



## TEST REPORT

TITLE : Testing of Valve

OUR REFERENCE : J13816A-1

DESCRIPTION OF SAMPLE : 20mm Stainless steel globe valve; pressure rating PN16;  
female screwed ends to BS21.


SAMPLE SUBMITTED BY : Waterfront Fluid Controls Limited  
Unit 6, Elderpark Workspace,  
100 Elderpark Street, Glasgow, U. K.

BRAND : Waterfront

MANUFACTURER : Waterfront Fluid Controls Limited

ORIGIN : U. K.

SERIES : 511

BODY MARKINGS :   $\frac{3}{4}$   
200  
CF8M

TEST REQUIRED : BS5154 : 1991; BSEN12288: 2003; BSEN12266-1: 2003  
(There is no British Standard for globe valve made of stainless steel. To show the hydraulic strength of the valve sample, the test procedures laid down in BS5154, BSEN12266-1; 2003 and BSEN12288: 2003 were adopted for reference.)

PERIOD OF TESTS : 3<sup>rd</sup> to 20<sup>th</sup> August 2009

### RESULTS: - (apply only to sample tested)

#### 1. DIMENSIONS (in millimetres)

	Sample
Nominal size	20
Height of valve, from top to bottom, valve fully open	132
Diameter of handwheel	80.2
Face to face dimension	66.1
Minimum stem diameter	8.6
Minimum body thickness	3.2

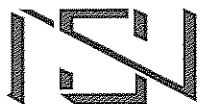
Note : the female threads at the water inlet and water outlet comply with ISO7-1 and BS21.

#### 2. HYDRAULIC PRESSURE TEST (BSEN12288, Clause 5.1 & 5.3; BSEN12266-1: 2003; BS5154, Clause 11)

	Nominal pressure PN (bar)	Shell tightness test (1.5 PN)			Seat tightness test (1.1 PN)		
		Test pressure (bar)	Duration ( s )	Remark	Test pressure (bar)	Duration ( s )	Remark
Sample	16	24	15	Pass	18	15	Pass
BSEN12288's Requirement	16	24	15	/	18	15	/
BS5154's Requirement	16	24	15	/	18	15	/

Note : no leakage was detected during the above test.

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## TEST REPORT

OUR REFERENCE NO. J13816A-1 (P.2)

### 3. CHEMICAL COMPOSITIONS

Component	Element compositions (%)								Designation
	C	Si	Mn	Ni	Mo	Cr	S	P	
Body, bonnet, Disc & Stem	0.029	0.33	1.62	11.0	2.5	17.7	0.01	0.01	grade 316S31 of BS970: Part 1  and  grade X5CrNiMo17- 12-2 (1.4401) of BSEN10088


### 4. SUMMARY OF RESULTS (apply only to the sample tested)

Dimensions – Satisfactory

Hydraulic pressure test – Satisfactory

Chemical compositions -- Satisfactory; the chemical composition test results for the valve body, bonnet, stem and disc comply with BS970 part 1 grade 316S31 and grade X5CrNiMo17-12-2 (1.4401) of BSEN10088.

Remark : the internal water passage surface of the sample does not have any metallic coating.

Date : 12<sup>th</sup> December 2009 Authorized signature : 

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Samson W.K. Yiu

(Director)



## TEST REPORT

TITLE : Testing of Valve

OUR REFERENCE : J13816B-1

DESCRIPTION OF SAMPLE : 25mm Stainless steel globe valve; pressure rating PN16;  
female screwed ends to BS21.


SAMPLE SUBMITTED BY : Waterfront Fluid Controls Limited  
Unit 6, Elderpark Workspace,  
100 Elderpark Street, Glasgow, U. K.

BRAND : Waterfront

MANUFACTURER : Waterfront Fluid Controls Limited

ORIGIN : U. K.

SERIES : 511

BODY MARKINGS :  1  
200  
CF8M

TEST REQUIRED : BS5154 : 1991; BSEN12288: 2003; BSEN12266-1: 2003  
(There is no British Standard for globe valve made of stainless steel. To show the hydraulic strength of the valve sample, the test procedures laid down in BS5154, BSEN12266-1; 2003 and BSEN12288: 2003 were adopted for reference.)

