



<b>MSA</b> Dolní Beněšov, Hlučínska 41 Tel: 00420-553-541111 Fax: 00420-553-51236 E-mail: sales@msa.cz				<b>Inspection Certificate</b> according to DIN EN 10204 3.1 B  P3 403/VI/2003				TPUH 412141-2 Date: 24.06.03		 Ing. Drobik Quality Manager, Msa, a.s.		<b>MSA, a.s.</b> DOLNÍ BENĚŠOV odbor kvality 1			
Customer: Zy-Tech Global Industries, Inc.    Projekt:    Terms of delivery: API 598,600,NACE MR 01-75 Order: 22-6034    Order(customer): 5000 OB    Allow work pressure: ANSI 300 WOG 100°F 740 PSI ITEM 0090    Code: 220 483 6034    Allow work temperat: 800°F						We hereby certify that the items listed below are satisfactory in accordance with the requirements of valve standard and purchase order. EC DECLARATION OF CONFORMITY MSA DOLNÍ BENĚŠOV, Hlučínska 41, CZECH REPUBLIC According to annex VII of 97/23/EC directive, hereby declare that the products detailed below are in compliance with the directive 97/23/EC and have been manufactured in accordance with conformity assessment module B+C1, as approved by Strojirensky zkusební ustav (CODE 1015) of Brno, Czech republic Category: III    Fluid group: II									
Product Gate valve		Serial nr. D032084	PVP 001	Pieces 37	DN 2.5	PN 300	Type C 09.2 202 5300/23 LUF-N	Material A 216 WCB	SP 3						
API	Function test		Shell test		Backseat		Seat test-water		Seat test-air		Additional tests		Test date	Passed	
DIN	AG	AQ	BA		BP		BN		BO		BE,BF			Date	Inspector's mark
Work No. am.	Z-O	Mpa	Mpa	min	Mpa	min	Mpa	min	Mpa	min	Mpa	min			
	2		7.9	1	5.7	1	5.7	2	0.6	2					
	Result	Operator	Result	Operator	Result	Operator	Result	Operator	Result	Operator	Result	Operator			
36	GOOD	373	GOOD	373	GOOD	373	GOOD	373	GOOD	373	--	--	23.05.03	--	B 24
37	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
38	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
39	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
40	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
41	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
42	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
43	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
44	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
45	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
46	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
47	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
48	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
49	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
50	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
51	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
52	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
53	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
54	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
55	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
56	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
57	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
58	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
59	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
60	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
61	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
62	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
63	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
64	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
65	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
66	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
67	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
68	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
69	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
70	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
71	GOOD	29	GOOD	29	GOOD	29	GOOD	29	GOOD	819	--	--	26.05.03	--	B 24
72	GOOD	388	GOOD	388	GOOD	388	GOOD	388	GOOD	388	--	--	26.05.03	--	B 24
Other tests:		Hardness of:		Stem nut 139-202 HB Backseat bushing min. 140-174 HB. Basic material of the seat 130-150 HB								Note:			

Work. No. arm.	Body			Bonnet			Wedge			Stem		Socket		Seat	Control
	pattern	material		pattern	material		pattern	material		pattern	material	material	material	EM type	
	4132-209		A 216 WCB	5714-064		A 216 WCB	3817-295		A 182 F 316		3536-389	A 182 F 316			
	piece No.	heat	certificate	piece No.	heat	certificate	piece No.	heat	certificate	heat	certificate	heat	forging	heat	Manuf. No.
36	40	RX7	RS030325	16	SN4	RS030266	--	F	11/03	103	98/2002	--	--	--	--
37	65	RX9	RS030325	54	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
38	66	RX9	RS030325	78	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
39	92	RY1	RS030325	98	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
40	94	RY4	RS030352	60	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
41	85	RY1	RS030325	85	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
42	73	RX9	RS030325	34	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
43	5	RX6	RS030319	20	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
44	96	RY4	RS030352	26	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
45	39	RX7	RS030325	91	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
46	77	RX9	RS030325	66	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
47	91	RY1	RS030325	11	SN3	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
48	11	SR1	RS030319	41	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
49	29	RX7	RS030325	12	SN3	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
50	27	RX7	RS030325	33	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
51	20	BP2	RS011966	29	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
52	23	RX7	RS030325	30	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
53	21	RX7	RS030325	45	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
54	75	RX9	RS030325	61	SN5	RS030266	--	F	11/03	103	98/2002	--	--	--	--
55	3	RV9	RS030861	28	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
56	1	SL8	RS030861	71	SN5	RS030266	--	F	11/03	103	98/2002	--	--	--	--
57	50	RX8	RS030325	51	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
58	59	RX9	RS030325	70	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
59	14	RX7	RS030325	83	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
60	36	RX7	RS030325	36	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
61	23	RX7	RS030325	80	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
62	63	RX9	RS030325	59	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
63	8	RX6	RS030319	87	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
64	49	RX8	RS030325	65	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
65	79	RX9	RS030325	24	SN4	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
66	20	RX7	RS030325	89	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
67	43	RX8	RS030325	86	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
68	93	BT6	RS012211	116	SN7	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
69	46	RX8	RS030325	120	SN7	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
70	70	RX9	RS030325	63	SN5	RS030266	--	F	11/03	111	154/2003/A	--	--	--	--
71	44	RX8	RS030325	106	SN7	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--
72	6	RX6	RS030319	81	SN6	RS030300	--	F	11/03	111	154/2003/A	--	--	--	--

