



Material & Test Certificates Valves

Client : Lurgi AG
Lurgi-Order-No. : 4569241-003 ZAGROS II
Siekmann-Order-No.: 8038747

CERTIFICATE-NO.: 80-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
80	S 306	8	2	

Date 17.08.05
Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
Germany

Tel.: 0049 - 231 937 50
Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

INSPECTION CERTIFICATE according to		CERTIFICATE																																																																																																					
☒ UNI EN 10204 - 3.1 B ☐ TEST PROCEDURE & SPECIFICATION ☒ API 598 ☒ ANSI/ASME B 16.34 ☐ ☒ MSS SP-61 ☒ BS 6755 ☐ ☐ DIN 3230 T.3 ☒ EN 12266-1 ☐		N° C 050012-010/01 CUSTOMER STIEKMANN ECONOSTO GMBH & CO. KG FREIGRAFENWEG 2 D-44357 DORTMUND 0 01 JUNI 2005																																																																																																					
HEAD OFFICE AND PLANT Via G. Mazzini, 8 24080 S. Paolo D'Argon (BG) - ITALY Tel +39 035 4255211 - Fax +39 035 959210 Internet: www.mf.it - E-mail: info@mf.it FORGED STEEL VALVES Cod. Fisc. e P.IVA 03076750169 - Cap. Soc. € 8.000.000,00 I.V. Registro Imprese BG 03076750169 - R.E.A. 347477 VAT Registration Number: IT 03076750169 Segue affidato e decore il costruttore in sede della società ALBES s.p.a. (Reg. BG 03076750169)		CHEMICAL ANALYSIS <table border="1"> <tr> <th>C</th> <th>Mn</th> <th>Si</th> <th>S</th> <th>P</th> <th>Cr</th> <th>Mo</th> <th>Ni</th> <th>Ti</th> <th>Cu</th> <th>Fe</th> </tr> <tr> <td>Al</td> <td>Co</td> <td>N</td> <td>V</td> <td>Nb</td> <td>Sn</td> <td>CE</td> <td>Nb+Ta</td> <td></td> <td></td> <td></td> </tr> </table>		C	Mn	Si	S	P	Cr	Mo	Ni	Ti	Cu	Fe	Al	Co	N	V	Nb	Sn	CE	Nb+Ta																																																																																	
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COMPONENT PART NAME HEAT NR BOWNET B-DIM X BOLTS AR6511 A479 Tp410 473307 A479 Tp410 417024 A479 Tp410 445022 A105N B-DHXY X 1712666		MECHANICAL PROPERTIES, IMPACT TESTS <table border="1"> <tr> <th rowspan="2">TENSILE YIELD STRENGTH</th> <th colspan="2">ELONGATION RED. OF AREA 1 JOULE</th> <th colspan="2">3 JOULE</th> <th rowspan="2">TEST TEMP. HARTNESS</th> </tr> <tr> <th>0.250</th> <th>0.007</th> <th>0.008</th> <th>0.002</th> </tr> <tr> <td>0.190</td> <td>0.900</td> <td>0.007</td> <td>0.008</td> <td>0.002</td> <td>0.003</td> </tr> <tr> <td>0.028</td> <td></td> <td>0.001</td> <td>0.002</td> <td>0.002</td> <td>0.390</td> </tr> <tr> <td>517.00</td> <td>318.00</td> <td>33.00</td> <td>61.38</td> <td></td> <td>161.00</td> </tr> <tr> <td>0.405</td> <td>0.750</td> <td>0.220</td> <td>0.003</td> <td>0.009</td> <td>0.190</td> </tr> <tr> <td>688.00</td> <td>905.00</td> <td>21.00</td> <td>59.80</td> <td></td> <td>279.00</td> </tr> <tr> <td>0.110</td> <td>0.590</td> <td>0.430</td> <td>0.028</td> <td>0.021</td> <td>12.240</td> </tr> <tr> <td>0.004</td> <td></td> <td>0.033</td> <td></td> <td></td> <td>0.400</td> </tr> <tr> <td>728.00</td> <td>685.00</td> <td>20.40</td> <td>84.83</td> <td></td> <td>220.00</td> </tr> <tr> <td>0.108</td> <td>0.440</td> <td>0.330</td> <td>0.024</td> <td>0.019</td> <td>12.140</td> </tr> <tr> <td>687.00</td> <td>511.00</td> <td>27.00</td> <td>76.00</td> <td></td> <td>204.00</td> </tr> <tr> <td>0.108</td> <td>0.480</td> <td>0.420</td> <td>0.023</td> <td>0.018</td> <td>12.080</td> </tr> <tr> <td>709.00</td> <td>572.00</td> <td>23.00</td> <td>72.00</td> <td></td> <td>216.00</td> </tr> <tr> <td>0.190</td> <td>0.980</td> <td>0.240</td> <td>0.012</td> <td>0.009</td> <td>0.060</td> </tr> <tr> <td>0.033</td> <td></td> <td>0.001</td> <td>0.001</td> <td>0.008</td> <td>0.390</td> </tr> <tr> <td>508.00</td> <td>208.00</td> <td>28.80</td> <td>83.62</td> <td></td> <td>151.00</td> </tr> </table>		TENSILE YIELD STRENGTH	ELONGATION RED. OF AREA 1 JOULE		3 JOULE		TEST TEMP. HARTNESS	0.250	0.007	0.008	0.002	0.190	0.900	0.007	0.008	0.002	0.003	0.028		0.001	0.002	0.002	0.390	517.00	318.00	33.00	61.38		161.00	0.405	0.750	0.220	0.003	0.009	0.190	688.00	905.00	21.00	59.80		279.00	0.110	0.590	0.430	0.028	0.021	12.240	0.004		0.033			0.400	728.00	685.00	20.40	84.83		220.00	0.108	0.440	0.330	0.024	0.019	12.140	687.00	511.00	27.00	76.00		204.00	0.108	0.480	0.420	0.023	0.018	12.080	709.00	572.00	23.00	72.00		216.00	0.190	0.980	0.240	0.012	0.009	0.060	0.033		0.001	0.001	0.008	0.390	508.00	208.00	28.80	83.62		151.00
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DESCRIPTION GATE VALVE OS&Y BB FB 1" A105N/F6" 800 LBS SW B 105 R.1 IT TAG : AKSR64800TE001 Serial Number:		TEST PRESSURES ☒ BAR ☐ PSI <table border="1"> <tr> <th>TEST</th> <th>HYDROSTATIC</th> <th>PNEUMATIC</th> <th>SEAT</th> <th>BACKSEAT</th> </tr> <tr> <td>210</td> <td>165</td> <td>6</td> <td></td> <td></td> </tr> </table>		TEST	HYDROSTATIC	PNEUMATIC	SEAT	BACKSEAT	210	165	6																																																																																												
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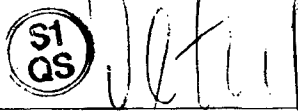
Material & Test Certificates Valves

