

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.

No. d'ordre

B622020

Bestell-Datum

Date of order 1.07.2005

Date d'ordre

Kd.-Nr.

Cust. No.

No. de Client

15692

Seite / Page

1

Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Réf. des pces	Pos. Item Pos.	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Covr.	Abschlusskörper Endura Member Caps de fermeture	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exa. / 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

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

Joachim Röhling

Der Werksachverständiger
Works Inspector
Inspecteur de l'usine

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

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4500025377

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Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Repère des pcs	Pos Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	Material / Material Abschlußkörper Closing Member Corps de fermeture	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exa / 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

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Datum / Date / Date 31.08.2005

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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.

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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		DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exam. / 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	

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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

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Depotstrasse 1
-63457 Hanau

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

Auftrags-Nr.
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No. d'ordre

Bestell-Datum
Date of order 1.07.2005
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4

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		DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exa.m / 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

Joachim Röhling

CRANE

Process Flow Technologies
A Crane Co. Company

K 15042

K 12006, K 12011, K 14141, K 14241,
K 11505, K 11590, K 16630, K 16632,
K 14230, K 16631, K 70505, K 70580,
K 77505, K 77590



Abnahmeprüfzeugnis / Inspection certificate
EN 10204

Typ Type	Zeugnis-Nr. Certificate No.	Datum Date	Seite Page	von 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. 0420241300200012 DATED: 01-02-2002 BY RMTUV

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

INSPECTION CERTIFICATE ACC: TO 3.1B OF EN 10204

CUSTOMER: CRANE PROCESS FLOW TECHNOLOGIES ORDER NO. 5113513 CERTIFICATE NO.
DT: 15/04/2002 6045 - 20/12/2002

MATERIAL: SS EN-BJS-400/15 TECHNICAL REQUIREMENTS/DEMAND EN 1563

DESIGNATION: DN150WAFERBODY 7010554 B

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

CHEMICAL ANALYSIS:

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

HEAT IDENTIFICATION CODE M. 17 QUANTITY 15

MECHANICAL TEST/PROPERTIES

TENSILE	IMPACT STRENGTH				HARDNESS IN BHN	
TEST NO.	Test temperature	Yield Strength	Tensile Strength	Elongation	Test Temperature	Energy of Impact
					T dessals	Impact
HEAT NO.	°C	0.2% N/mm ²	N/mm ²	%	°C	J
M. 17		331.00	534.20	18.00		170 1781
						170 1781

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

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 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: *[Signature]*
Works Authorised Inspector.

CRANE PROCESS FLOW TECHNOLOGIES
PVT. LTD.
Quality Control Dept.
Verified Ok

Sign: *[Signature]*
Date: 22/12

Authorised Insp.

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	RECIBO 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 NORMES DE CCNTROL ET SPECIFICATIONS	EN 1563 DIN 50125
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DESINACION GEGENSTAD DESIGNATION DESIGNATION	150MM WAFER BODY (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 SCHMELZEIDENTIFIKATIONS KOD HEAT IDENTIFIKATION CODE CODE IDENTIFICATION COULEE	M.19	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 5182 80 Nos	De: 12/23/2003
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ENSAYOS MECANICOS/MECHANISCHE PRUFUNGM/MECHANICAL TEST/ESSAIS MECANIOVES								
TRACCION/ZUGFESTIGKIT/TENSILE/TRACTION				RESILIENCIA KERBSCHLAAGARBEIT IMPACT. STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE		
PROBETA N. PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo Pruf temperatur Test temperature T dessais	Limite Elastico. Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fleisist a Tracdon	Aargamiento Bruchdehung Elongation Allongement	Temperatura de Ensayo Pruf temperatur Test temperature T dessais	Energia Absorbida 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
---	--

70724

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/SPEZIFICATTONES	DIN 50125
MATERIAL SG EN-GJS-400/15	TECHNICAL REQUIREMENT/DEMAND	
MATIERE	NORMOS DE CCNTROL ET SPECIFICATIONS	

DESINACION		
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	CANTIDAD		
SCHMELZEIDENTIFIKATIONSOD	MENGE	Inv No. 3228	Dt: 08/07/2004
HEAT IDENTIFIKATION CODE	QUANTITY	68	Nos
CODE IDENTIFICATION COULEE	QUANTITE		

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGM/MECHANICAL TEST/ESSAIS MECANIOVES							
TRACCION/ZUGFESTIGKFT/TENSILE/TRACTION				RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N	Temperatura de Ensayo	Limite Elastico	Cargada Rotura	Temperatura de Ensayo	Energia Absorbida	HB 10/3000	HB 2.5/187.5
PROBE Nr.	Test temperatur	Dehngrenze	Zugfestigkeit	Test temperatur	Schlagarbeit		
TEST NO.	T dessais	Yield Strength	Tensile Strength	T dessais	Energy of impact		
EPRGUV Nr.		Limite Elastique	Fiest a Traction		Energia Absorbee		
		0.2% N/mm2	%	J			
HEAT NO.	oC						
H.5		315.20	508.70	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 CLIDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

To,

ATTN: Mr. Hulyalker (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	REDIDO NO.	CERTIFICADO
KUNDE CRANE PROCESS FLOW TECHNOLOGIES	DESTELL NO.	ZEUGNIS NO
CUSTOMER :	ORDER NO.:	CERTIFICATE NO. : 5558
CLIENT	ORDER DATE:	CERTIFICATE NO.
	COMMANDE NO.	

