



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 10-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
10	S550	2		

Date 31.03.2005
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
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 HEAD OFFICE AND PLANT Via G. Mazzini, 6 24060 S. Paolo D'Argon (BG) - ITALY Tel +39.035.4255211 - Fax +39.035.959210 Internet: www.lvf.it - E-mail: info@lvf.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 Soggetta all'attività di direzione e coordinamento da parte della società ALLUBEL srl Reg. Imp. BG n° 02805280169		SECTION CERTIFICATE according to ☒ UNI EN 10204 - 3.1 B ☒ UNI EN 10204-3.1 A TEST PROCEDURE & SPECIFICATION ☒ API 598 ☒ ANSI/ASME B 16.34 ☒ MSS SP.61 ☒ BS 6755 ☐ DIN 3230 T.3 ☐ EN 12286-1		SECTION CERTIFICATE according to N° C 045913-001/01 CUSTOMER SEKMANN ECONOSTO GMBH & CO. KG FREIGRAFENWEG 2 D-44357 DORTMUND () 23. MRZ. 2005		Page No. 001 / 001																																																																																																																																																																																																		
COMPONENT PART NAME HEAT CODE BONNET B-CSI BOLTS STEM WEDGE SEAT BODY IZO		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>OE</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	OE	Nb-Ta				MECHANICAL PROPERTIES. IMPACT TESTS <table border="1"> <tr> <th>TENSILE</th> <th>YIELD</th> <th>ELONGATION</th> <th>RED. OF AREA</th> <th>1 JOULE</th> <th>2 JOULE</th> <th>3 JOULE</th> <th>TEST TEMP</th> <th>HARDNESS</th> </tr> <tr> <th>N/mm²</th> <th>N/mm²</th> <th>%</th> <th>%</th> <th></th> <th></th> <th></th> <th>°C</th> <th>HB</th> </tr> <tr> <td>0,039</td> <td>0,160</td> <td>0,190</td> <td>0,001</td> <td>0,008</td> <td>20,800</td> <td>8,610</td> <td>65,960</td> <td>0,150</td> </tr> <tr> <td>0,160</td> <td>0,030</td> <td></td> <td></td> <td>3,550</td> <td></td> <td></td> <td>3,560</td> <td></td> </tr> <tr> <td>945,00</td> <td>548,00</td> <td>41,50</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>295,00</td> </tr> <tr> <td>0,013</td> <td>1,530</td> <td>0,410</td> <td>0,001</td> <td>0,027</td> <td>16,510</td> <td>2,050</td> <td>11,050</td> <td></td> </tr> <tr> <td>730,00</td> <td>561,00</td> <td>42,50</td> <td>57,00</td> <td></td> <td></td> <td></td> <td></td> <td>230,00</td> </tr> <tr> <td>0,035</td> <td>0,150</td> <td>0,170</td> <td>0,001</td> <td>0,006</td> <td>20,330</td> <td>8,630</td> <td>66,090</td> <td>0,150</td> </tr> <tr> <td>0,210</td> <td>0,010</td> <td></td> <td></td> <td>3,700</td> <td></td> <td></td> <td>3,710</td> <td></td> </tr> <tr> <td>910,00</td> <td>558,00</td> <td>52,00</td> <td>60,00</td> <td></td> <td></td> <td></td> <td></td> <td>271,00</td> </tr> <tr> <td>0,038</td> <td>0,150</td> <td>0,180</td> <td>0,001</td> <td>0,008</td> <td>20,850</td> <td>8,610</td> <td>65,760</td> <td>0,190</td> </tr> <tr> <td>0,190</td> <td></td> <td></td> <td></td> <td>3,620</td> <td></td> <td></td> <td>3,630</td> <td></td> </tr> <tr> <td>925,00</td> <td>538,00</td> <td>52,00</td> <td>58,00</td> <td></td> <td></td> <td></td> <td></td> <td>286,00</td> </tr> <tr> <td>0,036</td> <td>0,150</td> <td>0,220</td> <td>0,001</td> <td>0,008</td> <td>20,830</td> <td>8,670</td> <td>65,480</td> <td>0,130</td> </tr> <tr> <td>0,190</td> <td>0,010</td> <td></td> <td></td> <td>3,630</td> <td></td> <td></td> <td>3,640</td> <td></td> </tr> <tr> <td>928,00</td> <td>532,00</td> <td>54,00</td> <td>58,00</td> <td></td> <td></td> <td></td> <td></td> <td>285,00</td> </tr> <tr> <td>0,043</td> <td>0,150</td> <td>0,270</td> <td>0,001</td> <td>0,009</td> <td>20,660</td> <td>8,390</td> <td>66,280</td> <td>0,140</td> </tr> <tr> <td>0,140</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3,660</td> <td></td> </tr> <tr> <td>840,00</td> <td>423,00</td> <td>43,20</td> <td>44,00</td> <td></td> <td></td> <td></td> <td></td> <td>245,00</td> </tr> </table>		TENSILE	YIELD	ELONGATION	RED. OF AREA	1 JOULE	2 JOULE	3 JOULE	TEST TEMP	HARDNESS	N/mm ²	N/mm ²	%	%				°C	HB	0,039	0,160	0,190	0,001	0,008	20,800	8,610	65,960	0,150	0,160	0,030			3,550			3,560		945,00	548,00	41,50						295,00	0,013	1,530	0,410	0,001	0,027	16,510	2,050	11,050		730,00	561,00	42,50	57,00					230,00	0,035	0,150	0,170	0,001	0,006	20,330	8,630	66,090	0,150	0,210	0,010			3,700			3,710		910,00	558,00	52,00	60,00					271,00	0,038	0,150	0,180	0,001	0,008	20,850	8,610	65,760	0,190	0,190				3,620			3,630		925,00	538,00	52,00	58,00					286,00	0,036	0,150	0,220	0,001	0,008	20,830	8,670	65,480	0,130	0,190	0,010			3,630			3,640		928,00	532,00	54,00	58,00					285,00	0,043	0,150	0,270	0,001	0,009	20,660	8,390	66,280	0,140	0,140							3,660		840,00	423,00	43,20	44,00					245,00	MILL # 019200 020856 021202 021014 021036 018993	
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DESCRIPTION GATE VALVE OS#Y BB FB 3/4" INC.625/INC.625 800 LBS SW B 104 R.1 /T TAG : S 550 - 00010 Serial Number:		TEST PRESSURES ☒ BAR ☐ PSI HYDROSTATIC PNEUM. BODY & SEAT BACKSEAT SEAT 210 155 6 TEST RESULT TEST HYDROSTATIC AND PNEUMATIC ☒ CONFORM ☐ NOT CONFORM VISUAL AND DIMENSIONAL TEST ☒ CONFORM ☐ NOT CONFORM		NOTES THE VALVES HAVE BEEN CLEANED AND DEGREASED DEGREE OF PURITY ACC. TO LVF S.p.A. PROCEDURE CQ.19 REV.2 REF. LURGI : 4567580-0001.69690																																																																																																																																																																																																				
OUR JOB N° 045913 YOUR P.O. N° 803 4493 90045500P/IZAGROS II -LURGI- ITEM: 1		POSITION 001 Q.TY 2		THIRD AUTHORITY CLIENT INSPECTION DEPT INSPECTION DEPT. DATE 09/03/2005																																																																																																																																																																																																				
We declare that this product has been manufactured in accordance with the 'Sound Engineering Practice' as per European Directive 97/23/EC - PED Article 3.3.		TUV SÜD ANSIRAB QMS ACCREDITED API Q1 REGISTERED FIRM ISO 9001 ISO REG. N° 0357 API 6A 0425 API 6D 0281 API 605 0003		L.V.F. S.p.A. Quality Control Dept. DATE 09/03/2005																																																																																																																																																																																																				



