

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

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

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	Abchlusskörper Closure Member Corps de fermeture	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exa / bar
PV017K12072	7	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV018K12074	8	1	7500	1.4581	1.4021	80	10-16	A) 6 bar B) 24 bar
PV035K13140	9	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV037K13151	10	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV042K13240	11	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV044K13251	12	1	7500	1.4408	1.4021	200	10-16	A) 6 bar B) 24 bar
PV053K14010	13	1	7500	1.4581	1.4021	80	10-16	A) 6 bar B) 24 bar
PV061K14130	14	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV063K14141	15	1	7500	1.4581	1.4021	100	10-16	A) 6 bar B) 24 bar

- 3 -

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

- 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.

No. d'ordre

B622020

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 Repere des pes	Pos Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	Abchlußkörper 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 11508, K 12072, K 14130,
K 12074, K 14010,
K 13140, K 13151, K 13240,
K 13251



Abnahmeprüfzeugnis / Inspection certificate
EN 10204

Type	Zeugnis-Nr.	Datum	Seite	von
Type	Certificate No.	Date	Page	of
CENTERLINE Klappe Serie RS	20269 / bp	31.08.05	1	1

Auftraggeber Customer	XOMOX International GmbH & Co. / 231185
Bestell-Nr. Cust. Order No.	X50396-05 LN: 1/3690
Crane-Kom-Nr. Crane Order No.	400814

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	Schelle/ Disc 3.1B 2.2	Sitz Seat 2.2
1	2	80	ALGD2E1V9H	16	10	0805 / 11-12	5 ASC / 11617 5 ATH / 11618	X		
2	3	80	ALGD2E1V9F	16	10	0805 / 265-267	5 ASD / 11666 5 ASC / 11617 5 CLC / 11655	X		
3	6	100	AMGD6E1H3H	16	10					
4	3	150	APGD6E1H3G	16	10					
5	1	150	APGD1E1V9H	16	10	0804 / 14	J 2 / 11238	X		
6	12	200	ARGB6E1V9G	10	3,5					

☒ 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				
1	24	11								
2	24	11								
3										
4										
5	24	11								
6										

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.

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		
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. 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 IDENTIFICATION 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 PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo Prüf temperatur Test temperature T dessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fasist a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura do Ensayo Prüf 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			
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 CIUDAD / Q.C. MANAGER

CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT

AD-Merblatt-W-3/1

Registration No.04202W130320013 Dtd.01.03.2002

Inv. No.-2739

Certificate No. : 2597 Date : 23/01/2005

"Der RWTUV hat mit schreiben vom 30.06.03 auf die Gegenzeichnung verzichtet".

BASHKO	3.1B MATERIAL TEST CERTIFICATE AS PER EN 16284
Customer Name C. P. F. T. (I) LTD., SATARA	Material: W3/1 DIN EN1561:1997
Part Name DN 080 Wafer Body	Symbol: EN-GJL-250
Drawing No. 7010762 Z	Number: EN-JL-1040
Rev. No. Z	Quantity: 64 Nos.
P.O.No. 5510050/09.01.2004	DIE No.: 1,23

CHEMICAL ANALYSIS

Heat No. : 5ASC

Heat Code : _____

Manufacturer's Symbol BE.

	C%	Si%	Mn%	P%	S%	Cr%	Cl%	Mo%	Others
Specified Range	—Not Specified — Refer Clause-6 of DIN EN 1561:1997								
Actual Findings	3.400	1.850	0.660	0.062	0.075	—	—	—	—

STD. REFER-

Inclusion Rating AS PER				Grain Size AS PER	
A	B	C	D	_____	

Heat

Treatment I) Normalized

iv) Annealed

ii) Oil/Water Quenched & Tempered

v) Stress-Relieved

iii) ISO-Annealed

vi) Normalized & Tempered

% of Hardness Checked 3 Nos./Lot	Finish Line _____	Hardness Specified: 175 TO 250 BHN
By 10/3000 Kg.	Flat Surface <input checked="" type="checkbox"/>	Observed: 180-180 BHN

MICRO EXAMINATIONGraphite _____
Matrix _____Size _____
Carbide _____**MECHANICAL PROPERTIES**

