



Inspection Certificate and Material Test Report (EN10204-1991 3.1.B / EN10204-2004 3.1)

DSI-Valve Solutions
12735 Dairy Ashford
Stafford TX 77477
281-637-2000 - Fax 281-637-2299
www.dsivalve.com

Certificate/Serial/Job No: ZB01

Quality Department: *John Ho*

Quantity	Size (NPS)	Class	Product	Description	Type	SONumber	Line	Sold to	Date
49	4	300	/ 103019	DSI 149XU	SWING				11/29/2012

Pressure Test: API598	<input checked="" type="checkbox"/> Satisfactory	Shell Pressure : 1125 psi 7756.6 kPa	BackSeat : psi kPa	Seat Pressure 825 psi 5688.17 kPa	Seat Air Pressure psi kPa
------------------------------	--	--	------------------------------	---	-------------------------------------

Part	Specif.	HEAT#	Chemical Composition [%]													Mechanical Properties									
			C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	W	Nb	Al	N	Ceq	Tensile [ksi] [MPa]	Yield [ksi] [MPa]	Elong [%]	Reduc [%]	Hard [HB]	Ch.1 [J]	Ch.2 [J]	Ch.3 [J]

ZB01 / 1

BODY	ASTM A216 WCB-2008	W 18642	0.199	0.496	0.974	0.033	0.014	0.038	0.066	0.008	0.040	-0.006		0.040	0.39	83.96	59.74	28	54	164								N
																578.88	411.9											
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297								N
																620.87	413.9											
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150								N
																514.90	359.9											

ZB01 / 2

BODY	ASTM A216 WCB-2008	W 18312	0.198	0.48	0.90	0.031	0.009	0.046	0.052	0.007	0.044	0.007		0.044	0.38	82.80	53.80	29	52	155								N
																570.89	370.9											
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297								N
																620.87	413.9											
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150								N
																514.90	359.9											

ZB01 / 3

BODY	ASTM A216 WCB-2008	W 18640	0.207	0.443	0.919	0.033	0.018	0.042	0.057	0.006	0.051	0.007		0.054	0.39	80.91	54.96	28	53	169								N
																557.85	378.9											
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297								N
																620.87	413.9											
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150								N
																514.90	359.9											

ZB01 / 4

BODY	ASTM A216 WCB-2008	W 18642	0.199	0.496	0.974	0.033	0.014	0.038	0.066	0.008	0.040	0.006		0.040	0.39	83.96	59.74	28	54	164								N
																578.88	411.9											
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297								N
																620.87	413.9											
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150								N
																514.90	359.9											

ZB01 / 5

BODY	ASTM A216 WCB-2008	W 18642	0.199	0.496	0.974	0.033	0.014	0.038	0.066	0.008	0.040	0.006		0.040	0.39	83.96	59.74	28	54	164								N
																578.88	411.9											
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297								N
																620.87	413.9											
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150								N
																514.90	359.9											

BODY	ASTM A216 WCB-2008	W 18650	0.202	0.448	0.909	0.027	0.010	0.061	0.162	0.041	0.054	0.013	0.035	0.41	82.65	56.70	30	57	163	N
															569.85	390.9				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003	0.36		74.68	52.20	30	65	150	N
															514.90	359.9				

ZBOI / 6

BODY	ASTM A216 WCB-2008	W 18640	0.207	0.443	0.919	0.033	0.018	0.042	0.057	0.006	0.051	0.007	0.054	0.39	80.91	54.96	28	53	169	N
															557.85	378.9				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003	0.36		74.68	52.20	30	65	150	N
															514.90	359.9				

ZBOI / 7

BODY	ASTM A216 WCB-2008	W 18651	0.199	0.430	0.960	0.024	0.011	0.042	0.116	0.008	0.042	0.006	0.046	0.40	78.59	54.96	30	60	159	N
															541.86	378.9				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003	0.36		74.68	52.20	30	65	150	N
															514.90	359.9				