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Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

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

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 HEAD OFFICE AND PLANT Via G. Mazzini, 6 24060 S. Paolo D'Argon (BG) - ITALY Tel +39.035.4255211 - Fax +39.035.959210 Internet: www.lvf.it - E-mail: info@lvf.it FORGED STEEL VALVES		SECTION CERTIFICATE according to ☒ UNI EN 10204 - 3.1 B ☐		C TIFICATE N° C 045913-002/01		Page No. 001 / 001																																																																																																																																																																																																													
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892.00	478.00	41.00	56.00				287.00																																																																																																																																																																																																												
DESCRIPTION GATE VALVE OS#Y BB FB 1" INC.625/INC.625 800 LBS SW B 105 R.1 IT		DECLARATION We declare that this product has been manufactured in accordance with the 'Sound Engineering Practice' as per European Directive 97/23/EC - PED Article 3.3.																																																																																																																																																																																																																	
TAG : S 650 - 00020 Serial Number:		TEST PRESSURES ☒ BAR ☐ PSI <table border="1"> <thead> <tr> <th>HYDROSTATIC</th> <th>PNEUM.</th> </tr> </thead> <tbody> <tr> <td>210</td> <td>155</td> </tr> <tr> <td>6</td> <td>6</td> </tr> </tbody> </table>						HYDROSTATIC	PNEUM.	210	155	6	6																																																																																																																																																																																																						
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Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 30-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
30	S675	9		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



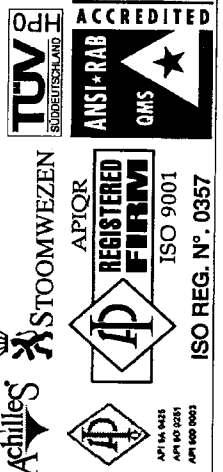
QM Meinold Oestreich

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

 HEAD OFFICE AND PLANT Via G. Mazzini, 6 24060 S. Paolo D'Argon (BG) - ITALY Tel +39.035.4255211 - Fax +39.035.959210 Internet: www.lvf.it - E-mail: info@lvf.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 Soggetta all'attività di direzione e coordinamento da parte della società ALLBEL srl Reg. Imp. BG n° 0206260169		SECTION CERTIFICATE according to ☒ UNI EN 10204 - 3.1 B ☐		C TIFICATE N° C 045913-003/01		Page No. 001 / 001					
TEST PROCEDURE & SPECIFICATION ☒ API 598 ☒ ANSI/ASME B 16.34 ☐ ☒ MSS SP.61 ☒ BS 6755 ☐ ☐ DIN 3230 T.3 ☒ EN 12286-1		CUSTOMER SEKMANN ECONOSTO GMBH & CO. KG FREIGRAFENWEG 2 D-44357 DORTMUND ()		23 MRZ 2005							
COMPONENT MATERIAL HEAT CODE HEAT NR		CHEMICAL ANALYSIS C Mn Si S P Cr Mo Ni Ti Cu Fe Al Co N V Nb Sn CE		MILL #							
BONNET B-CUO BOLTS STEM WEDGE SEAT BODY B-CZT		A182 F304 / F304L 67725 A193 B8 412998 A479 Tp. 304 / 304L 406307 A479 Tp. 304 / 304L 407068 A479 Tp. 304 / 304L 5DH51000 A182 F304 / F304L 359420		TENSILE YIELD N/mm ² 0.019 0.004 550,00 0.023 734,00 0.022 696,00 0.028 632,00 0.025 629,00 0.016 568,00		ELONGATION RED. OF AREA % 0.330 0.000 49,71 0.360 47,80 0.410 0.062 43,00 1,090 50,00 0.420 0.053 50,00 0.420 0.055 54,00 0.470 0.048 54,60		3 JOULE 19,690 0,005 0,010 18,200 18,130 18,150 9,080 193,00 9,040 190,00 10,710 170,00		020006 0.001 020068 021046 021048 021228 019892	
ITEM: 3 DESCRIPTION GATE VALVE OS#Y BB FB 3/4" F304/F304 1500 LBS SW 9B 104 R.1 IT TAG : S 675 - 00030 Serial Number:		TEST RESULT TEST HYDROSTATIC AND PNEUMATIC VISUAL AND DIMENSIONAL TEST TEST PRESSURES ☒ BAR ☐ PSI HYDROSTATIC BODY & BACKSEAT PNEUM. SEAT 375 275 6 TEST RESULT ☒ CONFORM ☐ NOT CONFORM ☒ CONFORM ☐ NOT CONFORM		NOTES REF. LURGI : 4567580-000/1.69690		We declare that this product has been manufactured in accordance with the 'Sound Engineering Practices' as per European Directive 97/23/EC - PED Article 3.3. EACH SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES					
OUR JOB N° 045913 YOUR P.O. N° 90045500P/ZAGROS II -LURGI-		POSITION 003 Q.TY 9		THIRD AUTHORITY CLIENT INSPECTION DEPT INSPECTION DEPT.		DATE 09/03/2005					





Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 40-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
40	S675	7		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



