

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

- 3 -

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

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 Repère des pos.	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

- 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

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

Bescheinigung Certificate Certificat

Air Liquide AGS GmbH
Werk Hanau

Depotstrasse 1
-63457 Hanau

Zeugnis-Nr.
Certificate No. 05/50018/1
No. de Certificat
Bestell-Nr./Order No./No. d'ordre
4500025377

Auftrags-Nr.
Order No. B622020
No. d'ordre

Bestell-Datum
Date of order 1.07.2005
Date d'ordre

Kd.-Nr.
Cust. No. 15692
No. de Client

Seite / Page
4

Abnahmeprüfzeugnis 3.1B nach EN 10204

Markierung der Teile Marking of Parts Repère des pes	Pos Item Pos	Menge Qty Qte	Typ Type Type	Werkstoff / Material / Material Gehäuse Body Corps	Abschlußkörper Closure Member Corps de fermeture	DN Size Diamètre	PN Class Classe	Prüfdruck/Bar Test Press. / bar Pression d'exa. / bar
PV175K70580	25	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV180K77040	26	1	7500	1.4408	1.4021	250	10-16	A) 6 bar B) 24 bar
PV181K77505	27	1	7500	1.4581	1.4021	150	10-16	A) 6 bar B) 24 bar
PV182K77506	28	1	7500	1.4581	1.4021	100	10-16	A) 6 bar B) 24 bar
PV183K77590	29	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

Typ Type	Zeugnis-Nr. Certificate No.	Datum Date	Seite Page	von 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	Schleife/ 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

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

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.
INSPECTION CERTIFICATE ACC : TO EN 10204 3.1b

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

CLIENTE KUNDE CUSTOMER : CLIENT	CRANE PROCESS FLOW TECHNOLOGIES	REDIDO NO. DESTELL NO. ORDER NO.: ORDER DATE: COMMANDE NO.	CERTIFICADO ZEUGNIS NO CERTIFICATE NO. : 5755 CERTIFICATE NO.
--	---------------------------------	--	--

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

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

ANALYSIS QUIMICO CHEMISCHE ANALYSE/CHEMICAL ANALYSE/ANALYSE CHEMIQUE						
COLADAN NO. SCHMELZE NO. HEAT NO. COULEE NO.	C	Si	Mn	P	S	Mg
J.2	3.470	2.780	0.310	0.039	0.011	0.042

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

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 dessals	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Cargade Rotura Zugfestigkeit Tensile Strength Fissist a Traction	Aargamiento Bruchdehnung Elongation Allongement	Temperatura do Ensayo Prüf temperature T dessals	Enerola Absorbica Schlagarbeit Energy of Impact Energia Absorbee	HB 10/3000	HB 2.5/187.5
HEAT NO.	oC	0.2% N/mm2	N/mm ²	%	J			
J.2		320.70	517.40	16.80			163 , 163	

TRATAMIENTO TERMICO WARMEBEHANDLUNG HEAT TREATMENT TRAITEMENT THERM QUE	NOT APPLICABLE.
--	-----------------

OBSERVACIONES/BEMERKUNGEN/REMARKS OBSERVATIONS	Graphite Nodules in Ferritic Matrix
--	-------------------------------------

LOS RESULTADOS INDICAN QUE EL MATERIAL ESTA DE ACUERDO ALAS ESPECIFICACIONES DIE RESULTATE ERGEBEN, DASS DAS MATERIAL DEN SPEZIFIKATIONEN ENSPRICHT THE RESULTS SHOW THAT THE MATERIAL IS IN ACCORDANCE WITH REQUIREMENTS. CASTINGS ARE VISUALLY INSPECTED AND ARE FREE FROM FOUNDRY DEFECT	PECHA / DATUM / DATE / DATE 4/9/04 DIRECTOR-CLUAD / Q.C. MANAGER
--	--

AD-Merkblatt-W-3/1

Registration No.04202W130020013 Dtd.01.03.2002

"Der RWTUV hat mit schreiben vom 30.06.03 auf die Gangeszeichnung verziichtet".

Inv. No.-2739

Certificate No. : 2597

Date : 23/01/2005

BASHKO**3.1B MATERIAL TEST CERTIFICATE AS PER EN 18204**

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: DE.

