

XOMOX International GmbH & Co. Postfach 3240 D-88114 Lindau/Bodensee

Bescheinigung Certificate Certificat

Air Liquide AGS GmbH
Werk Hanau

Depotstrasse 1

-63457 Hanau

Zeugnis-Nr.

Certificate No. 05/50018/1

No. de Certificat

Bestell-Nr./Order No./No. d'ordre

4500025377

Auftrags-Nr.

Order No. B622020

No. d'ordre

Bestell-Datum

Date of order 1.07.2005

Date d'ordre

Kd.-Nr.

Cust. No. 15692

No. de Client

Seite / Page

1

Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Repère des pes	Pos. Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	Abschlusskörper Closure Member Corps de fermeture	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press / bar Pression d'exam / bar
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A) Dichtheitsprüfung des Gehäuses und Abschlusses
mit Luft (6 bar) nach DIN 3230/3 (BF und BO)

B) Festigkeitsprüfung des Gehäuses mit Wasser nach DIN 3230/3 (BA)

F) Funktionsprüfung

PV006	K115051	1	7500	1.4408	1.4021	300	10-16	A) 6 bar B) 24 bar
PV007	K115082	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV008	K115903	1	7500	1.4408	1.4021	300	10-16	A) 6 bar B) 24 bar
PV012	K120064	1	7500	1.4581	1.4021	100	10-16	A) 6 bar B) 24 bar
PV014	K120115	1	7500	1.4581	1.4021	100	10-16	A) 6 bar B) 24 bar
PV015	K120706	1	7500	1.4581	1.4021	100 150	10-16	A) 6 bar B) 24 bar

- 2 -

Datum / Date / Date 31.08.2005

SK

XOMOX Process Valves & Actuators

Qualitätswesen
Quality Assurance
Assurance de qualité

Joachim Röhling

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

XOMOX International GmbH & Co. Postfach 3240 D-88114 Lindau/Bodensee

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-63457 Hanau

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2

Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Repère des pès	Pos Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	Abchlusskörper Closure Member Cône de fermeture	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exami. / bar
PV017K12072	7	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV018K12074	8	1	7500	1.4581	1.4021	80	10-16	A) 6 bar B) 24 bar
PV035K13140	9	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV037K13151	10	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV042K13240	11	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV044K13251	12	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV053K14010	13	1	7500	1.4581	1.4021	80	10-16	A) 6 bar B) 24 bar
PV061K14130	14	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV063K14141	15	1	7500	1.4581	1.4021	100	10-16	A) 6 bar B) 24 bar

- 3 -

Datum / Date / Date 31.08.2005

SK

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Quality Assurance
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Joachim Röhling

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

Der Werkssachverständiger
Works Inspector
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Bescheinigung Certificate Certificat

Air Liquide AGS GmbH
Werk Hanau

Depotstrasse 1
-63457 Hanau

Zeugnis-Nr.
Certificate No. 05/50018/1
No. de Certificat
Bestell-Nr./Order No./No. d'ordre
4500025377

Auftrags-Nr.
Order No. B622020
No. d'ordre

Bestell-Datum
Date of order 1.07.2005
Date d'ordre

Kd.-Nr.
Cust. No. 15692
No. de Client

Seite / Page
3

Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Repere des pes	Pos Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps		DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exa / bar	
PV067K1423016		1	7500	1.4581	1.4021	150	10-16	A) B)	6 bar 24 bar
PV069K1424117		1	7500	1.4581	1.4021	100	10-16	A) B)	6 bar 24 bar
PV090K1504218		1	7500	1.4408	1.4021	500	10	A) B)	6 bar 15 bar
PV109K1663019		1	7500	1.4408	1.4021	300	10-16	A) B)	6 bar 24 bar
PV110K1663120		1	7500	1.4581	1.4021	150	10-16	A) B)	6 bar 24 bar
PV111K1663221		1	7500	1.4408	1.4021	300	10-16	A) B)	6 bar 24 bar
PV172K7004022		1	7500	1.4408	1.4021	250	10-16	A) B)	6 bar 24 bar
PV173K7050523		1	7500	1.4581	1.4021	150	10-16	A) B)	6 bar 24 bar
PV174K7050624		1	7500	1.4581	1.4021	100	10-16	A) B)	6 bar 24 bar

