

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 pieces	Pos. Item Pos.	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	PN 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

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Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Repère des pces	Pos Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Matériau Gehäuse Body Corps	Abgeschlossen Pressure Member C 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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Air Liquide AGS GmbH
Werk Hanau

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-63457 Hanau

Zeugnis-Nr.
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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	ANSI-Körper ANSI Body Corps de l'armature	DN Size Diametre	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
PV172K17004022	1	7500	1.4408	1.4021	250	10-16	A) B)	6 bar 24 bar
PV173K17050523	1	7500	1.4581	1.4021	150	10-16	A) B)	6 bar 24 bar
PV174K17050624	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

Joachim Röhling

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

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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 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'exa / 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

Der Sachverständiger
The Authorized Inspector
L'inspecteur autorisé

Joachim Röhling

Der Werkssachverständiger
Works Inspector
Inspecteur de l'usine

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 / 38J - 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 (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. 04202H1300200012 DATED: 01-02-2002 BY RATUV

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: 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.	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

MECHANICAL TEST/PROPERTIES

TENSILE					IMPACT STRENGTH		HARDNESS IN BHN	
TEST NO.	Test temperature	Yield Strength	Tensile Strength	Elongation	Test Temperature	Energy of Impact	H2	H3
					T dessals		10/3000	12.5/187.5
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: *ob*

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.

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	RECIDO 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 IDENTIFICATION 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 PRUFUNGM/MECHANICAL TEST/ESSAIS MECANIOVES								
TRACCIÓN/ZUGFESTIGKIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N. PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo ptt 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 Ptt temperature T dessals	Energia Absorbida Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm²	%	J			
M.19		329.40	530.60	17.20			170, 170	

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	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 CHIMIQUE

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	Inv No. 3228	Dt: 08/07/2004
SCHMELZEIDENTIFIKATIONSKOD	MENGE	68	Nos
HEAT IDENTIFIKATION CODE	QUANTITY		
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 ppl temperatur Test temperature T desais	Limite Elastic Dehngrenze Yield Strength Limite Elasticque	Cargade Rotura Zugfestigkeit Tensile Strength Fleisist a Traction	Alargamiento Bruchdehung Elongation Allongement	Temperatura do Ensayo Pul temperature T desais	Energia Absorbida Schlagarbeit Energy of impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
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.

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/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.	H.27	C	SI	Mn	P	S	Mg
		3.420	2.540	0.200	0.042	0.011	0.031

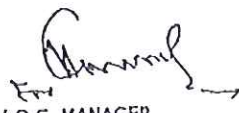
CODIGO INENTIFICACION COLADA SCHMELZEIDENTIFIKATIONSOD HEAT IOENTIFIKATION CODE CODE INDENTIFICATION COULEE	H.27	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 3716 270 Nos	Dt: 08/30/2004
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ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGM/MECHANICAL TEST/ESSAIS MECANIOVES

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 Deingrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fisist a Tracchion	Aargamiento Bruchdehung Elongation Allongement	Temperatura do Ensayo Prii temperature T dessals	Energia Absorbida Schlagarbeit Energy of Impact Energia Absorbida	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	J		163, 163	
H.27		320.70	518.50	17.40				

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 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	DN 100 WAFER BODY	(DRAWING NO. 7010552 A)
GENENSTAD		
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	CANTIDAD	Inv No. 3011	Dt: 07/30/2004
SCHMELZEIDENTIFIKATIONSKOD	MENGE	113	Nos
HEAT IDENTIFICATION CODE	QUANTITY		
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	Limite Elastico Dehngrenze	Cargade Rotura Zugfestigkeit	Aargamiento Bruchdehnung	Temperatura do Ensayo	Energia Absorbida Schlagarbeit	
PROBE Nr.	Test temperature	Yield Strength	Tensile Strength	Elongation	Test temperature	Energy of Impact	
TEST NO.	T dessais	Limite Elastique	Fiest a Traction	Allongement	T dessais	Energia Absorbee	
EPRGUV Nr.							
HEAT NO.	oC	0.2% N/mm2	N/mm2	%	J		
G.27		325.20	518.40	17.00		163, 170	HB 10/3000 HB 2.5/187.5

TRATAMIENTO TERMICO	NOT APPLICABLE.
WARMBEHANDLUNG	
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.	
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		
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. 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 IDENTIFIKATION CODE	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 Prüf temperatur Test temperature T dessais	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargada Rotura Zugfestigkeit Tensile Strength Fleisist a Traction	Alargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Prüf temperatur T dessais	Energia Absorbida Schlagarbeit Energy of Impact Energie Absorbée	HB 10/3000	HB 2.5/187.5
PROBE Nr.								
TEST NO.								
EPRGUV Nr.								
HEAT NO.	oC	0.2% N/mm2	N/mm2	%	J			
J.2		320.70	517.40	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	PECHA / DATUM / DATE / DATE
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

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		
SCHMELZEIDENTIFIKATIONSKOD	MENGE	Inv No. 5688	Dt: 11/26/2004
HEAT IOENTIFIKATION CODE	QUANTITY	75	Nos
CODE INDENTIFICATION COULEE L22 3	QUANTITE		

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGNM/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.	Temperatura de Ensayo Prii temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yiled Strength Limite Elastique	Cargade Rottura Zugfestigkeit Tensile Strength Fiesist a Tractio	Aargamiento Bruchdehung Elongation Allongement	Temperatura de Ensayo Prii temperatur T dessals	Enerola Absorbica Schtagabelt Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	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 Hodules 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