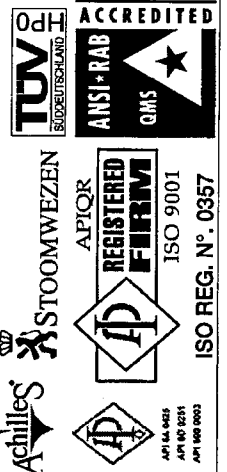
QM Meinold Oestreich

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 HEAD OFFICE AND PLANT Via G. Mazzini, 6 24060 S. Paolo D'Argon (BG) - ITALY Tel +39.035.4255211 - Fax +39.035.959210 Internet: www.lvf.it - E-mail: info@lvf.it FORGED STEEL VALVES		SECTION CERTIFICATE according to ☒ UNI EN 10204 - 3.1 B ☐		C IFICATE N° C 045913-0004/01 Page No. 001 / 001																																																																																																																																								
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COMPONENT PART NAME MATERIAL HEAT CODE HEAT NR BONNET A182 F304 / F304L B-CSD 356800 BOLTS A193 B8 C3541 2623 STEM A479 Tp. 304 / 304L 406307 WEDGE A479 Tp. 304 / 304L 801159 SEAT A479 Tp. 304 / 304L 435051 BODY A182 F304 / F304L B-CLF 217780		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> <th>MILL #</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> <td></td> </tr> </table>				C	Mn	Si	S	P	Cr	Mo	Ni	Ti	Cu	Fe	MILL #	Al	Co	N	V	Nb	Sn	CE	Nb+Ta																																																																																																																			
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OUR JOB N° 045913 POSITION 004 Q.TY 7 YOUR P.O. N° 90045500PZAGROS II -LURGI-		MECHANICAL PROPERTIES. IMPACT TESTS <table border="1"> <tr> <th>TENSILE</th> <th>Yield</th> <th>ELONGATION</th> <th>RED. OF AREA</th> <th>1 JOULE</th> <th>2 JOULE</th> <th>3 JOULE</th> <th>TEST TEMP</th> <th>HARDNESS</th> </tr> <tr> <th>N/mm²</th> <th>N/mm²</th> <th>%</th> <th>%</th> <th></th> <th></th> <th></th> <th>°C</th> <th>HRC</th> </tr> <tr> <td>0,026</td> <td>2,000</td> <td>0,240</td> <td>0,021</td> <td>0,028</td> <td>18,040</td> <td></td> <td>8,790</td> <td></td> </tr> <tr> <td>553,00</td> <td>253,00</td> <td>64,60</td> <td>76,96</td> <td></td> <td></td> <td></td> <td></td> <td>184,00</td> </tr> <tr> <td>0,023</td> <td>1,770</td> <td>0,410</td> <td>0,001</td> <td>0,024</td> <td>18,150</td> <td></td> <td>9,580</td> <td></td> </tr> <tr> <td>692,00</td> <td>431,00</td> <td>39,50</td> <td>67,00</td> <td></td> <td></td> <td></td> <td></td> <td>222,00</td> </tr> <tr> <td>0,022</td> <td>1,130</td> <td>0,410</td> <td>0,025</td> <td>0,027</td> <td>18,130</td> <td></td> <td>9,060</td> <td></td> </tr> <tr> <td>696,00</td> <td>474,00</td> <td>43,00</td> <td>73,00</td> <td></td> <td></td> <td></td> <td></td> <td>210,00</td> </tr> <tr> <td>0,027</td> <td>1,510</td> <td>0,330</td> <td>0,030</td> <td>0,028</td> <td>18,000</td> <td>0,000</td> <td>8,350</td> <td>0,000</td> </tr> <tr> <td>0,000</td> <td>0,110</td> <td>0,085</td> <td>0,000</td> <td></td> <td>0,000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>638,00</td> <td>345,00</td> <td>49,00</td> <td>73,00</td> <td></td> <td></td> <td></td> <td></td> <td>183,00</td> </tr> <tr> <td>0,021</td> <td>1,080</td> <td>0,410</td> <td>0,025</td> <td>0,027</td> <td>18,120</td> <td></td> <td>8,070</td> <td></td> </tr> <tr> <td>628,00</td> <td>306,00</td> <td>55,00</td> <td>75,00</td> <td></td> <td></td> <td></td> <td></td> <td>190,00</td> </tr> <tr> <td>0,016</td> <td>1,810</td> <td>0,310</td> <td>0,022</td> <td>0,025</td> <td>18,090</td> <td></td> <td>8,120</td> <td></td> </tr> <tr> <td>573,00</td> <td>281,00</td> <td>60,00</td> <td>71,72</td> <td></td> <td></td> <td></td> <td></td> <td>191,00</td> </tr> </table>				TENSILE	Yield	ELONGATION	RED. OF AREA	1 JOULE	2 JOULE	3 JOULE	TEST TEMP	HARDNESS	N/mm ²	N/mm ²	%	%				°C	HRC	0,026	2,000	0,240	0,021	0,028	18,040		8,790		553,00	253,00	64,60	76,96					184,00	0,023	1,770	0,410	0,001	0,024	18,150		9,580		692,00	431,00	39,50	67,00					222,00	0,022	1,130	0,410	0,025	0,027	18,130		9,060		696,00	474,00	43,00	73,00					210,00	0,027	1,510	0,330	0,030	0,028	18,000	0,000	8,350	0,000	0,000	0,110	0,085	0,000		0,000				638,00	345,00	49,00	73,00					183,00	0,021	1,080	0,410	0,025	0,027	18,120		8,070		628,00	306,00	55,00	75,00					190,00	0,016	1,810	0,310	0,022	0,025	18,090		8,120		573,00	281,00	60,00	71,72					191,00
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Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 50-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
50	S653	25		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG


QM Meinold Oestreich

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technical support please contact:

