 01	dated	20/12/2007
- TB 1356	Rev. 01	dated	05/02/2008
- TB 1455	Rev. 02	dated	20/08/2007
- TB 1456	Rev. 01	dated	20/08/2007
-TB 1526	Rev. 00	dated	01/07/2005
-TB 1 855	Rev. 00	dated	04/02/2008
-TB 1856	Rev. 00	dated	17/12/2007
-TB 1857	Rev. 00	dated	17/12/2007
- Document 10000368266	Rev. 00	dated	11/12/2008
- Safety Instruction 50000704-3Ed. (12 pg.)		dated	Dec. 2008
- CE Declaration of Conformity		dated	09/07/2007
• Register Court document (pg.23)		dated	16/12/2005

One copy of all documents is kept in CESI files.

Essential Health and Safety Requirements

The Health and Safety Requirements are assured by compliance with the following Standards:

EN 60079-0 : 2006:	Electrical apparatus for explosive gas atmospheres. General requirements
EN 60079-1 : 2007	Flamoproof enclosures "d".
EN 60079-7 : 2007	Increased safety • This document

Equipment:	Three-phase asynchronous motors series T. 225 S/M; T. 250 S/M supplied by mains or inverter
Manufacturer:	WEG MOTORES Ltda
Address:	Rua Joinville 3000 — do Sul, BRAZIL -

CESI

CERTIFICATE O

CESI
Centro Elettrotecnico
Sperimentale Italiano
Giacinto Motta SpA

Via R. Rubattino 54
20134 Milano - Italia
Telefono +39 022125.1
Fax +39 0221255440
www.cesi.it

Capitale sociale 8 550 000 €
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

[1]

[2]

[3]

[4]

[5]

[6]

[7]

[8]

[9]

[10]

[11]

[12]

Schema di certificazione

CESI ATEX

Il CESI è stato autorizzato dal governo italiano ad operare quale organismo di certificazione di apparecchi e sistemi destinati a essere utilizzati in atmosfera potenzialmente esplosiva con D.M. 1/3/1983, D.M. 19/6/1990, D.M. 20/7/1998 e D.M. 27/9/2000

Mirko Balaz

Ulisse Colombo

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione
Il Responsabile

te may only be reproduced in its entirety and without any change, schedule included.

Schedule

EXAMINATION CERTIFICATE CESI 01 ATEX 099

EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System intended for use in potentially explosive atmospheres
Directive 94/9/EC

EC-Type Examination Certificate number:

CESI 01 ATEX 099

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex Il to the Directive.

The examination and test results are recorded in confidential report n. EX-A 1/039417.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 +A1,,A2 EN 50018: 2000 EN 50019: 2000

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions ror safe use specified in the schedule to this certificate.

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests or the specified equipment or protective system in accordance to the Directive 04/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

The marking of the equipment or protective system shall include the following:

Ex 11 2 G EEx d 11B T4, T3 0 112G EEx de 11B T4, T3

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 26.05.2004 (Rev. 01 of the certificate issued on 21.12.2001)
Translation issued on26.05.2

Prepared	Verified	Approved
Se io Mezze		Ulisse Colombo

CESI

1131

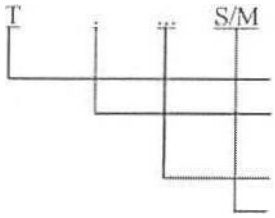
[141 EC'-TVPE

This certificate may only be reproduced in its entirety and Without Change, schedule included.

Schedule

EXAMINATION CERTIFICATE n. CESI 01 ATEX 099

[15] Description Of equipment



Three-phase asynchronous motor
EX: motor and terminal box With type of protection "EEx d"
F„Xe: motor with type of protection "EEx d" and terminal box "EEx e"
center height : 225. 250 winding length

The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the Eli* d terminal box and according to EN 50014 and EN 50019 standards for the • 'EEx e" terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be made acco •ding to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

- Maximum rated voltage:	690	V
Maximum rated power:	75	kW
- Rated current (at 400 V):	131	
- Rated frequency:	50/60	H
- Rated speed (at 50 ilz):	730 + 2965	rpm
- Duty:	Sl + S9	
- Ambient temperature:	-20 + +60	°C

- Insulation class: F with the temperature limit specified for insulation class B

The antlcondensate heaters installed inside the motor can have a maximum power of 90 W.

Motors supplied by inverter:

Type of protection; F,Exd11BT3 and EExdeIIB T3

- In alternative, the three-phase asynchronous motors can bc supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- The PTC thermal detectors are calibrated Ibr an operation temperature of 155 ^{0} C. The protection cžrcuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 ^{o}c according to IEC 61508.
- The operation of the thermal detector shall guarantee the disconnection of the supply: the resetting of the supply shall not be automatic.

This certificate may only be reproduced in its entirety and without any change, schedule included.

[131

[14] EC-TYPE n.

[151 Description of equipment (follows)

Warning label
"Use screws quality 12.9 ISO/R 898/1 and R 898/11"

For temperature class '1[8]3:
"Thesupply cable must be suitable for an operating temperature not less than 80 [0] C"

For motor supply by inverter:
"Winding protected with PTC thermistors"
or
"Winding protected with PT 100 detectors. Calibrate at 1 55 [o]c[s]'

In case of use of anticondensate heaters: "Attention
— energized resistors".

16]Report n. EX-A 1/039417

Verification of the degree Of protection

The three-phase asynchronous motors treated with silicone grease on the flameproofjoints and with bearings grease inside seal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
-The test results prove that the motors above mentioned comply with the EN 60034-5 specification fòr the degree of protection IP 55.

Individual tests

'The manufacturer shall carry out the routine tests prescribed at paragraph 24 or the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out with the Static method at 15 bar on the motor enclosure and at 10,5 bar on the "EEx d" terminal box (paragraph 15.1.3, I Of EN 50018 standard).

The dielectric test with applied voltage shall be performed at (2U 1000 V) with a minimum value of 1500 V between the supply terminals and earth (U = rated voltage) on the "EEx e" terminal box .

This certificate may only be reproduced in its entirety and Without Change, schedule included.

Schedule

EXAMINATION CERTIFICATE n. CESI 01 ATEX 099

any

[13]

[141 F.C-'I'YPE

[16]Report n. EX-A 1/039417 (follows)

Descriptive documents (protu EX-A1/039429)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. 113-0832	dated	1 1.04.2001
- n. •rn-0835	dated	20.04.2001
- n. TB-0837	dated	23.04.2001
- n. TB-0838	dated	23.04.2001
- n. TB-0090 Rev. 04	dated	01.1 1.2001
- n. TB-0091 Rev. 06	dated	12.092001
- n. TB-0092 Rev. 02	dated	18.07.2000
- n. '[B-0093 Rev. 02	dated	1104.2001
- n. TB-0094 Rev. 01	dated	21.08.1991
- n. TB-0095 Rev. 04	dated	15.05.2001
- n. TB-0287	dated	07.06.1993
- n. '113-0288 Rev. 01	dated	05.04.1994
- n. TB-OI Rev. 07	dated	25.09.2001
- n. 'VB-02 Rev. 07	dated	25.09.200 t
- n. [' B - 03 Rev. 07	dated	25.09.2001
- n. TB-04 Rev. 07	dated	25.09.2001
- n. TB-05 Rev. 07	dated	25.092001
- Instructions ror the installation (I I sheets)	dated	04.2001
- declaration ofeonfOrmity	dated	30.10.2001

This certificate may only be reproduced in its entirety and without any change, schedule included.

Schedule

One copy of all documents is kept in CESI files.

This certificate may only be reproduced in its entirety and Without Change, schedule included.

Schedule

1 171 Special conditions for safe use

This certificate may only be reproduced

Schedule

None.

This certificate may only be repr

Schedule

[181 Essential Health and Safety Requirements Covered

This certificate may only be repr

Schedule

by standards indicated at page I.

This certificate may only be repr

Schedule

This certificate may only be repr

EXTENSION 04/08

to EC-Tvpe Examination CESI

CESI

---

n. Ex

Certificate 01 ATEX099

Equipment: Three-phase asynchronous motors series T. 225 and T. 250, supplicd by mains or inverter

Manufacturer: WEG Equipamentos Electricos S/A - Motores

Address: Av- Pref. Walclemar Grubba 3000 — CN. p,42 - 89.256-900 - Jaraguà do Sul - BRASIL

Admitted variation

- Updating to EN 60079-0 (2006), EN 60079-1 (2007) and EN 60079-7 (2007) Standards. - Use of draining devices
- Constructive variations for operating at minimum ambient temperatures Ta — 40 'D C and -55 °C

Change Of corporate name from WEG MOTORES Ltda to WEG Equipamentos Electrico.s S/A - Motores

The admitted variation are described. in detail. in the descriptive documents annexed to this extension

Equipment identification and description

I hree-phase asynchronous motors series T. 225 and T. 250 shall include the following marking:

Ex Il 2G Ex d 11B T4 or x Il 2G Ex de 11B T4

Electrical characteristics (supplied by main)

Maximum rated voltage (V): 690 Maximum rated power 50 (k W):

- Rated current 400 V (A): 133
- Rated frequency (I-IR): 50/60

Rated speed (rpm): _¥ 2990

Dlltv.

- Ambient temperature (°c): - 20=+60 opp. —'10+ •F 60 opp.– 55 ÷ +60
- Insulation class: F With temperature limit for class 13 - Degree of pmtcction IP-S5 or Il'56 or IP65 or IP66

Electrical characteristics (supplied bv inv ener)

Unchanged

EXTENSION n. 04/08

to EC-Type Examination CESI

This extension and annexed descriptive documems must be annexed the EC-Tvpe Examination Certificate CESI OlATEX099.

this document may only be reproduced in its entirety and without anv change.

date 19/12/2008- translation issued 19!12<2008

prepared Sergio Mezzetti

verified Mirko Balaz

approved Fiorenzo Bregani

CESI S.p.A.
Divisione Energia
"Area Tecnica Certificazione"
Il Responsabile

CESI
Centro Elettrotecnico
Sperimentale Italiano
Giacinto Motta SpA

Via R. Rubattino 54
20134 Milano - Italia
Telefono +39 022125 1
Fax +39 0221255440
'wav.cesi.it

Capitale sociale 8 550 000 Euro
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

prepared

verified

approved

CESI

Certificate OlATEX099

Equipment identification and description (follows)

ranctrurtive *characteristics*

Three-phase asynchronous motors series T. 225; T. 250L. both in Standard and "Premium Efficiency" configuration have been subjected to the following variations:

- dimensional variations of flame-joint and gap -the draining devices type WEG TB- 1584 are constituted by sintered bronze tablets encapsulated in a brass threaded enclosure suitable for assembling on the flameproof motor enclosures of group Il B.
- use of materials. components and accessories suitable for ambient temperature ranges Ta -40 °c + +60 °c and Ta −55 °c +60 °c.

The admitted variation are described. in detail, in the descriptive documents annexed to this extension

Warning label

This document may only be reproduced in its entirety and without change..

EXTENSION 04/08

to EC-Tvpe Examination CESI

"Winding protected with PTC thermistors" or

'-Winding protected with PT 100 detectors. Calibrate at 130 °c " for temperature class T4 (T 135 °C)

For ambient temperature: Ta 2-40 °c

"All terminal box joints must be lubricated with LUMOMOLY PT/04 grease at even opening for ensure the degree of protection IP56 or IP65 or [P66 "

For ambient temperature: Ta 2-55 °c

"All terminal box joints must be lubricated with MOL Y KOTE 033 grease at even opening for ensure the degree of protection IP56 or IP65 or IP66"

Installation conditions

The characteristics of cables and accessories must be suitable for the admitted ambient temperature.
The accessories used for cable entries and for unused holes shall be subject of separate certification in compliance to the following standards:

EN 60079-0 (2006): EN 60079-1 (2007); for terminal boxes with protection mode Ex d

EN 60079-0 (2006): EN 60079-1 (2007): EN 60079-7 (2007): for terminal boxes with protection mode Ex d e

In both cases they shall guarantee the degree of protection IP declared on motor nameplate according to: EN 60034-5 (2001) and EN 60529 (1991) Standards.

Report n. EX-A8037667

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 (2006 Standards.

Motor pnclosuro

The manufacturer is exempted from overpressure routine tests on the motor enclosures since they have submitted, with positive result, to the overpressure test, with the static method, at the test pressure corresponding to 4 times the reference pressure at ambient temperature of— 55 °c .

any

Prot. AB037675P:

CESI

n.

Certificate 01 ATEX099

Routine tests (follows)

This document may only be reproduced in its entirety without change..

EXTENSION n. 04/08

to EC-Type Examination CESI

Terminal box

For ambient temperature: Ta > - 20 °c
The manufacturer is exempted from ovelpressure routine tests on the the terminal box since it has been submitted, with positive result. to the overpressure test, with the static method, at the test pressure corresponding to 4 times the reference pressure at ambient temperature of— 20 °c .

For ambient temperature: —20 Ta - 55 °c the manufacturer shall carry out the routine overpressure tests on the terminal box, with the static method according to par.
15. I .3.1 of the EN 60079-1 (2007) Standard, at the pressure value of 13,5 bar.

Descriptive documents (prot, EX-A 8037677)

- Technical Note TB-1871/2007 (6 pg.)	Rev. oo	dated	03/04/2008
- Technical Note n° TB-1875 (5 pg.)	Rev. 00	dated	30/05/2008
-TB 1641	Rev. 00	dated	28/06/2006
- TB 1584	Rev. 03	dated	06/06/2007
-TB 01	Rev. 10	dated	12/12/2008
- TB 02	Rev. 10	dated	12/ 12/2008
- TB 03	Rev. 10	dated	12/12/2008
- TB 04	Rev. 10	dated	12/12/2008
- TB 05	Rev. 08	dated	19/12/2006
- TB 06	Rev. 01	dated	12/12/2008
- TB 07	Rev. 02	dated	1 2/ 12/2008
- TB 08	Rev. 02	dated	1 2/ 12/2008
- TB 09	Rev. 01	dated	12/ 12/2008
- TB 0286	Rev. 07	dated	24/08/2007
- TB 0832	Rev. 03	dated	20/12/2007
- TB 0835	Rev. 03	dated	20/08/2007
- TB 0837	Rev. 03	dated	20/08/2007
- TB 0838	Rev. 03	dated	20/08/2007
- TB 0090	Rev. 06	dated	20/12/2007
- TB 0091	Rev. 0 7	dated	21/12/2007

This document may only be reproduced in its entirety and without change..

EXTENSION 04/08

to EC-Tvpe Examination CESI

- TB 0092	Rev. 04	dated	24/08/2007
- TB 0093	Rev. 02	dated	1 7/04/2001
- TB 0095	Rev. 05	dated	28/08/2007
- TB 0287	Rev. 00	dated	07/06/1 993
- TB 0288	Rev. 01	dated	05/04/1 994
- TB 1235	Rev. 01	dated	05/0112008
- TB 1259	Rev. 00	dated	26/02/2004
- TB 1355	Rev. 01	dated	20/12/2007
- TB 1356	Rev. 01	dated	05/02/2008
- TB 1455	Rev. 02	dated	20/08/2007
- TB 1456	Rev. 01	dated	20/08/2007
- TB 1526	Rev. 00	dated	01/07/2005
- TB 1 855	Rev. 00	dated	04/02/2008
- TB 1856	Rev. 00	dated	17/12/2007

and any

This document may only be reproduced in its entirety without change..

to EC-Type Examination Certificate CESI OlATEXOY9

Descriptive documents (prot. EX- EX- A8037677) follows			
-TB 1857	Rev. 00	dated	17/12/2007
- Document 10000368266	Rev. 00	dated	11/12/2008
- safety Instruction 50000704-3Ed. (12 pg.)		dated	Dec. 2008
- CE Declaration of Conformity		dated	09/07/2007
- Register Court document (pg. 23)		dated	16/12/2005

One copy of all documents is kept in CESI files..