- 4 -

Datum / Date / Date 31.08.2005

SK

XOMOX Process Valves & Actuators

Qualitätswesen
Quality Assurance
Assurance de qualité

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

Joachim Röhling

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

XOMOX International GmbH & Co. Postfach 3240 D-88114 Lindau/Bodensee

Bescheinigung Certificate Certificat

Air Liquide AGS GmbH
Werk Hanau

Depotstrasse 1

-63457 Hanau

Zeugnis-Nr.
Certificate No. 05/50018/1
No. de Certificat
Bestell-Nr./Order No./No. d'ordre
4500025377

Auftrags-Nr.
Order No. B622020
No. d'ordre

Bestell-Datum
Date of order 1.07.2005
Date d'ordre

Kd.-Nr.
Cust. No. 15692
No. de Client

Seite / Page
4

Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Repère des pièces	Pos Item Pos.	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps		DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exam. / bar	
PV175K7058025	1	7500	1.4581	1.4021		150	10-16	A) B)	6 bar 24 bar
PV180K7704026	1	7500	1.4408	1.4021		250	10-16	A) B)	6 bar 24 bar
PV181K7750527	1	7500	1.4581	1.4021		150	10-16	A) B)	6 bar 24 bar
PV182K7750628	1	7500	1.4581	1.4021		100	10-16	A) B)	6 bar 24 bar
PV183K7759029	1	7500	1.4581	1.4021		150	10-16	A) B)	6 bar 24 bar

Die Prüfungen wurden ohne Beanstandung durchgeführt.
Die Ergebnisse entsprechen den Anforderungen Ihrer Bestellung.
All tests have been performed without any objection.
The results meet the order requirements.

Datum / Date / Date 31.08.2005

SK

XOMOX Process Valves & Actuators

Qualitätswesen
Quality Assurance
Assurance de qualité

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

Joachim Röhling

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

CRANEProcess Flow Technologies
A Crane Co. CompanyAbnahmeprüfzeugnis / Inspection certificate
EN 10204

Type	Zeugnis-Nr.	Datum	Seite	von
Type	Certificate No.	Date	Page	of
CENTERLINE Klappe Serie RS	20241 / kr	31.08.05	1	1

Auftraggeber Customer	XOMOX International GmbH & Co. / 231185
Bestell-Nr. Cust. Order No.	X50356-05 LN: 1/3690
Crane-Kom-Nr. Crane Order No.	399234

Umfang der Lieferung/Number of items supplied

Pos. Nr. Item No.	Stückzahl Quantity	Größe DN Size DN	Ident Nr.: Ident No.:	P max. PN [bar]	Δ P PN [bar]	Serien-Nr. Serial No.	Chargen - Nr. Cast - No.	Gehäuse/ Body 3.1B 2.2	Scheibe/ Disc 3.1B 2.2	Sitz Seat 2.2
			2738C3G3G00							
2	1	500	AXGB1E1U9G	10	10					
3	4	100	AMSD1E1V9H	16	16	0705 / 465 - 468	H 27 / 10977 G 27 / 10978 L 223 / 11475	X		
			271723G3H00							
4	1	125	ANGD1E1V9H	16	10	0705 / 469	E 19 / angef.	X		
5	8	150	APGD1E1V9H	16	10	0705 / 381 - 384 0705 / 470 - 473	M 19 / 9696 M 17 / 8167 H 5 / 10724 J 2 / 11238	X		
			271723G3H00							
6	4	300	ATGD1E1V9G	16	10	0805 / 113-116	GA / angef.	X		
			272623G3G00							