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COMPONENT PART NAME MATERIAL HEAT CODE HEAT NR BONNET A182 F321 B-ATX 231545 BOLTS A193 B8 412998 STEM A479 Tp 321 470090 WEDGE A479 Tp 321 243106 SEAT A479 Tp 321 270101 BODY A182 F321 B-DFC 409820		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> <th>MILL #</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> <td></td> </tr> </table>				C	Mn	Si	S	P	Cr	Mo	Ni	Ti	Cu	Fe	MILL #	Al	Co	N	V	Nb	Sn	CE	Nb+Ta																																																																																																																										
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MECHANICAL PROPERTIES. IMPACT TESTS <table border="1"> <tr> <th>TENSILE</th> <th>YIELD</th> <th>ELONGATION</th> <th>RED. OF AREA</th> <th>1 JOULE</th> <th>2 JOULE</th> <th>3 JOULE</th> <th>TEST TEMP</th> <th>HARDNESS</th> </tr> <tr> <th>N/mm²</th> <th>N/mm²</th> <th>%</th> <th>%</th> <th></th> <th></th> <th></th> <th>°C</th> <th>HRC</th> </tr> <tr> <td>0,051</td> <td>1,560</td> <td>0,730</td> <td>0,023</td> <td>0,026</td> <td>17,370</td> <td></td> <td>9,110</td> <td>0,370</td> </tr> <tr> <td>601,00</td> <td>217,00</td> <td>56,00</td> <td>70,01</td> <td>250</td> <td>253</td> <td>251</td> <td>20,00</td> <td>195,00</td> </tr> <tr> <td>0,023</td> <td>1,780</td> <td>0,360</td> <td>0,002</td> <td>0,024</td> <td>18,200</td> <td></td> <td>9,670</td> <td></td> </tr> <tr> <td>734,00</td> <td>597,00</td> <td>47,80</td> <td>67,00</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0,020</td> <td>1,790</td> <td>0,410</td> <td>0,030</td> <td>0,025</td> <td>17,340</td> <td></td> <td>9,000</td> <td>0,220</td> </tr> <tr> <td>535,00</td> <td>293,00</td> <td>52,20</td> <td>69,80</td> <td></td> <td></td> <td></td> <td></td> <td>159,00</td> </tr> <tr> <td>0,013</td> <td>1,400</td> <td>0,520</td> <td>0,002</td> <td>0,021</td> <td>17,240</td> <td>0,220</td> <td>10,130</td> <td>0,130</td> </tr> <tr> <td>0,100</td> <td>0,010</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>582,00</td> <td>277,00</td> <td>54,00</td> <td>75,00</td> <td></td> <td></td> <td></td> <td></td> <td>172,00</td> </tr> <tr> <td>0,019</td> <td>1,820</td> <td>0,380</td> <td>0,024</td> <td>0,030</td> <td>17,400</td> <td>0,370</td> <td>9,150</td> <td>0,240</td> </tr> <tr> <td>0,100</td> <td>0,016</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>567,00</td> <td>261,00</td> <td>60,00</td> <td>72,90</td> <td>260</td> <td>265</td> <td>263</td> <td>20,00</td> <td>173,00</td> </tr> <tr> <td>0,045</td> <td>1,640</td> <td>0,440</td> <td>0,023</td> <td>0,030</td> <td>17,140</td> <td></td> <td>9,840</td> <td>0,410</td> </tr> <tr> <td>541,00</td> <td>267,00</td> <td>60,20</td> <td>66,36</td> <td></td> <td></td> <td></td> <td></td> <td>180,00</td> </tr> </table>		TENSILE	YIELD	ELONGATION	RED. OF AREA	1 JOULE	2 JOULE	3 JOULE	TEST TEMP	HARDNESS	N/mm ²	N/mm ²	%	%				°C	HRC	0,051	1,560	0,730	0,023	0,026	17,370		9,110	0,370	601,00	217,00	56,00	70,01	250	253	251	20,00	195,00	0,023	1,780	0,360	0,002	0,024	18,200		9,670		734,00	597,00	47,80	67,00						0,020	1,790	0,410	0,030	0,025	17,340		9,000	0,220	535,00	293,00	52,20	69,80					159,00	0,013	1,400	0,520	0,002	0,021	17,240	0,220	10,130	0,130	0,100	0,010								582,00	277,00	54,00	75,00					172,00	0,019	1,820	0,380	0,024	0,030	17,400	0,370	9,150	0,240	0,100	0,016								567,00	261,00	60,00	72,90	260	265	263	20,00	173,00	0,045	1,640	0,440	0,023	0,030	17,140		9,840	0,410	541,00	267,00	60,20	66,36					180,00	014596 020068 021661 018610 018688 020967	
TENSILE	YIELD	ELONGATION	RED. OF AREA	1 JOULE	2 JOULE	3 JOULE	TEST TEMP	HARDNESS																																																																																																																																											
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DESCRIPTION GATE VALVE OS#Y BB FB FL 1" F321/F321 600 LBS RFS 6B 105 SM.F. TAG : S 653 - 00060 Serial Number:		TEST PRESSURES ☒ BAR ☐ PSI TEST RESULT HYDROSTATIC AND PNEUMATIC BODY & SEAT BACKSEAT 150 110 6 VISUAL AND DIMENSIONAL TEST ☒ CONFORM ☐ NOT CONFORM																																																																																																																																																	
NOTES REF. LURGI : 4567580-000/1.69690		We declare that this product has been manufactured in accordance with the 'Sound Engineering Practice' as per European Directive 97/23/EC - PED Article 3.3. - EACH SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED - THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES																																																																																																																																																	
OUR JOB N° 045913 POSITION 006 Q.TY 1 YOUR P.O. N° 90045500PZAGROS II -LURGI-		THIRD AUTHORITY DATE		CLIENT INSPECTION DEPT DATE																																																																																																																																															
REF. LURGI : 4567580-000/1.69690		INSPECTION DEPT. DATE 09/03/2005		LVP S.p.A. Quality Control Dept. DATE 09/03/2005																																																																																																																																															



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 70-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
70	S650	13		

Date 31.03.2005
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

AF **HEAD OFFICE AND PLANT**
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24060 S. Paolo D'Argon (BG) - ITALY
Tel +39.035.4255211 - Fax +39.035.959210
Internet: www.afv.it - E-mail: info@afv.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
Soggetta all'attività di direzione e coordinamento da parte della società ALLBEL srl Reg. Imp. BG n° 02005260169

OUR JOB N° **045913** POSITION **007** Q.TY **13**

YOUR P.O. N° **90045500P/ZAGROS II -LURGI-**

ITEM: 7

DESCRIPTION
GATE VALVE OS#Y BB FB
1/2" F321/F321 800 LBS SW
B 103 R.1 /T

TAG : S 650 - 00070

Serial Number :

TEST PRESSURES ☒ BAR ☐ PSI

HYDROSTATIC	TEST	RESULT
BODY & BACKSEAT	HYDROSTATIC AND PNEUMATIC	☒ CONFORM ☐ NOT CONFORM
200	VISUAL AND DIMENSIONAL TEST	☒ CONFORM ☐ NOT CONFORM
150		
6		