Essential Health and Safety Requirements

The Health and Safety Requirements are assured by compliance with the following Standards:

EN 60079-O 2006:	Electrical apparatus for explosive gas atmospheres. General requirements
EN 60079-1 : 2007	Flamoproof enclosures „d„
EN 60079-7 : 2007	Increased safety •se•'

This document may only be reproduced in its entirety and without any change..

CERTIFICATE O

CESI
Centro Elettrotecnico
Sperimentale Italiano
G.acinto Motta SpA
Via R. 54
20134 Milano • Italia
Telefono 02 [illegible]
Fax +39 0221255440

Capitate sociale 8 550 000 €
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150
Registro Imprese di Milano
Sezlone Ordinaria
N. R.E.A. 429222
p.l, IT00793580150

EC-TYPE EXAMINATION CERTIFICATE

Schedule

[2] Equipment or Protective System intended for use in potentially explosive atmospheres

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098

Directive 94/9/EC'

[3] EC-Type Examination Certificate number:

CESI 01 ATEX 098

[4] Equipment: Three-phase asynchronous motors series T . 160; T .180; T . 200 L supplied by mains or inverter

[51

Manufacturer: WEG MOTORES Ltda

Address: Rua Joinville 3000 — Jaraguà do sul, BRAZIL —

[7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/ EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex Il to the Directive.

The examination and test results are recorded in confidential report n. EX-A 1/039417.

[9] Compliance with thc Essential Health and Safety Requirements has been assured by compliance with:

EN 50014; 1997 + Al..A2 EN 50018: 2000 EN 50019: 2000

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule zo this certificate.

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests or the specified equipment or protective system in accordance to the Directive 94i9/EC.. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

o 112 G EEXd11BT4,T3 Ex 11 2 G EEx dellBT4,T3

This certificate may or-dy be reproduced in its entirety and without any Change, schedule included.

Date 27 November 2002 - Translation (rev. n. 01) issued the 5th December 2002

Prepared	Verified	Approved
Daniele Parazzoli	Mirko Balaz	Ulisse Colombo

CESI

CENTRO ELETTROTECNICO SPERIMENTAIE ITALIANO
Business unit CertificazŽùno

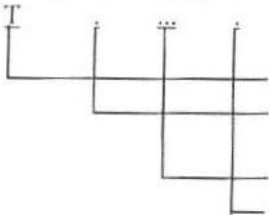
This certificate may only be reproduced in its entirety and without any change, schedule included.

Il Responsabile

[13]

[14]

[15] Description of equipment



Three-phase asynchronous motor
EX: motor and terminal box with type ofprotection "EEx d"
EXe: motor with type Of protection • 'EEx d" and terminal box "EEX e" center height : 160, 180, 200 winding length: M, L Ibr center height 160 M, L for center height 180
L for center height 200

The accessories used cable entries and for closing unused holes shall guarantee a minimum degree of protecœion IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the EEx d terminal box and according to EN 50014 and EN 50019 standards for the EEx e terminal box .

If' cylindrical are used, the coupling between the cable entry and the terminal box shall be made according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

- Maximum rated voltage: 690
- Maximum rated power: 37 kW
- Rated current (at 400 V): 63,8
- Rated frequency: 50 / 60 H
- Rated speed (at 50 Hz): 8 75 2960 mm
- Duty: Sl + sc)
- Ambient temperature; -20 pc

F with the temperature limit specified for insulation class

- Insulation class: B

The anticondensate heaters installed inside the motor can have a maximum power of 48 W

Motors supplied by invertcr:

Type Of protection: EExd11BT3 and de 11B T3

- In alternative, the three-phase asynchronous motors can be supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.

Schedule

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098

- The PTC thermal detectors are calibrated for an operation temperature Of 155 °c. The protcction circuit connected with the PT 100 thermal detectors shall be calibrated ror an operation temperature of 155 °c according to IEC 61508.
- 1he operation of the thermal detector shall guarantee the disconnection Of the supply; the resetting of the supply shall not be automatic.

Pug:

This certificate may only be reproduced in its entirety and without any change, schedule included.

Schedule

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098

[131

[14]

[151 Description of equipment (/bllows)

Warning label

"Use screws quality 12.9 ISO/R 898/1 and R 898/11"

For temperature class "13:

"The supply cable must be suitable for an operating temperature not less than 80 ^{0}C"

For motor supply by inverter:

"Winding protected with PTC thermistors"

or

"Winding protected with PT 100 detectors, Calibrate at 155 ^{o}c"

In case of use of anticondensate heaters:

"Attention — energized resistors"

[16] Report n. EX-A 1/039417

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproofjoints and with bearings grease inside scal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have t,ecn tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection [P 55.

Individual tests

The manufacturer shall carry out the routinc tests prescribed at paragraph 24 of the EN 50014 standard. at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out at:

- 7,5bar on the motor enclosure and at 9 bar on the EEx d terminal box for the motors whit center height 16C
- 8,5bar both on the motor enclosure and on the EEx d terminal box for the motors whit center height 180 and 200 with the static method (paragraph 15.1.3.1 orEN 50018

standard).

The dielectric test with applied voltage shall be performed at 2U + 1000 V with a minimum value of 15CO V between the supply terminals and earth (U rated voltage) on the EEx e terminal box .

This certificate may only be reproduced in its entirety and without any change, schedule included.

Schedule

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098

[14]

[16] Report n. EX-A 1/039417 (/öllows)

Descriptive documents (Prot. EX-A 1/039428)

- TB-0286 Rev. 5	dated	30.10.2001
- TB-0831	dated	09.042001
- nº "113-0834	dated	20.04.2001
- nº '113-0836	dated	23.04.2001
- 11⁰ '113-0839	dated	23.042001
- TB-0987	dated	27.1 1.2001
- TB-0152 Rev, 01	dated	16.05.2001
- TB-0154	dated	13.02.1993
- nº TB-0079 Rev. 03	dated	15.05.2001
TB-0080 Rev. 05	dated	08-11.2001
nº '113-0082 Rev. 02	dated	17.04.2001
- nO TB-0083 Rev. 04	dated	30.10.2001
- nº TB-0085 Rev. 08	dated	20.1 1.2001
- TB-OI Rev. 07	dated	25.09.2001
- nº TB-02 Rev. 07	dated	25.09.2001
- TB-03 Rev. 07	dated	25.09.2001
- If TB-04 Rev. 07	dated	25-09.2001
- TB-05 Rev. 07	dated	25.09.2001
- nº Document	dated	20.11.2001
- Instructions fur the installation (I I Sheets)	dated	04.2001

This certificate may only be reproduced in its entirety and without any change, schedule included.

- declaration ofconformity dated 30.10.2001

One copy of all documents is kept in CESI files.

[171

Special conditions for safe use
None.

[181 Essential Health and Safety Requirements Covered
by standards indicated at page I -

CESI

Ex

to EC-Type Examination Certificate CESI 01 ATEX098

Eq uipment: Three-phase asynchronous motors series T. 160, T. 180 and T. 200 supplied by mains or in verter

Manufacturer: WEG Equipamentos Electricos S/A - Motores

Address: Av. Pref. Waldemar Grubba 3000 —cx. P.42 89.256-900 - Jaraguà do sul -BRASIL

Admitted variation

- Updating to EN 60079-0 (2006), EN 60079-1 (2004) and EN 60079-7 (2003) Standards.
- Constructive variations for operating at minimum ambient temperatures T a — 40 °c and Ta - 55 'C - Change of corporate name from WEG MOTORES Ltda to VEG Equiparnentos Electricos S/A - Motores

The admitted variation are described, in detail, in the descriptive documents annexed to this exteñSiOn

Equipment identification and description

Three-phase asynchronous motors series T. 160, T. 180 and T. 200 shall include the following marking:

x 11 2G Ex d 11B T4 or Ex 11 2G Ex de 11B T4

Electrical characteristics

- Maximum rated voltage (V): 690
- Maximum rated power (kW): 37
- Rated current (at 400 V): 63.8
- Rated frequency (Hz): 50/60
- Rated speed (rpm): 875 2960

Schedule

EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098

- Duty: S14S9
- Ambient Temperature (°c): -20+ + 60 opp. -40+460 opp.- 55 + 60
- Insulation class: F with temperature limit for class B
- Degree of protection : IP55 or [P56 or IP65 or IP66

This extension and annexed descriptive documents must be annexed to the EC•Type Examination Certificate CESI 01 ATEX098.

This document may only be reproduced in its entirety and without any change.

date	03/03/2008 - translation issued 03/03/2008
prepared	Sergio Mezzetti
verified	Mirko Balaz
approved	Fiorenzo Bregani

CESI S.p.A.
Divisione Energia
"Area Tecnica Certificazione"
Il Responsabile

date	03/03/2008 -
prepared	Sergio Mezzetti
verified	Mirko Balaz

CESI
Centro Elettrotecnico Sperimentale Italiano Glacinto Motta SpA

Via R Rubattino 54
20134 Milano . Italia
Teletono +39 022125.1
Fax +39 0221255440

Capitate soaale B 550 oCO Euro interamente versato
Codice fiscale e numero iscrizione CCIAA 00793580150

Regstro Imprese di Milano
Sezione Ordinaria
N, REA. 429222
RI, ITOC7925B0150

This certificate may only be reproduced in its entirety and without any change, schedule included.

EXTENSION n. 04/08

CESI

to EC-Type Examination Certificate CES] OlATEX098

Equipment identification and description (follows)

Constructive characteristics

Three-phase asynchronous motors series T. 1 12; T. 1321<, both in Standard and "Premium Efficiency" configuration have been subjected to the following variations:

- dimensional variations of flame-joint andgap - use ofmaterials, components and accessories suitable for ambient temperature ranges Ta -40 °c + 4 60 °c and Ta -55 °c + +60 oc.

The admitted variation are described, in detail, in the descriptive documents annexed to this extension

Warning label

"Winding protected With PTC thermistors" or

"Winding protected with pT 100 detectors. Calibrate at 130 °c " for temperature class T4 (T 135 °c)

Report n. EX-A8004955

Installation conditions

The characteristics of Cables and accessories must be suitable for the admitted ambient temperature

The accessories used for cable entries and for unused holes shall be subject of separate certification in compliance to the following standards:

EN 60079-0 (2006); EN 60079-1 (2004);	for terminal boxes with protection mode Ex d
EN 60079-0 (2006); EN 60079-1 (2004); EN 60079-7 (2003);	for terminal boxes with protection mode Ex de

In both Cases they shall guarantee a minimum degree of protection IP declared on motor nameplate according to; EN 60034-5 (2001) and EN 60529 (1991) Standards.

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 ofthe EN 60079-0 (2006 Standards,

A'ñbiënt tem ra re Ta - 2

The manufacturer is exempted from ovemressure routine tests on the motors and related terminal boxes Since They have submitted, With positive result, to the overpressure test, with the static method, at the test pressure corresponding t04 times the reference pressure.

Ambient temperature Ta < - 20 °c

For ambient temperature lower than Ta — 20 °cs the manufacturershail carry out the routine overpressure tests on the motors and related terminal boxes, with the static method according to par of the EN 60079-1 (2004) Standard, at the following pressures:

Motors	160	180/200
Pressure test value for Ta -40°C (bar)	15.0	

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

Pressure test value for Ta -550C bar	16.8	16.1
Terminal boxes	[redacted]	[redacted]
Pressure test Value for Ta - 40°C (bar)	13.1	13.1
Pressure test value for Ta - 550C bar	14,6	14.6

This document may only be reproduced in its entirety and without any Change..

Prot A8006378P:

CESI

to EC-Type Examination Certificate CESI OlATEX098

Descriptive documents (prot. EX-AS006375)

- Technical Noten O TB-187012007 (5 pg.)	Rev, 00	dated	19/12/2007
- n. TB 0286	Rev. 07	dated	24/08/2007
- n. TB 0831	Rev, 03	dated	13/12/2007
-n. TB 0834	Rev. 04	dated	23/08/2007
- n. TB 0836	Rev. 04	dated	23/08/2007
- n. TB 0839	Rev. 04	dated	23/08/2007
-n. TB 0987	Rev. 00	dated	27/11/2002
- n. TB 0152	Rev. 01	dated	16/05/2001
- n. TB0154	Rev, 00	dated	13/12/1993
-n. TB 1354	Rev. 00	dated	20/09/2004
-n. TB 1406	Rev. 01	dated	7/12/2007
• n. TB 0079	Rev. 04	dated	28/08/2007
- n. TB 1407	Rev. 01	dated	17/12/2007
-n, TB 0080	Rev, 08	dated	24/08/2007
-n, TB 0082	Rev. 03	dated	27/08/2007
-n. TB 0083	Rev. 07	dated	14/12/2007
- n. TB 0085	Rcv, 09	dated	17/12/2007
-n. TB 1455	Rev, 02	dated	20/08/2007
-n. TB 1526	Rev. 00	dated	01/07/2005
-n. TB 1408	Rev. O I	dated	12/09/2007
- n, TB 1259	Rev. OO	dated	26/02/2004
-n. TB 1356	Rev. 00	dated	24/09/2004

EXTENSION n. 04/08

- n. TB 01	Rev. 09	dated	19/12/2007
- n. TB 02	Rev. 09	dated	19/12/2007
-n. TB 06	Rev. 00	dated	06/06/2003
-n. TB 07	Rev. 01	dated	21/10/2003
-n. TB 08	Rev. 01	dated	19/12/2003
-n. TB 09	Rev. 00	dated	06/06/2003
- Declaration of Contbrmity		dated	09/07/2007
- Safety fnstructiôñ 0280.1507 (13 pg)		dated	2006
-n, TB 03	Rev. 09	dated	19/12/2007
-n. TB 04	Rev. 09	dated	19/12/2007
-n. TB05	Rev. 08	dated	19/12/2006

One copy Of all documents is kept in CESI files.

Essential Health and Safety Requirements

• EN 60079-0 : 2006:	Electrical apparatus for explosive gas atmospheres, General requirements	The Health and Safety Requirements are assured by compliance With the following Standards:
• EN 60079-1 : 2004 EN 60079-7 : 2003	Flamoproot• enclosures "d" , Increased safety "e"	

This document may only be reproduced in its entiretyand Without any change..

WIKA

Cliente: DELTA COMPRESION S.R.L. Customer:

Nr.: 0203
No..

Orden No: NIA
Order No..

Fecha: 20/07/2012
Date:

Certificado: CERT 120720-0002
Certificate:

Stock No..• 12686159
Stock-No.:

N^{O} de TAG: 41351 al 41352
TAG N':

Cant: 2

Tipo: 213.53
Type:

Diámetro: 063 mm
Diameter:

Rangos: O a 2,5 bar/psi
Range:

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

Quantity:

El presente documento certifica que los instrumentos de medición de presión han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados.
Las especificaciones de la orden están en conformidad con dichos estándares.
La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above mentioned pressure measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.
Execution of instruments/systems as well as testing of Ieakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

La indicación de los manómetros está en conformidad con la clase 1.6 de acuerdo a la norma EN 837

The indication of the pressure gauges is in conformity with class I .6 according to EN 837

WIKA Argentina S.A.

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

WIKA

Cliente: DELTA COMPRESION S.R.L. Customer.

Nr.: 0203
No..

Orden No: N/A
Order No..

Fecha: 23/07/2012
Date:

Certificado: CERT 120723-0001
Certificate:

Stock No..• 59045434
Stock-No.:

N^{O} de TAG: 41435
TAG N':

Diámetro: 063 mm
Diameter:

Rangos: O a 10 bar/psi
Range:

Cant: 1
Quantity:

Tipo: 213.53
Type:

El presente documento certifica que los instrumentos de medición de presión han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados.

Las especificaciones de la orden están en conformidad con dichos estándares.

La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above mentioned pressure measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.

WIKA Argentina S.A.