	C%	Si%	Mn%	P%	S%	Cu%	Cr%	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

Observed:

180-180

BHN

MICRO EXAMINATION

Graphite

Matrix

Size

Carbide

MECHANICAL PROPERTIES

	Y.S. 0.2%	N/MM ² 1.00%	UTS N/MM ²	% E.A.	% ELONG	IMPACT (J)			
						1	2	3	AVG.
Specified Range	-----	-----	250 to 350	-----	-----	-----	-----	-----	-----
Actual Findings	-----	-----	260.29	-----	-----	-----	-----	-----	-----

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 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 REQUIREMENTS OF THE P.O. & THE MATERIAL SPECIFICATIONS

FOR BASHKO ENGINEERING PVT. LTD.

Name : *Shamir* M.S. Kore

Works Authorized Inspector

BEPL/F/QC-15c



Authorized Inspector's Stamp

11618

Inv. No. 4298-2777

AD-Merblatt-W-3/1

Registration No. 04202W130020013 Dtd. 01.03.2002

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	0.005	0.074	—	—	—	—

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

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

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

MICRO EXAMINATION	Graphite	Size
	Matrix	Carbide

MECHANICAL PROPERTIES									
	Y.S. 6.2%	TENSILE N/MM ² 1.00%	UTS N/MM ²	% 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 : *M S Kote*
Works Authorized Inspector
BEPLT/QC-15c


Authorized Inspector's Stamp

Inv. No.- 3143

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

Registration No. 04202W130020013 Dtd. 01.03.2002

"Der RWTUV hat mit schreiben vom 30.06.03 auf die Gegenseichnung 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.	1,23

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	0.084	0.076	---	---	---	---

STD. REFER-

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

Heat Treatment	D) Normalized	E) Oil/Water Quenched & Tempered	F) ISO-Annealed
	I) Annealed	V) Stress Relieved	VI) Normalized & Tempered

% of Hardness Checked 3 Nos./Lot	Flare 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. 0.2%	N/MM2 1.00%	UTS N/MM2	% E.A.	% ELONG	IMPACT (J)			
						1	2	3	AVG.
Specified Range	---	---	250 to 350	---	---	---	---	---	---
Actual Findings	---	---	290.20	---	---	---	---	---	---

SPARK & SPECTRAL :

HEAT TREATMENT CYCLE :
SOAKING TIME :

PEN 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/FQC-15c

(K)

Authorized Inspector's Stamp

AD-Merblatt-W-3/1

Registration No.04202W130320013 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 Gengenseichnung verzichtet".

BASHKO**3.1E 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:	2 Nos.
P.O.No.	5510050/09.01.2004	DIE No.:	1,2,3

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-5 of DIN EN 1561:1997								
Actual Findings	3.370	1.870	0.660	0.052	0.075	---	---	---	---

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	<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. 0.2%	N/MM2 1.86%	UTS N/MM2	% R.A.	% ELONG	IMPACT (J)			
						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.

(K)

Name : *J. Kumar*
M S Koré
Works Authorized Inspector
BEPL/F/QC-15c

Authorized Inspector's Stamp

CRANE

Process Flow Technologies
A Crane Co. Company



14 309 1

Abnahmeprüfzeugnis / Inspection certificate

EN 10204

Typ Type	Zertifikat-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.	Gebösse/ 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 <input 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 8l - und fettfrei gereinigt (Valve in acc. to VBG63 - 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	BY n. BA	BW	BO				

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, HRB 24702, Geschäftsführer: Joachim Lukoschek, Hans D. Plak

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

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 3 0 9 1

BELGAUM - 590 008

Phone : 440164, 441530

CLIENTE KUNDE CUSTOMER : CRANE PROCESS FLOW TECHNOLOGIES CLIENT		RECIBIDO 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			
DESINACION GEGENSTAD DESIGNATION DESIGNATION		DN 80 W/L WAFER BODY (DRAWING NO. 7010327 A)			
ANALYSIS QUIMICO / CHEMISCHE ANALYSE / CHEMICAL ANALYSE / ANALYSE CHIMIQUE					
COLADAN NO. SCHMELZE NO. HEAT NO. G.24 COULEE NO.		C	SI	Mn	P
		1.50	2.170	0.200	0.042
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 / MECHANICAL TEST / ESSAIS MECANICOES					
TRACCION / ZUGFESTIGKEIT / TENSILE / TRACTION				RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH / RESILIENCE	
PROBETA N PROBE Nr. TEST NO. EPRGUY Nr.	Temperatura de Ensayo prol temperature Test temperature T de ensayo	Limite Elastico Dehngrenze Yield Strength Limite Elastique	Caracteristic Zugfestigkeit Tensile Strength Caracteristique Resistance a la traction	Temperatura de Ensayo Prol temperature T de ensayo	Energia Absorbida Schlagarbeit Energy of Impact Energie Absorbée
HEAT NO. G.24	oC	0.2% N/mm ²	N/mm ²	J	HB 10/3000
		339.50	523.70	17.40	170, 170
TRATAMIENTO TERMICO WARMEBEHANDLUNG HEAT TREATMENT TRATTEMENT 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.				FECHA / DATUM / DATE / DATE DIRECTOR CALIDAD / Q.C. MANAGER	

