

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 Repere des pcs.	Pos. Item Pos.	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	Abzählkörper Counting Member Corps de famille	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'examen / 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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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'examen / 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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Works Inspector
Inspecteur de l'usine

Der Sachverständiger
The Authorized inspector
L'inspecteur autorisé

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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
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Kd.-Nr.
Cust. No. 15692
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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 Gefüge 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) 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
PV172K17004022	1	7500	1.4408	1.4021	250	10-16	A) 6 bar B) 24 bar
PV173K17050523	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV174K17050624	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

SK

XOMOX Process Valves & Actuators

Qualitätswesen
Quality Assurance
Assurance de qualité

Joachim Röhling

Der Sachverständiger
The Authorized inspector
L'inspecteur autorisé

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

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Seite / Page
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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	Abgeschlossen Closure Member Corps de fermeture	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exa / bar
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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

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Quality Assurance
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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
			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 ☒ Leckrate 1 / Leak rate 1 ☐ KKS Nr. und Charge siehe Anhang (KKS No. and Heat No. see attached list)							Sonstige Prüfungen: Other Test's: ☐ Prüfungen gem. TRD 110 (Test's in acc. with TRD 110) ☐ Armatur entspr. VBG62 öl- und fettfrei gereinigt (Valve in acc. to VGB63 - free of grease and oil) ☐ 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 (0211) 59 56-0
 Telefax (0211) 59 56-111

Crane Process Flow Technologies GmbH
 Postfach 11 12 40, D-40512 Düsseldorf, Heerdter Lohweg 63-71, D-40549 Düsseldorf
 Telefon (0211) 59 56-0, Telefax (0211) 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. 04202H130000012 DATED: 01-02-2002 BY MTUV

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

INSPECTION CERTIFICATE ACC: TO 3.18 OF EN 10204

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

MATERIAL: SG EN-GJS-400/15 TECHNICAL REQUIREMENTS/DEMAND EN 1563

DESIGNATION: DN150WAFERBODY 7010554 B

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

CHEMICAL ANALYSIS:

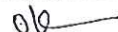
HEAT NO.	C	Si	Mn	P	S	Cu	Cr	Ni	Mg
M.17	3.540	2.790	0.280	0.039	0.011				0.047

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	HB	HB
	°C	10.2x 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

VISUAL INSPECTION: 

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 CN 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
BELGAUM 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	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 NORMOS 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 SCHMELZEIDENTIFIKATIONSKOD 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 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 prüf temperatur Test temperature T dessais.	Limite Elastico. Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fresist a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Prüf temperatur T dessais	Energia Absorbida Schlagarbeit Energy of impact Energia Absorbée
HEAT NO. M.19	°C	0.2% N/mm2	N/mm2	%	J	
		329.40	530.60	17.20		
						HB 103000 HB 2.5/187.5 170, 170

TRATAMIENTO TERMICO WARMEBEHANDLUNG HEAT TREATMENT TRAITEMENT THERM QUE	NOT APPLICABLE.
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OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS *Graphite Nodules In Ferritic Matrix*

LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE ACUERDO ALAS ESPECIFICACIONES DIE RESULTATE ERGEREN, 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
--	--

10729.

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 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		
SCHMELZEIDENTIFIKATIONSKOD	MENGE	Inv No. 3228	Dt: 08/07/2004
HEAT IDENTIFICATION CODE	QUANTITY	68	Nos
CODE IDENTIFICATION COULEE	QUANTITE		

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N	Temperatura de Ensayo prii temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargada Rotura Zugfestigkeit Tensile Strength Fleisist a Traction	Alargamiento Bruchdehung Elongation Allongement	Temperatura do Ensayo Prii temperature T dessals	Energia Absorbida Schlagarbeit Energy of impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
PROBE Nr.								
TEST NO.								
EPRGUV Nr.								
HEAT NO.	oC	0.2% N/mm2	N/mm2	%	J			
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.

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

PECHA / DATUM / DATE / DATE

DIRECTOR CLIDAD / Q.C. MANAGER

To,

Attn: Mr. Hulyalkar (Q.C. department)
Butterfly - Yelte.

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

10977

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/SPEZIFICACIONES 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 IOENTIFIKATION CODE CODE INDENTIFICATION 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/ZUGFESTIGKFIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo prii temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargado Rotura Zugfestigkeit Tensile Strength Fleissel a Traction	Aargamiento Bruchdehung Elongation Allongement	Temperatua do Ensayo Prii temperatur T dessals	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.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	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	SG EN-GJS-400/15	NORMAS DE CONTROL EESPECIFICACIONES KONTROLL NORM/SPEZIFICACIONES TECHNICAL REQUIREMENT/DEMAND NORMOS DE CCNTROL ET SPECIFICATIONS	EN 1563 DIN 50125
WERKSOFF			
MATERIAL			
MATIERE			

DESINACION	DN 100 WAFER BODY	(DRAWING NO. 7010552 A)
GEGENSTAD		
DESIGNATION		
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	Inv No. 3011	Dt: 07/30/2004
SCHMELZEIDENTIFIKATIONSKOD		
HEAT IDENTIFICATION CODE		
CODE IDENTIFICATION COULEE		
	113	Nos

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNG/NM/MECHANICAL TEST/ESSAIS MECANIOVES							
TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION				RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENGE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N	Temperatura de Ensayo ppl temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yiled Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fleisist a Tracion	Aargamiento Bruchdehnung Elongation Allongement	Temperatura do Ensayo Ppl temperature T dessals	Energia Absorbica Schlagarbeit Energy of Impact Energia Absorbee	
PROBE Nr.		0.2% N/mm2	N/mm ²	%	J		
TEST NO.							
EPRGUV Nr.							
HEAT NO.	oC					HB 10/3000	HB 2.5/187.5
G.27		325.20	518.40	17.00		163, 170	

TRATAMIENTO TERMICO	NOT APPLICABLE.
WARMEBEHANDLUNG	
HEAT TREATMENT	
TRATTEMENT 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 RESULTATÉ 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	

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		
GENESTAD		
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. J.2	3.470	2.780	0.310	0.039	0.011	0.042
COULEE NO.						

CODIGO INENTIFICACION COLADA	CANTIDAD		
SCHMELZEIDENTIFIKATIONSKOD	MENGE	Inv No. 3859	Dt: 09/04/2004
HEAT IDENTIFIKATION CODE J.2	QUANTITY	123	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 PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo pni temperatur Test temperature T dessais	Limite Elastico Dehngrenze Yiled Strength Limite Elastique	Cargado Rotura Zugfestigkeit Tensile Strength Fleisist a Tracion	Aargamiento Bruchdehung Elongation Allongement	Temperatura de Ensayo Pul temperature T dessais	Energia Absorbida Schlagarbeit Energy of impact Energie Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm2	%	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.

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

PECHA / DATUM / DATE / DATE

DIRECTOR CIUDAD / 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

17475

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/SPEZIFICACIONES	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 IDENTIFICATION CODE	QUANTITY	75	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 dssais	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fiest a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Pril temperatur T dssais	Enerola Absorbica Schlagabelt 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
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
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CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

PECHA / DATUM / DATE / DATE

DIRECTOR-CLDAO / Q.C. MANAGER