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

Execution of instruments/systems as well as testing of leakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

La indicación de los manómetros está en conformidad con la clase 1.6 de acuerdo a la norma EN 837

The indication of the pressure gauges is in conformity with class 1.6 according to EN 837

WIKA

Cliente: DELTA COMPRESION S.R.L Customer:

Nr.: 0203
No..

Orden No: N/A
Order No.:

Fecha: 20/07/2012
Date:

Certificado: CERT 120720-0005
Certificate:

Stock No..• 12430650 N^{O} de TAC: 41355
Stock-No. :
TAG N^{O} :

Diámetro: 063 mm
Diameter:

Rangos: O a 40 bar/psi
Range:

Cant.: 1
Quantity:

Tipo: 213,53
Type:

El presente documento certifica que los instrumentos de medición de presión han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados.

WIKA Argentina S.A.

Certificado de Conformidad EN 204 - 2.2

TEST REPORT according to 10 204 - 2.2

Las especificaciones de la orden están en conformidad con dichos estándares.

La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above mentioned pressure measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.

Execution of instruments/systems as well as testing of leakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

La indicación de los manómetros está en conformidad con la clase I .6 de acuerdo a la norma EN 837

The indication of the pressure gauges is in conformity with class I .6 according to EN 837

WIKA

IO

EN

Cliente: DELTA COMPRESION S.R.L. Customer:

Nr.: 0203
No..

Orden No: NIA
Order NO.

Fecha: 20/07/2012
Date.

WIKA Argentina S.A.

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

Certificado: CERT 120720-0007 Certificate:		Stock No.: 59045493 Stock-No.:	N ^{O} de TAG: 41366 al 41370 TAG N^{O} :
Cant.: 5 Quantity:	Tipo: 213.53 Type:	Diámetro: 063 mm Diameter:	Rangos: O a 160 bar/psi Range:

El presente documento certifica que los instrumentos de medición de presión han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados. Las especificaciones de la orden están en conformidad con dichos estándares.

La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above mentioned pressure measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.

Execution of instruments/systems as well as testing of Ieakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

La indicación de los manómetros está en conformidad con la clase 1.6 de acuerdo a la norma EN 837

The indication of the pressure gauges is in conformity with class I .6 according to EN 837

WIKA Argentina S.A.

Certificado de Conformidad EN 204 - 2.2

TEST REPORT according to 10 204 - 2.2

WIKA

10

EN

Cliente DELTA COMPRESION S.R.L
Customer:

Nr.: 0203

Orden No: N/A
Order No..

Fecha: 20/07/2012
Date:

Certificado: CERT 120720-0009
Certificate:

Stock No..• 12225762
Stock-No.:

N^{O} de TAG: 41381 al 41385
TAG N^{O} :

Diámetro: 063 mm
Diameter:

Rangos: O a 250 bar/psi
Range:

Cant. : 5
Quantity:

Tipo: 213.53
Type:

El presente documento certifica que los instrumentos de medición de presión han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados. Las especificaciones de la orden están en conformidad con dichos estándares.

La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

WIKA Argentina S.A.

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

This is to certify that above mentioned pressure measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.
Execution of instruments/systems as well as testing of leakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

La indicación de los manómetros está en conformidad con la clase 1.6 de acuerdo a la norma EN 837

The indication of the pressure gauges is in conformity with class 1.6 according to EN 837

WIKA

10

EN

Cliente: DELTA COMPRESION S.R.L Customer:

Nr.: 0203
No..

Orden No: N/A
Order NO.

Fecha: 20/07/2012
Date:

WIKA Argentina S.A.

Certificado de Conformidad EN 204 - 2.2

TEST REPORT according to 10 204 - 2.2

Certificado: CERT 120720-0010 Certificate:		Stock No..• 59005661 Stock-No.:	N^{O} de TAG: 41386 al 41395 TAG N^{O} :
Cant: 10 Quantity:	Tipo: 23250 Type:	Diámetro: 063 mm Diameter:	Rangos: O a 400 bar/psi Range:

El presente documento certifica que los instrumentos de medición de presión han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados. Las especificaciones de la orden están en conformidad con dichos estándares.

La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above mentioned pressure measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.

Execution of instruments/systems as well as testing of leakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

La indicación de los manómetros está en conformidad con la clase 1.6 de acuerdo a la norma EN 837

The indication of the pressure gauges is in conformity with class I .6 according to EN 837

WIKA

WIKA Argentina S.A.

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

Cliente: DELTA COMPRESION S.R.L Customer:

Nr.: 0203

Orden No: NA
Order NO.

Fecha: 10/05/2012
Date.

Certificado: CERT 120410-0004 Certificate:		Stock No.: 13258371 Stock-No.	N' de TAG: 40409 al 40428 TAG N^{O} :
Cant: 20 Quantity:	Tipo: B7006 Type: capilar 6 m	Diámetro: 063mm Diameter:	Rangos: O a 100 ^{o}c Range:

El presente documento certifica que los instrumentos de medición de temperatura han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados. Las especificaciones de la orden están en conformidad con dichos estándares.
La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above temperature measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.
Execution of instruments/systems as well as testing of leakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

The temperature measuring instruments are in conformity with accuracy class 2 according to EN 13190.

Los instrumentos de medición de temperatura cumplen con la clase 2 de acuerdo a la norma EN 13190.

WIKA Argentina S.A.

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

WIKA

Cliente: DELTA COMPRESION S.R.L Customer:

Nr.: 0203
No.:

Orden No: NIA
Order NO.

Fecha: 20/07/2012
Date.

Certificado: CERT 120720-0012
Certificate:

Stock No.. 13258380
Stock-N0..

N O de TAG: 41397 al 41421
TAG NO:

Diámetro: 063mm
Diameter:

Rangos: O a 200 °c
Range:

Cant.: 25
Quantity•

Tipo: 87006
Type: capilar 6 m

El presente documento certifica que los instrumentos de medición de temperatura han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados. Las especificaciones de la orden están en conformidad con dichos estándares.
La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above temperature measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.
Execution of instruments/systems as well as testing of leakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

The temperature measuring instruments are in conformity with accuracy class 2 according to EN 13190.

Los instrumentos de medición de temperatura cumplen con la clase 2 de acuerdo a la norma EN 13190.

WIKA

Cliente: DELTA COMPRESION S.R.L Customer:

Nr.: 0203
No.

Orden No: N/A
Order No..

Fecha: 23/07/2012
Date:

Certificado: CERT 120723-0002
Certificate:

Stock No..• 58177965
Stock-No.:

N O de TAG: 41426 al 41432
TAG NO:

Diámetro: 100 mm
Diameter:

Rangos: 200 °c Range.

cant: 7 Quantity.

Tipo: F73.100 821.2

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2

El presente documento certifica que los instrumentos de medición de temperatura han sido manufacturados de acuerdo a estándares técnicos aprobados. Para esto fueron utilizados únicamente materiales aprobados. Las especificaciones de la orden están en conformidad con dichos estándares.
La ejecución de las pruebas de fuga y clase fueron realizadas de acuerdo a los estándares WIKA de aseguramiento de calidad. La inspección de calidad fue aprobada exitosamente.

This is to certify that above temperature measuring instruments have been manufactured in compliance with approved technical standards. Only inspection-passed materials have been used. Ordering specifications are complied with.
Execution of instruments/systems as well as testing of leakrate and accuracy was carried out according to WIKA quality assurance procedures. Quality inspection was successfully passed.

The temperature measuring instruments are in conformity with accuracy class 1 according to EN 13190.

Los instrumentos de medición de temperatura cumplen con la clase I de acuerdo a la norma EN 13190.

Translation

(1) EC-Type Examination Certificate

(2) - Directive 94/9/EC -

Equipment and protective systems intended for use
in potentially explosive atmospheres

(3) BVS 04 ATEXE 068 X

(4) Equipment: Pressure Transmitter type * * * * * * * * *

(5) Manufacturer: WIKA Alexander Wiegand GmbH & co. KG

(6) Address: D - 63911 Klingenberg/Main

(7) The design and construction of this equipmcnt and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of EXAM BBG Prüf- und Zertifizier GmbH, notified body no. 0158 in accordance with Aflicle 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the test and assessment report BVS PP 04.2058 EG.

WIKA Argentina S.A.

EXAM

BBG Prüf- und Zertifizier GmbH

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 50014:1997+A1-A2 General requirements
EN 50020:2002 Intrinsic safety'i'
EN 50284: 1999 Equipment Group Il Category IG EN
50303:2000 Equipment Group I Category Ml
EIN 50281-1-1:1998 Dust explosion protection

(10) If the sign "X" is placed after the ceHificatc number, it ecial indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.

Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

or extended with the applicable category- and type of protection-marking; see tables in 15.1.2

EXAM BBG Priif- und Zertifizier GmbH

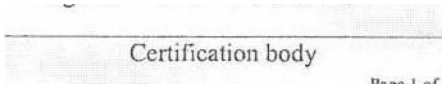
Bochum, dated 07. April 2004

Signed: Dr . dockers Signed: Dr . Ei ckhoff

Dinnendahlstraße9 44809 Bochurn Gennany Phone 201 172-3947 Fax 172-3948
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

Certificado de Conformidad EN 10 204 - 2.2

TEST REPORT according to EN 10 204 - 2.2



Special services I or 7to BVS04 This

WIKA Argentina S.A.

EXAM

BBG Prüf- und Zertifizier GmbH

(13) Appendix to

EC-Type Examination Certificate

BVS 04 ATEX E 068 X

certificate in its entirety and

Dinnendahlstraße9 44809 172-3947 Fax 172-3948

(until Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

EXAM

BBG Prüf- und Zertifizier GmbH

(15) 15.1 Subject and type

Pressure Transmitter type

Front-membrane without with

Version
Standard
Field terminal box High pressure

Pressure unit
1 alphanumeric sign, e.g. bar

Range
2 alphanumeric signs, e.g. 0/1 bar

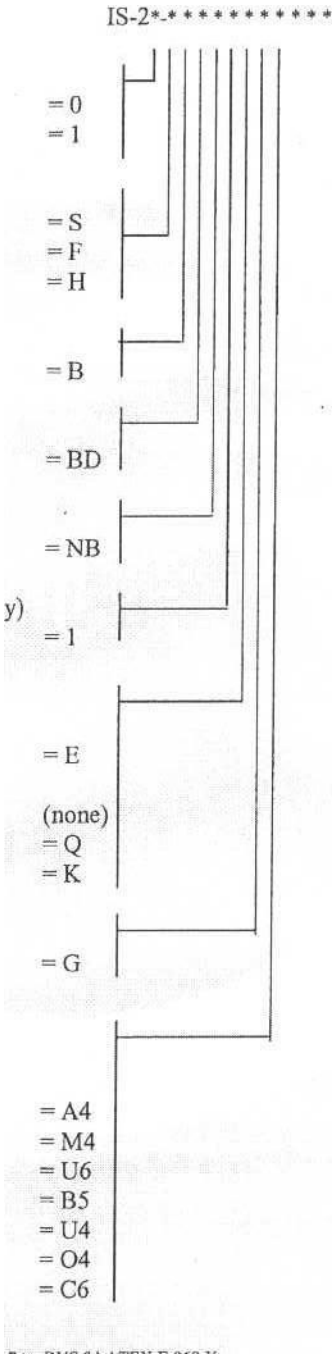
Process connection
2 alphanumeric signs, e.g. 1/2 NPT

Wetted parts (IS-21-* * * ** ** ** * only) 1 alphanumenc sign, e.g. 1.4751 + NBR

Special design features I alphanumeric sign, e.g. free of oil- and grease Cable types:
P-EDE 196963 PUR (grey)
P-EDE 289230 PUR (blue)
ET2PC298 FEP (black)

Accuracy
1 alphanumeric sign, e.g. 0,5 %

Electrical connection 2 alphanumeric signs, plugs / connectors: - DIN EN 175301-803
-M12x1
- M14x1
-M16xO,75
- 7/8-16UNF
- 4 pin MIL. connector
- 6 pin MIL connector



This may only be reproduced without change

Bochum Germany Phone +49 201 +49201

1.05.2003: Deutsche Montan

of E 008 X certificate in entirety
and change
44809 172-3947 172-3948
(until Technologie GmbH 1 45307 Essen Germany)

EXAM

BBG Prüf- und Zertifizier GmbH

Pressure Transmitter

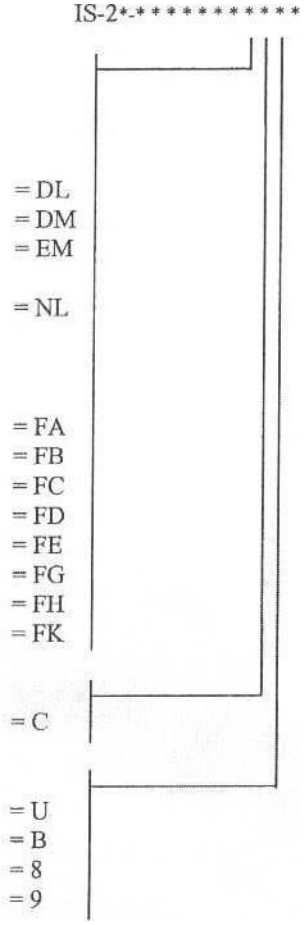
Electrical connection (continued) 2 alphanumeric signs

permanently connected cable:
IP67 IP68 (inside) IP68

Snap cap

Terminal box, providing:

- cable gland (plastics) + clamping bracket
- cable gland (plastics) terminals
- cable gland (stainless steel) + clamping bracket
- cable gland (stainless steel) + terminals
- Conduit + clamping bracket . Conduit + terminals
- cable gland (brass, nickel plated) + clamping bracket
- cable gland (brass, nickel plated) + terminals



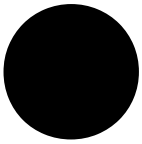
Cable length
1 alphanumeric sign; e.g. m

Temperature range of Medium
-20 °c..+ 80
-40 °C ...8A25 °c
-40 °C . .+150 °c
-40 °C ...+200 °c

Dinnendahlstraße9 44809 Bochum Germany Phone 201 172-3947 Fax +49 201 172-3948
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

15. I .2 Allocation Of different versions of the Pressure Transmitter to temperature class, ambient temperature range and apparatus category shall be achieved from the following tables.