MATERIAL	NORMAS DE CONTROL EESPECIFICACIONES	EN 1563
WERKSOFF	KONTROLL NORM/SPEZIFICACIONES	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. H.27	3.420	2.540	0.200	0.042	0.011	0.031
COULEE NO.						

CODIGO INENTIFICACION COLADA	CANTIDAD	
SCHMELZEIDENTIFIKATIONSKOD	MENGE	Inv No. 3716 Dt: 08/30/2004
HEAT IDENTIFICATION CODE	QUANTITY	270 Nos
CODE IDENTIFICATION COULEE	QUANTITE	

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGM/MECHANICAL TEST/ESSAIS MECANICOES

TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N	Temperatura de Ensayo	Limite Elastico Deformenze	Limite Elastico Yield Strength	Limite Elastico Tensile Strength	Temperatura de Ensayo	Energia Absorbida Schlagarbeit		
PROBE Nr.	Test temperature	0.2% N/mm ²	N/mm ²	%	Test temperature	Energy of Impact		
TEST NO.	T dessals				T dessals	Energia Absorbee		
EPRGUV Nr.							HB 10/3000	HB 2.5/187.5
HEAT NO.	oC							
H.27		320.70	518.50	17.40			163. 163	

TRATAMIENTO TERMICO
WARMBEHANDLUNG
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.

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

PECHA / DATUM / DATE / DATE

DIRECTOR CLIDAD / Q.C. MANAGER

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/SPEZIFICACIONES	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 CHIMIQUE						
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	Inv No. 3011	Dt: 07/30/2004
SCHMELZEIDENTIFIKATIONS KOD	MENGE	113	Nos
HEAT IOENTIFIKATION CODE	QUANTITY		
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	Temperatura de Ensayo Prüf temperatur Test temperature T desials	Limite Elastico Dehignenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fieist a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Prüf temperatur T desials	Energia Absorbida Schlagarbeit Energy of Impact Energia Absorbée	
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		HB 10/3000 163 , 170	HB 2.5/187.5

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.

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

PECHA / DATUM / DATE / DATE

DIRECTOR CLIDAD / Q.C. MANAGER

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

DESINACION		
GENSTAD		
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. 1.2	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 1.2	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	Temperatura de Ensayo pni temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yiled Strength Limite Elasticque	Cargade Rotura Zugfestigkeit Tensile Strength Fiestist a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Pni temperatur T dessals	Energia Absorbida Schlagarbeit Energy of Impact Energia Absorbée	HB 10/3000	HB 2.5/187.5
PROBE Nr.								
TEST NO.								
EPRGUV Nr.								
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	J			
1.2		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

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DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN
SPEZIFIKATIONEN ENSPRICHT

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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 KUNDE CUSTOMER : CLIENT	CRANE PROCESS FLOW TECHNOLOGIES	REDIDO NO. DESTELL NO. ORDER NO.: ORDER DATE: COMMANDE NO.	CERTIFICADO ZEUGNIS NO CERTIFICATE NO. : 8440 CERTIFICATE NO.
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MATERIAL WERKSOFF MATERIAL MATIERE	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
DN 100 WAFER BODY (DRAWING NO. 7010552 A)
DESIGNATION

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE

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

CODIGO INENTIFICACION COLADA SCHMELZEIDENTIFIKATIONSKOD HEAT IDENTIFICATION CODE CODE IDENTIFICATION COULEE	L22 3	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 5688 75 Nos	Dt: 11/26/2004
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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 puil temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yield Strength Limite Elasticue	Cargade Rotura Zugfestigkeit Tensile Strength Fiestist a Tracion	Aargamiento Bruchdehung Elongation Allongement	Temperatura do Ensayo Puil temperatur T dessals	Enerola Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO. L22 3	oC	0.2% N/mm2	N/mm2	%	J		163, 163	

TRATAMIENTO TERMICO
WARMEBEHANDLUNG
HEAT TREATMENT
TRAITEMENT THERM QUE
NOT APPLICABLE.

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS
Graphite Nodules in Ferritic Matrix

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PECHA / DATUM / DATE / DATE

DIRECTOR-CLIENT / Q.C. MANAGER