	Y.S. 0.2%	TENSILE N/MM ² 1.00%	UTS N/MM ²	% E.A.	% ELONG	IMPACT (J)			
			250 to 350			1	2	3	AVG.
Specified Range	-----	-----	-----	-----	-----	-----	-----	-----	-----
Actual Findings	-----	-----	269.29	-----	-----	-----	-----	-----	-----

SPARK & SPECTRAL : _____

HEAT TREATMENT CYCLE : _____

SOAKING TIME : _____

PMI TEST : _____

IGC TEST AS PER DIN EN ISO 3651 - 2 : _____

VISUAL INSPECTION :

DIMENSIONAL INSPECTION :

As per Attached P.D.I.R.

NO WELDING DONE

THE CAST IRON HAS NOT COME INTO DIRECT CONTACT WITH MERCURY OR ANY OF ITS COMPONENTS OR ANY MERCURY CONTAINING DEVICES EMPLOYING A SINGLE BOUNDARY OF OR ON 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 REQUIREMENTS OF THE P.O. & THE MATERIAL SPECIFICATIONS

FOR BASHKO ENGINEERING PVT. LTD.

Name : *Sham* M.S. Kore
Works Authorized Inspector
BEPL/FQC-15c



Authorized Inspector's Stamp

AD-Merblatt-W-3/1

Registration No.04202W130020013 Dtd.01.03.2002

Inv. No. 4298-2777

Certificate No. : 2622 Date : 28/01/2005

"Der RWTUV hat mit schreiben vom 30.06.03 auf die Gengenseichnung verzichtet".

BASHKO**3.1B MATERIAL TEST CERTIFICATE AS PER EN 10204**

Customer Name	C. P. F. T. (I) LTD., SATARA	Material:	W3/1 DIN EN1561:1997
Part Name	DN 080 Wafer Body	Symbol:	EN-GJL-250
Drawing No.	7010762 Z	Number:	EN-JL-1040
Rev. No.	Z	Quantity:	25 Nos.
P.O.No.	5510050/09.01.2004	DIE No.:	1,2,3

CHEMICAL ANALYSIS

Heat No. : 5ATH						Heat Code : -----			
Manufacturer's Symbol: BE.									
	C%	Si%	Mn%	P%	S%	Cu%	Cr%	Mo%	Others
Specified Range	---Not Specified---Refer Clause-6 of DIN EN 1561:1997								
Actual Findings	3.350	1.850	0.700	0.085	0.074	-----	-----	-----	-----

STD. REFER-

Inclusion Rating AS PER				Grain Size AS PER
A	B	C	D	-----

Heat

Treatment	i) Normalized	-----	ii) Oil/Water Quenched & Tempered	-----	iii) ISO-Annealed	-----
	iv) Annealed	-----	v) Stress Relieved	-----	vi) Normalized & Tempered	-----

% of Hardness Checked 3 Nos./Lot	Flash Line	-----	Hardness Specified: 175 TO 250 BHN
By 10/3000 Kg.	Flat Surface	<input checked="" type="checkbox"/>	Observed: 207-207 BHN

MICRO EXAMINATION	Graphite	-----	Size	-----
	Matrix	-----	Carbide	-----

MECHANICAL PROPERTIES

	Y.S. 8.2%	N/MM2 1.00%	UTS N/MM2	% R.A.	% ELONG	IMPACT (J)			
Specified Range	-----	-----	250 to 350	-----	-----	1	2	3	AVG.
Actual Findings	-----	-----	298.04	-----	-----	-----	-----	-----	-----

SPARK & SPECTRAL : -----

HEAT TREATMENT CYCLE : -----
SOAKING TIME : -----

PMI TEST : -----

IGC TEST AS PER DIN EN ISO 3651 - 2 : -----

VISUAL INSPECTION : -----

DIMENSIONAL INSPECTION : -----

As per Attached P.D.I.R.