☒ Prüfverfahren/Testmethods acc. DIN 3230, Teil 3/Part 3 EN 10204☐ 2.2☒ 3.1B☐ Prüfverfahren/Testmethods acc. DIN 3230, Teil 5 PG 3/Part 5 PG 3 EN 10204

Bemerkungen / Remarks <input checked="" type="checkbox"/> Leckrate 1 / Leak rate 1 <input type="checkbox"/> KKS Nr. und Charge siehe Anhang (KKS No. and Heat No. see attached list)							Sonstige Prüfungen: Other Test's: <input type="checkbox"/> Prüfungen gem. TRD 110 (Test's in acc. with TRD 110) <input type="checkbox"/> Armatur entspr. VBG62 öl- und fettfrei gereinigt (Valve in acc. to VGB63 - free of grease and oil) <input type="checkbox"/> Prüfung gem. DVGW - Reg. Nr.: NG - 4313 AN 0172 (Test in acc. with DVGW - Reg. Nr.: NG - 4313 AN 0172)			
Drücke in bar Überdruck Pressures in bar										
Position Item	BA	BN	BV	BV n. BA	BW	BO				
2										
3	24	11								
4	24	11								
5	24	11								
6	24	11								

Das Original kann beim Hersteller eingesehen werden. The original is available in manufacture's files
 Es wird hiermit bestätigt, daß die geprüften Erzeugnisse ohne Beanstandung sind
 It is hereby certified, that the tested material is without any defect

CRANE

Crane Process Flow
Technologies GmbH
Postfach 11 12 40
D-40512 Düsseldorf
Heerdter Lohweg 63-71
D-40549 Düsseldorf
Telefon (02 11) 59 56-0
Telefax (02 11) 59 56-111

Crane Process Flow Technologies GmbH

Postfach 11 12 40, D-40512 Düsseldorf, Heerdter Lohweg 63-71, D-40549 Düsseldorf

Telefon (02 11) 59 56-0, Telefax (02 11) 59 56-111, www.craneflow.de

Amtsgericht Düsseldorf, HR B 24702, Geschäftsführer: Hans D. Ptak

A. K. P. FOUNDRIES PVT LTD.,

AD.NO CERT.REG.NO.04202W1300300012 DATED:01-02-2002 BY RMTUV

R.S.No.689,Udyambag,
BELGAUM - 590 008.
Phone: 440164, 441530

INSPECTION CERTIFICATE ACC: TO 3.18 OF EN 10204

CUSTOMER: CRANE PROCESS FLOW TECHNOLOGIES	ORDER NO. 5113513 DT: 15/04/2002	CERTIFICATE NO. 6045 - 20/12/2002
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MATERIAL: SS EN-BJS-400/15	TECHNICAL REQUIREMENTS/DEMAND	EN 1563
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DESIGNATION DN150WAFERBODY 7010554 B

INVOICE NO.: 5910
INVOICE DATE: 20/12/2002

CHEMICAL ANALYSIS:

HEAT NO.	C	Si	Mn	P	S	Cu	Cr	Ni	Hg
M.17	3.540	2.790	0.280	0.039	0.011				0.047

HEAT IDENTIFICATION CODE	M.17	QUANTITY	15
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MECHANICAL TEST/PROPERTIES

TENSILE					IMPACT STRENGTH		HARDNESS IN BHN	
TEST NO.	Test temperature	Yield Strength	Tensile Strength	Elongation	Test Temperature	Energy of Impact	HB	HB
	°C	0.2% N/mm ²	N/mm ²	%	°C	J	10/3000	12.5/187.5
M.17		331.00	534.20	18.00			170	178
							170	178

HEAT TREATMENT	NOT APPLICABLE.	Microstructure :	GRAPHITE NODULES IN FERRITIC MATRIX
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VISUAL INSPECTION: ok

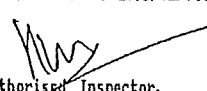
REMARKS/OBSERVATIONS

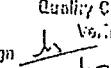
NO WELDING DONE

THIS CASTING HAS NOT COME INTO DIRECT CONTACT WITH MERCURY OR ANY OF ITS COMPONENTS OR ANY MERCURY CONTAINING DEVICES EMPLOYING A SINGLE BOUNDARY OF OR ON CONTAINMENT DURING MANUFACTURING PROCESS, INSPECTION AND STORAGE

POSITIVE STATEMENT OF COMPLIANCE: WE CERTIFY THAT THE CONTENTS OF THIS REPORT ARE CORRECT AND ACCURATE & MEET THE REQUIREMENT OF THE PO & THE MATERIAL SPECIFICATIONS.