Pressure Transmitter type ** version with permanently connected cable	Cate o		additional marking	ambient und medium temperature range
	Group Il	Group I		
IS- * * * * * * DL 2*-s * * * * * * DL IS-2*-H	1/20		EEx ia MC T4 /T5 / T6	- S + (16) - 20[0] C Ta S + 80 [0] C (T5) - 20[3]C<T <+ 80 [n] c T4
		Ml	EEx ia 1	-200C ≤ T_a ≤ + 60°C
IS- * * * *Q*DM * * 2*-s * * * *Q*DM IS-2*-H			EEx ia IIA 14 /T5 /T6	- IO [O]C ≤ T_a ≤ + 60°C (T6) - IO [O] CSTa£+60 [0]C (T5) - I [I°]C ≤ T_a ≤+ 60 [o]c 4
IS- * * * *Q*DM 2*-s * * * *Q*DM * * IS-2*-H * *	1/2G		EEx ia T4 ,'T5 / T6	- 10°C ≤ T_a ≤ + 60°C (T6) - 10°C ≤ T_a ≤ + 60°C (T5) - 10°C ≤ T_a ≤ + 60°C (T4)
IS-V-S * * * *Q*DM * * * * IS- * * *Q*DM * * 2*-H *	ID		IP 65 T 80 [0]C	- 10°C ≤ T_a ≤ + 60°C
IS- * * * *Q*DM 2*-s * * * *Q*DM IS-2*-H		Ml	EEx ia I	- IO[O]C 600'
IS- * * * *K*DM 2*-s * * * *K*DM IS-2*-H			EEx ia 11A T4!T5 /T6	- 30°C ≤ T_a ≤ + 60°C (T6) - 30°C ≤ T_a ≤ + 80°C (T5) - 30°C ≤ T_a ≤ + 105°C (T4)
IS-2*-S * * * *K*DM IS-2*-H * * * *K*DM *	1/2G		EEx ia IIC T4 T4/T5 /	- < Ta < + O [O]C (T6) - 30 [0]C' (T5) - 30 [C]C < T (T4)
IS-2*-S * *K [E]DIM IS-2*-H *	ID		IP 65 T 80 [0] C	- 30°C ≤ T_a ≤ + 60°C
IS-2*-S * *K*DM * * IS-2*-H * *K*DM * *		Ml	EEK ia I	- 30°C ≤ T_a ≤ + 1050C
IS-2*-S * * * * * * EM * * IS-2*-H* * * * * * EM * *	1/2G		EEx ia llC T4 /T5	20°C ≤ T_a ≤ + - 60 [D]C (T6) 20°C ≤ T_a ≤ + - < + SO [C]C (15) -20 [0] C < T <+ 80 [0] C T4
		Ml	EEx ia 1	- 20°C ≤ T_a ≤ + 80°C



EXAM

BBG Prüf- und Zertifizier GmbH

This certificate may only be reproduced in its entirety and without change
lstraße 9 44809 Bochum Germany Phone +49 201 172-3947 Fax +49 201
)03: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Esse

31.05 2003-

5 7 to

Pressure Transmitter type version with connector	Cate o Group 11	Cate o Group I	additional marking	ambient und medium temperature range
IS-2*-S * * * * * * NL * * * IS-2*-H * * * * * * NL * * *	1/2G	Ml	EEx 11CT4/T5 /T6 EEx T4 / / T6	- 40°C ≤ T_a ≤ + 60°C (T6) - 40°C ≤ T_a ≤ + 80°C (T5) - 40°C ≤ T_a ≤ + 80°C (T5) -40°CST S + 105°C T4
			EEK ia 1	- 105°C T4 - s + 105°C
		Ml	EEx ia 1	- 40°C ≤ T_a ≤ + 105°C
IS-2*-S * * * * * * M4 * * IS-2*-H* * * * * * M4 * *	1/2G	Ml	EExia11C T4/T5 / T6	- 25°C ≤ T_a ≤ + 60°C (T6) - 25 °C s Tag + 80°C (T5) -25 °C <T S+90 °C 4
			EExia1	- 250C 900C
IS-2*-H * * * * * * * *	1/2G	Ml	Elix ia IIC T4 /T5 / T6	- < Tag + (T6) - 25 °C < + 80 °C (T5)
			EEx ia 1	- 25°C ≤ T_a ≤ + 85 °C
IS-2*-s * * * * * * B5 * * IS-2*-H * * * * * * B5 * *	1/2G	Ml	EEx ia 11CT4 / T5 / T6	- 40°C ≤ T_a ≤ + 60°C (T6) - 40°C ≤ T_a ≤ + 80°C (T5) - 40°C ≤ T_a ≤ + 85°C (T4)
			EEK ia 1	- 400C ≤ T_a ≤ + 85°C
IS-2*-S * * * U4 * * IS-2*-H * * U4 * *	1/2G	Ml	EEx T4/T5 / T6	- 40°C ≤ T_a ≤ + 60°C (T6) - 40°C ≤ T_a ≤ + 80°C (T5) -40 °C<T s Tag + 900C 4
			EEx ia 1	- 400C 90° C
IS-2*-S * * * * * * O4 * * IS-2*-H * * * * * * O4 * * IS-2*-S * * * * * * C6 * * IS-2*-H * * * * * * C6 * *	1/2G		EEx ia 11CT4 / T5 / T6	- 50°C ≤ T_a ≤ + 60°C (T6) - 50°C ≤ T_a ≤ + 80°C (T5) - 50°C ≤ T_a ≤ + 105°C (T4)

Dinnendahlstraßeg

04 ATEX
its +49

This

Fax

• EXAM

BBG Prüf- und Zertifizier GmbH

Pressure Transmitter type version with term inal box	Cate o Group TI	Cate o Group I	additional marking	ambient und medium temperature range
	1/2G	Ml	EEx ia T4 / T5 /T6	- 50 °C < Ta < + a °c (T6) - 50°C ≤ T_a ≤ + SO°C (T5) - 50°C< T s + 105 °C T4

Certificate may only be reproduced in entirety and Without change
44809 Bochum Germany Phone 201 172-2947 +49 201 172-3948
(until 3[.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 7 Essen Germany)

IS-2*-F * * * * * * FA * * IS-2*-F * * * * * * FB * * IS-2*-F * * * * * * FC * * IS-2*-F * * * * * * FD * * IS-2*-F * * * * * * FE * * IS-2*-F * * * * * * FG * * IS-2*-F * * * * * * FH * * IS-2*-F * * * * * * FK * *			EEx ia I	- 50°C ≤ T_a ≤ + 1050C

15.2 Description

The Pressure Transmitter type S-2*-* * * * * * * * * * is designed as an intrinsically safe supplied pressure gauge and serves for continuous measuring purposes of gas- or liquid-media in hazardous areas requiring category l , 1/2 and 2 apparatus,

The Pressure Transmitter consists of a tubular stainless steel enclosure, witch contains printed circuit boards fitted with electronic components embedded in casting compound.

Due to various design, the intrinsically safe supply and signal circuit is interconnected either to plugs / connectors or terminals or led out of the casting compound and the enclosure by means of flexible wiring with opcn leads.

The Pressure Transmitters type IS-20-* * * * * * * and type IS-21-*' * * * * * * * * * * arc identical except for the mechanical position of the medium-separation membrane.

15.3 Parameters

15.3. I Supply and signal circuit

Voltage	DC 30	U_i	
Current	IOOmA	I_i	
Power		P_i	
		I_n	
Signal current4..,20 mA			
			nF/m
Effective internal capacitance		22	nF
(versions providing permanently connected cable)	c,	22	nF + 0.2
		0	
Effective internal inductance			H
(versions providing permanently connected cable)		2	g I-I/m)

15.3.2 Temperature class in relation to ambient temperature

See tables in 15.12.

EXAM

BBG Prüf- und Zertifizier GmbH

(16) Test and assessment report
BVS PP 04.2058 EG as of 07.04.2004

(17) Special conditions for safe use

17.1 The installation of the Pressure Transmitter in the wall to areas requiring category I G equipment shall provide a degree of protection IP67 according to EN 60529.

17.2 The installation of the Pressure Transmitter in the wall to areas requiring category ID equipment shall provide a degree of protection [P6X according to EN 60529.

17.3 Manufacturer's technical information related to use of the Pressure Transmitter in contact with aggressive / corrosive media and to avoid any risk of mechanical impact shall be observed.

17.4 In case of applications of the Pressure Transmitter in areas requiring category 1 equipment the screen of the interconnection cable shall be included in the equipotential-bonding/grounding of the vessel.

17.5 The cable inlet of the apparatus in the wall to areas requiring category IG equipment shall provide a degree of protection IP67 according to EN 60529.

17.6 The cable inlet of the apparatus in the wall to areas requiring category ID equipment shall provide a degree of protection IP6X according to EN 60529.

17.7 Measuring of pressure media providing temperatures exceeding the values Of the medium temperature ranges listed in the tables in clause 15.1.2 is permitted, if special heat sink assembly is used. But permissible surface temperatures, applicable to this range with regard to the specified temperature class. shall not be exceeded. In addition to that, temperature of the nut of the tubular enclosure shall not exceed the maximum value referring to the temperaturc class specified in clause 15.1.2.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding,

44809 Bochum, 07. April 2004
BVS-Scha/Kw A 20030929

EXAM BBC} Priif- und Zertifizier GmbH

Certification body Special

services

BVS04 ATEX X

This in its entirety and without change

ndahlstraße9 +49 172-3947 172-3948

31.05.2003 Am Technologiepark Germany)

DE-KRA

Translation

I St Supplement

(Supplement in accordance with Directive 94/9/EC Annex [Il number 6)

to the EC-Type Examination Certificate

BVS 04 ATEX E 068 X

Equipment: Pressure Transmitter type IS-2*-* * * * * * * * * * *

Manufacturer: WtKA AlexanderWicgand GmbH & co. KG

Address: 63911 Klingenberg/Main, Germany

'l"he pressure transmitter can he modified according to the descriptive documents as mentioned iti the pertinent and is with the following type key:

Pressure Transmitter type	IS-2*-* * * * * * * * * * *
Front-membrane	
without	= 0
with	= 1
Version	
Standard	= S
Field terminal box	= F
High pressure	= H
Pressure unit	
1 alphanumeric sign, e.g. bar	= B
Range	
2 alphanumeric signs, e.g. 0/1 bar	= BD
Process connection	
2 alphanumeric signs, e.g. 1/2 NPT	= NB
Wetted parts (IS-21-* * * * * * * * * * * only)	
1 alphanumeric sign, e.g. 1.4571 + NBR	= 1
PFA coated flush diaphragm	= A
Special design features	
1 alphanumeric sign, e.g.	
free of oil- and grease	= E
Cable types:	
P-EDE 196963 PUR (grey)	(none)
P-EDE 289230 PUR (blue)	= Q
ET2PC298 FEP (black)	= K

This certificate may only be reproduced in its entirety and without change
DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.03.2007 EXAM BBG Prüf- und Zertifizier GmbH)

Pressure Transmitter Accuracy
1 alphanumeric sign e.g. 0.5%

IS-2*-* * * * * * * * * * *

= G

Electrical connection 2 alphanumeric signs, plugs connectors:

- DIN EN 175301-803 permanently
- M12x1 IP67
- M14x1 IP68 (inside)
- M16x0,75 IP68
- 7/8-16UNF
- 4 pin MIL. connecter
- 6 pin MIL. connecter

= A4
= M4
= U6
= B5
= U4
= O4
= C6

t'Olžnecled cable:

cap

Electrical connection (continued)
2 alphanumeric signs

iilpbanwnetic signs

- I plastics) bracket

. gland [plastics) tertililikl]s

- Steel) bracket

. terminals

= DL
= DM
= EM

Terminal box, providing:

-cable gland nickel plated) clamping bracket

= NL

- cable (brass. lltckel plated)

= FA
= FB
= FC
= FD
= FE
= FG
= FH
= FK

Cable lenglhl alphaližlmeric sign; e,g, I Sm

Tempevdture range or Medium

The Essential Health and Salèl'%' Requirements the Itiodifieå equipment

Intriltsie safetv
EX' 60079-26-2094 Eqtlipment
•ategory IG
F,qiiipment Graup I Category M)
Genera! requuer.ents
Protection by IS

-20 °C ...+ 80 °C
-40 °C ...+125 °C
-40 °C ...+150 °C
-40 °C ...+200 °C

= C

Il (-

= U
= B
= 8
= 9

dified equipment are assured by compliance with:

> Themark

inv. equipmetti shall include the follow ilig:

DE-KRA

x) I or II extended with the applicable category- and type of protection-marking: see tables below

A ation of different versions of the Pressure Transmitter to temperature class, ambient temperature range and apparatus atus category shall be achieved from the following tables.

Pressure Transmitter type ++ version with permanently connected cable	Category		additional marking	ambient und medium temperature range
	Group II	Group I		
IS-2*-S * * * * * * DL * * IS-2*-H * * * * * * DL * *	1/2G		Ex ia IIC T4 / T5 / T6	- 20°C ≤ T_a ≤ + 60°C (T6) - 20°C ≤ T_a ≤ + 80°C (T5) - 20°C ≤ T_a ≤ + 80°C (T4)
		M1	Ex ia I	- 20°C ≤ T_a ≤ + 60°C
IS-2*-S * * * *Q*DM * * IS-2*-H * * * *Q*DM * *	1G		Ex ia IIA T4 / T5 / T6	- 10°C ≤ T_a ≤ + 60°C (T6) - 10°C ≤ T_a ≤ + 60°C (T5) - 10°C ≤ T_a ≤ + 60°C (T4)
IS-2*-S * * * *Q*DM * * IS-2*-H * * * *Q*DM * *	1/2G		Ex ia IIC T4 / T5 / T6	- 10°C ≤ T_a ≤ + 60°C (T6) - 10°C ≤ T_a ≤ + 60°C (T5) - 10°C ≤ T_a ≤ + 60°C (T4)
IS-2*-S * * * *Q*DM * * IS-2*-H * * * *Q*DM * *	1D		Ex iaD 20 IP 65 T80 °C	- 10°C ≤ T_a ≤ + 40°C
			Ex iaD 20 IP 65 T100 °C	- 10°C ≤ T_a ≤ + 60°C
IS-2*-S * * * *Q*DM * * IS-2*-H * * * *Q*DM * *		M1	Ex ia I	- 10°C ≤ T_a ≤ + 60°C
IS-2*-S * * * *K*DM * * IS-2*-H * * * *K*DM * *	1G		Ex ia IIA T4 / T5 / T6	- 30°C ≤ T_a ≤ + 60°C (T6) - 30°C ≤ T_a ≤ + 80°C (T5) - 30°C ≤ T_a ≤ + 105°C (T4)
IS-2*-S * * * *K*DM * * IS-2*-H * * * *K*DM * *	1/2G		Ex ia IIC T4 / T5 / T6	- 30°C ≤ T_a ≤ + 60°C (T6) - 30°C ≤ T_a ≤ + 80°C (T5) - 30°C ≤ T_a ≤ + 105°C (T4)
IS-2*-S * * * *K*DM * * IS-2*-H * * * *K*DM * *	1D		Ex iaD 20 IP 65 T80 °C	- 30°C ≤ T_a ≤ + 40°C
			Ex iaD 20 IP 65 T100 °C	- 30°C ≤ T_a ≤ + 60°C
IS-2*-S * * * *K*DM * * IS-2*-H * * * *K*DM * *		M1	Ex ia I	- 30°C ≤ T_a ≤ + 105°C
IS-2*-S * * * * * * EM * * IS-2*-H* * * * * * EM * *	1/2G		Ex ia IIC T4 / T5 / T6	- 20°C ≤ T_a ≤ + 60°C (T6) - 20°C ≤ T_a ≤ + 80°C (T5) - 20°C ≤ T_a ≤ + 80°C (T4)
		M1	Ex ia I	- 20°C ≤ T_a ≤ + 80°C

DE-KRA

Pressure Transmitter type ** version with connector	Category		additional marking	ambient und medium temperature range
	Group II	Group I		
IS-2*-S * * * * * * A4 * * IS-2*-H * * * * * * A4 * *	1/2G		Ex ia IIC T4 / T5 / T6	- 40°C ≤ T_a ≤ + 60°C (T6) - 40°C ≤ T_a ≤ + 80°C (T5) - 40°C ≤ T_a ≤ + 105°C (T4)
		M1	Ex ia I	- 40°C ≤ T_a ≤ + 105°C
IS-2*-S * * * * * * M4 * * IS-2*-H * * * * * * M4 * *	1/2G		Ex ia IIC T4 / T5 / T6	- 25°C ≤ T_a ≤ + 60°C (T6) - 25°C ≤ T_a ≤ + 80°C (T5) - 25°C ≤ T_a ≤ + 90°C (T4)
		M1	Ex ia I	- 25°C ≤ T_a ≤ + 90°C
IS-2*-S * * * * * * U6 * * IS-2*-H * * * * * * U6 * *	1/2G		Ex ia IIC T4 / T5 / T6	- 25°C ≤ T_a ≤ + 60°C (T6) - 25°C ≤ T_a ≤ + 80°C (T5) - 25°C ≤ T_a ≤ + 85°C (T4)
		M1	Ex ia I	- 25°C ≤ T_a ≤ + 85°C
IS-2*-S * * * * * * B5 * * IS-2*-H * * * * * * B5 * *	1/2G		Ex ia IIC T4 / T5 / T6	- 40°C ≤ T_a ≤ + 60°C (T6) - 40°C ≤ T_a ≤ + 80°C (T5) - 40°C ≤ T_a ≤ + 85°C (T4)
		M1	Ex ia I	- 40°C ≤ T_a ≤ + 85°C
IS-2*-S * * * * * * U4 * * IS-2*-H * * * * * * U4 * *	1/2G		Ex ia IIC T4 / T5 / T6	- 40°C ≤ T_a ≤ + 60°C (T6) - 40°C ≤ T_a ≤ + 80°C (T5) - 40°C ≤ T_a ≤ + 90°C (T4)
		M1	Ex ia I	- 40°C ≤ T_a ≤ + 90°C
IS-2*-S * * * * * * Q4 * * IS-2*-H * * * * * * Q4 * * IS-2*-S * * * * * * C6 * * IS-2*-H * * * * * * C6 * *	1/2G	--	Ex ia IIC T4 / T5 / T6	- 50°C ≤ T_a ≤ + 60°C (T6) - 50°C ≤ T_a ≤ + 80°C (T5) - 50°C ≤ T_a ≤ + 105°C (T4)