Client : Lurgi AG
Lurgi-Order-No. : 4569241-003 ZAGROS II
Siekmann-Order-No.: 8038747

CERTIFICATE-NO.: 90-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
90	S 362	4	2-5	

Date 17.08.05
Siekmann Econosto GmbH & Co. KG


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VALVE TEST CERTIFICATE AND MILL TEST REPORT

DIN 50049/3.1.B-BS EN 10204

 SIEKMANN econosto ROYAL ECONOSTO GROUP	CERTIFICATE NO. PC922-110
	ORDER NO. P/03510/SD
	CUSTOMER

CODE	2WG60CST5NE	DESCRIPTION: 2" 600LB GATE VALVE, WCB BODY, API TRIM NO.5, RF ENDS
QTY	4 PCS	

APPLICABLE STANDARD: BASIC DESIGN: API600 FACE TO FACE DIMENSION: ASME/ANSI B16.10 END FLANGE DIMENSION: ASME/ANSI B16.50	TEST CARRIED OUT ON 100% ACCORDING TO API 598				OTHER INSPECTION		
	RATING	600LB	PRES.(MPa)	TIME(S)	RSLT.	Visual	MSS-SP55
	HYD. SHELL TEST		15.4	15	OK	DIM.	OK
	HYD. SEAT/BACKSEAT TEST		11.4	15		OPER.	
	AIR SEAT TEST		0.6	15			

WE HEREBY CERTIFY THAT THE VALVES
AND PARTS THEREOF SUPPLIED
AGAINST THE ABOVE ORDER COMPLY IN
ALL RESPECTS WITH THE MATERIAL
SPECIFICATION AND CONDITION SHOWN
AND THE TESTS HAVE BEEN CARRIED
OUT AND WITNESSED

TRACEABILITY SHEET			
SERIAL NO.	BODY HEAT NO.	BONNET/COVER HEAT NO.	WEDGE/DISC HEAT NO.
	WCB	WCB	WCB
C922-110-1	0E449	0E798	C5078
C922-110-2	0E581	0E973	C5078
C922-110-4	0E449	0E526	C5242
C922-110-5	0E581	0E367	C5242