NOTES

REF. LURGI : 4567580-000/1.69690

SECTION CERTIFICATE according to

☒ UNI EN 10204 - 3.1 B ☐

C 045913-007/01

Page No. 001 / 001

TEST PROCEDURE & SPECIFICATION

☒ API 598 ☒ ANSI/ASME B 16.34 ☐
☒ MSS SP.61 ☒ BS 6755 ☐
☐ DIN 3230 T.3 ☒ EN 12286-1 ☐

CUSTOMER

SIEKMANN ECONOSTO GMBH & CO. KG

FREIGRAFENWEG 2

23 MRZ 2005

D-44357 DORTMUND ()

CHEMICAL ANALYSIS

C Mn Si S P Nb Cr Mo Ni Ti Cu Fe

Al Co N V Nb Sn CE

TENSILE N/mm² YIELD N/mm² ELONGATION RED. OF AREA % 3 JOULE

MECHANICAL PROPERTIES. IMPACT TESTS

HEAT CODE HEAT NR

BOWNET A182 F321

B-CUS 417930

BOLTS A193 B8

480108

STEM A479 Tp 321

825240

WEDGE A479 Tp 321

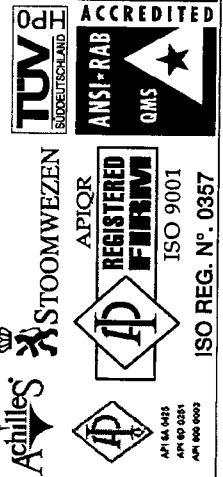
216274

SEAT A479 Tp 321

272874

BODY A182 F321

B-DHX 516560



We declare that this product has been manufactured in accordance with the Sound Engineering Practice as per European Directive 97/23/EC - PED Article 3.3.

- EACH SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED

- THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES

THIRD AUTHORITY CLIENT INSPECTION DEPT. INSPECTION DEPT.

DATE DATE

DATE 09/03/2005

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 80-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
80	S650	47		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



QM Meinold Gestreich

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
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AF
HEAD OFFICE AND PLANT
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 24060 S. Paolo D'Argon (BG) - ITALY
 Tel +39.035.4255211 - Fax +39.035.959210
 Internet: www.af.it - E-mail: info@af.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
 Soggetta all'attività di direzione e coordinamento da parte della società ALIBEL srl Reg.Imp. BG n° 0280560169

OUR JOB N° **045913** POSITION **008** Q.TY **47**

YOUR P.O. N° **90045500PIZAGROS II - LURGI-**

ITEM : **8**

DESCRIPTION
GATE VALVE OS#Y BB FB
1/2" F321/F321 1500 LBS SW
9B 103 R.1 IT

TAG : **S 650 - 00080**

Serial Number:

TEST PRESSURES		TEST RESULT	
☒ BAR	☐ PSI	TEST	☒ CONFORM
HYDROSTATIC BODY & BACKSEAT	PNEUM.	HYDROSTATIC AND PNEUMATIC	☐ NOT CONFORM
	SEAT	VISUAL AND DIMENSIONAL TEST	☒ CONFORM
375	275		☐ NOT CONFORM

NOTES

REF. LURGI : 4567580-000/1.69690

SECTION CERTIFICATE according to

☒ 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 ☐

CHEMICAL ANALYSIS

C	Al	Co	Mn	N	Si	S	V	Cr	Mo	Ni	Ti	Cu	Fe	MILL #

MECHANICAL PROPERTIES. IMPACT TESTS

HEAT CODE	HEAT NR	TENSILE N/mm ²	YIELD N/mm ²	ELONGATION RED. OF AREA %	1 JOULE	2 JOULE	3 JOULE	TEST TEMP. °C	HARDNESS HB	
BONNET	A182 F321	0,040	1,810	0,470	0,021	0,025	17,160	9,740	0,370	021416
B-DDV	516560	536,00	301,00	62,20	72,12					
BOLTS	A193 B8	0,023	1,780	0,360	0,002	0,024	18,200	9,670	179,00	020258
	412998	734,00	597,00	47,80	67,00					
STEM	A479 Tp 321	0,020	1,790	0,410	0,030	0,025	17,340	9,000	0,220	021661
	470090	535,00	293,00	52,20	69,80					
WEDGE	A479 Tp 321	0,040	1,580	0,590	0,017	0,024	17,700	9,050	0,320	018689
	872447		0,100	0,018						
SEAT	A479 Tp 321	572,00	248,00	60,00	72,00	240	242	20,00	169,00	021666
		0,042	1,110	0,550	0,001	0,027	17,000	9,500	0,460	
	272874	567,00	255,00	57,60	75,00					
BODY	A182 F321	0,040	1,740	0,400	0,023	0,028	17,100	9,700	0,330	020996
B-DEH	429270	536,00	242,00	55,80	66,36					
BONNET	A182 F321	0,042	1,630	0,047	0,017	0,029	17,100	9,810	0,410	021327
B-DBT	417930	538,00	336,00	56,80	63,03				179,00	

We declare that this product has been manufactured in accordance with the 'Sound Engineering Practices' as per European Directive 97/23/EC - PED Article 3.3.

- EACH SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED

- THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES

Achilles **STOOMWEZEN** **APIQ** **REGISTERED FIRM** **ISO 9001** **ISO REG. N° 0357**

TUV **ACCREDITED** **ANSI-RAB** **QMS**

AF **AF 160 0001** **AF 160 0002**

LVS S.p.A.
 Quality Control Dept
 DATE 09/03/2005

THIRD AUTHORITY
 CLIENT INSPECTION DEPT
 INSPECTION DEPT.

