

## 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 pes	Pos Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	Abchlusskörper Closing Member Corps de fermeture	DN Size Diametre	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	<del>100</del> 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 Sachverständiger  
The Authorized Inspector  
L'inspecteur autorisé

Der Werkssachverständiger  
Works Inspector  
Inspecteur de l'usine



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PV017 K12072	7	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV018 K12074	8	1	7500	1.4581	1.4021	80	10-16	A) 6 bar B) 24 bar
PV035 K13140	9	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV037 K13151	10	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV042 K13240	11	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV044 K13251	12	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV053 K14010	13	1	7500	1.4581	1.4021	80	10-16	A) 6 bar B) 24 bar
PV061 K14130	14	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV063 K14141	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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## Bescheinigung Certificate Certificat

Air Liquide AGS GmbH  
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Certificate No. 05/50018/1  
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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
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

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Datum / Date / Date 31.08.2005

SK

XOMOX Process Valves & Actuators

Qualitätswesen  
Quality Assurance  
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The Authorized Inspector  
L'inspecteur autorisé

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

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

Datum / Date / Date 31.08.2005

SK

XOMOX Process Valves & Actuators

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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



K15042  
K12006, K12011, K14141, K14241,  
K11505, K11590, K16630, K16632,  
K14230, K16631, K70505, K70580,  
K77505, K77590

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)

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				

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 VBG63 - 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)

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



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

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

R. S. No. 689, Udyarbag,  
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: 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	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	HB	HB
					T dessals		10/3000	12.5/187.5
HEAT NO.	°C	0.2% R/ps2	N/ps2	%	°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 PD & THE MATERIAL SPECIFICATIONS.

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

Name: [Signature]  
Works Authorised Inspector.

CRANE PROCESS FLOW TECHNOLOGIES

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

CODIGO INENTIFICACION COLADA SCHMELZEIDENTIFIKATIONSKOD HEAT IDENTIFIKATION CODE CODE IDENTIFICATION COULEE	M.19	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 5182 80 Nos	Dt: 12/23/2003
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ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGM/MECHANICAL TEST/ESSAIS MECANIOVES								
TRACCION/ZUGFESTIGKFIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N. PRÖBE Nr. TEST NO. ÉPRGUV Nr.	Temperatura de Ensayo pri temperatur Test temperature T dessals	Limite Elástico. Dehngrenze. Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fiestat a Traction	Aargamiento Bruchdehung Elongation Allongement	Temperatura de Ensayo Pri temperature T dessals	Energia Absorbica Schlagarbeit Energy of impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/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
---	--



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	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	TECHNICAL REQUIREMENT/DEMAND	
MATIERE	NORMOS DE CCNTROL ET SPECIFICATIONS	

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
H.5	3.530	2.540	0.200	0.037	0.010	0.032

CODIGO INENTIFICACION COLADA  
SCHMELZEIDENTIFIKATIONSKOD  
HEAT IOENTIFIKATION CODE  
CODE INDENTIFICATION COULEE

CANTIDAD  
MENGE  
QUANTITY  
QUANTITE

Inv No. 3228  
68 Nos

Dt: 08/07/2004

**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 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 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/mm <sup>2</sup>	N/mm <sup>2</sup>	%	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 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 CRANE PROCESS FLOW TECHNOLOGIES CUSTOMER : CLIENT	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 SG EN-GJS-400/15 MATIERE	NORMAS DE CONTROL EESPECIFICACIONES KONTROLL NORM/SPEZIFIKACIONES TECHNICAL REQUIREMENT/DEMAND NORMOS DE CCNTROL ET SPECIFICATIONS	EN 1563 DIN 50125
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DESINACION GEGENSTAD DESIGNATION DESIGNATION	DN 100 WAFER BODY (DRAWING NO. 7010552 A)
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ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE

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

CODIGO INENTIFICACION COLADA SCHMELZEIDENTIFIKATIONSKOD HEAT IDENTIFIKATION CODE CODE IDENTIFICATION COULEE	H.27	CANTIDAD MENGE QUANTITY QUANTITE	Inv No. 3716 270 Nos	Dt: 08/30/2004
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ENSAYOS MECHANICOS/MECHANISCHE 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 prii temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fiestal a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura do Ensayo Prii temperatur T dessals	Energia Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mmz	N/mm <sup>2</sup>	%	J		163, 163	
H.27		320.70	518.50	17.40				

TRATAMIENTO TERMICO  
WARMEBEHANDLUNG  
HEAT TREATMENT  
TRAITEMENT THERM QUE

NOT APPLICABLE.