For A.K.P. FOUNDRIES PVT. LTD.,

Name : 
Works Authorised Inspector.

CRANE PROCESS FLOW TECHNOLOGIES H.C.P. LTD. Quality Control Dept. Sign  Date: 22/12
--

Authorised Insp.

9696

A.K.P. FOUNDRIES PVT. LTD.
INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 689, Udyambag,
BELGAUM - 590 008
Phone : 440164,441530

CLIENTE KUNDE CUSTOMER : CRANE PROCESS FLOW TECHNOLOGIES CLIENT	REDIDO NO. DESTELL NO. ORDER NO.: /5114564/ ORDER DATE: 21/Apr/2003 COMMANDE NO.	CERTIFICADO ZEUGNIS NO CERTIFICATE NO. : 7912 CERTIFICATE NO.
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MATERIAL WERKSOFF MATERIAL SG EN-GJS-400/15 MATIERE	NORMAS DE CONTROL EESPECIFICACIONES KONTROLL NORM/SPEZIFIKATIONEN TECHNICAL REQUIREMENT/DEMAND NORMOS DE CCNTROL ET SPECIFICATIONS	EN 1563 DIN 50125
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DESINACION GEGENSTAD DESIGNATION 150MM WAFER BODY DESIGNATION	(DRAWING NO. 7010554 B)
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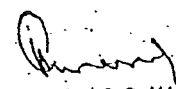
ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE						
COLADAN NO. SCHMELZE NO. HEAT NO. COULEE NO.	C	Si	Mn	P	S	Mg
M.19	3.460	2.800	0.220	0.050	0.010	0.038

CODIGO IDENTIFICACION COLADA SCHMELZEIDENTIFIKATIONSKOD HEAT IDENTIFICATION CODE CODE IDENTIFICATION COULEE	M.19	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 5182 80 Nos	Dt: 12/23/2003
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ENSAYOS MECHANICOS/MECHANISCHE PRUFUNG/NM/MECHANICAL TEST/ESSAIS MECANIOVES								
TRACCIÓN/ZUGFESTIGKEIT/TENSILE/TRACTION				RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE			DUREZA/HARTE HARDNESS/CURETE	
PROBETA N. PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo prf temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fiest a Traction	Aargamiento Bruchdehung Elongation Allongement	Temperatura de Ensayo Prf temperatur T dessals	Enerola Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	J		170 , 170	
M.19		329.40	530.60	17.20				

TRATAMIENTO TERMICO WARMEBEHANDLUNG HEAT TREATMENT TRATTEMENT THERM QUE	NOT APPLICABLE.
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OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS	Graphite Nodules In Ferritic Matrix
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LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE ACUERDO ALAS ESPECIFICACIONES DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN SPEZIFIKATIONEN ENSPRICHT THE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE WITH REQUIREMENTS.	PECHA / DATUM / DATE / DATE  DIRECTOR CALIDAD / Q.C. MANAGER
---	---

10724

A.K.P. FOUNDRIES PVT. LTD.

INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 689, Udyambag,

BELGAUM - 590 008

Phone : 440164,441530

CLIENTE	REDIDO NO.	CERTIFICADO
KUNDE CRANE PROCESS FLOW TECHNOLOGIES	DESTELL NO.	ZEUGNIS NO
CUSTOMER :	ORDER NO.:	CERTIFICATE NO. : 4786
CLIENT	ORDER DATE:	CERTIFICATE NO.
	COMMANDE NO.	

