



## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL001**  
**Ref. Test Report No.: FTC20120721-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1201-2PFB-RF-001
Valve Drawing No.	BA102FAS
Type of Test Valve	FLOATING BALL VALVE
Description of Test Valve	2-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A105
Valve Seat Material	PTFE
Date of Test	July 21, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL002**  
**Ref. Test Report No.: FTC20120721-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1201-2PFB-RF-002
Valve Drawing No.	BA102FAS
Type of Test Valve	FLOATING BALL VALVE
Description of Test Valve	2-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PTFE
Date of Test	July 21, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL003**  
**Ref. Test Report No.: FTC20120721-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1201-2PFB-RF-003
Valve Drawing No.	BA102FAS
Type of Test Valve	FLOATING BALL VALVE
Description of Test Valve	2-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PTFE
Date of Test	July 21, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL004**

**Ref. Test Report No.: FTC20120721-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**

Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1201-2PFB-RF-004
Valve Drawing No.	BA104FAS
Type of Test Valve	FLOATING BALL VALVE
Description of Test Valve	2-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A105
Valve Seat Material	PTFE
Date of Test	July 21, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL005**  
**Ref. Test Report No.: FTC20120721-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1201-2PFB-RF-005
Valve Drawing No.	BA104FAS
Type of Test Valve	FLOATING BALL VALVE
Description of Test Valve	2-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PTFE
Date of Test	July 21, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL006**  
**Ref. Test Report No.: FTC20120722-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1202-2PFB-RF-001
Valve Drawing No.	BA104FAS
Type of Test Valve	FLOATING BALL VALVE
Description of Test Valve	2-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PTFE
Date of Test	July 22, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL007**  
**Ref. Test Report No.: FTC20120722-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1202-3PFB-RF-002
Valve Drawing No.	BA108FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A105
Valve Seat Material	PTFE
Date of Test	July 22, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL008**  
**Ref. Test Report No.: FTC20120722-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1202-3PFB-RF-003
Valve Drawing No.	BA108FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A183-F304
Valve Seat Material	PTFE
Date of Test	July 22, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.







## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL009**  
**Ref. Test Report No.: FTC20120722-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1202-3PFB-RF-004
Valve Drawing No.	BA108FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A183-F53
Valve Seat Material	PTFE
Date of Test	July 22, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL010**  
**Ref. Test Report No.: FTC20120722-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1202-3PFB-RF-005
Valve Drawing No.	BA302FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A105
Valve Seat Material	PTFE
Date of Test	July 22, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL011**  
**Ref. Test Report No.: FTC20120723-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1203-3PFB-RF-001
Valve Drawing No.	BA302FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A105
Valve Seat Material	NYLON
Date of Test	July 23, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL012**  
**Ref. Test Report No.: FTC20120723-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1203-3PFB-RF-002
Valve Drawing No.	BA302FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PTFE
Date of Test	July 23, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL013**  
**Ref. Test Report No.: FTC20120723-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1203-3PFB-RF-003
Valve Drawing No.	BA302FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F304
Valve Seat Material	NYLON
Date of Test	July 23, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL014**

**Ref. Test Report No.: FTC20120723-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**

Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1203-3PFB-RF-004
Valve Drawing No.	BA302FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PTFE
Date of Test	July 23, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL015**  
**Ref. Test Report No.: FTC20120723-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1203-3PFB-RF-005
Valve Drawing No.	BA302FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F53
Valve Seat Material	NYLON
Date of Test	July 23, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL016**  
**Ref. Test Report No.: FTC20120724-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1204-3PFB-RF-001
Valve Drawing No.	BA304FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A105
Valve Seat Material	PTFE
Date of Test	July 24, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.







## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL017**  
**Ref. Test Report No.: FTC20120724-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1204-3PFB-RF-002
Valve Drawing No.	BA304FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A105
Valve Seat Material	NYLON
Date of Test	July 24, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL018**  
**Ref. Test Report No.: FTC20120724-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1204-3PFB-RF-003
Valve Drawing No.	BA304FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PTFE
Date of Test	July 24, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL019**

**Ref. Test Report No.: FTC20120724-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**

Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1204-3PFB-RF-004
Valve Drawing No.	BA304FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F304
Valve Seat Material	NYLON
Date of Test	July 24, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL020**  
**Ref. Test Report No.: FTC20120724-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1204-3PFB-RF-005
Valve Drawing No.	BA304FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PTFE
Date of Test	July 24, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL021**  
**Ref. Test Report No.: FTC20120725-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1205-3PFB-RF-001
Valve Drawing No.	BA304FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F53
Valve Seat Material	NYLON
Date of Test	July 25, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL022**  
**Ref. Test Report No.: FTC20120725-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1205-3PFB-RF-002
Valve Drawing No.	BA308FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A105
Valve Seat Material	PTFE
Date of Test	July 25, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL023**  
**Ref. Test Report No.: FTC20120725-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1205-3PFB-RF-003
Valve Drawing No.	BA308FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A105
Valve Seat Material	NYLON
Date of Test	July 25, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL024**  
**Ref. Test Report No.: FTC20120725-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1205-3PFB-RF-004
Valve Drawing No.	BA308FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PTFE
Date of Test	July 25, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.







## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL025**  
**Ref. Test Report No.: FTC20120725-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1205-3PFB-RF-005
Valve Drawing No.	BA308FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F304
Valve Seat Material	NYLON
Date of Test	July 25, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL026**  
**Ref. Test Report No.: FTC20120726-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1206-3PFB-RF-001
Valve Drawing No.	BA308FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PTFE
Date of Test	July 26, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL027**  
**Ref. Test Report No.: FTC20120726-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1206-3PFB-RF-002
Valve Drawing No.	BA308FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A182-F53
Valve Seat Material	NYLON
Date of Test	July 26, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL028**  
**Ref. Test Report No.: FTC20120726-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1206-3PFB-RF-003
Valve Drawing No.	BA502FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A105
Valve Seat Material	NYLON
Date of Test	July 26, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL029**

**Ref. Test Report No.: FTC20120726-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**

Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1206-3PFB-RF-004
Valve Drawing No.	BA502FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A105
Valve Seat Material	PEEK
Date of Test	July 26, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL030**  
**Ref. Test Report No.: FTC20120726-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1206-3PFB-RF-005
Valve Drawing No.	BA502FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F304
Valve Seat Material	NYLON
Date of Test	July 26, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL031**  
**Ref. Test Report No.: FTC20120727-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1207-3PFB-RF-001
Valve Drawing No.	BA502FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PEEK
Date of Test	July 27, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL032**  
**Ref. Test Report No.: FTC20120727-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1207-3PFB-RF-002
Valve Drawing No.	BA502FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F53
Valve Seat Material	NYLON
Date of Test	July 27, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.







## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL033**  
**Ref. Test Report No.: FTC20120727-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1207-3PFB-RF-003
Valve Drawing No.	BA502FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 2
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PEEK
Date of Test	July 27, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	2" and below, 2-1/2", 3", 4"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL034**

**Ref. Test Report No.: FTC20120727-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**

Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1207-3PFB-RF-004
Valve Drawing No.	BA504FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A105
Valve Seat Material	NYLON
Date of Test	July 27, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL035**  
**Ref. Test Report No.: FTC20120727-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1207-3PFB-RF-005
Valve Drawing No.	BA504FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A105
Valve Seat Material	PEEK
Date of Test	July 27, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL036**  
**Ref. Test Report No.: FTC20120728-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1208-3PFB-RF-001
Valve Drawing No.	BA504FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F304
Valve Seat Material	NYLON
Date of Test	July 28, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL037**  
**Ref. Test Report No.: FTC20120728-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1208-3PFB-RF-002
Valve Drawing No.	BA504FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PEEK
Date of Test	July 28, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL038**  
**Ref. Test Report No.: FTC20120728-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1208-3PFB-RF-003
Valve Drawing No.	BA504FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F53
Valve Seat Material	NYLON
Date of Test	July 28, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL039**  
**Ref. Test Report No.: FTC20120728-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1208-3PFB-RF-004
Valve Drawing No.	BA504FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 4
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PEEK
Date of Test	July 28, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	4", 5", 6", 8"
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL040**

**Ref. Test Report No.: FTC20120728-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**

Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1208-3PFB-RF-005
Valve Drawing No.	BA508FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A105
Valve Seat Material	NYLON
Date of Test	July 28, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.







## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL041**  
**Ref. Test Report No.: FTC20120729-ICLVALVE-01**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1209-3PFB-RF-001
Valve Drawing No.	BA508FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A105
Valve Seat Material	PEEK
Date of Test	July 29, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL042**  
**Ref. Test Report No.: FTC20120729-ICLVALVE-02**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1209-3PFB-RF-002
Valve Drawing No.	BA508FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F304
Valve Seat Material	NYLON
Date of Test	July 29, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL043**  
**Ref. Test Report No.: FTC20120729-ICLVALVE-03**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1209-3PFB-RF-003
Valve Drawing No.	BA508FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F304
Valve Seat Material	PEEK
Date of Test	July 29, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Austenitic

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL044**  
**Ref. Test Report No.: FTC20120729-ICLVALVE-04**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1209-3PFB-RF-004
Valve Drawing No.	BA508FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F53
Valve Seat Material	NYLON
Date of Test	July 29, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.





## FIRE TEST CERTIFICATE

**Certification No. : FTC-ICL-20120831-BALL045**  
**Ref. Test Report No.: FTC20120729-ICLVALVE-05**

This is to certify that the below materials have been inspected by Velosi Korea and found to be satisfactory in the Fire Test in accordance with API 607, sixth edition / EN ISO 10497 : 2010(E).

Manufacturer : **ICL CO., LTD.**  
Head Office & Factory : #55, Gomoro, 364Beon-Gil, Jillye-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea  
Location of Test : #498, Sinchun-Ri, Hanrim-Myeon, Gimhae-Si, Gyeongsangnam-Do, Korea

### 1. Description of Test Valve :

Valve Model No.	ICL-B1209-3PFB-RF-005
Valve Drawing No.	BA508FAS
Type of Test Valve	TRUNNION BALL VALVE
Description of Test Valve	3-P, FULL BORE, RF
Valve Size (NPS)	NPS 8
Pressure Rating (ANSI Class)	1500#
Valve Body Material	ASTM A182-F53
Valve Seat Material	PEEK
Date of Test	July 29, 2012

### 2. Qualified Range of Valve :

Qualified Sizes (NPS)	8" and larger
Qualified Pressure Ratings (ANSI Class)	#1500, #2500
Qualified Valve Material	Duplex

This certificate is issued in accordance with API 607, 6<sup>th</sup> edition / EN ISO 10497 : 2010(E), based on the result of test report on above mentioned test valve. For detailed report of tested valve, see the Appendix 1 Fire Test Report of this certificate. The additional valve qualification shall be limited on the valves according to para.7 requirements.