C TIFICATE
 N° **C 045913-008/01**

CUSTOMER
STIEKMANN ECONOSTO GMBH & CO. KG

FREIGRAFENWEG 2
D-44357 DORTMUND ()

23. MRZ 2005

Page No. 001 / 001



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 90-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
90	S650	43		

Date 31.03.2005
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

 HEAD OFFICE AND PLANT Via G. Mazzini, 6 24060 S. Paolo D'Argon (BG) - ITALY Tel +39.035.4255211 - Fax +39.035.958210 Internet: www.afv.it - E-mail: info@afv.it		SECTION CERTIFICATE according to ☒ UNI EN 10204 - 3.1 B ☐		C'IFICATE N° C 045913-009/01		Page No. 001 / 001	
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 Soggetta all'attività di direzione e coordinamento della società ALLBEL srl Reg. Imp. BG n° 02805260169		TEST PROCEDURE & SPECIFICATION ☒ API 598 ☒ ANSI/ASME B 16.34 ☐ ☒ MSS SP.61 ☒ BS 6755 ☐ ☐ DIN 3230 T.3 ☒ EN 12266-1 ☐		CUSTOMER STIEKMANN ECONOSTO GMBH & CO. KG FREIGRAFENWEG 2 D-44357 DORTMUND ()		23 MRZ 2005	
OUR JOB N°	POSITION	Q.TY					
045913	009	43					
YOUR P.O. N°							
90045500P/IZAGROS II -LURGI-							
ITEM: 9							
DESCRIPTION GATE VALVE OS#Y BB FB 3/4" F321/F321 800 LBS SW B 104 R.1 /T							
TAG : S 650 - 00090							
Serial Number:							
TEST PRESSURES		TEST RESULT					
☒ BAR ☐ PSI		☒ CONFORM ☐ NOT CONFORM					
HYDROSTATIC BODY & BACKSEAT		TEST HYDROSTATIC AND PNEUMATIC					
200 150 6		VISUAL AND DIMENSIONAL TEST ☒ CONFORM ☐ NOT CONFORM					
NOTES REF. LURGI : 4567580-000/1.69690							
We declare that this product has been manufactured in accordance with the 'Sound Engineering Practice' as per European Directive 97/23/EC - PED Article 3.3.			EACH SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES				
THIRD AUTHORITY			CLIENT INSPECTION DEPT		INSPECTION DEPT.		
DATE			DATE		DATE 09/03/2005		
 			 				
ISO 9001 ISO REG. N° 0357							



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 100-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
100	S650	20		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

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technical support please contact:

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Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 110-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
110	S650	12		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

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Internet: www.lvfi.it - E-mail: info@lvfi.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
Soggetta all'attività di direzione e coordinamento da parte della società ALBEL s.r.l. Reg. Imp. BG n° 02805280169

OUR JOB N° **045913** POSITION **011** Q.TY **12**

YOUR P.O. N° **90045500P/ZAGROS II -LURGI-**

ITEM: **11**

DESCRIPTION
GATE VALVE OS#Y BB FB
1" F321/F321 800 LBS SW
B 105 R.1/T

TAG : S 650 - 00110

Serial Number:

TEST PRESSURES		TEST RESULT	
☒ BAR	☐ PSI	TEST	☒ CONFORM
HYDROSTATIC	PNEUM.	HYDROSTATIC	☐ NOT CONFORM
BODY & SEAT	SEAT	AND PNEUMATIC	
BACKSEAT	SEAT	VISUAL AND DIMENSIONAL	
200	150	TEST	☒ CONFORM
	6		☐ NOT CONFORM

NOTES

REF. LURGI : 4567580-000/1.69690

SECTION CERTIFICATE according to

☒ 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 ☐

CERTIFICATE

N° **C 045913-011/01**

Page No. 001 / 001

CUSTOMER

SEKMANN ECONOSTO GMBH & CO. KG

FREIGRAFENWEG 2

D-44357 DORTMUND ()

23. MRZ 2005

CHEMICAL ANALYSIS

COMPONENT MATERIAL

HEAT CODE HEAT NR

BONNET A182 F321

B-DDU 516560

BOLTS A193 B8

STEM 412998

WEDGE A479 Tp 321

SEAT 470090

BODY A479 Tp 321

B-DHS 243106

We declare that this product has been manufactured in accordance with the 'Sound Engineering Practice' as per European Directive 97/23/EC - PED Article 3.3.

THIRD AUTHORITY

CLIENT INSPECTION DEPT

INSPECTION DEPT.

DATE

DATE

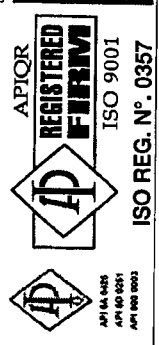
DATE

DATE

DATE

DATE

DATE



LVP S.p.A.
Qualità e Sicurezza
Quality Control Dept.

DATE 09/03/2005



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 120-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
120	S650	13		

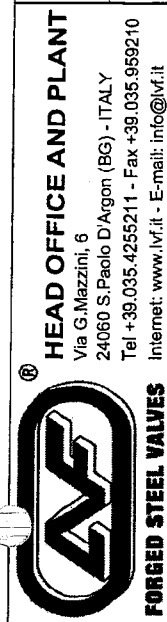
Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



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



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
 Soggetta all'attività di direzione e coordinamento da parte della società ALLBEL srl Reg. Imp. BG n° 02803260169

OUR JOB N° **045913** POSITION **012** Q.TY **13**

YOUR P.O. N° **90045500PIZAGROS II -LURGI-**

ITEM: **12**

DESCRIPTION
GATE VALVE OS#Y BB FB
1" F321/F321 1500 LBS SW
9BH 105 /T

TAG: S 650 - 00120

Serial Number:

TEST PRESSURES		TEST RESULT	
☒ BAR	☐ PSI	TEST	☒ CONFORM
HYDROSTATIC BODY & BACKSEAT	PNEUM.	HYDROSTATIC AND PNEUMATIC	☐ NOT CONFORM
	SEAT	VISUAL AND DIMENSIONAL TEST	☒ CONFORM
375	275	6	

NOTES
 REF. LURGI : 4567580-000/1.69690

SECTION CERTIFICATE according to

☒ UNI EN 10204 - 3.1 B ☐

CERTIFICATE

N° **C 045913-012/01**

Page No. 001 / 001

TEST PROCEDURE & SPECIFICATION

☒ API 598 ☒ ANSI/ASME B 16.34 ☐

☒ MSS SP.61 ☒ BS 6755 ☐

☐ DIN 3230 T.3 ☒ EN 12266-1 ☐

CUSTOMER
STIEKMANN ECONOSTO GMBH & CO. KG

FREIGRAFWENWEG 2

D-44357 DORTMUND ()