Heat	Chemical analysis											Tension					Impact				
	C %	Mn %	Si %	P %	S %	Cu %	Ni %	Cr %	Mo %	V %	W %	Ceq	Rp 0,2 MPa	Rm MPa	A %	Z %	HB	1 J	2 J	3 J	X J
172422/111	0.026	1.80	0.45	0.026	0.026	--	--	16.32	2.02	--	--	--	302	611	53.6	77.9	156	--	--	--	--
272882/F	0.025	1.38	0.43	0.026	0.024	--	--	16.60	2.00	--	--	--	267	573	53	74	--	--	--	--	--
77437/103	0.04	1.02	0.38	0.031	0.009	--	--	17.31	2.23	--	--	--	266	557	54	70.8	143-155	--	--	--	--
BP2	0.21	1.08	0.34	0.018	0.017	0.11	0.03	0.05	0.01	0.016	--	0.41	317	508	32.3	53	156	85	97	92	91.3
BT6	0.21	1.02	0.33	0.018	0.018	0.10	0.03	0.04	0.01	0.015	--	0.40	312	495	33.3	50.9	156	75	67	74	72
RV9	0.20	1.05	0.43	0.016	0.010	0.05	0.04	0.10	0.00	0.005	--	0.41	300	516	34.7	59.1	162	67	85	70	74
RX6	0.20	1.01	0.42	0.017	0.014	0.05	0.04	0.03	0.00	0.004	--	0.38	286	522	31.4	58.2	164	86	101	79	88.6
RX7	0.20	1.01	0.41	0.016	0.012	0.04	0.03	0.03	0.00	0.004	--	0.38	301	507	33.6	59.4	162	101	100	86	95.6
RX8	0.19	1.13	0.37	0.016	0.013	0.04	0.03	0.02	0.00	0.004	--	0.39	288	507	34.3	60.3	162	93	93	103	96.3
RX9	0.21	1.01	0.43	0.016	0.012	0.04	0.04	0.04	0.00	0.004	--	0.39	300	519	33	51.5	164	70	76	75	73.6
RY1	0.20	0.98	0.40	0.017	0.012	0.04	0.03	0.03	0.00	0.004	--	0.38	280	505	31.6	58.7	162	76	95	69	80
RY4	0.21	1.02	0.40	0.018	0.013	0.04	0.03	0.03	0.00	0.004	--	0.39	313	519	30	49.4	164	102	90	94	95.3
SL8	0.21	1.09	0.39	0.014	0.015	0.05	0.05	0.11	0.00	0.005	--	0.43	289	496	31	43.8	160	98	76	89	87.6
SN3	0.21	1.01	0.44	0.018	0.013	0.05	0.04	0.03	0.00	0.004	--	0.39	321	530	31	51.6	168	95	78	92	95
SN4	0.22	1.03	0.45	0.018	0.010	0.04	0.03	0.03	0.00	0.004	--	0.40	299	526	29.6	56.7	168	67	89	71	67
SN5	0.23	0.67	0.39	0.015	0.011	0.05	0.03	0.03	0.00	0.004	--	0.35	282	500	32.6	51.9	160	52	52	52	52
SN6	0.22	1.04	0.42	0.018	0.014	0.05	0.04	0.03	0.00	0.004	--	0.41	296	522	31	54.8	166	83	73	76	83
SN7	0.20	1.03	0.40	0.017	0.013	0.04	0.03	0.03	0.00	0.004	--	0.38	308	517	29.1	48.2	164	83	75	87	83
SR1	0.20	1.03	0.37	0.017	0.013	0.05	0.04	0.03	0.00	0.004	--	0.38	277	503	34.5	56.6	160	80	100	78	86