NO WELDING DONE

THE CAST IRON HAS NOT COME INTO DIRECT CONTACT WITH MERCURY OR ANY OF ITS COMPONENTS OR ANY MERCURY CONTAINING DEVICES EMPLOYING A SINGLE BOUNDARY OF ON 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 REQUIREMENTS OF THE P.O. & THE MATERIAL SPECIFICATIONS

FOR BASHKO ENGINEERING PVT. LTD.

Name : *Praveen* M S Kote
Works Authorized Inspector
BEPL/FQC-15c


Authorized Inspector's Stamp

Inv. No.- 3143

rlblatt-W-3/1

Registration No.04202W130020013 Dtd.01.03.2002

Certificate No. : 2913 Date : 16/03/2005

"Der RWTUV hat mit schreiben vom 30.06.03 auf die Gengenseichnung verzichtet".

BASHKO

3.1B MATERIAL TEST CERTIFICATE AS PER EN 10204

Customer Name	C. P. F. T. (I) LTD., SATARA	Material:	W3/1 DIN EN1561:1997
Part Name	DN 080 Wafer Body	Symbol:	EN-GJL-250
Drawing No.	7010762 Z	Number:	EN-JL-1040
Rev. No.	Z	Quantity:	88 Nos.
P.O.No.	5510050/09.01.2004	DIE No.:	1,2,3

CHEMICAL ANALYSIS

Heat No. : 5CLC						Heat Code : _____			
Manufacturer's Symbol BE.									
	C%	Si%	Mn%	P%	S%	Cu%	Cr%	Mo%	Others
Specified Range	---Not Specified --- Refer Clause-6 of DIN EN 1561:1997								
Actual Findings	3.375	1.820	0.650	0.024	0.076	---	---	---	---

STD. REFER-

Inclusion Rating AS PER				Grain Size AS PER			
A	B	C	D				

Heat Treatment	i) Normalized		ii) Oil Water Quenched & Tempered		iii) ISO-Annealed	
	iv) Annealed		v) Stress Relieved		vi) Normalized & Tempered	

% of Hardness Checked 3 Nos./Lot	Flash Line	Hardness Specified: 175 TO 250 BHN
By 10/3000 Kg.	Flat Surface	Observed: 197-207 BHN

MICRO EXAMINATION	Graphite	Size
	Matrix	Carbide

MECHANICAL PROPERTIES

	Y.S.	N/MM2	UTS	%	%	IMPACT (J).			
	0.2%	1.00%	N/MM2	E.L.	ELONG	1	2	3	AVG.
Specified Range	-----	-----	250 to 350	-----	-----	-----	-----	-----	-----
Actual Findings	-----	-----	290.20	-----	-----	-----	-----	-----	-----

SPARK & SPECTRAL :	HEAT TREATMENT CYCLE :
	SOAKING TIME :

PHI TEST :
IGC TEST AS PER DIN EN ISO 3651 - 2 :

VISUAL INSPECTION
DIMENSIONAL INSPECTION : } As per Attached P.D.I.R.

NO WELDING DONE
THE CAST IRON HAS NOT COME INTO DIRECT CONTACT WITH MERCURY OR ANY OF ITS COMPONENTS OR ANY MERCURY CONTAINING DEVICES EMPLOYING A SINGLE BOUNDARY OF ON 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 REQUIREMENTS OF THE P.O. & THE MATERIAL SPECIFICATIONS

FOR BASHKO ENGINEERING PVT. LTD.

Name : M S Kore
Works Authorized Inspector
BEPL/TC-15c

(K)

Authorized Inspector's Stamp

AD-Merblatt-W-3/1

Registration No.04202W130020013 Dtd.01.03.2002

Inv. No. - 3264
Certificate No. : 3015 Date : 31/03/2005

"Der RWTUV hat mit schreiben vom 30.06.03 auf die Gengerseichnung verzichtet".