23. MRZ 2005

COMPONENT		CHEMICAL ANALYSIS												MILL #	
PART NAME	MATERIAL	C	Mn	Co	N	Si	S	P	Cr	Mo	Ni	Ti	Cu	Fe	
HEAT CODE	HEAT NR	MECHANICAL PROPERTIES. IMPACT TESTS													
		TENSILE N/mm ²	Yield N/mm ²	ELONGATION RED. OF AREA %	1 JOULE	2 JOULE	3 JOULE	TEST TEMP. °C	HARDNESS HB						
BONNET	A182 F321	0,040	1,810	0,470	0,021	0,025	17,160		9,740	0,370					
B-DBZ	516560	558,00	267,00	59,40	60,31					186,00					
BOLTS	A193 B8	0,023	1,770	0,410	0,001	0,024	18,150		9,580						
	C3541/2623	692,00	431,00	39,50	67,00					222,00					
STEM	A479 Tp 321	0,042	1,110	0,550	0,001	0,027	17,000		9,500	0,460					
	272874	567,00	255,00	57,60	75,00					167,00					
WEDGE	A479 Tp 321	0,027	1,620	0,550	0,017	0,028	18,000		9,250	0,320					
	872660	567,00	255,00	59,00	72,00	194	190	200	20,00	172,00					
SEAT	A479 Tp 321	0,019	1,820	0,380	0,024	0,030	17,400		9,150	0,240					
	270101	567,00	261,00	60,00	72,90	260	265	263	20,00	173,00					
BODY	A182 F321	0,051	1,560	0,730	0,023	0,026	17,370		9,110	0,370					
B-BIO	231545	578,00	210,00	60,00	72,96					193,00					

We declare that this product has been manufactured in accordance with the 'Sound Engineering Practice' as per European Directive 97/23/EC - PED Article 3.3.

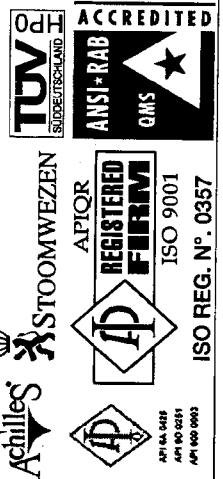
- EACH SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED

- THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES

THIRD AUTHORITY

CLIENT INSPECTION DEPT

INSPECTION DEPT.



LVP S.p.A.
 Quality Control Dept

DATE 09/03/2005



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 130-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
130	S650	2		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG

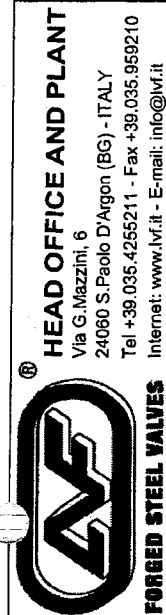


QM Meinold Oestreich

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technical support please contact:

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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



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

Soggetta all'attività di direzione e coordinamento da parte della società ALBEL srl Reg. Imp. BG n° 02903260169

HEAD OFFICE AND PLANT

Via G. Mazzini, 6

24060 S. Paolo D'Argon (BG) - ITALY

Tel +39 035 4255211 - Fax +39 035 959210

Internet: www.lvf.it - E-mail: info@lvf.it

OUR JOB N° **045913** POSITION **013** Q.TY **2**

YOUR P.O. N° **90045500P/ZAGROS II -LURGI-**

ITEM: **13**

DESCRIPTION

GATE VALVE OS#Y BB FB
1-1/2" F321/F321 1500 LBS SW

9BH 107 sc.210 /T

TAG : S 650 - 00130

Serial Number :

TEST PRESSURES		TEST RESULT	
☒ BAR	☐ PSI	TEST	☒ CONFORM
HYDROSTATIC BODY & SEAT BACKSEAT	PNEUM.	HYDROSTATIC AND PNEUMATIC	☐ NOT CONFORM
	SEAT	VISUAL AND DIMENSIONAL	☒ CONFORM
375	275	6	☐ NOT CONFORM

NOTES
REF. LURGI : 4567580-000/1.69690

SECTION CERTIFICATE according to

☒ UNI EN 10204 - 3.1 B ☐

CERTIFICATE

N° **C 045913-013/01**

Page No. 001 / 001

TEST PROCEDURE & SPECIFICATION

☒ API 598 ☒ ANSI/ASME B 16.34 ☐

☒ MSS SP.61 ☒ BS 6755 ☐

☐ DIN 3230 T.3 ☒ EN 12266-1 ☐

CUSTOMER
SEKMANN ECONOSTO GMBH & CO. KG

FREIGRAFENWEG 2

D-44357 DORTMUND ()

23 MRZ 2005

COMPONENT

PART NAME MATERIAL

HEAT CODE HEAT NR

BONNET A182 F321

B-CZH 429270

BOLTS A193 B8

407652

STEM A479 Tp 321

800535

WEDGE A479 Tp 321

C35412391

SEAT A479 Tp 321

270101

BODY A182 F321

B-BFR 3534

CHEMICAL ANALYSIS

C Mn Si S P Nb Cr Mo Ni Ti Cu Fe

Al Co N V Sn CE Nb+Ta

MILL #

MECHANICAL PROPERTIES. IMPACT TESTS

TENSILE Yield N/mm2

ELONGATION RED. OF AREA %

1 JOULE

2 JOULE

3 JOULE

TEST TEMP. °C

HARDNESS HB

019990

020078

018690

020894

021778

014483

We declare that this product is in compliance with the directive 97/23/EC and was subjected to the conformity assessment procedure H (for Category III). The monitoring is performed by TÜV Italy srl Notified Body 0948.

Each single component of the valve which is mentioned in this certificate has been manufactured, heat treated and tested fully in accordance with its own material specification as above indicated.

The reported values are strictly in accordance with the original mill certificates.

THIRD AUTHORITY

CLIENT INSPECTION DEPT

INSPECTION DEPT.

DATE

DATE

LVF S.p.A.
Quality Control Dept

DATE 09/03/2005



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 140-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
140	S652	6		

Date 31.03.2005
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



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 150-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
150	S652	13		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG

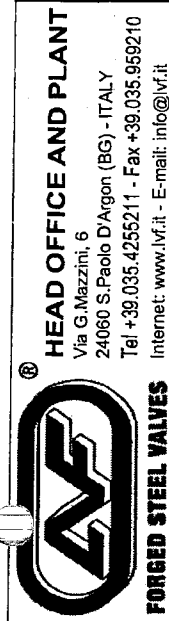


QM Meinold Oestreich

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



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
 Soglia all'attività di direzione e coordinamento da parte della società ALLBEL srl Reg. Imp. BG n° 02805260169

OUR JOB N° **045913** POSITION **015** Q.TY **13**

YOUR P.O. N° **90045500P/ZAGROS II - LURGI-**

ITEM: **15**

DESCRIPTION
GATE VALVE OS#Y BB FB
3/4" F321/F321 800 LBS SW
B 104 R.1 /T

TAG : S 652 - 00150

Serial Number :