PERIOD OF TESTS : 3<sup>rd</sup> to 20<sup>th</sup> August 2009

### RESULTS: - (apply only to sample tested)

#### 1. DIMENSIONS (in millimetres)

	Sample
Nominal size	25
Height of valve, from top to bottom, valve fully open	149.7
Diameter of handwheel	80.3
Face to face dimension	76.3
Minimum stem diameter	8.6
Minimum body thickness	3.35

Note : the female threads at the water inlet and water outlet comply with ISO7-1 and BS21.

#### 2. HYDRAULIC PRESSURE TEST (BSEN12288, Clause 5.1 & 5.3; BSEN12266-1: 2003; BS5154, Clause 11)

	Nominal pressure PN (bar)	Shell tightness test (1.5 PN)			Seat tightness test (1.1 PN)		
		Test pressure (bar)	Duration ( s )	Remark	Test pressure (bar)	Duration ( s )	Remark
Sample	16	24	15	Pass	18	15	Pass
BSEN12288's Requirement	16	24	15	/	18	15	/
BS5154's Requirement	16	24	15	/	18	15	/

Note : no leakage was detected during the above test.

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## TEST REPORT

OUR REFERENCE NO. J13816B-1 (P.2)

### 3. CHEMICAL COMPOSITIONS

Component	Element compositions (%)								Designation
	C	Si	Mn	Ni	Mo	Cr	S	P	
Body, bonnet, Disc & Stem	0.049	0.36	1.74	11.2	2.42	18.0	0.01	0.01	grade 316S31 of BS970: Part 1  and  grade X5CrNiMo17- 12-2 (1.4401) of BSEN10088


### 4. SUMMARY OF RESULTS (apply only to the sample tested)

Dimensions – Satisfactory

Hydraulic pressure test – Satisfactory

Chemical compositions -- Satisfactory; the chemical composition test results for the valve body, bonnet, stem and disc comply with BS970 part 1 grade 316S31 and grade X5CrNiMo17-12-2 (1.4401) of BSEN10088.

Remark : the internal water passage surface of the sample does not have any metallic coating.

Date : 12<sup>th</sup> December 2009 Authorized signature : 

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Samson W.K. Yiu

(Director)



## TEST REPORT

TITLE : Testing of Valve

OUR REFERENCE : J13816C-1

DESCRIPTION OF SAMPLE : 32mm Stainless steel globe valve; pressure rating PN16;  
female screwed ends to BS21.


SAMPLE SUBMITTED BY : Waterfront Fluid Controls Limited  
Unit 6, Elderpark Workspace,  
100 Elderpark Street, Glasgow, U. K.

BRAND : Waterfront

MANUFACTURER : Waterfront Fluid Controls Limited

ORIGIN : U. K.

SERIES : 511

BODY MARKINGS :  1-1/4  
200  
CF8M

TEST REQUIRED : BS5154 : 1991; BSEN12288: 2003; BSEN12266-1: 2003  
(There is no British Standard for globe valve made of stainless steel. To show the hydraulic strength of the valve sample, the test procedures laid down in BS5154, BSEN12266-1; 2003 and BSEN12288: 2003 were adopted for reference.)

PERIOD OF TESTS : 3<sup>rd</sup> to 20<sup>th</sup> August 2009

### RESULTS: - (apply only to sample tested)

#### 1. DIMENSIONS (in millimetres)

	Sample
Nominal size	32
Height of valve, from top to bottom, valve fully open	180.5
Diameter of handwheel	89.3
Face to face dimension	86.5
Minimum stem diameter	10.6
Minimum body thickness	3.6

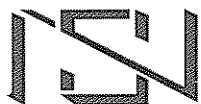
Note : the female threads at the water inlet and water outlet comply with ISO7-1 and BS21.