BASHKO**3.1B MATERIAL TEST CERTIFICATE AS PER EN 10204**

Customer Name	C. P. E. T. (I) LTD., SATARA	Material:	W3/1 DIN EN1561:1997
Part Name	DN 080 Wafer Body	Symbol:	EN-GJL-250
Drawing No.	7010762 Z	Number:	EN-JL-1040
Rev. No.	Z	Quantity:	2 Nos.
P.O.No.	5510050/09.01.2004	DIE No.:	123

CHEMICAL ANALYSIS

Heat No. : 5ASD						Heat Code : -----			
Manufacturer's Symbol BE.									
	C%	Si%	Mn%	P%	S%	Cu%	Cr%	Mo%	Others
Specified Range	---Not Specified -- Refer Clause-6 of DIN EN 1561:1997								
Actual Findings	3.370	1.870	0.660	0.082	0.075	---	---	---	---

STD. REFER-

Inclusion Rating AS PER	Grain Size AS PER
A B C D	-----

Heat

Treatment	i) Normalized	<input type="checkbox"/>	ii) Oil/Water Quenched & Tempered	<input type="checkbox"/>	iii) ISO-Annealed	<input type="checkbox"/>
	iv) Annealed	<input type="checkbox"/>	v) Stress Relieved	<input type="checkbox"/>	vi) Normalized & Tempered	<input type="checkbox"/>

% of Hardness Checked 3 Nos./Lot	Flash Line	<input type="checkbox"/>	Hardness Specified: 175 TO 250 BHN
By 10/3000 Kg	Flat Surface	<input checked="" type="checkbox"/>	Observed: 187-197 BHN

MICRO EXAMINATION	Graphite	-----	Size	-----
	Matrix	-----	Carbide	-----

MECHANICAL PROPERTIES

	Y.S.	N/MM2	UTS	%	%	IMPACT (J)			
	0.2%	1.00%	N/MM2	R.A.	ELONG	1	2	3	AVG.
Specified Range	-----	-----	250 to 350	-----	-----	-----	-----	-----	-----
Actual Findings	-----	-----	274.51	-----	-----	-----	-----	-----	-----

SPARK & SPECTRAL : -----

HEAT TREATMENT CYCLE : -----
SOAKING TIME : -----

PMI TEST : -----

IGC TEST AS PER DIN EN ISO 3651 - 2 : -----

VISUAL INSPECTION : }

As per Attached P.D.I.R.

DIMENSIONAL INSPECTION : }

NO WELDING DONE

THE CAST IRON HAS NOT COME INTO DIRECT CONTACT WITH MERCURY OR ANY OF ITS COMPONENTS OR ANY MERCURY CONTAINING DEVICES EMPLOYING A SINGLE BOUNDARY OF ON 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 REQUIREMENTS OF THE P.O. & THE MATERIAL SPECIFICATIONS

FOR BASHKO ENGINEERING PVT. LTD.

Name : *J. Kumar*
M. S. Koru
Works Authorized Inspector
BEPL/TC-15c

(K)
Authorized Inspector's Stamp

CRANE

Process Flow Technologies
A Crane Co. Company



14 3 0 9 1

Abnahmeprüfzeugnis / Inspection certificate
EN 10204

Typ Type	Zeugnis-Nr. Certificate No.	Datum Date	Seite Page	von of
CENTERLINE Klappe Serie RS	18444 / bp	13.01.04	1	1

Auftraggeber Customer	XOMOX International GmbH & Co. / 231185
Bestell-Nr. Cust. Order No.	X30039-03
Crane-Kom-Nr. Crane Order No.	351462

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	Schelle/ Disc 3.1B 2.2	Sitz Seat 2.2
1	2	80	ALGDIE18MH	16	10	0104 / 47-48	G 24 / 8890 J 11 / 9123	X		

☐ 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

**Sonstige Prüfungen:
Other Test's:**

- ☐ Prüfungen gem. TRD 110
(Test's in acc. with TRD 110)

- ☐ Armatur entspr. VBG62 III - 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 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: Joachim Lukoschek, Hans D. Plak

CRANE
The world's most
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

31.08.2005, 14:12 KLOEP 143091.-- - P1/3

8890

A.K.P. FOUNDRIES PVT. LTD.

INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

R.S. No. 639, Udyambag, 14 309 1

BELGAUM - 590 008

Phone : 440164, 441530

CLIENTE KUNDE CUSTOMER : CRANE PROCESS FLOW TECHNOLOGIES CLIENT		REDIDO NO. DESTELL NO. ORDER NO. : 75114563/ ORDER DATE: 21/Apr/2003 COMMANDE NO.		CERTIFICADO ZEUGNIS NO. CERTIFICATE NO. 2876 CERTIFICATE NO.	
MATERIAL WERKSTOFF MATERIAL SG EN-GJS-400/15 MATIERE		NORMAS DE CONTROL Y ESPECIFICACIONES KONTROLL NORM/SPEZIFIKATIONEN TECHNICAL REQUIREMENT/DEMAND NORMES DE CONTROL ET SPECIFICATIONS		EN 1001 DIN 50125	
DESIGNACION GEGENSTAND DESIGNATION DESIGNATION		DN 80 W/L WAFER BODY DRAWING NO. 7010527 A			
ANALYSIS QUIMICO/CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHIMIQUE					
COLADAN NO. SCHMELZE NO. HEAT NO. COULEE NO.		G.24			
		C		S	
		1.50		2.170	
		Mn		P	
		0.200		0.042	
		S		Pb	
		0.012		0.005	
CODIGO IDENTIFICACION COLADA SCHMELZEIDENTIFIKATIONS-KOD HEAT IDENTIFICATION CODE CODE IDENTIFICATION COULEE		G.24		CANTIDAD MENGE QUANTITY QUANTITE	
				Inv No. 2114 87 Nos	
ENSAYOS MECANICOS/MECHANISCHE PRUEBUNG/M/MECHANICAL TEST/ESSAIS MECANICOES					
TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION				RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH/RESILIENCE	
PROBETA N PROBE Nr. TEST NO. EPGUY Nr.	Temperatura de Ensayo pri temperatur Test temperature T desais	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Capacidad Rotura Bruchdehngrenze Tensile Strength Capacité Rupture	Alargamiento Bruchdehngrenze Elongation Allongement	Temperatura de Ensayo Pri temperatur T desais
HEAT NO.	oC	0.2% N/mm ²	N/mm ²	%	J
G.24		339.50	523.70	17.40	
				DUREZA/HARTE HARDNESS/DURETE	
				HB 10/3000	
				HB 2.5/187.5	
				170 . 170	
TRATAMIENTO TERMICO WARMEBEHANDLUNG HEAT TREATMENT TRAITEMENT THERMIQUE					
NOT APPLICABLE					
OBSERVACIONES/BEMERKUNGEN/REMARKS/OBSERVATIONS					
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	

14 309 1

9123

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. DESTIN. NO. ORDER NO. : 15114563/ ORDER DATE : 21/Apr/2003 COMMANDE NO.		CERTIFICADO ZEUGNIS NO CERTIFICATE NO. : 4728 CERTIFICATE NO.	
MATERIAL WERKSTOFF MATERIAL : SG EN-GJS-400/15 MATIERE		NORMAS DE CONTROL/ESPECIFICACIONES KONTROLL. NORM./SPEZIFIKATIONEN TECHNICAL REQUIREMENT/DEMAND NORMOS DE CONTROL/ET-SPECIFICATIONS		EN 1563 DIN 50125	
DESIGNACION GEGENSTAND DESIGNATION : DH 80 W/L WAFER BODY DESIGNATION		(DRAWING NO. : 7010527 A)			
ANALYSIS QUIMICO/CHEMISCHE ANALYSE/CHEMICAL ANALYSIS/ANALYSE CHIMIQUE					
COLADA NO. SCHNELZE NO. HEAT NO. COULEE NO. : 1.11	C	Si	Mn	P	S
	3.430	2.560	0.210	0.038	0.011
					0.043
CODIGO IDENTIFICACION COLADA SCHNELZE IDENTIFIKATIONS-KOD HEAT IDENTIFICATION CODE : 1.11 CODE IDENTIFICATION COULEE			CANTIDAD MENGE : Inv No. 3237 QUANTITY : 100 Nos QUANTITE : Dt: 09/20/2003		
ENSAYOS MECANICOS/MECHANISCHE PRUFUNGEN/MECHANICAL TEST/ESSAIS MECANICOES					
TRACCION/ZUGFESTIGKEIT/TENSILE/TRACTION				RESILIENCIA KERESCHLAGARBEIT IMPACT STRENGTH/RESILIENCE	
PROBEA N PROBE NR. TEST NO. EPRGUV Nr.	Temperatura de Ensayo Prüf temperatur Test temperature T details	Límite Elástico Dehngrenze Yield strength Limite Elastique	Capacidad Rotura Zugfestigkeit Tensile strength Fleissel a Traction	Alargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo Prüf temperatur Test temperature T details
HFAT NO.	eC	0.2% N/mm ²	N/mm ²	%	J
1.11		329.50	523.70	18.40	
				DUREZA/HARTE HARDNESS/CURETE	
				HB 162000	
				HB 25787.5	
TRATAMIENTO TERMICO WARMEBEHANDLUNG HEAT TREATMENT TRAITEMENT THERM QUE					
NOT APPLICABLE.					
OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS					
Graphite Nodules in Ferritic Matrix					
LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE ACUERDO ALAS ESPECIFICACIONES DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN SPEZIFIKATIONEN ENSPRICHT THE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE WITH REQUIREMENTS.				FECHA / DATUM / DATE / DATE DIRECTOR CALIDAD / Q.C. MANAGER	

