

Bescheinigung Certificate Certificat

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

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 pièces	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
---	----------------------	----------------------	---------------------	---	---	------------------------	-----------------------	--

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 -

XOMOX Process Valves & Actuators

Datum / Date / Date 31.08.2005

SK

Qualitätswesen
Quality Assurance
Assurance de qualité

Joachim Röhling

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

Bescheinigung Certificate Certificat

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

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

2

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'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

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

Bescheinigung Certificate Certificat

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

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'exam. / bar	
PV067K1423016	1	7500	1.4581	1.4021		150	10-16	A) 6 bar B) 24 bar	
PV069K1424117	1	7500	1.4581	1.4021		100	10-16	A) 6 bar B) 24 bar	
PV090K1504218	1	7500	1.4408	1.4021		500	10	A) 6 bar B) 15 bar	
PV109K1663019	1	7500	1.4408	1.4021		300	10-16	A) 6 bar B) 24 bar	
PV110K1663120	1	7500	1.4581	1.4021		150	10-16	A) 6 bar B) 24 bar	
PV111K1663221	1	7500	1.4408	1.4021		300	10-16	A) 6 bar B) 24 bar	
PV172K7004022	1	7500	1.4408	1.4021		250	10-16	A) 6 bar B) 24 bar	
PV173K7050523	1	7500	1.4581	1.4021		150	10-16	A) 6 bar B) 24 bar	
PV174K7050624	1	7500	1.4581	1.4021		100	10-16	A) 6 bar B) 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

Bescheinigung Certificate Certificat

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

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 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	
PV175K7058025		1	7500	1.4581	1.4021	150	10-16	A)	6 bar
								B)	24 bar
PV180K7704026		1	7500	1.4408	1.4021	250	10-16	A)	6 bar
								B)	24 bar
PV181K7750527		1	7500	1.4581	1.4021	150	10-16	A)	6 bar
								B)	24 bar
PV182K7750628		1	7500	1.4581	1.4021	100	10-16	A)	6 bar
								B)	24 bar
PV183K7759029		1	7500	1.4581	1.4021	150	10-16	A)	6 bar
								B)	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

Joachim Röhling

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

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
			2738C3G3600							
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		
			272623G3600							

☒ 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

8767

A. K. P. FOUNDRIES PVT LTD.,

AD. NO CERT. REG. NO. 04202W1300200012 DATED: 01-02-2002 BY RWTUV

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 DT: 15/04/2002	CERTIFICATE NO. 6045 - 20/12/2002
---	-------------------------------------	--------------------------------------

MATERIAL: SS EN-6JS-400/15	TECHNICAL REQUIREMENTS/DEMAND	EN 1563
----------------------------	-------------------------------	---------

DESIGNATION DN150WAFERBODY 7010554 B

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

CHEMICAL ANALYSIS %

HEAT NO.	M. 17	C	Si	Mn	P	S	Cu	Cr	Ni	Hg
		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	HB	HB
					T dessals		10/3000	12.5/187.5
HEAT NO.	°C	0.2% R/m²	N/m²	%	°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: 0/0


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: 
Works Authorised Inspector.

CRANE PROCESS FLOW TECHNOLOGIES

PVT. LTD.

Quality Control Dept.

Verified Ok

Sign: 
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	REDIDO NO. DESTELL NO. ORDER NO.: 5114564/ ORDER DATE: 21/Apr/2003 COMMANDE NO.	CERTIFICADO ZEUGNIS NO CERTIFICATE NO. : 7912 CERTIFICATE NO.
--	---	--

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
--	---	----------------------

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

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 IDENTIFICATION CODE CODE IDENTIFICATION COULEE	M.19	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 5182 80 Nos	De: 12/23/2003
---	------	---	------------------------	----------------

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGM/MECHANICAL TEST/ESSAIS MECANIOVES								
TRACCIÓN/ZUGFESTIGKIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N. PRÖBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo pñ temperatur Test temperature T dessals.	Limite Elastico. Dehngrenze. Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fiest a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Prut 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/mm²	%	J		170 , 170	
M.19		329.40	530.60	17.20				

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

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

DESTINACION
GEGENSTAD
DESIGNATION 150MM WAFER BODY (DRAWING NO. 7010554 B)
DESIGNATION

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE						
COLADAN NO. SCHMELZE NO. HEAT NO. COULEE NO.	C	Si	Mn	P	S	Mg
H.5	3.530	2.540	0.200	0.037	0.010	0.032

CODIGO INENTIFICACION COLADA SCHMELZEIDENTIFIKATIONS KOD HEAT IDENTIFIKATION CODE CODE IDENTIFICATION COULEE	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 3228 68 Nos	Dt: 08/07/2004
---	---	------------------------	----------------

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 deessais	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fiest a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura do Ensayo Pril temperature T deessais	Energia Absorbica Schlagarbeit Energy of impact Energia Absorbée	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	J		163, 163	
H.5		315.20	508.70	16.80				

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


13/8/04
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	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/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. H.27	3.420	2.540	0.200	0.042	0.011	0.031
COULEE NO.						

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

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGM/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 dessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fiestat a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura do Ensayo Prüf temperature T dessals	Enerola Absorbica Schlagarbeit Energy of Impact Energia Absorbee	
PROBE Nr.							
TEST NO.							
EPRGUV Nr.							
HEAT NO.	oC	0.2% N/mm ²	N/mm ²	%	J	HB 10/3000	HB 2.5/187.5
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.

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

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

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

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

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

ENSAYOS MECANICOS/MECHANISCHE PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES								
TRACCION/ZUGFESTIGKFIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo pril temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yiled Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fleisist a Traction	Aargamiento Bruchdehung Elongation Allongement	Temperatura do Ensayo Pril temperature T dessals	Energia Absorbica Schlagabett Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	J		163 , 170	
G.27		325.20	518.40	17.00				

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

[Signature]
30/10/04

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. : 5755 CERTIFICATE NO.
--	---------------------------------	--	--

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

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

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE

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

CODIGO INENTIFICACION COLADA SCHMELZEIDENTIFIKATIONSKOD HEAT IOENTIFIKATION CODE CODE INDENTIFICATION COULEE	J.2	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 3859 123 Nos	Dt: 09/04/2004
---	-----	---	----------------------------	----------------

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKIT/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 dessals	Limite Elastico Dehngrenze Yiled Strength Limite Elastipue	Cangade Rotura Zugfestigkeit Tensile Strength Fiesist a Traccion	Aargamiento Bruchdehung Elongation Allongement	Temperatura do Ensayo Pril temperature T dessals	Eneria 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			
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 CHDAD / 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

11475

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

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

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

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE						
COLADAN NO. SCHMELZE NO. HEAT NO. COULEE NO.	C	Si	Mn	P	S	Mg
L22 3	3.550	2.540	0.220	0.044	0.011	0.046

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

ENSAYOS MECANICOS/MECHANISCHE PRUFUNG/NM/MECHANICAL TEST/ESSAIS MECANIOVES								
TRACCION/ZUGFESTIGKFT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr. HEAT NO.	Temperatura de Ensayo pril temperatur Test temperature T dessals oC	Limite Elastico Dehngrenze Yield Strength Limite Elastique 0.2% N/mm2	Cargade Rotura Zugfestigkeit Tensile Strength Fiest a Tracdon N/mm ²	Aargamiento Bruchdehnung Elongation Allongement %	Temperatura do Ensayo Pril temperature T dessals J	Energia Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000 163 , 163	HB 2.5/187.5
22 3		324.20	513.60	16.80				

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
--	---