MILL TEST REPORT

MILL TEST REPORT

PART NAME	MATERIAL	HEAT NUMBER	CHEMICAL ANALYSIS (%)												MECHANICAL PROPERTIES						REMARK
			C	Mn	Si	S	P	Cr	Ni	Mo	W	Cu	V	B	C.E.	MPa		% R		HB	
																TS	YS	E	R		
																		1	2	3	
BODY	WCB	0E449	0.19	0.850	0.440	0.018	0.035	0.027	0.025	0.013		0.071	0.002		0.35	538	359	27	55	141	
BODY	WCB	0E581	0.21	0.880	0.470	0.029	0.030	0.016	0.011	0.005		0.028	0.003		0.36	549	359	27	59	143	
BONNET	WCB	0E798	0.21	0.840	0.400	0.016	0.033	0.014	0.063	0.005		0.025	0.001		0.36	528	336	28	58	145	
BONNET	WCB	0E973	0.23	0.930	0.440	0.022	0.031	0.028	0.005	0.005		0.012	0.001		0.39	531	345	30	56	146	
BONNET	WCB	0E526	0.21	0.870	0.580	0.024	0.032	0.037	0.039	0.010		0.066	0.003		0.37	537	342	30	59	144	
BONNET	WCB	0E367	0.21	0.830	0.420	0.020	0.027	0.024	0.025	0.005		0.039	0.002		0.36	537	359	28	57	141	
DISC	WCB	C5078	0.23	0.870	0.450	0.020	0.018	0.130	0.070	0.003		0.060	0.002		0.41	523	326	31	41	150	
DISC	WCB	C5242	0.21	0.820	0.520	0.018	0.020	0.130	0.070	0.001		0.070	0.002		0.38	528	325	28	40	147	

DATE: 2005-05-24

PPC922-110

PAGE: 2

VALVE TEST CERTIFICATE AND MILL TEST REPORT

DIN 50049/3.1.B-BS EN 10204

 SIEKMANN econosto ROYAL ECONOSTO GROUP	CERTIFICATE NO. PC922-110B
	ORDER NO. P/03510/SD
	CUSTOMER

CODE	2WG60CST5NE	DESCRIPTION: 2" 600LB GATE VALVE, WCB BODY, API TRIM NO.5, RF ENDS
QTY	1 PCS	

APPLICABLE STANDARD: BASIC DESIGN: API600 FACE TO FACE DIMENSION: ASME/ANSI B16.10 END FLANGE DIMENSION: ASME/ANSI B16.5	TEST CARRIED OUT ON 100% ACCORDING TO API 598				OTHER INSPECTION		
	RATING	600LB	PRES.(MPa)	TIME(S)	RSLT.	Visual	MSS-SP55
	HYD. SHELL TEST		15.4	15	OK	DIM.	OK
	HYD. SEAT/BACKSEAT TEST		11.4	15		OPER	
	AIR SEAT TEST		0.6	15			

WE HEREBY CERTIFY THAT THE VALVES
AND PARTS THEREOF SUPPLIED
AGAINST THE ABOVE ORDER COMPLY IN
ALL RESPECTS WITH THE MATERIAL
SPECIFICATION AND CONDITION SHOWN
AND THE TESTS HAVE BEEN CARRIED
OUT AND WITNESSED

TRACEABILITY SHEET			
SERIAL NO.	BODY HEAT NO.	BONNET/COVER HEAT NO.	WEDGE/DISC HEAT NO.
	WCB	WCB	WCB
C922-110-5	0E581	0E257	C5242

DATE: 2005-08-09

PPC922-110B

PAGE: 1

MILL TEST REPORT

PART NAME	MATERIAL	HEAT NUMBER	CHEMICAL ANALYSIS (%)													MECHANICAL PROPERTIES						REMARK
			C	Mn	Si	S	P	Cr	Ni	Mo	W	Cu	V	B	C.E.	MPa			% R		HB	
																TS	YS	E	R			
																				1		
BODY	WCB	0E581	0.21	0.880	0.470	0.029	0.030	0.016	0.011	0.005		0.028	0.003		0.36	549	359	27	59	143		
BONNET	WCB	0E257	0.20	0.880	0.430	0.015	0.030	0.025	0.021	0.005		0.031	0.001		0.36	537	337	26	56	143		
DISC	WCB	C5242	0.21	0.820	0.520	0.018	0.020	0.130	0.070	0.001		0.070	0.002		0.38	528	325	28	40	147		

DATE: 2005-08-09

PPC922-1108

PAGE: 2



Material & Test Certificates Valves

Client : Lurgi AG
Lurgi-Order-No. : 4569241-003 ZAGROS II
Siekmann-Order-No.: 8038747

CERTIFICATE-NO.: 100-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
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Date 16.08.05
Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
Germany

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Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