CRANE

Process Flow Technologies
A Crane Co. Company



Abnahmeprüfzeugnis / Inspection certificate
EN 10204

Typ Type	Zeugnis-Nr. Certificate No.	Datum Date	Seite Page	Von of
CENTERLINE Klappe Serie RS	19215 / bp	03.09.04	1	1

Auftraggeber Customer	XOMOX International GmbH & Co. / 231185			
Bestell-Nr. Cust. Order No.	X40470-04	27202363100		
Crane-Komm-Nr. Crane Order No.	373515			

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 PW [bar]	Serien-Nr. Serial No.	Chargen-Nr. Cast. No.	Gehäuse/ Body 3.1B 2.2	Schleife/ Disc 3.1B 2.2	Sitz Seat 2.2
1	1	200	ARGDIE1V8H	16	10	0906 / 16	M 16 / 8338	X		

☐ 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

Sonstige Prüfungen:
Other Test's:

- ☐ Prüfungen gem. TRD 110
(Test's in acc. with TRD 110)

146214

- ☐ Armatur entspr. VBG62 III - 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)

Das Original kann beim Hersteller eingesehen werden. The original is available in manufacturer'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
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: Joachim Lukoschek, Hans O. Plak

8338

A. K. P. FOUNDRIES PVT LTD.,

R.E.No. 699, Udyambag,
BEHALM - 570 008.
Phone: 410164, 441530

INSPECTION CERTIFICATE ACC: TO S.18 OF EN 10204

CUSTOMER: CRANE PROCESS FLOW TECHNOLOGIES

ORDER NO. 51136/04
DT: 22/04/2002

CERTIFICATE NO.
1257 - 06/02/2003

MATERIAL: SG 60610

TECHNICAL REQUIREMENTS/DEMAND
EN 1563

DESIGNATION: DN200 WAFERBODY 7010SSS Z

INVOICE NO.: 6959
INVOICE DATE: 06/02/2003

CHEMICAL ANALYSIS %

HEAT NO.	C	Si	Mn	P	S	Cu	Cr	Ni	Mg
N.16	3.640	2.800	0.220	0.041	0.012				0.051

HEAT IDENTIFICATION CODE: N.16

QUANTITY: 1

MECHANICAL TEST/PROPERTIES

TENSILE

IMPACT STRENGTH

HARDNESS IN DIN

TEST NO.	Test temperature	Yield Strength	Tensile Strength	Elongation	Test Temperature	Energy off	HB	H9
					T Cessals	Impact	10/3000	12.5/107.5
HEAT NO.	°C	0.2% N/mm ²	N/mm ²	%	°C	J		
N.16		329.20	537.50	17.40			170	

HEAT TREATMENT

NOT APPLICABLE.

Microstructure: GRAPHITE NODULES IN FERRITIC MATRIX.

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
(PVT) LTD.
Quality Control Dept.
Vandana Ek
Sign: *[Signature]*
Date: 10/2

146214