This certificate may only be reproduced in its entirety and without change.
DEKRA EXAM GmbH · Dinnendahlstrasse 9 · 44809 Bochum · Germany · Phone +49 234/3696-195 · Fax +49 234/3696-110 · E-mail: zve.exam@dekra.com
(until 31.03.2007 EXAM BBG Prüf- und Zertifizier GmbH)

DE-KRA

Pressure Transmitter type ** version with snap cap	Category		additional marking	ambient und medium temperature range
	Group II	Group I		
IS-2*-S * * * * * * NL * * IS-2*-H * * * * * * NL * *	1/2G	M1	Ex ia IIC T4 / T5 / T6	- 40°C ≤ T_a ≤ + 60°C (T6) - 40°C ≤ T_a ≤ + 80°C (T5) - 40°C ≤ T_a ≤ + 105°C (T4)
			Ex ia I	- 40°C ≤ T_a ≤ + 105°C

Pressure Transmitter type ** version with terminal box	Category		additional marking	ambient und medium temperature range
	Group II	Group I		
IS-2*-F * * * * * * * FA * *	1/2G		Ex ia IIC T4 / T5 / T6	- 50°C ≤ T_a ≤ + 60°C (T6) - 50°C ≤ T_a ≤ + 80°C (T5) - 50°C ≤ T_a ≤ + 105°C (T4)
IS-2*-F * * * * * * * FB * *				
IS-2*-F * * * * * * * FC * *				
IS-2*-F * * * * * * * FD * *			Ex ia I	- 50°C ≤ T_i ≤ + 105°C
IS-2*-F * * * * * * * FE * *		M1		
IS-2*-F * * * * * * * FG * *				
IS-2*-F * * * * * * * FH * *				
IS-2*-F * * * * * * * FK * *				

Parameters

1. Supply and signal circuit

Voltage	U_i	DC	30	V
Current	I_i		100	mA
Power	P_i		1	W
			750	mW)[1]
Signal current	I_s		4...20	mA
Effective internal capacitance	C_i	≤	22	nF
(versions providing permanently connected cable)	C_i	≤	22	nF + 0,2 nF/m)
Effective internal inductance	L_i	≤	0	µH
(versions providing permanently connected cable)	L_i	≤	2	µH/m)

)[1] 750 mW for apparatus category 1D applications

2. Temperature class in relation to ambient temperature

See tables at description

Test and assessment report
BVS PP 04.2058 EG as of 25.02.2008

Special conditions for safe use

1. The installation of the Pressure Transmitter in the wall to areas requiring category 1G equipment shall provide a degree of protection IP67 according to EN 60529.

2. The installation of the Pressure Transmitter in the wall to areas requiring category 1D equipment shall provide a degree of protection IP6X according to EN 60529.

3. Manufacturer's technical information related to use of the Pressure Transmitter in contact with aggressive / corrosive media and to avoid any risk of mechanical impact shall be observed.

4. In case of applications of the Pressure Transmitter in areas requiring category 1 equipment the screen of the interconnection cable shall be included in the equipotential-bonding/grounding of the vessel

This certificate may only be reproduced in its entirety and without change
DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail ex-exam@dekra.com
(until 31.03.2007 EXAM BBG Prüf- und Zertifizier GmbH)

•t he cable inlet or the apparatus in the wall to areas requiting category IG eq'»npment shall previde a degree of IPO 7 according to E. N

6. The cable inlet Il:e in the to areas teqmring I l) shall provide a il'6.X according 10 IIN

Measuring Of' pressure media providin" the Of the temperature

applicable lltis rev-•e.rgl It' the specified temperature class. shall 110t be exceeded. In temperanwe of the tubular e/tcloscre shall not exceed the maximum the tetnperatt;ae class specified i" the tables.

DEKRA EXAM GmbH Bochum.
dated 2.5.Februarv

Signed: Dr. Jockers
Certification body

Dr . Ei c kh of f
SCI". ices unit

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 25. Februarv 2008
BVS-Scha/Wa A 20070781

DIÑ,KRA EXAM GmbH

Certification body Special services unit

DMT

Translation

EC-Type Examination Certificate

(2) - Directive 94/9/Ec -

Equipment and protective systems intended for use
in potentially explosive atmospheres

(3) DMT 02 ATEX E 025 X

(4) Equipment: Temperature measuring transformer Type T24.1*.***

(5) Manufacturer:

(6) Address:

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of Deutsche Montan Technologic GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, ccrtifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to thc design and construction Of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex Il to the Directive.

The examination and test results are recorded in the test and assessment report BVS PP 02.2005 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 50014: 1997+Al -A2	General requirements
EN 50020: 1994	Intrinsic safety 'i •
EN 50284: 1999	Equipment Group Il Category I G

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(I l) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment In accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These arc not covered by this certificate

(12) The marking of the equipment shall include the following:

0 11 IG EEx ia 11B bzw. lic T4/T5/T6
112G EEx ib 11B bzw. 11C T4/T5/T6 for Type

Deutsche Montan Technologie GmbH

1 ATEX only in its entirety

45307 Telcfon (0201)172-1416,

DMT

Essen, dated 07. February 2002

Signed: Jockers

Signed: Dill

Head of special services unit

X and without change
Telerax

DMT-Certification body (0201)172-17

page of 3 to DMT02
This certificate may be reproduced
Am-rechrok,giepark 1,

(13) Appendix to

(14) # EC-Type Examination Certificate

DMT 02 ATEXE 025 X

(15) 15.1 Subject and type

Temperature measuring transformer type T24. I* ***
In the full product name, the *** are replaced by letters and numbers which differentiate the various models:

Type T24, I* ***

2 = EEx iaII* T*

4 = EEx ibII* T*

Marking which docs not influence explosion protection

15.2 Description

The temperature measuring transformer is used to transform a resistance signal into a proportional current signal (4 to 20 mA).

The electrical components ofthe measuring transformer are fitted into an enclosure made of a plastic material. The enclosure is completely filled with casting Compound. Terminals are fitted to the enclosure in order to connect the intrinsically safe circuit.
The temperature measuring transformer has to be fitted into an enclosure with type of protection IP 20 according to EN 60529.

15.3 Parameters

15.3.1 power and loop circuit (terminals + and -) voltage 30 current 120 power 800 effective
V
internal capacitance Ci effective internal inductance Li 110 mA
mW
15.3.2 sensor circuit (terminals. , 2 and 3) voltage DC current 10 42.6 power PO 37,1 nF
mW µH

for group 11B max. external capacitance 500 max. extemal inductance 50

for group IIC max. external capacitance 20 max. external inductance Lo 10

15.3.3 ambient temperature range

In accordance with the temperature classes, the ambient temperature ranges are defined as follows:

tem crature class	ambient tcm erature ran c
Tl -T4	-50 I °c o
T6	- 50 75 c - 50 <+60 °c

(16) Test and assessment report BVS PP 02.2005 EG as of02.2

(17) Special conditions for safe use 17.1 The temperature measuring transformer must be fitted into an enclosure with type of protection IP 20 according to EN 60529.

17.2 In accordance with the temperature class the measuring transformer can be used in the following ambient temperature ranges:

temperature classes Tl - T4 ambicnt temperature range - 50 °c < Ta < + 85 °c temperature class T5 ambient temperature range - 50 °c < Ta < + 75 °c temperature class T6 ambient temperature range - 50 °c < Ta < + 60 °c

---

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

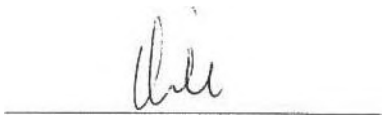
45307 Essen, 03.04.2002
BVS-SchufMi E 303/02

Deutsche Montan Technologie GmbH

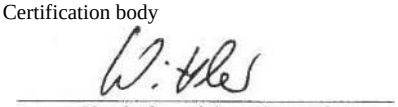
Am 45307 Essen, Telefon (0201)172-1416.

DMT

DMT-



Certification body



Head of special services unit

page or to E 025 X
Thig certificate may bc reproduced and without change
Technologiepark , 72-
Telefax(0201) 1

ATEX only

initsentirety

Am 45307 Essen,
Telefon (0201)172-1416.

Translation

1st Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate

DMT 02 ATEX E 025 X

Equipment: Temperature transmitter type T2 4.1*.*

Manufacturer: WIKA Alexander Wiegand GmbH & co. KG

Address: D - 63911 Klingenberg/Main

Description

The temperature transmitter can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report.

Test and assessment report

BVS PP 02.2005 EG / NI as of 03.06.02

Deutsche Montan Technologie GmbH

Essen, dated 03. June 2002

DMT-Certification body | Head of special services unit

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 03, June 2002
BVS-Schu/Ar A 20020260

Deutsche Montan Technologie GmbH

DMT-Certification body Head ofspecial services unit

only in its entirety
Am 45307 Essen, Telefon (0200172-1416,

This certificate may be reproduced and without change.
Technologiepark l, Telefu (0201)172-1716



C E R T I F I C A T E O F R E G I S T R AT I O N

Q u a l i t y M a n a g e m e n t S y st e m

Management
Systems

FWMurphy

FWMurphy
5311 S. 122nd East Avenue
Tulsa
Oklahoma
USA
74146

Operate a Quality Management System,

which complies with the requirements of

BS EN ISO 9001:2000

for the activities detailed in the scope of

registration.

FM 28221

Robert S. Perry
President

Originally registered: **26 May 1994**

ANSI-RAB QMS ACCREDITED

BSI Management Systems

This is a Presentation Certificate only. This is not a legal document, and cannot be used as such. Only the legal certificate should be used for confirming certificate validity and scope of registration. For further information please contact the certificate holder or BSI Inc. on 703 437 9000 or www.bsiamericas.com

Management Systems

C E R T I F I C A T E O F R E G I S T R A T I O N

Q u a l i t y M a n a g e m e n t S yste m

Th.'S to that

FWMurphy

5311 S. East Avenue

T uisa

Oklahoma

USA

74146

Hold Certificate No: FM 28221 and operate a Quality Management System. whech complies mth the requirements of BS EN ISO 90012000 tot the foifowtng st-ope

Design manufacture and sale of Instrumentation and control solutions for enganes and engine-driven equipment

Oeygn manufacture and sale ot control panels and systems. particularly those used for engane- or electnc motor-dnven natural gas compressors pumps and equipment

Manufacture of preciston sheet metal fabncattons metal stampangs and CNC-machjned parts serving the commercial Industrial and aerospace tndustnes

gor on behalf Of BSI, Inc

President

riginally reqtsterecï 26 May 1994 Latest issue: 6 May 2003 Page; of Z

ANSI-RAB QMS ACCREDITED

This certificate remains the property of BSI, Inc. It does not expire but is contingent on meeting agreed contractual requirements. Validity is maintained through a process of continual assessment and strategic reviews. To check validity call 703 437 9000 or visit www.bsiamerica.com. To be read in conjunction with the scope of registration shown above or on the attached appendix.
American Headquarters: BSI, Inc., 12110 Sunset Hills Road, Suite 340, Reston, VA 20190, USA

BSI Management Systems

Management Systems

C E R T I F I C A T E O F R E G I S T R AT I O N

Q u a l i t y M a n a g e m e n t Sys t e m

rtificate No FM 28221

ginally registered: 26 May 1994

Location

FWMurpny
S 12 East Avenue
Tutsa
Oklahoma
USA

Control Systems S Services
A Oivtslon Of
FVJMurphy ' 05 Randon
Dyer Road
Rosen oerg
Texas
USA

Controls Components Ltd
An Affiliate of FWMurpt-
,y t9722 East Admiral
Place Catoosa
Oklahoma
OSA

Registered Activities

Dessgn. manufacture anu sale of instrumentation and solutions for engines and engtne-anven equipment

Desgn. manufacture and sale of contra pane's and systems. parttcularly those useC for eng'ne- or electnc motor-driven natural gas compressors. pumps ana equipment

Manufacture of preceslon Sheet metal 'abncat»ons. metal stampings and CNCmachined patts serving the commercial and aerospace industries.

Management Systems

This certificate remains the property of BSI Inc. It does not expire but is contingent on meeting agreed contractual requirements. Validity is maintained through a process of continual assessments and strategic reviews. To check validity call (703) 437 9000 or visit www.bsiamericas.com. To be read in conjunction with certificate of registration.

Americas Headquarters: BSI Inc. 12110 Sunset Hills Road, Suite 330, Reston, VA 20190, USA

P rocesos • Process 17. Cañerla Piping

Cigüeñal - 1 e 3 c

AUTOCONTROL - REG'STRO DE Y
NO-CONFORM!DADES MANOVE-LISMO

SELFCONTRÖL - Corvroqwres uv17šss&vSLY

2- porta rodamiento Moteia

Geor

Se 'a/ No.