MATERIAL	NORMAS DE CONTROL EESPECIFICACIONES	EN 1563
WERKSOFF	KONTROLL NORM/SPEZIFIKATIONEN	DIN 50125
MATERIAL SG EN-GJS-400/15	TECHNICAL REQUIREMENT/DEMAND	
MATIERE	NORMOS DE CCNTRÓL ET SPECIFICATIONS	

DESTINACION

GEGENSTAD

DESIGNATION 150MM WAFER BODY

(DRAWING NO. 7010554 B

DESIGNATION

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE

COLADAN NO.	C	SI	Mn	P	S	Mg
SCHMELZE NO.						
HEAT NO. H.5	3.530	2.540	0.200	0.037	0.010	0.032
COULEE NO.						

CODIGO INENTIFICACION COLADA

SCHMELZEIDENTIFIKATIONS KOD

HEAT IDENTIFICATION CODE

CODE IDENTIFICATION COULEE

CANTIDAD

MENGE

Inv No. 3228

Dt: 08/07/2004

QUANTITY

68

Nos

QUANTITE

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNG/NM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo prii temperatur Test temperature T dessais	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fasist a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Prii temperatur T dessais	Energia Absorbida Schlagarbeit Energy of impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm ²	N/mm ²	%	J			
H.5		315.20	508.70	16.80			163 , 163	

TRATAMIENTO TERMICO

WARMEBEHANDLUNG

NOT APPLICABLE.

HEAT TREATMENT

TRAITEMENT THERM QUE

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS

Graphite Nodules In Ferritic Matrix

LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE ACUERDO ALAS ESPECIFICACIONES

DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN SPEZIFIKATIONEN ENSPRICHT

THE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE WITH REQUIREMENTS.

PECHA / DATUM / DATE / DATE

DIRECTOR CLIDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

To,

Attn: Mr. Hulyalkar (Q.C. department)
Butterfly Valve.

A.K.P. FOUNDRIES PVT. LTD.
INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 689, Udyambag,
BELGAUM - 590 008
Phone : 440164,441530

CLIENTE KUNDE CUSTOMER : CLIENT	CRANE PROCESS FLOW TECHNOLOGIES	REDIDO NO. DESTELL NO. ORDER NO.: ORDER DATE: COMMANDE NO.	CERTIFICADO ZEUGNIS NO CERTIFICATE NO. : 5558 CERTIFICATE NO.
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MATERIAL WERKSOFF MATERIAL MATIERE	SG EN-GJS-400/15	NORMAS DE CONTROL EESPECIFICACIONES KONTROLL NORM/SPEZIFIKATIONEN TECHNICAL REQUIREMENT/DEMAND NORMOS DE CCNTROL ET SPECIFICATIONS	EN 1563 DIN 50125
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DESINACION GEGENSTAD DESIGNATION DESIGNATION	DN 100 WAFER BODY	(DRAWING NO. 7010552 A)
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ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE

COLADAN NO. SCHMELZE NO. HEAT NO. COULEE NO.	C	SI	Mn	P	S	Mg
H.27	3.420	2.540	0.200	0.042	0.011	0.031

CODIGO INENTIFICACION COLADA SCHMELZEIDENTIFIKATIONSKOD HEAT IDENTIFIKATION CODE CODE IDENTIFICATION COULEE	H.27	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 3716 270 Nos	Dt: 08/30/2004
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ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION	RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE	DUREZA/HARTE HARDNESS/CURETE
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo pui temperatur Test temperature T dessals Limite Elastico Dehngrenze Yield Strength Limite Elastique Cargade Rotura Zugfestigkeit Tensile Strength Fessist a Traction Aargamiento Bruchdehnung Elongation Allongement Temperatura do Ensayo Pui temperature T dessals Energia Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000 HB 2.5/187.5
HEAT NO. oC	0.2% N/mmz	N/mm ²
H.27	320.70	518.50
	17.40	
		163 . 163

TRATAMIENTO TERMICO
WARMEBEHANDLUNG
HEAT TREATMENT
TRAITEMENT THERM QUE
NOT APPLICABLE.