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS  
Graphite Nodules in Ferritic Matrix

LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE  
ACUERDO ALAS ESPECIFICACIONES

DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN  
SPEZIFIKATIONEN ENSPRICHT

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

PECHA / DATUM / DATE / DATE

DIRECTOR CLIDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

**A.K.P. FOUNDRIES PVT. LTD.**

INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 689, Udyambag,

BELGAUM - 590 008

Phone : 440164,441530

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

MATERIAL	NORMAS DE CONTROL EESPECIFICACIONES	EN 1563
WERKSOFF	KONTROLL NORM/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. G.27	3.540	2.610	0.130	0.042	0.012	0.039
COULEE NO.						

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

ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES							
TRACCION/ZUGFESTIGKFIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE
PROBETA N	Temperatura de	Limite Elastico	Limite Elastico	Cargade Rotura	Temperatura do	Energia Absorbida	
PROBE Nr.	Ensayo	Dehincenze	Dehincenze	Zugfestigkeit	Ensayo	Schlagarbeit	
TEST NO.	Test temperature	Yield Strength	Yield Strength	Tensile Strength	Test temperature	Energy of Impact	
EPRGUV Nr.	T dessals	Limite Elastique	Limite Elastique	Fiest a Traction	T dessals	Energia Absorbee	
		0.2% N/mm2	0.2% N/mm2	%	J		
HEAT NO.	oC						
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.

PECHA / DATUM / DATE / DATE

DIRECTOR CLIDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT



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

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

CLIENTE	REDIDO NO.	CERTIFICADO
KUNDE CRANE PROCESS FLOW TECHNOLOGIES	DESTELL NO.	ZEUGNIS NO
CUSTOMER :	ORDER NO.:	CERTIFICATE NO. : 5755
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. 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 PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKIT/TENSILE/TRACTION					RESILIENCIA KERBSCHLAAGARBEIT IMPACT STRENGTH/RESILIENCE		DUREZA/HARTE HARDNESS/CURETE	
PROBETA N	Temperatura de Ensayo pnl temperatur Test temperature T dessals	Limite Elastico Deingrenze Yiled Strength Limite Elastique	Cargada Rotura Zugfestigkeit Tensile Strength Fleisist a Tracion	Aargamiento Bruchdehung Elongation Allongement	Temperatura do Ensayo Pnl temperature T dessals	Energia Absorbica 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/mm <sup>2</sup>	%	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	

DIRECTOR CIUDAD / Q.C. MANAGER

*M. H. Talwar*

**A.K.P. FOUNDRIES PVT. LTD.**

INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 689, Udyambag,

BELGAUM - 590 008

Phone : 440164,441530

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

MATERIAL	NORMAS DE CONTROL EESPECIFICACIONES	
WERKSOFF	KONTROLL NORM/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		
SCHMELZEIDENTIFIKATIONSOD	MENGE	Inv No. 5688	Dt: 11/26/2004
HEAT IDENTIFIKATION CODE	QUANTITY	75	Nos
CODE IDENTIFICATION COULEE	QUANTITE		

## ENSAYOS MECHANICOS/MECHANISCHE PRUFUNGNM/MECHANICAL TEST/ESSAIS MECANIOVES

TRACCION/ZUGFESTIGKFIT/TENSILE/TRACTION	RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE	DUREZA/HARTE HARDNESS/CURETE
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Energia Absorbida Schlagarbeit Energy of Impact Energia Absorbee	
HEAT NO.		
L22 3		

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