Fecha

Requisitos - Requiremen:s

- Control visual de aguiero de tuaricacion L ut'* visual zanga'
- Puilda de muñan iibre de golpes y rayas

- Bielas • Cor' rwzfing

- Clavada de rodamientos

Ea/' bearings installation

- Aioiamienta de rodamientc 13.074. I gal/ besánrg hous,ing
- .jueao axis! de 0, ID a C.aDrnm

30

Cjeerance trom 0 tc; 0,30 mm

4. pernos - - -juego axial de Ci.SOm,m 1 IS

',001/

Ax;a/ D/earance from 0.30 to mm

- Control aguiero de 'ubricacion

5. Contrapeses L ube chame/ contra/

C hrs - Contrai encastre correcta dc metal ta/ conn/

- Verificar posición agujero ae

Marovefismo

- Torque a 'SONm

Bo:nàa de lubricación Torque to Alm

- Torque a 29SNrn

Toraue tc

Jueqõ axial de bielas Ca , •vl-ec$i,-w

G'earary:e

8- Acopiamiento - Coupling Verificar huelgo

- Ajuste de tapones a 25

100M 70

25

9- Linterna de acoplamiento . Aiusle de ta>3nes 4C

IODU

40 AOL. 1

10- Ciiindro de 1' etapa

- Torque a 90Nrn acuM

Torque to 90

- T argue a IBO t•rn To ue to
- Rotación manual nomal

Norma/

Cilindro de 2" etapa

2nd Stage

- Armado de

Disks

12- Vastagos - Roes - sabre cigüeñai

Assembb' ovar

13- Espacio nocivo 50

70

Torque 50 ,'Vrn

- Control de enconado can cor„'ro.' witñ a e

Cilindro 3 • etapa

Scage - T arque Nrn

Torque to 1801'Vm

- Arrñado

f5- Cilindro de ultirna etapa

Cy/jnáer

. ciiirrdrc a lÆstjdor a Nrn

70

IS- de espacio nocivo de

7arqu•s t o

Primera Etapa 70-3 - - cilindro a 300 NT

SI f 15—3

118

Torcue cvúñde.- Fame '0

- Armada

- bastidor a 180

- cilindro a a 300 loo»

Tamue ta Fame fo 3C⁵JNm

Montaje

. AssarnbĖy

primera Segunda Etapa

Se-zmd

- Thjrd & F-œ.j,fn S.'ages from

- Arma do

- Torque cilindra bastidor a T ue V'nder fo trame to

- Armado

- Torque ciiindro a bastidor a IBONm

Torque inder to *rame ta f 30Nm

- Torque de brida a 130

Frange torque 'SO "m

- Montaie 3e caños de caire

Cooper trame t'åontaie de caños en bastõor Pipes assemö/ on trame - Purgado de cañeria

- Filtros

No Conformidades *Non-Conformities* / **Observaciones** *Remarks*

Distribuidor flojo

POR SUPERVISOR	24-7-12
SUPERVISOR OK	FECHA / DATE

AUTOCONTROL - REGISTRO DE INPECCION Y ENSAYO Y NOCONFORMIDADES FINAL DEL MANOVELtSMOS

SELFCONTROL - FINAL INSPECTION & NON-CONFORMITIES RECORD FOR Aspro COMPRESSOR

Maquina Nº
Machine NO. _

SLJFSRVts

suF$qcr1SOG 0K

01-032009-06-03

Modelo: ÇODM-ÁJS - 5-

Model:

LACRADOS

SEALED

ACUÑADOS

STAMPED

CILINDROS

CYLINDERS

DCAÑos OELUaRICACiON

CUBE OIL PIPES-

VALVULAS DE 3ra Y 4ta ETAPA ADMISION

3rd & 4th STAGE INLET

VtSORES . SJGHTGLASSES

DETECTOR DE VIBRACIONES

VIBRATIONDETECTOR

ACRIL_tCOS

ACRYLtCY

-PINTURA

PAINT

CARPETA - FOLDER

aulones
pernos de biela
Connectin Rod Pins
Ba,'is
Tapas porta rodamiento
H ousin
Cov ers
arid as
de ciiin
5ros
C inde r
Flan es
Cilindros
C linders
Tue-rcas de vastago cruceta
Crosshead Piston Rod Nuts
Bomba de lubricación
Lubrication Pum
Acapiamiento
COL'
Lintarna
Attachment intermediate iece
Tapa superior
Tapa acr[iica
A; fic cover
B i e l a s C o n n e c t i n R o

ds
Contrapesos Counterwe hts,
Tapa retén
Oil sea' cover
Pr:sionero de cruceta
Crosshead stud bolt
Paquetes de Cierre
Sea

lin askin s
Bielas
Connectin Rods
Contrapesos
Counterwe hts
Tuercas de vastago cruceta Crosshead
Piston Rod Nuts
Chapa da irspeccjon final
Fina/ Ins lion ate
Tapas p'asticas colocadas
Assembled Plastic Covers
En maquinas IODM 70-4R y 70-3-12 verificar que ha linea azul esté pintada.
For 70-4R & 70-3-12 machines Check that the blue stri is anted, En maqunas IODMI 15/4-3. y 115{3-12 verificar que se encuentre la linea azul For machines & 1150-12 Check the blue strioe
G,-abado de tuercas de viro±as
Fen-vie nuts stam
Veriñcar ajustE de tuercas
Nuts Ti htenin Control
Que esten colocadas
Installation Control
Pérdidas
Leaka es
Montaje
Assemb'
Montaje correcto de o 'ring
"O" Rin Pro Assemb/
Control visual
Visual Check
Control de datos requeridas
R (Jested data confro/

AETOCOFITROL. - REGISTRO DE INSPECCION Y FNSAYE) Y DE DEL COMPRESOR pagina

SELFCONTROL AND NON CONFORWTIES ASSEMüLY

Madel: Serial Nr._

Requisitos. Regoi?emtžtits

4 - Bastidor Frame - Alineadc

- Torque a 400

vižu

2- Valente Torque a 120 43 1 fG/os(lZ

3- Motar CaEacar nea 6/08//2

- Torque Nrrl 131 14&þz
- de

Ídø8 Z

Yelts

- a - 270 ru.J 43 1
- Torque - 27a

4- Pulmón - Alineada con dispositivo alaw - Alignemerli

- Torqua e 12a turn 12n

3- Aero enfriädorres

Aligr.tnanl

Bfal_-Ret 120 Nm

Caarrt;;

Condensador ú!t_ Etapa Pijacion chaåsiE tortiLle 1 81)

Alineado

Tarque a CCl tqrr,

Torque sa

Ajuste de prisione:-a

Locki,nl] Screw

Torque Nm

Tarql.;e a 90

Cañeria fina - Aftista virolas

Ferrt_lle

g- Våivula de seguridad Torque e valve

Manguera de lubriczcion virolas Hose

- Ajuste de

Fijacion a'

Assembly

Vá;vula de escape Primera (1

- FirSi
- Segúnde (2 ^{0})
- Secord (2nd) stege

Tercera (3^{a})

- s:age

(41h) stase

arque n as a Gas ing

instalación - Cantrcl Electrizai Inste'!aticr.

Ca - C2 iilars

- ßEdt

on ensa ores a e [trüs

Jrd stfge - Filter

Aspro

AUTOCONTROL - REGISTRO DE INSPECCION Y ENSAYO Y NO-CONFORMIDADES DE MONTAJE DEL COMPRESOR
SELFCONTROL -INSPECTION & TEST AND NON CONFORMITIES RECORD COMPRESSOR ASSEMBLY

FORM. Nº023-08/2010-01-08

Cliente - Client : OP :	Modelo : Model: IODM 115-5-4RE	Nº de Serie: Serial Nr.: 4295 GEORGIA

Procesos - Process	Requisitos - Requirements	Responsable	Fecha Date
14- Pulmón Blow Down Tank	- Retirar dispositivo y filtro - Filter and device removal	—	—
	- Colocar flexible - Flexible pipe installation	—	—
	- Torque a 120 Nm - 180 Nm - Torque 120 Nm - 180 Nm	—	—
	- Ajuste de tornillo M12 - M12 bolt tightening	—	—

No Conformidades / Observaciones: - Non-conformities / Remarks

MC 373	18/09/12
Vº Bº SUPERVISOR	FECHA
SUPERVISOR OK	DATE

RELEVAMIENTO DE DATOS SOBRE EL MONTAJE DEL COMPRESOR

Pagina:
Sheet:

Aspro COMPRESSOR ASSEMBLY DATA SUMMARY

FDRM NorsvaerŽoog-08-20 3

N O de Serie

—L/RE

Chent: Mode!:

CILINDROS	ESPACIOS NOCIVOS	ANILLO
CYLINDERS	NOCIVE SFACE	RINGS
Ist		, 00 0,30
CIL2	Segunda 2nd	
	Tercerâ ard	
ULTIMA	Ultima Last	

BASTIDOR N O 10. CiGlJEÑAL N O

FRAME Nr. c RANKSHAFT Nr.

MOTORES - MOTORS / ENGINE

Paleas Dešcripäa:

Diametro prueba

Tesi Charr-,eter

Sir.

Diametro 420,1

Deñnitivo

Diameter

Marca

Núrnero

Hz

RPM [4

VALVUCAS Y ACTIJADORES -

Marca ararvi

Modelo Model

Cantjdad Ouantity

PRESOSTATOS / TRANSDLICTORES- PRESSURE SWITCH

Marca

ND de Control Control Nr_

Rango de Corte Range

VALVULA DE SEGURIDAD -

araad serie

Seda'

DELTA COMPRESION S.R.L. Aspro ORO

DE DATOS SOBRE EL MONTA-IE DEL COMPRESOR

COMPRESSOR ASSEMBLY DATA SUMMARY

Cliente

Modela 100M · 11S — 5AíRE

Mociel:

Nº de Serie : 4245

Serial Nr. Georbi2

DATOS DE PRUEBAS HIDRAULICAS HYDROSTATIC PRESSURE TEST DATA

AERO ENFRIADORES

CDOLERS

Aero Prec	Air coalers Plec_st Ar	
20	coaiers Air c004ers ard	
Aero 3º Aero Ultima	Air cool Air Coaiers Last	

CANERIA DE GAS

GAS RIPING

Descripción Description	Registro de Prueba Hidraulica Nº Hydrostatic pressure record number
Entrede Frac.	
Salida Out	
Entrada 1 º Ist SaEda	
Entrada 2º Sn 7nd	
Salida 2º Out ir, 3ra Entradê	
Salida 3 º ard	
Entrada t_Jttimê	
Salida Ultima Duc Reg	
Entrada Salida Ah-n. Regulating Out	

RECIPIENTES

VESSELS

Descripción Description	Registro de Prueba Hidraulica Nº Hydrostatic pressure record number
Canci / Amor 1 º / Demp ist	
Cand { Amor 2º Cand i Darnp Zr.d Cond / Amar 3º i Damp ard	
Cand / Arnor Llåirriê Cand Last T Choque	
Puimóa	

-

Descripción Descalotion	.INDROS Registro de Prueba Hidraulica Nº Hydrostatic pressure record number	
Par%çaquate 2c		
Prec. Der. Re2igthPrec.		0712
Prec. Izq Ler, Frac. Ist		
Slaçe COZ Slage OC_N		0712
3º El. Stage 3rd Ultima Et		
Last S13ge		

OTROS

Descripción Description	Registro de Prueba Hidraulica Nº Hydrostatic pressure record number

Número de informe- Test repodv nLJrnber	Descripción Description		Número de informe- Test report number	Descripción Des:n?iiorž
	Amortiguador I CtY1densaóor de 1 ª 1st Stage Con Condenser l'Damper			Pulmón Blow Down Tank
	Amartiguacior / Condensado* de 2c etapa Znd. Stage /			
	Amortiguador i Condensador 3c etapa 3rd Stage Condensar DarnçËr			
	Amafiiguador de Lest staoe			
	Ultima condensador Last SžagE			

VALVULA REGULÐ£DOPVA ENTRADA - INLET REGULATING VALVE		
Serie N^{e} / Serial t•4r	Marca Modelo/ Model & Mark	Piioto - / Range Regulatior

DE VENTILADOR

- FAN HELIX

Marc; - Modelo / Model & Mark

Cantid3d y Angulc del Aspa / Qty & Angle blades

Y ENSAYO

AUTOCONTROL - REGISTRO Y

NO-CCNFORWûAûES OE MONTAJE MANOVELLSMO Pagina I

SELFCONTROL - RECORD

Cliente ' Modelo de Serie

Sehg/

Procesos - Process	Requisitos - Reguiremenfs	Ch arge
	Control visual de agujero de lubricacior, Labe	
	- Pulida de muñon libre de qo;æs	
	Cigüeñal . y rayas 2Cran koin po/ishin free marss	
	- Cavado de rodamientos beanngs instaljation 2	
	ea/' 5eaänghousing	
2- Tapa porta rodamiento	• Juego axial de a 0.30rnrr1 70	
Sea ring CO v ar	Axial Searance from C 10 tc 0,30 mm	
	Juego de 0.30 a 118	
	- Axial c/earance from 0.30 to 060 2	
	- Control aguiero de lubricacion	
	Luse charrne/ control	[q
	- Control encastre correcto de me*.Ä	
	Meta/ correct sacket control	
	- Verificar pasjciór: ag*ro metal	
	- Torque a 1ôONm 70	
	Toroue tc 150 -	
	Torque 29St•rn ro	
	ue ta 295	
	Juego axial de bielas	
	- Verificar	
	ionu 70	
4- pernos	• Ajuste tapones a 25 70	
	Flurgs to 25	
	• de tapones a 40 to Nrn	
	• Torque a 90N,-n 70	
5• Contrapesos	Tcn-gue tc 90 Aim	
	• IBO	
	rorque to Nrn	C:.SJ
Manoveiisrno	Rotación manual r,Dn-nat	
C ampressar i:	Normat manual ratžt;arj	
7- Bornea de lubricación	- Montase	
	- A-rnado de láminas taciM 70 Disk s aSSFžm5/ 70	
	Assemb,'v	
8. Acopiamiento -Coup/ing	5C N.-TI	
	- a	
	- Control de	
	Cone a	
S- Linterna de acoplamiento	- T arque	
	• Armad 0	
		9.0Ñ .
IO- Ciiindro cie etapa	- ciiinárc bagúdor a 18070 I st S tags	
Tarque cier tc, rame ta f BON,'"		
	• Torque a bastidor a 3'30 Nrn	
	Tcvaue trame tc 30CAm q .cxt	
	. Armado	
11- Cilindro de etapa	- Torque a a l Ba 70	
Stage	T ue to rame ;	
	• ciiindra a bastidor a 30C	
	Miróer Fame tc 300Nm	
12. Vastagos - Rads	- Montaje	
	. prfnera Segunda Etapa	
13- Espacio nocivo		
	• Tercera y Cuarta Etapa - Third & Fourtn Stages mm	
	• Armado	

Y ENSAYO

Cilindro de 3 ᶜ etapa

316 S;age Torque cilindro a bastdor a 180NrTJ

T ue c inder to frene ro

- Armado

Cilindro de ultima etapa

- Torque ciiindra a bastidor a •,BONrn

Toraue inder to trame T SONm

IS- Regulador de espacio nocivo de Primera Etapa 115-3 7C-

3 - Torque de brida a IBO Nm free Spa F/anÿe torque 150

- M0Ftaie de caños de c.nôrECoooer fittin on

- Montaie de cañcs en bastidor

17. Cañeria - Piping ori trame tu (

Fi es assem

- de

- Condensadores de I t, r, 30 - Filtras

Y ENSAYO

Aspro

AUTOCONTROL - REGISTRO DE INSPECCION Y ENSAYO Y NO-CONFORMIDADES DE MONTAJE MANOVELISMO

SELFCONTROL - INSPECTION & TEST AND NON CONFORMITIES RECORD COMPRESSOR UNIT ASSEMBLY

FORM. Nº022-09/2011-05-26

No Conformidades *Non-Conformities* / **Observaciones** *Remarks*

Distribuidor slow

V°B° SUPERVISOR	5-7-12 FECHA
SUPERVISOR OK	DATE

DELTA COMPRESION S.R.L. — Aspro GNC

AUTOCONTROL - REGISTRO DE INPECCION Y ENSAYO Y NO-CONFORMIDADES FINAL DEL MANOVELISMOS
SELFCONTROL - FINAL INSPECTION & NON-CONFORMITIES RECORD FOR COMPRESSOR

Maquina Nº: *Machine No.:* 4245	Modelo: *Model:* IODM 115-5-4RE	Pagina: 1 de 1 *Page: 1 of 1*

Procesos *Process*	Descripción *Description*	No-Conformidades / Observaciones *Non-Conformities / Remarks*	Ok
LACRADOS *SEALED*	Bulones pernos de biela *Connecting Rod Pins Bolts*	—	✓
	Tapas porta rodamiento *Bearing Housing Covers*	—	✓
	Bridas de cilindros *Cylinder Flanges*	—	✓
	Cilindros *Cylinders*	—	✓
	Tuercas de vastago cruceta *Crosshead Piston Rod Nuts*	—	✓
	Bomba de lubricación *Lubrication Pump*	—	✓
	Acoplamiento *Coupling*	—	—
	Linterna *Attachment intermediate piece*	—	—
	Tapa superior *Top cover*	—	✓
	Tapa acrílica *Acrylic cover*	—	—
	Bielas *Connecting Rods*	—	✓
	Contrapesos *Counterweights*	—	✓
	Tapa retén *Oil seal cover*	—	✓
	Prisionero de cruceta *Crosshead stud bolt*	—	✓
	Paquetes de cierre *Sealing packings*	—	✓
ACUÑADOS *STAMPED*	Bielas *Connecting Rods*	—	✓
	Contrapesos *Counterweights*	—	✓
	Tuercas de vastago cruceta *Crosshead Piston Rod Nuts*	—	✓
	Chapa de inspeccion final *Final Inspection plate*	—	✓
CILINDROS *CYLINDERS*	Tapas plasticas colocadas *Assembled Plastic Covers*	—	✓
	En maquinas IODM 70-4R y 70-3-12 verificar que la linea azul esté pintada. *For IODM 70-4R & 70-3-12 machines check that the blue stripe is painted.*	—	—
	En maquinas IODM115/4-R y 115/3-12 verificar que se encuentre la linea azul *For machines IODM115/4-R & 115/3-12 Check the blue stripe*	—	—
CAÑOS DE LUBRICACION *LUBE OIL PIPES*	Grabado de tuercas de virolas *Ferrule nuts stamping*	—	✓
	Verificar ajuste de tuercas *Nuts Tightening Control*	—	✓
VALVULAS DE 3ra Y 4ta ETAPA ADMISION 3rd & 4th STAGE INLET	Que esten colocadas *Installation Control*	—	✓
VISORES - *SIGHTGLASSES*	Pérdidas *Leakages*	—	✓
DETECTOR DE VIBRACIONES *VIBRATION DETECTOR*	Montaje *Assembly*	—	✓
ACRILICOS *ACRYLICS*	Montaje correcto de o'ring *"O" Ring Proper Assembly*	—	—
PINTURA *PAINT*	Control visual *Visual Check*	—	✓
CARPETA - *FOLDER*	Control de datos requeridos *Requested data control*	—	✓