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS
Graphite Nodules in Ferritic Matrix

LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE
ACUERDO ALAS ESPECIFICACIONES
DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN
SPEZIFIKATIONEN ENSPRICHT
THE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE
WITH REQUIREMENTS.

PECHA / DATUM / DATE / DATE

DIRECTOR CLIDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

A.K.P. FOUNDRIES PVT. LTD.

INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 689, Udyambag,

BELGAUM - 590 008

Phone : 440164,441530

CLIENTE	REDIDO NO.	CERTIFICADO
KUNDE CRANE PROCESS FLOW TECHNOLOGIES	DESTELL NO.	ZEUGNIS NO
CUSTOMER :	ORDER NO.:	CERTIFICATE NO. : 4503
CLIENT	ORDER DATE:	CERTIFICATE NO.
	COMMANDE NO.	

MATERIAL	NORMAS DE CONTROL EESPECIFICACIONES	EN 1563
WERKSOFF	KONTROLL NORM/SPEZIFIKACIONES	DIN 50125
MATERIAL SG EN-GJS-400/15	TECHNICAL REQUIREMENT/DEMAND	
MATIERE	NORMOS DE CCNTROL ET SPECIFICATIONS	

DESINACION		
GEGENSTAD		
DESIGNATION DN 100 WAFER BODY	(DRAWING NO. 7010552 A)
DESIGNATION		

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE						
COLADAN NO.	C	SI	Mn	P	S	Mg
SCHMELZE NO.						
HEAT NO. G.27	3.540	2.610	0.130	0.042	0.012	0.039
COULEE NO.						

CODIGO INENTIFICACION COLADA	CANTIDAD		
SCHMELZEIDENTIFIKATIONSKOD	MENGE	Inv No. 3011	Dt: 07/30/2004
HEAT IOENTIFIKATION CODE	QUANTITY	113	Nos
CODE IDENTIFICATION COULEE	QUANTITE		

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES							
TRACCION/ZUGFESTIGKFIT/TENSILE/TRACTION				RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N	Temperatura de Ensayo ppl temperatur Test temperature T deessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fleisist a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura do Ensayo Ppl temperatur T deessals	Energia Absorbida Schlagarbeit Energy of Impact Energia Absorbee	
PROBE Nr.							
TEST NO.							
EPRGUV Nr.							
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	J		
G.27		325.20	518.40	17.00		163, 170	HB 2.5/187.5

TRATAMIENTO TERMICO	
WARMEBEHANDLUNG	NOT APPLICABLE.
HEAT TREATMENT	
TRAITEMENT THERM QUE	

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS
Graphite Nodules In Ferritic Matrix

LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE ACUERDO ALAS ESPECIFICACIONES	PECHA / DATUM / DATE / DATE
DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN SPEZIFIKATIONEN ENSPRICHT	
THE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE WITH REQUIREMENTS.	
	DIRECTOR CLIDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

A.K.P. FOUNDRIES PVT. LTD.**INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b**

R.S. No. 689, Udyambag,

BELGAUM - 590 008

Phone : 440164,441530

CLIENTE	REDIDO NO.	CERTIFICADO
KUNDE CRANE PROCESS FLOW TECHNOLOGIES	DESTELL NO.	ZEUGNIS NO
CUSTOMER :	ORDER NO.:	CERTIFICATE NO. : 5755
CLIENT	ORDER DATE:	CERTIFICATE NO.
	COMMANDE NO.	