10. AUG. 2005



Fromme Armaturen GmbH & Co. KG · Hauptstraße 12 · D-38275 Haverlah

Siekmann Econosto

11535

Postfach 15 04 40

44344 Dortmund

GmbH & Co. KG

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D-38275 Haverlah

Telefon (0 53 41) 33 84 11

Telefax (0 53 41) 33 84 13

Internet:

www.fromme-armaturen.de

E-Mail:

fromme-armaturen@t-online.de

Abnahmeprüfzeugnis Inspection Certificate 3.1B nach DIN EN 10204

Auftrag-Nr./Order-No. 9009068OP/UMATHIAS

vom 29.07.05

FAV-No. 58915

803 8747

Lfd.Nr. Pos.No.	Pos. der Best. Item as Order	Stück pieces	Type Type	DN "	PN lbs
01	03	1	ASA-Schieber Fig.042 Mat. A216 WCB, BB, TRIM5	3	600

Prüfung von Armaturen nach API 598
Test of valves acc.to API 598

Item No. 00100

SPP No. 104 6757

Druckprobe/Pressure Test

Ident - No. 9362

Lfd.Nr. Pos.No.	Gehäuse Body/bar Wasser/water	Abschluß Seat/bar Wasser/water	Gehäuse Body/bar Luft/air	Abschluß Seat/bar Luft/air
01	153	105	/	/

Werkstoffprüfung/Material-Test

Lfd.Nr. Pos.No.	Serien Nr. Series No.	Gehäuse Body	Haube Bonnet	Bügel Yoke	Deckel Cover
01	S3-C01-007-15-04-99	N0700	KC0699		

Seite 1 von 2

Volksbank eG Bockenem-Seesen
Konto-Nr. 2001 831 200
BLZ 278937 60

IBAN: DE 72 2789 3760 2001 8312 00
BIC: GENO DE 31 SES

Sparkasse Goslar/Harz
Konto-Nr. 92 000 629
BLZ 268 500 01

IBAN: DES4 2685 0001 0092 000629
BIC: NOLA DE 21 GSL

Dresdner Bank AG Salzgitter
Konto-Nr. 650 208 800
BLZ 270 800 60

IBAN: DE39 2708 0060 0650 2088 00
BIC: DRES DE 33 270

Deutsche Bank AG Salzgitter
Konto-Nr. 0100 115
BLZ 270 727 36

IBAN: DE17 2707 2736 0010 0115 00
BIC: DEUT DE 33 276

Sitz der Gesellschaft ist Haverlah, Handelsregister Braunschweig HRA 11274. Persönlich haftende Gesellschafterin ist die Fromme Verwaltungs- und Beteiligungs GmbH, Handelsregister Braunschweig HRB 6126. Geschäftsführer: Ilse-Marlene Fromme, Friedrich-Wilhelm Fromme



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GmbH & Co. KG
Hauptstraße 12
D-38275 Haverlah
Telefon (0 53 41) 33 84 11
Telefax (0 53 41) 33 84 13

Internet:
www.fromme-armaturen.de
E-Mail:
fromme-armaturen@t-online.de

Chemische Analyse/Chemicals Analysis in %

Chargen Nr.	C	Si	Mn	S	P	Cr	Mo	Ni	Cu	Nb
N0700	0,21	0,46	0,90	0,025	0,018					
KC0699	0,23	0,49	0,80	0,024	0,021					

Festigkeitswerte/Mechanical Properties

Chargen Nr.	Zugfestigkeit Tensile Strength N/mm ²	Streckgrenze Yield Point N/mm ²	Dehnung Elongation %	Einschnürung Contract %	Kerbschlagarbeit Impact Strength J		
N0700	505	290	30		28	30	29
KC0699	520	275	29		32	35	34

Anforderung nach AD-Merkblatt W5, Gütestufe S3/V3
Wärmebehandlung 940°C 1Std. Abkühlung an Luft

Bemerkungen/Remarks: ohne Beanstandung/without objection

09.08.2005 F/m

Fromme Armaturen
GmbH & Co. KG

Seite 2 von 2

Volksbank eG Bockenem-Seesen
Konto-Nr. 2001 831 200
BLZ 278 937 60
IBAN: DE 72 2789 3760 2001 8312 00
BIC: GENO DE F1 SES

Sparkasse Goslar/Harz
Konto-Nr. 92 000 629
BLZ 268 500 01
IBAN: DE54 2685 0001 0092 000629
BIC: NOLA DE 21 GSL

Dresdner Bank AG Salzgitter
Konto-Nr. 650 208 800
BLZ 270 800 60
IBAN: DE39 2708 0060 0650 2088 00
BIC: DRES DE FF 270

Deutsche Bank AG Salzgitter
Konto-Nr. 0100 115
BLZ 270 727 36
IBAN: DE17 2707 2736 0010 0115 00
BIC: DEUT DE 2H 276

Sitz der Gesellschaft ist Haverlah, Handelsregister Braunschweig HRA 11274. Persönlich haftende Gesellschafterin ist die Fromme Verwaltungs- und Beteiligungs GmbH, Handelsregister Braunschweig HRB 6128. Geschäftsführer: Ilse-Marlen Fromme, Friedrich-Wilhelm Fromme