V°B° SUPERVISOR	5-7-12 FECHA
SUPERVISOR OK	*DATE*

- Client	Modelo : 100M 115-5- Model:	Nº de Serie: 4245 Serial Nr : GEORGIA

Procesos - Process	Requisitos - Requirements	Responsable	Fecha Date
1- Bastidor Frame	- Alineado - Alignment	AW1276	14/8
	- Torque a 400 Nm - Torque 400 Nm	AW1276	14/8
2- Volante Flywheel	- Torque a 120 Nm - Torque 120 Nm	RN 131	16/08/12
3- Motor	- Colocar polea - Pulley assembly	RN 131	16/08/12
	- Torque a 90 Nm - Torque 90 Nm	RN 131	16/08/12
	- Alineado/Tensado de correas - Belts alignement/tightening	RN 131	16/08/12
	- Torque a 180Nm - 270 Nm - Torque 180 Nm - 270 Nm	RN 131	16/08/12
4- Pulmón Blow Down Tank	- Alineado con dispositivo - Alignement with device	AW1276	14/8
	- Torque a 120 Nm - 180Nm - Torque 120 Nm - 180Nm	AW1276	14/8
5- Aero enfriadores Air Coolers	- Alineado - Alignment	1346	21/8
	- Torque escuadras 120 Nm - Bracket bolts torque 120 Nm	1346	21/8
	- Torque en abrazaderas 60 Nm - Clamp bolt torque 60 Nm	1346	21/8
6- Condensador de últ. Etapa Last Stage Concenser	- Fijacion al chasis torque 180 Nm - Assembly to skid torque 180 Nm	1346	21/8
7- Motor de aero Cooling Fan Motor	- Alineado - Alignment	AW1276	28/8
	- Torque a 90 Nm - Torque 90 Nm	AW1276	28/8
	- Ajuste de prisionero - Locking Screw Tightening	AW1276	28/8
	- Torque 90 Nm - Torque a 90 Nm	AW1276	28/8
8- Cañeria fina Tubing	- Ajuste de virolas - Ferrule tightening	1192	31/08
	- Ajuste de virolas - Ferrule tightening	1192	31/08
9- Válvula de seguridad Safety valve	- Torque a 100 Nm - Torque 100 Nm	1346	31/08
10- Manguera de lubricacion Lubrication Hose	- Ajuste de virolas - Ferrule tightening	1352	18/09
	- Fijacion al chasis - Assembly to skid	1352	18/09
11- Válvula de escape Exhaust valve	- Primera (1°) - First (1st) stage	—	—
	- Segunda (2°) - Second (2nd) stage	—	—
	- Tercera (3°) - Third (3rd) stage	—	—
	- Cuarta (4°) - Fourth (4th) stage	—	—
12- Cañeria de gas Gas Piping	- Torque de bridas a 180 Nm - Flanges Torque 180 Nm	1352	10/09
13- Instalación eléctrica Electrical Installation	- Control cableado - Cabling check	1352	10/09
	- Capilares - Capillars		
	- Nivel plano - Grade drawing		

14- Condensadores de 1°, 2°, 3° Condenser 1st, 2nd, 3rd stage	- Retirar filtros - Filter removal
	- Torque a 180 Nm - Torque 180 Nm

Cliente - Client:	L0DH ns-s-¼ûE	Nº de Serie: 424
OP:		Serial Nr.: GEOR

Procesos - Process	Requisitos - Requirements	Responsable	Fecha Date
14- Pulmón Blow Down Tank	- Retirar dispositivo y filtro - Filter and device removal	—	—
	- Colocar flexible - Flexible pipe installation	—	—
	- Torque a 120 Nm - 180 Nm - Torque 120 Nm - 180 Nm	—	—
	- Ajuste de tornillo M12 - M12 bolt tightening	—	—

No Conformidades / Observaciones: - Non-conformities / Remarks

*VALVULA DE SEGURIDAD PRECOMPRESOR MARCA ASPRO DE 18 BAR Nº 28802 .—

* CALEFACTOR DE ACEITE MARCA CALORITECH MODELO CXFT102P110X-002 (CANT. 2)

* ESTAMPILLA BUA Nº DAA 04587441

Mc 373	18-09-2012
V°B° SUPERVISOR	FECHA
SUPERVISOR OK	DATE

DELTA COMPRESION S.R.L. — Aspro SRC

RELEVAMIENTO DE DATOS SOBRE EL MONTAJE DEL COMPRESOR
COMPRESSOR ASSEMBLY DATA SUMMARY

FORM. Nº031-08/2009-08-20

Pagina / Sheet: 1 de / of: 3

Cliente / Client:	Modelo / Model:	Nº de Serie / Serial Nr.
	IODM 115-S-4RE	4245 GEORGIA.

CILINDROS / CYLINDERS

Descripción / Description		Nº de Tag / Tag Nr.	Nº Fund / Cast Nr.
CIL 1	CYL 1	—	0781051 2
CIL 2	CYL 2	—	1069/0612
CIL 3	CYL 3	—	072/0412
CIL ULTIMA	LAST CYL	—	055/0612

ESPACIOS NOCIVOS / NOCIVE SPACE

Descripción / Description		Aro / Ring	E. Nocivo / Nocive Space
Primera	1st	——	1,10
Segunda	2nd	——	1,10
Tercera	3rd	——	2,00
Ultima	Last	6,10	2,00

ANILLOS / RINGS

Espesor / Thickness	Juego Axial / Axial Clearance
3,70	0,32
—	—

BASTIDOR Nº / FRAME Nr.	7015

CIGÜEÑAL Nº / CRANKSHAFT Nr.	6476.

MOTORES - MOTORS / ENGINE

Descripción / Description		Tipo - Type: Aero / Fan	Tipo - Type: Principal / Main Motor
Marca	Brand	WEG	WEG
Número	Nr.	1015853468	1016573796
V		380	380
A		22,9	363
Hz		50	50
RPM		970	1490
KW (HP)		11	200

Poleas - Pulley

Descripción / Description	Tipo - Type: Motor / Motor Side	Tipo - Type: Volante / Flywheel
Diametro Prueba / Test Diameter	/	/
Diametro Definitivo / Final Diameter	468mm	690mm

VALVULAS Y ACTUADORES - VALVES & ACTUATORS

Descripción / Description		Tipo - Type: Solenoide / Solenoid	Apertura-cierre / Open - Close	Reguladora / Pilot regulation	Despresurizado / De-pressurization
Marca	Brand	JEFFERSON	VALBOL	ASPRO	ASPRO
Modelo	Model	1/4 - 1/2	3"	326 BAR	—
V		24 - 24	—	—	—
Hz		50/60 - 50/60	—	—	—
Cantidad	Quantity	2 - 1	1	2	1

PRESOSTATOS / TRANSDUCTORES - PRESSURE SWITCH / TRANSMITTER

Descripción / Description		Tableros - Switchboards: 1(inlet gas)	2(outlet gas)	3(safety)	Maquina - Compressor: Aceite - oil
Marca	Brand	—	—	C.C.S.	—
Nº de Control	Control Nr.	—	—	41444	—
Rango de Corte	Range	—	—	270 BAR ↑	—

VALVULA DE SEGURIDAD - SAFETY VALVE

Descripción / Description		Pulmón / Blow Down Tank	Primera / First Stage	Segunda / Second Stage	Tercera / Third Stage	Ultima / Last Stage
Marca	Brand	ASPRO	ASPRO	ASPRO	ASPRO	ASPRO
Nº de serie	Serial	29133/10	28838/26	29041/65	28945/150	29088/289

DELTA COMPRESION S.R.L. — Aspro

RELEVAMIENTO DE DATOS SOBRE EL MONTAJE DEL COMPRESOR
COMPRESSOR ASSEMBLY DATA SUMMARY

FORM. Nº031-08/2009-08-20

Pagina / Sheet: 2 de / of: 3

Cliente / Client:	Modelo / Model:	Nº de Serie / Serial Nr.
	TODM 115-5-4RE	4245 GEORGIA

DATOS DE PRUEBAS HIDRAULICAS - HYDROSTATIC PRESSURE TEST DATA

AERO ENFRIADORES - AIR COOLERS

Descripción - Description		Registro de Prueba Hidraulica Nº - Hydrostatic pressure record number
Aero Prec	Air coolers Prec.st	P3210/0712 - P32d6/0712
Aero 1°	Air coolers 1st	P3211/0712
Aero 2°	Air coolers 2nd	P3209/0712
Aero 3°	Air coolers 3rd	P3207/0712
Aero Ultima	Air coolers Last	P3208/0712

RECIPIENTES - VESSELS

Descripción - Description		Registro de Prueba Hidraulica Nº - Hydrostatic pressure record number
Cond / Amor 1°	Cond / Damp 1st	P840/0712
Cond / Amor 2°	Cond / Damp 2nd	P833/0712
Cond / Amor 3°	Cond / Damp 3rd	P800/0712
Cond / Amor Ultima	Cond / Damp Last	P904/0712
T.Choque	Knock Down Tank	P945/0712
Pulmón	Blow Down Tank	P2408/0712

CAÑERIA DE GAS - GAS PIPING

Descripción - Description		Registro de Prueba Hidraulica Nº - Hydrostatic pressure record number
Entrada Prec.	In Prec.st	P805/0912 - P800/0912
Salida Prec.	Out Prec.st	P807/0912 - P802/0912
Entrada 1°	In 1st	P804/0912
Salida 1°	Out 1st	P808/0912
Entrada 2°	In 2nd	P1024/0812
Salida 2°	Out 2nd	P831/0612 - P806/0912
Entrada 3°	In 3rd	P817/0912 - P818/0912
Salida 3°	Out 3rd	—
Entrada Ultima	Last In	—
Salida Ultima	Last Out	P1090/0612
Entrada Reg	Regulating In	P1001/0612
Salida Alm.	Regulating Out	
ENTRADA DE GAS		P894/0712 - P898/0812
CONEX REG - PULMON		P1020/0812
CONEXION TEE		P801/0912

CILINDROS - CYLINDERS

Descripción - Description		Registro de Prueba Hidraulica Nº - Hydrostatic pressure record number
Portapaquete 1° Etapa		203/0612
Portapaquete 2° Etapa		262/0512
Prec. Der.	ReigthPrec.	—
Prec. Izq	Left Prec.	—
1° Et.	Stage 1st	007/0512
2° Et.	Stage 2nd	064/0612
3° Et.	Stage 3rd	072/0712
Ultima Et.	Last Stage	055/0612

OTROS - OTHER

Descripción - Description	Registro de Prueba Hidraulica Nº - Hydrostatic pressure record number
CONDEN. PRE COMPLE	P869/0712
—	—
—	—

RADIOGRAFIAS - RADIOGRAPHS

Número de informe- Test report number	Descripción - Description	Número de informe- Test report number	Descripción - Description
	Amortiguador / Condensador de 1° etapa 1st. Stage Condenser /Damper		Pulmón Blow Down Tank
	Amortiguador / Condensador de 2° etapa 2nd. Stage Condenser / Damper		
	Amortiguador / Condensador de 3° etapa 3rd Stage Condenser / Damper		
	Amortiguador de última etapa Last stage Damper		
	Ultimo condensador Last Stage Condenser		

VALVULA REGULADORA DE ENTRADA - INLET REGULATING VALVE

Serie Nº / Serial Nr	Marca - Modelo / Model & Mark	Piloto - Rango / Range Regulation
4168	ASPRO / A-1098-1S	1 - 4 BAR
S/N	SPIRAX SARCO / 2SP	—

HELICE DE VENTILADOR - FAN HELIX

Marca - Modelo / Model & Mark	Cantidad y Angulo del Aspa / Qty & Angle blades
—	—
—	—

AsprO

INFORME - PRUEBA CON GAS
GAS TEST - REPORT

(CERTIFICATE TYPE EN10204-3.1)

FORM 19-12/2012-09-14

Cliente (Razon social): Customer Name	GEORGIAN INTERNATIONAL ENERGY CORPORATION		
Compresor modelo: Compressor Model:	BOOM 115-5-425	serie N^{O}: Serial Nr.	5
Orden de Produccion: Production order:	00065/12	Pais: Country:	GEORGIA

FLUIDO : GAS NATURAL - FLUID: NATURAL GAS

CAPACIDAD NOMINAL - NOMINAL CAPACITY

Presión de entrada sin reguladoraInlet Pressure without regulator		—						
Presión de entrada regulada (Pulmón) Regulated inlet pressure (Blow down tank)		1,2					0,4	

Compresor presión de salida Outlet Pressure Compressor (BAR)	Etapas Stages	1^{0} Etapa 1st stage	2^{0} Etapa 2nd stage	3^{0} Etapa 3rd stage	40 Etapa 4th stage	Etapas Stages	Control de empaquetadura (L/min)
		20	55	110	220	1 ^{0} Etapa	2
		14	40	90	220	2^{0} Etapa	0

Compresor temperatura de salida- Outlet Temperature Compressor	Etapas Stages	1^{0} Etapa 1st stage	2^{0} Etapa 2nd stage	3^{0} Etapa 3rd stage	40 Etapa 4th stage	Temp. de almacenaje storage temp.	Temp. Ambiente ambient temp.	Temp. Gas gas temp.
		82	91	80	92	32		—
		82	90	80	104	33	—	—

Precompresor Precompressor	Etapas Stages	Presion de salida Oulet pressure	Temperatura de salida Oulet temperature	Velocidad del Volante spin Speed (R.P.M)	Etapa Stage	Control de empaquetadura (L/min)
		6	47	1025	IOEt.	0
		4,5	48	1026	20Et.	8

Potencia nominal motor principal Power main drive		200kw	Potencia nominal motor pre. Power pre. motor		75!	R.E.N	—
		—		20	-		

Parametros de funcionamiento Operative Parameters	Velocidad del Volante spin Speed (R.P.M)	Consumo del motor Principal - Main drive current (Amp)	Consumo del motor precompresor - Pre motor current(Amp)	Consumo motor aero - Air cooler current (Amp)	Tensión - Voltage "Volt"
	1003	346 A.	137 A	14A.	380
20	1002	276 A.	97 A	14A	3