#### 2. HYDRAULIC PRESSURE TEST (BSEN12288, Clause 5.1 & 5.3; BSEN12266-1: 2003; BS5154, Clause 11)

	Nominal pressure PN (bar)	Shell tightness test (1.5 PN)			Seat tightness test (1.1 PN)		
		Test pressure (bar)	Duration ( s )	Remark	Test pressure (bar)	Duration ( s )	Remark
Sample	16	24	15	Pass	18	15	Pass
BSEN12288's Requirement	16	24	15	/	18	15	/
BS5154's Requirement	16	24	15	/	18	15	/

Note : no leakage was detected during the above test.

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## TEST REPORT

OUR REFERENCE NO.J13816C-1 (P.2)

### 3. CHEMICAL COMPOSITIONS

Component	Element compositions (%)								Designation
	C	Si	Mn	Ni	Mo	Cr	S	P	
Body, bonnet, Disc & Stem	0.049	0.45	1.59	11.7	2.40	17.9	0.01	0.01	grade 316S31 of BS970: Part 1  and  grade X5CrNiMo17- 12-2 (1.4401) of BSEN10088


### 4. SUMMARY OF RESULTS (apply only to the sample tested)

Dimensions – Satisfactory

Hydraulic pressure test – Satisfactory

Chemical compositions -- Satisfactory; the chemical composition test results for the valve body, bonnet, stem and disc comply with BS970 part 1 grade 316S31 and grade X5CrNiMo17-12-2 (1.4401) of BSEN10088.

Remark : the internal water passage surface of the sample does not have any metallic coating.

Date : 12<sup>th</sup> December 2009 Authorized signature : 

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**Samson W.K. Yiu**

(Director )



## TEST REPORT

TITLE : Testing of Valve

OUR REFERENCE : J13816D-1

DESCRIPTION OF SAMPLE : 40mm Stainless steel globe valve; pressure rating PN16;  
female screwed ends to BS21.


SAMPLE SUBMITTED BY : Waterfront Fluid Controls Limited  
Unit 6, Elderpark Workspace,  
100 Elderpark Street, Glasgow, U. K.

BRAND : Waterfront

MANUFACTURER : Waterfront Fluid Controls Limited

ORIGIN : U. K.

SERIES : 511

BODY MARKINGS :  1-½  
200  
CF8M

TEST REQUIRED : BS5154 : 1991; BSEN12288: 2003; BSEN12266-1: 2003  
(There is no British Standard for globe valve made of stainless steel. To show the hydraulic strength of the valve sample, the test procedures laid down in BS5154, BSEN12266-1; 2003 and BSEN12288: 2003 were adopted for reference.)

PERIOD OF TESTS : 3<sup>rd</sup> to 20<sup>th</sup> August 2009

### RESULTS: - (apply only to sample tested)

#### 1. DIMENSIONS (in millimetres)

	Sample
Nominal size	40
Height of valve, from top to bottom, valve fully open	171.5
Diameter of handwheel	89.2
Face to face dimension	94.6
Minimum stem diameter	10.6
Minimum body thickness	4.1

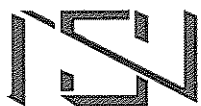
Note : the female threads at the water inlet and water outlet comply with ISO7-1 and BS21.

#### 2. HYDRAULIC PRESSURE TEST (BSEN12288, Clause 5.1 & 5.3; BSEN12266-1: 2003; BS5154, Clause 11)

	Nominal pressure PN (bar)	Shell tightness test (1.5 PN)			Seat tightness test (1.1 PN)		
		Test pressure (bar)	Duration ( s )	Remark	Test pressure (bar)	Duration ( s )	Remark
Sample	16	24	15	Pass	18	15	Pass
BSEN12288's Requirement	16	24	15	/	18	15	/
BS5154's Requirement	16	24	15	/	18	15	/

Note : no leakage was detected during the above test.