TEST PRESSURES		TEST RESULT	
☒ BAR	☐ PSI	TEST	☒ CONFORM
HYDROSTATIC BODY & BACKSEAT	PNEUM. SEAT	HYDROSTATIC AND PNEUMATIC	☐ NOT CONFORM
	200	VISUAL AND DIMENSIONAL TEST	☒ CONFORM
	150		☐ NOT CONFORM
	6		

NOTES
 THE VALVES HAVE BEEN CLEANED AND DECREASED DEGREE OF
 PURITY ACC. TO LVF S.p.A. PROCEDURE CQ.19 REV.2
 REF. LURGI : 4567580-000/1.69690

SECTION CERTIFICATE according to

☒ 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 ☐

COMPONENT

PART NAME MATERIAL

HEAT CODE HEAT NR

BONNET A182 F321

B-DBT 417930

BOLTS A193 B8

412998

STEM A479 Tp 321

825240

WEDGE A479 Tp 321

411048

SEAT A479 Tp 321

216274

BODY A182 F321

B-DLF 454280

CHEMICAL ANALYSIS

C Mn Si S P Nb Sn Cr Mo Ni Ti Cu Fe

AL Co N V Nb Sn CE

3 JOULE

1/2 JOULE

1 JOULE

TEST TEMP. HARDNESS

9.810 0.410

179.00

9.670

185.00

9.800 0.170

229.00

9.300 0.280

205.00

9.200 0.330

180.00

9.930 0.340

174.00

021327

020258

018606

020892

020176

021573

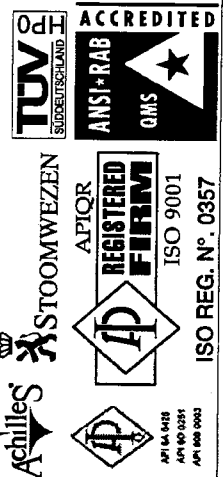
Each SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED

THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES

THIRD AUTHORITY

CLIENT INSPECTION DEPT

INSPECTION DEPT.



LVF S.p.A.
 Quality Control Dept

DATE 09/03/2005

DATE

DATE



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4567580
Siekmann-Order-No.: 8034493

CERTIFICATE-NO.: 160-1

Lurgi-Item-No.	Lurgi-I.D.	Quantity	Page	Remarks
160	S652	8		

Date 31.03.2005
Siekmann Econosto GmbH & Co. KG



[Signature]

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

AF **HEAD OFFICE AND PLANT**
Via G. Mazzini, 6
24060 S. Paolo D'Argon (BG) - ITALY
Tel +39.035.4255211 - Fax +39.035.959210
Internet: www.lvf.it - E-mail: info@lvf.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
Soggetta all'attività di direzione e coordinamento da parte della società ALLBEL srl Reg. Imp. BG n° 0205260169

OUR JOB N° **045913** POSITION **016** Q.TY **8**

YOUR P.O. N° **90045500P/ZAGROS II - LURGI-**

ITEM: **16**

DESCRIPTION
GATE VALVE OS#Y BB FB
1" F321/F321 800 LBS SW
B 105 R.1/T

TAG : S 652 - 00160

Serial Number:

TEST PRESSURES		TEST RESULT	
☒ BAR	☐ PSI	TEST	☒ CONFORM
HYDROSTATIC	PNEUM.	HYDROSTATIC	☐ NOT CONFORM
BODY & SEAT	SEAT	AND PNEUMATIC	
BACKSEAT		VISUAL AND DIMENSIONAL	☒ CONFORM
200	150	TEST	☐ NOT CONFORM

NOTES
THE VALVES HAVE BEEN CLEANED AND DEGREASED DEGREE OF PURITY ACC. TO LVF S.p.A. PROCEDURE CQ.19 REV.2
REF. LURGI : 4567580-000/1.69690

SECTION CERTIFICATE according to

☒ 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 ☐

C I F I C A T E

N° **C 045913-016/01**

Page No. 001 / 001

CUSTOMER

SIKEMANN ECONOSTO GMBH & CO. KG

FREIGRAFENWEG 2

D-44357 DORTMUND ()

23. MRZ 2005

CHEMICAL ANALYSIS

COMPONENT MATERIAL

HEAT CODE HEAT NR

BONNET A182 F321

B-DDU 516560

BOLTS A193 B8

412998

STEM A479 Tp 321

470090

WEDGE A479 Tp 321

243106

SEAT A479 Tp 321

270101

BODY A182 F321

B-DHS 454280

MECHANICAL PROPERTIES. IMPACT TESTS

TENSILE N/mm² YIELD N/mm² ELONGATION RED. OF AREA % 1 JOULE 2 JOULE 3 JOULE

0,040 1,810 0,470 0,021 0,025 17,160

538,00 301,00 62,20 72,12

0,023 1,780 0,360 0,002 0,024 18,200

734,00 597,00 47,80 67,00

0,020 1,790 0,410 0,030 0,025 17,340

535,00 293,00 52,20 69,80

0,013 1,400 0,520 0,002 0,021 17,240

0,100 0,010 75,00

582,00 277,00 54,00 0,030 0,030 17,400

0,019 1,820 0,380 0,024 0,030 17,400

0,100 0,016 72,90

567,00 261,00 60,00 0,020 0,028 17,350

0,042 1,810 0,400 72,12

522,00 253,00 55,20

TEST TEMP. HARDNESS

TEST TEMP. °C HARDNESS HB

9,740 0,370

179,00

9,670

222,00

9,000 0,220

159,00

10,130 0,130

0,250

172,00

9,150 0,240

0,330

173,00

9,930 0,340

174,00

MILL #

Fe

Cu

Ti

Ni

Mo

Ce

Sn

P

Nb

Nb+Ta

021400

020068

021661

018610

018688

021343

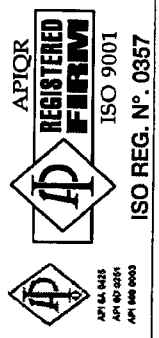
- EACH SINGLE COMPONENT OF THE VALVE WHICH IS MENTIONED IN THIS CERTIFICATE HAS BEEN MANUFACTURED, HEAT TREATED AND TESTED FULLY IN ACCORDANCE WITH ITS OWN MATERIAL SPECIFICATION AS ABOVE INDICATED

- THE REPORTED VALUES ARE STRICTLY IN ACCORDANCE WITH THE ORIGINAL MILL CERTIFICATES

THIRD AUTHORITY

CLIENT INSPECTION DEPT

INSPECTION DEPT.



DATE

DATE

DATE 09/03/2005