MATERIAL	NORMAS DE CONTROL EESPECIFICACIONES	
WERKSOFF	KONTROLL NORM/SPEZIFIKACIONES	EN 1563
MATERIAL SG EN-GJS-400/15	TECHNICAL REQUIREMENT/DEMAND	DIN 50125
MATIERE	NORMOS DE CCNTROL ET SPECIFICATIONS	

DESINACION		
GENSTAD		
DESIGNATION 150MM WAFER BODY	(DRAWING NO. 7010554 B)
DESIGNATION		

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHIMIQUE

COLADAN NO.	C	SI	Mn	P	S	Mg
SCHMELZE NO.						
HEAT NO. J.2	3.470	2.780	0.310	0.039	0.011	0.042
COULEE NO.						

CODIGO INENTIFICACION COLADA	CANTIDAD		
SCHMELZEIDENTIFIKATIONS KOD	MENGE	Inv No. 3859	Dt: 09/04/2004
HEAT IDENTIFICATION CODE J.2	QUANTITY	123	Nos
CODE IDENTIFICATION COULEE	QUANTITE		

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNG/NM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo pril temperatur Test temperature T dessais	Limite Elastico Deingrenze Yield Strength Limite Elasticque	Cargada Rotura Zugfestigkeit Tensile Strength Fleisist a Tractiion	Aargamiento Bruchdehning Elongation Allongement	Temperatura do Ensayo Pril temperature T dessais	Energia Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm ²	N/mm ²	%	J			
J.2		320.70	517.40	16.80			163, 163	

TRATAMIENTO TERMICO
WARMEBEHANDLUNG
HEAT TREATMENT
TRAITEMENT THERM QUE
NOT APPLICABLE.

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS

Graphite Nodules In Ferritic Matrix

LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE ACUERDO ALAS ESPECIFICACIONES

DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN SPEZIFIKATIONEN ENSPRICHT

THE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE WITH REQUIREMENTS.

PECHA / DATUM / DATE / DATE

DIRECTOR CHIDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

A.K.P. FOUNDRIES PVT. LTD.

INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 689, Udyambag,

BELGAUM - 590 008

Phone : 440164,441530

CLIENTE	REDIDO NO.	CERTIFICADO
KUNDE CRANE PROCESS FLOW TECHNOLOGIES	DESTELL NO.	ZEUGNIS NO
CUSTOMER :	ORDER NO.:	CERTIFICATE NO. : 8440
CLIENT	ORDER DATE:	CERTIFICATE NO.
	COMMANDE NO.	

MATERIAL	NORMAS DE CONTROL EESPECIFICACIONES	
WERKSOFF	KONTROLL NORM/SPEZIFIKATIONES	EN 1563
MATERIAL EN-GJS-400/15	TECHNICAL REQUIREMENT/DEMAND	DIN 50125
MATIERE	NORMOS DE CCNTROL ET SPECIFICATIONS	

DESINACION		
GEGENSTAD		
DESIGNATION	DN 100 WAFER BODY	(DRAWING NO. 7010552 A
DESIGNATION)

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE

COLADAN NO.	C	Si	Mn	P	S	Mg
SCHMELZE NO.						
HEAT NO. L22 3	3.550	2.540	0.220	0.044	0.011	0.046
COULEE NO.						

CODIGO INENTIFICACION COLADA	CANTIDAD		
SCHMELZEIDENTIFIKATIONS KOD	MENGE	Inv No. 5688	Dt: 11/26/2004
HEAT IDENTIFIKATION CODE	QUANTITY	75	Nos
CODE IDENTIFICATION COULEE L22 3	QUANTITE		

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNG/NM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo ppl temperatur Test temperature T°dessaís	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Festis a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Ppl temperatur T°dessaís	Energia Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm²	%	J			
L22 3		324.20	513.60	16.80			163, 163	

TRATAMIENTO TERMICO	
WARMEBEHANDLUNG	NOT APPLICABLE.
HEAT TREATMENT	
TRAITEMENT THERM QUE	

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS
*Graphite Nodules In Ferritic Matrix*LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE
ACUERDO ALAS ESPECIFICACIONESDIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN
SPEZIFIKATIONEN ENSPRICHTTHE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE
WITH REQUIREMENTS.

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

PECHA / DATUM / DATE / DATE


DIRECTOR-CLIENT / Q.C. MANAGER