/.....P.2



## TEST REPORT

OUR REFERENCE NO. J13816D-1 (P.2)

### 3. CHEMICAL COMPOSITIONS

Component	Element compositions (%)								Designation
	C	Si	Mn	Ni	Mo	Cr	S	P	
Body, bonnet, Disc & Stem	0.038	0.22	1.77	11.6	2.43	18.2	0.01	0.01	grade 316S31 of BS970: Part 1  and  grade X5CrNiMo17- 12-2 (1.4401) of BSEN10088


### 4. SUMMARY OF RESULTS (apply only to the sample tested)

Dimensions – Satisfactory

Hydraulic pressure test – Satisfactory

Chemical compositions -- Satisfactory; the chemical composition test results for the valve body, bonnet, stem and disc comply with BS970 part 1 grade 316S31 and grade X5CrNiMo17-12-2 (1.4401) of BSEN10088.

Remark : the internal water passage surface of the sample does not have any metallic coating.

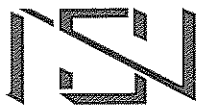
Date : 12<sup>th</sup> December 2009 Authorized signature : 

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**Samson W.K. Yiu**

(Director)





## TEST REPORT

TITLE : Testing of Valve

OUR REFERENCE : J13816E-1

DESCRIPTION OF SAMPLE : 50mm Stainless steel globe valve; pressure rating PN16;  
female screwed ends to BS21.


SAMPLE SUBMITTED BY : Waterfront Fluid Controls Limited  
Unit 6, Elderpark Workspace,  
100 Elderpark Street, Glasgow, U. K.

BRAND : Waterfront

MANUFACTURER : Waterfront Fluid Controls Limited

ORIGIN : U. K.

SERIES : 511

BODY MARKINGS :  2  
200  
CF8M

TEST REQUIRED : BS5154 : 1991; BSEN12288: 2003; BSEN12266-1: 2003  
(There is no British Standard for globe valve made of stainless steel. To show the hydraulic strength of the valve sample, the test procedures laid down in BS5154, BSEN12266-1; 2003 and BSEN12288: 2003 were adopted for reference.)

PERIOD OF TESTS : 3<sup>rd</sup> to 20<sup>th</sup> August 2009

RESULTS: - (apply only to sample tested)

### 1. DIMENSIONS (in millimetres)

	Sample
Nominal size	50
Height of valve, from top to bottom, valve fully open	201.5
Diameter of handwheel	100.8
Face to face dimension	116.8
Minimum stem diameter	10.6
Minimum body thickness	5.1

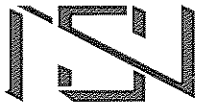
Note : the female threads at the water inlet and water outlet comply with ISO7-1 and BS21.

### 2. HYDRAULIC PRESSURE TEST (BSEN12288, Clause 5.1 & 5.3; BSEN12266-1: 2003; BS5154, Clause 11)

	Nominal pressure PN (bar)	Shell tightness test (1.5 PN)			Seat tightness test (1.1 PN)		
		Test pressure (bar)	Duration ( s )	Remark	Test pressure (bar)	Duration ( s )	Remark
Sample	16	24	15	Pass	18	15	Pass
BSEN12288's Requirement	16	24	15	/	18	15	/
BS5154's Requirement	16	24	15	/	18	15	/

Note : no leakage was detected during the above test.

/.....P.2



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E-mail: nutek@nuteksystems.com

## TEST REPORT

OUR REFERENCE NO. J13816E-1 (P.2)

### 3. CHEMICAL COMPOSITIONS

Component	Element compositions (%)								Designation
	C	Si	Mn	Ni	Mo	Cr	S	P	
Body, bonnet, Disc & Stem	0.042	0.39	1.63	11.2	2.47	18.0	0.01	0.01	grade 316S31 of BS970: Part 1  and  grade X5CrNiMo17- 12-2 (1.4401) of BSEN10088


### 4. SUMMARY OF RESULTS (apply only to the sample tested)

Dimensions – Satisfactory

Hydraulic pressure test – Satisfactory

Chemical compositions -- Satisfactory; the chemical composition test results for the valve body, bonnet, stem and disc comply with BS970 part 1 grade 316S31 and grade X5CrNiMo17-12-2 (1.4401) of BSEN10088.

Remark : the internal water passage surface of the sample does not have any metallic coating.

Date : 12<sup>th</sup> December 2009 Authorized signature : 

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**Samson W.K. Yiu**

(Director)