ZBOI / 8

BODY	ASTM A216 WCB-2008	W 18649	0.200	0.499	0.916	0.035	0.017	0.058	0.229	0.014	0.065	0.009	0.033	0.42	86.86	49.01	30	53	154	N
															598.88	337.9				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003	0.36		74.68	52.20	30	65	150	N
															514.90	359.9				

ZBOI / 9

BODY	ASTM A216 WCB-2008	V 14822	0.193	0.509	0.968	0.024	0.009	0.028	0.054	0.010	0.029	0.004	0.037	0.38	79.03	53.65	34	61	154	N
															544.89	389.9				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003	0.36		74.68	52.20	30	65	150	N
															514.90	359.9				

ZBOI / 10

BODY	ASTM A216 WCB-2008	V 14305	0.189	0.369	0.760	0.006	0.008	0.022	0.025	0.005	0.033	0.001	0.026	0.33	73.23	45.68	32	56	144	N
															504.90	315				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003	0.36		74.68	52.20	30	65	150	N
															514.90	359.9				

ZBOI / 11

BODY	ASTM A216 WCB-2008	W 18649	0.200	0.499	0.916	0.035	0.017	0.058	0.229	0.014	0.065	0.009	0.033	0.42	86.86	49.01	30	53	154	N
															598.88	337.9				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003	0.36		74.68	52.20	30	65	150	N
															514.90	359.9				

ZBOI / 12

BODY	ASTM A216 WCB-2008	W 18642	0.199	0.496	0.974	0.033	0.014	0.038	0.066	0.008	0.040	0.006	0.040	0.39	83.96	59.74	28	54	164	N
															578.88	411.9				
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45	0.14					90.05	60.03	32	66	297	N
															620.87	413.9				

COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N
															514.90	359.9					

ZBOI / 13

BODY	ASTM A216 WCB-2008	W 18650	0.202	0.448	0.909	0.027	0.010	0.061	0.162	0.041	0.054	0.013		0.035	0.41	82.65	56.70	30	57	163		N
																569.85	390.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N	
																514.90	359.9					

ZBO1 / 14

BODY	ASTM A216 WCB-2008	V 14542	0.208	0.412	0.803	0.022	0.012	0.068	0.055	0.003	0.030	0.005		0.036	0.36	71.05	45.68	35	59	147		N
																489.87	315					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N	
																514.90	359.9					

ZBOI / 15

BODY	ASTM A216 WCB-2008	W 18643	0.204	0.494	0.956	0.028	0.010	0.030	0.056	0.006	0.042	0.005		0.050	0.39	75.69	52.64	26	57	158		N
																521.86	362.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N	
																514.90	359.9					

ZBOI / 16

BODY	ASTM A216 WCB-2008	V 14787	0.220	0.509	0.805	0.023	0.010	0.051	0.029	0.001	0.021	0.001		0.060	0.37	79.03	44.95	32	57	144		N
																544.89	309.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N	
																514.90	359.9					

ZBOI / 17

BODY	ASTM A216 WCB-2008	V 14287	0.204	0.386	0.815	0.024	0.010	0.022	0.025	0.005	0.033	0.001		0.036	0.36	73.23	49.30	33	61	149		N
																504.90	339.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N	
																514.90	359.9					

ZBOI / 18

BODY	ASTM A216 WCB-2008	W 18643	0.204	0.494	0.956	0.028	0.010	0.030	0.056	0.006	0.042	0.005		0.050	0.39	75.69	52.64	26	57	158		N
																521.86	362.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N	
																514.90	359.9					

ZBOI / 19

BODY	ASTM A216 WCB-2008	W 18642	0.199	0.496	0.974	0.033	0.014	0.038	0.066	0.008	0.040	0.006		0.040	0.39	83.96	59.74	28	54	164		N
																578.88	411.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003		0.36	74.68	52.20	30	65	150		N	
																514.90	359.9					

ZBOI / 20

BODY	ASTM A216 WCB-2008	W 18650	0.202	0.448	0.909	0.027	0.010	0.061	0.162	0.041	0.054	0.013		0.035	0.41	82.65	56.70	30	57	163		N
																569.85	390.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150		N
																514.90	359.9					