14 3 0 9 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 Y ESPECIFICACIONES KONTROLL NORM/SPEZIFIKATIONEN TECHNICAL REQUIREMENT/DENAND NORMES DE CONTROL ET SPECIFICATIONS	EN 1563 DIN 50125
---	--	----------------------

DESINACION GEGENSTAND DESIGNATION : DH 80 W/L WAFER BODY DESIGNATION	(DRAWING NO. : 7010527 A)
---	---------------------------

ANALISIS QUIMICO / CHEMISCHE ANALYSE / CHEMICAL ANALYSE / ANALYSE CHIMIQUE						
COLADA NO. SCHWELZE NO. HEAT NO. : 1.11 COULEE NO.	C	Si	Mn	P	S	As
	3.430	2.560	0.210	0.038	0.012	0.043

CODIGO IDENTIFICACION COLADA SCHWELZE IDENTIFIKATIONS-KOD HEAT IDENTIFICATION CODE : 1.11 CODE IDENTIFICATION COULEE	QUANTIDAD MENGE QUANTITY : 100 Nos QUANTITE	Inv No. : 3237 Dt: 09/20/2003
---	--	----------------------------------

ENSAYOS MECANICOS / MECHANISCHE PRUFUNGEN / MECHANICAL TEST / ESSAIS MECANICOES							
TRACCION / ZUGFESTIGKEIT / TENSILE / TRACTION					RESILIENCIA KERBSCHLAGARBEIT IMPACT STRENGTH / RESILIENCE		DUREZA / HARTE HARDNESS / CURETE
PROBETA N PROBE Nr. TEST NO. EPRGUV Nr.	Temperatura de Ensayo pruf temperature T deessais	Limite elastico Dehngränze Yield strength Limite Elastique	Capacidad rotura Zugfestigkeit Tensile strength Fließelast. Traction	Alargamiento Bruchdehnung Elongation Allongement	Temperatura de Ensayo pruf temperature T deessais	Energia Absorbida Schlagarbeit Energy of Impact Energie Absorbée	
HFAT NO.	eC	0.2% N/mm ²	N/mm ²	%	J		
1.11		329.50	523.70	18.40			HB 102000 HB 20187.5

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

CRANEProcess Flow Technologies
A Crane Co. CompanyAbnahmeprüfzeugnis / 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	272023531100		
Crane-Kom-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]	ΔP PW [bar]	Serien-Nr. Serial No.	Chargen - Nr. Cast - No.	Gehäuse/ Body 1.1B 2.2	Scheibe/ 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 n. BA	BW	BO

Sonstige Prüfungen:
Other Test's:

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

146214

- ☐ 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)

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 (02 11) 59 56-0, Telefax (02 11) 59 56-111, www.craneflow.de
Amtsgericht Düsseldorf, HR B 24702, Geschäftsführer: Joachim Lukoschek, Hans D. Pak

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

8338

A. K. P. FOUNDRIES PVT LTD.,

R.E.No. 699, Udyambag,
BELGUM - 590 008.
Phone: 410164, 441530

INSPECTION CERTIFICATE ACC: TO 5.18 OF EN 10204

CUSTOMER: CRANE PROCESS FLOW TECHNOLOGIES

ORDER NO. 5113604
DT: 22/04/2002

CERTIFICATE NO.
YZST - 06/02/2003

MATERIAL: SS 69510

TECHNICAL REQUIREMENTS/DEMAND EN 1563

DESIGNATION: DN200 WAFERBODY 7010SSS Z

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

CHEMICAL ANALYSIS X

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 HBN	
TEST NO.	Test temperature	Yield Strength	Tensile Strength	Elongation	Test Temperature	Energy off	HB	H8
					T decials	Impact	10/3000	12.5/187.5
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
(INDIA) LTD.
Design & Development Dept.
Version: 01
Sign: <i>[Signature]</i>
Date: 18/2

146214