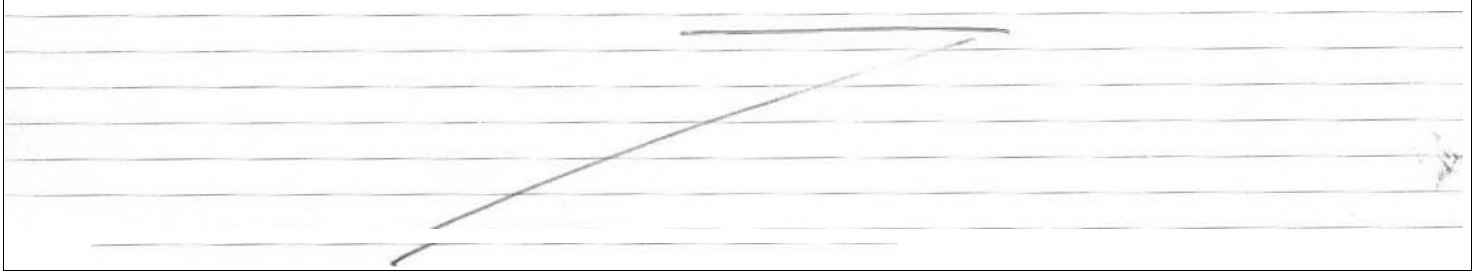
Caudal I Flow (Kg 1 h)	Valor medidor másico Mass flow meter value	Cálculo - Calculation	Sm3/h	Nm3/h
	786kg.	Kg/h 1,055 / 0,73 =Sm3/h		1°

	20	5 85 Kg	Keih 1 0,73 =Nm3/h	20			801
* FC _ Factor de conversion (PE gas) - Conversion Factor (Gas SG)						0,73	

• 1,055_ Conversión Kg/h a Sm3 - Conversion Kg/h to Sm^3 conversion

* La prueba se realiza conforme los estadares de Delta Compresión y norma DIN EN10204-3
1BThe test is peHormed under the standards of Delta Compression and DIN ENI 0204-3-1B-

Observaciones / Remarks :



INFORME - PRUEBA CON GAS
GAS TEST - REPORT
(CERTIFICATE TYPE EN10204-3.1)

Aspro

FORM N°119-12/2012-09-14

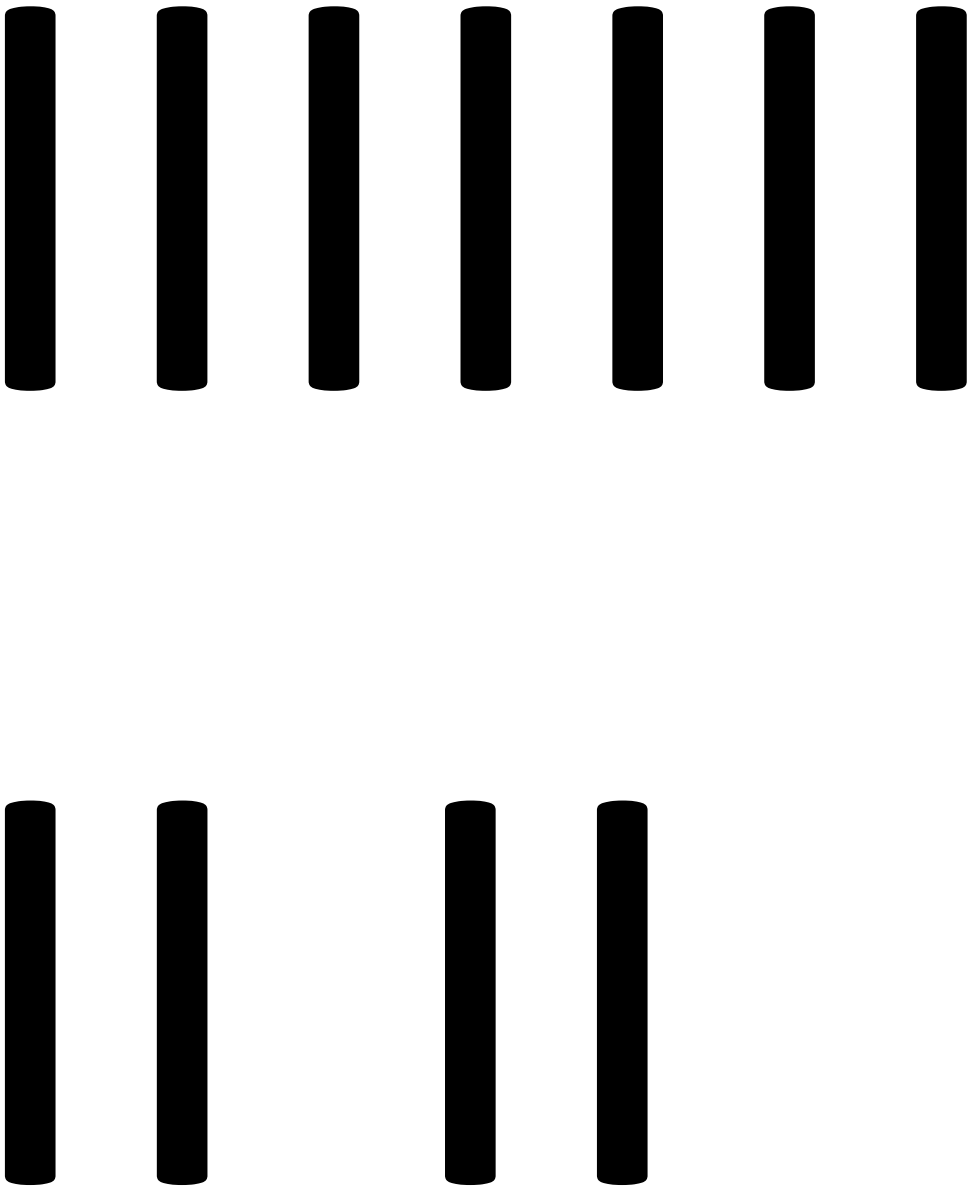
DESCRIPCION DE CONTROL (EI-0203)	OK	NC	OBSERVACIONES
PROGRAMA PLC PLC Program	✓	–	
ARRANCADOR/ES SUAVE Soft Starter	✓	–	
CAM-PC Cam - PC - Remote Control	–	–	
SENSOR NIVEL ACEITE LUBRICACION Oil level sensor	✓	–	
SENSOR NIVEL ACEITE LUBRICACION DIGITAL Digital lube oil sensor level	✓	–	
SENSOR NIVEL DE ACEITE BASTIDOR Oil level sensor in frame	–	–	
SENSOR PRESION DE ACEITE EN CARTER Oil pressure sensor	✓	–	
SENSOR VIBRACIONES Vibration switch	✓	–	
TERMOSTATO DE ULTIMA ETAPA Last stage temperature-switch	✓	–	
PRESOSTATO DE SEGURIDAD 270 BAR 270 Bar pressure switch-safety	✓	–	
SENSOR DE VENTEO "FLOW SWITCH" Vent flow switch	–	–	
CALEFACTOR DE ACEITE EN CARTER Oil frame heater	✓	–	
SENSOR DE MEZCLA EXPLOSIVA Gas sensor	–	–	
SENSOR DE LLAMA Flame sensor	–	–	
SISTEMA EMERGENCIA (GOLPE DE PUÑO) Stop push button / safety system	✓	–	
LUZ DE CABINA Enclosure light	–	–	
BY PASS POR BAJA PRESION VALVULA REGULADORA Low pressure by-pass in regulating valve	✓	–	
BY PASS VALVULA DE BLOQUEO BLOCKADE VALVE BY PASS	✓	–	
TRANSDUCTOR DE PRESION Y PRESIONES INTER ETAPAS Pressure transducer & inter-stage pressure	–	–	
TRANSDUCTORES DE TEMPERATURA Y TEMP. INTER ETAPAS Temperature transducer & inter-stage temperature	–	–	
SENSOR MEDIDOR DE CAUDAL Mass flow metter	–	–	
BOTONERA ARRANQUE Y PARADA start-stop button	✓	–	
DRENAJE TANQUE DE CHOQUE, CONDENSADORES Y PULMON Knot down tank & condenser & blow down tank dreins	–	–	
VARIADOR DE VELOCIDAD U ON/OFF DEL VENTILADOR Change velocyty or fan motor on/off	✓	–	
TEMPERATURA DEL GAS, "SALIDA DE ULTIMA ETAPA" Outlet last stage gas temperature	✓	–	
DISPARIDAD DE PRESION PARA ULTIMA ETAPA Pressure disparity for last stage	–	–	
ACUMULADOR DE ACEITE Oil accumulator	–	–	
PANEL PRIORITARIO Priority panel	–	–	
PERDIDAS / ESTANQUEIDAD DEL EQUIPO Leakeages / Gastight	✓	–	
CAUDAL Y CONSUMO ELECTRICO Electric consumption & flow gas	✓	–	
CONTROL DE VALVULA ANTI-RETORNO DE ULTIMA ETAPA Last stage check valve control	✓	–	
MEDICIONES DE VIBRACIONES Measurement of vibration	–	–	
NIVELSONORO Noise level	–	–	
VERIFICAR SI LOS PARAMETROS ESTAN CARGADOS LUEGO DE REALIZADA LA PRUEBA Verify parameter after test realiced	✓	–	

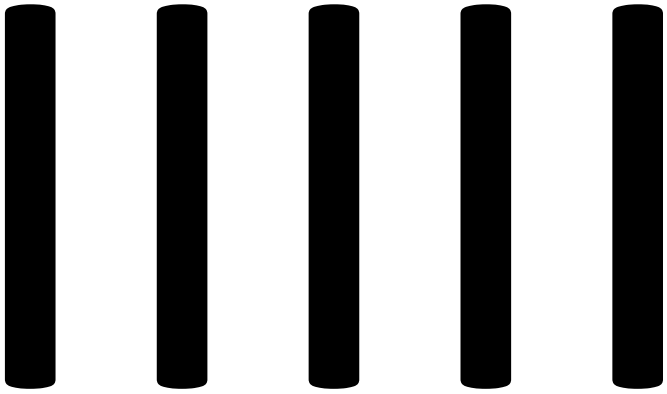
ING. ELECTRICA Electrical Eng. 16700-26 Cs	REVISION Revision 16 RSV. 57	PRECINTO N° Seal N° A-7226	FECHA : Date: 17.9	OPERADOR-LEGAJO: Operator-File: 616
FUNCIONAL CON TABLERO N° : Functional with electric panel N° : 3343			FECHA : Date: 17.9	OPERADOR-LEGAJO: Operator-File: 616

Observaciones / Remarks :

DELTA COMPRESION S.R.L.
LEONEL LUGAS
GESTION DE LA CALIDAD

JUA-616	[signature]	18-9-12	[signature]	18/9/12
Realizó / Done by	Aprobó / Approved	Fecha / Date	Gestion de la Calidad / Quality Assurance	Fecha / Date

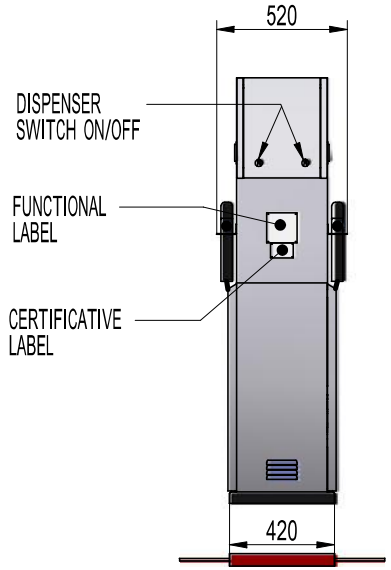


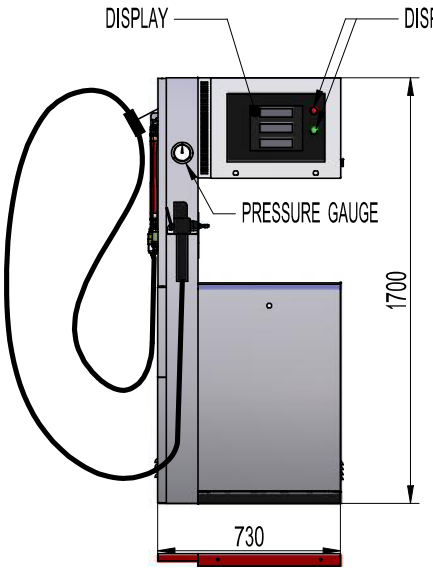


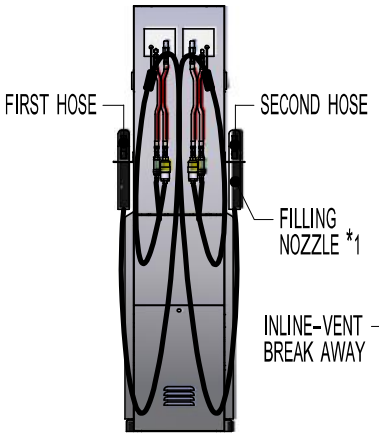
co co al

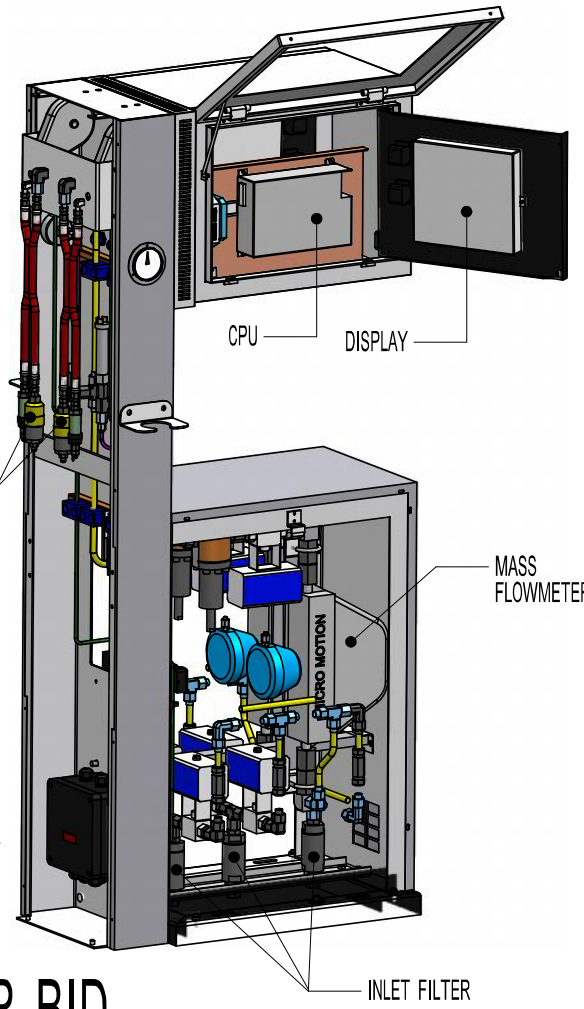
O o o c ci o[s] o o o

c. 010

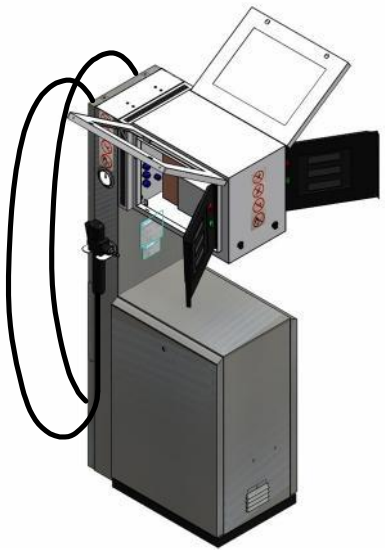












NOTE:
1) NOZZLE TYPE ACCORDINGLY BY CUSTOMER REQUIREMENTS
2) 1,2 OR 3 LEVELS SINGLE OR DOUBLE HOSE
3) TEMPERATURE COMPENSATION AVAILABLE

INDICATIVE FOR BID

Rev.	Descrizione / Description	Data/Date	Dis./Designer	Appr./Approbation
3	.	.	.	
2	.	.	.	
1	.	.	.	
0	EMISSIONE	09/03/07	GABER	

Note .

Note INDICATIVE FOR BID — Finito stimato Kg / Finish Weight Kg

Denominazione / Description: CNG DISPENSER LAYOUT - TWO HOSES & THREE LINES — Codice / Code

FORNOVOGAS WE MOVE ENERGY

Scala/Scale	Formato/size	N. Disegno / drawing number	Revisione/Revision
1:20	A3	AS10323-00EN	0