ZBOI / 21

BODY	ASTM A216 WCB-2008	V 14542	0.208	0.412	0.803	0.022	0.012	0.068	0.055	0.003	0.030	0.005		0.036	0.36	71.05	45.68	35	59	147		N
																489.87	315					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150		N
																514.90	359.9					

ZBOI / 22

BODY	ASTM A216 WCB-2008	W 18643	0.204	0.494	0.956	0.028	0.010	0.030	0.056	0.006	0.042	0.005		0.050	0.39	75.69	52.64	26	57	158		N
																521.86	362.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150		N
																514.90	359.9					

ZBOI / 23

BODY	ASTM A216 WCB-2008	V 14542	0.208	0.412	0.803	0.022	0.012	0.068	0.055	0.003	0.030	0.005		0.036	0.36	71.05	45.68	35	59	147		N
																489.87	315					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150		N
																514.90	359.9					

ZBOI / 24

BODY	ASTM A216 WCB-2008	V 14331	0.189	0.437	0.850	0.019	0.012	0.022	0.038	0.003	0.026	0.002		0.055	0.35	71.05	43.50	35	58	137		N
																489.87	299.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150		N
																514.90	359.9					

ZBOI / 25

BODY	ASTM A216 WCB-2008	V 14248	0.212	0.429	0.822	0.015	0.012	0.014	0.027	0.002	0.031	0.002		0.035	0.36	70.33	43.50	29	56	141		N
																484.91	299.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150		N
																514.90	359.9					

ZBOI / 26

BODY	ASTMA216 WCB-2008	V 14248	0.212	0.429	0.822	0.015	0.012	0.014	0.027	0.002	0.031	0.002		0.035	0.36	70.33	43.50	29	56	141		N
																484.91	299.9					
CLAPPER	ASTM A182F6a-2008a	C 590	0.093	0.36	0.46	0.024	0.0070	0.220	12.45		0.14					90.05	60.03	32	66	297		N
																620.87	413.9					
COVER	ASTM A105-2005	C 30967	0.18	0.17	0.95	0.024	0.008	0.02	0.06	0.004	0.05	0.003			0.36	74.68	52.20	30	65	150		N
																514.90	359.9					

Heat Treatment Codes:

<i>A</i> : Annealing	<i>AC</i> : Air Cooling	<i>DA</i> : Double Aged	<i>FT</i> : Furnace Treatment	<i>N</i> : Normalizing	<i>OQ</i> : OilQuenched
<i>Ph-3</i> : Precipitation Hardening	<i>S4</i> : Solution Annealed	<i>SQ</i> : Solution Quenched	<i>S7</i> : Solution Treatment	<i>T</i> : Tempering	<i>WC</i> : Water Cooling
<i>WO</i> : Water Quenched	<i>WT</i> : Water Quenched/Tempered			<i>NT</i> : Normalized/Tempered	

Part	Material
BODY	ASTM A216 WCB
BOLTING	ASTM A193 B7 / ASTM A194 2H
COVER	ASTM A105
DISC-WEDGE-CLAPPER	ASTM A182 F6A Cl. 13
HINGE PIN	ASTM A276 410
SEAT RING	ASTM A105 + St1.6 Faced

Valves Tested per API598
We hereby certify, that the material described above complies with the order requirements.

EC Declaration of Conformity: JEV (Jiangyin Eastern Valve Co. Ltd.), Jiangsu Province, 214423, P.R. China

According to Annex VII of Pressure Equipment Directive 97/23/EC, hereby declare that the products detailed above are in compliance with PED 97/23/EC and have been manufactured in accordance with conformity assessment module B+D as approved Det Norske Veritas Inspection AB as Identification No 0575 (formally 0409). The products may cover Category I, II and III of pressure equipment. For the most specific risks of this equipment, safety and compliance with essential requirements of the Directive has been based on API 600, API598, ASME 816.34, ASME B16.5, ASME 816.10 latest edition.

Undersigned by Liu Jian Qing, representing Jiangyin Eastern Valve company Ltd. :
Qing, representing Jiangyin Eastern
