



THE WORLDWIDE INSPECTION, EXPEDITING AND PROCUREMENT SPECIALISTS

FIRE TEST CERTIFICATE

Certification No. : FTC-KoreaUnicomValve-20130430-001
Ref. Test Report No.: UNI-FSR-0001

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0131-15080
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	3"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	25 kg
Drawing No.	U1304-Q01-001
Date of Test	April 16, 2013

2. Qualified Range of Valve :

Qualified Sizes (NPS)	3", 4", 5", 6"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6th 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-KoreaUnicomValve-20130430-002

Ref. Test Report No.: UNI-FSR-0002

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 : **KOREA UNICOM VALVE CO., LTD.**
 Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
 Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0121-15080
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	3"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	30 kg
Drawing No.	U1304-Q01-002
Date of Test	April 16, 2013

2. Qualified Range of Valve :

Qualified Sizes (NPS)	3", 4", 5", 6"
Qualified Pressure Ratings (ANSI Class)	#150, #300
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6th 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.





THE WORLDWIDE INSPECTION, EXPEDITING AND PROCUREMENT SPECIALISTS

FIRE TEST CERTIFICATE

Certification No. : FTC-KoreaUnicomValve-20130430-003
Ref. Test Report No.: UNI-FSR-0003

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0131-150200
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	8"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	65 kg
Drawing No.	U1304-Q01-003
Date of Test	April 16, 2013

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, 6th 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.





THE WORLDWIDE INSPECTION, EXPEDITING AND PROCUREMENT SPECIALISTS

FIRE TEST CERTIFICATE

Certification No. : FTC-KoreaUnicomValve-20130430-004
Ref. Test Report No.: UNI-FSR-0004

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0121-150200
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	8"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	105 kg
Drawing No.	U1304-Q01-004
Date of Test	April 16, 2013

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, 6th 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-KoreaUnicomValve-20130430-005
Ref. Test Report No.: UNI-FSR-0005

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0131-60080
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	3"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	35 kg
Drawing No.	U1304-Q01-005
Date of Test	April 17, 2013

2. Qualified Range of Valve :

Qualified Sizes (NPS)	3", 4", 5", 6"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6th 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-KoreaUnicomValve-20130430-006
Ref. Test Report No.: UNI-FSR-0006

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0121-60080
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	3"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	45 kg
Drawing No.	U1304-Q01-006
Date of Test	April 17, 2013

2. Qualified Range of Valve :

Qualified Sizes (NPS)	3", 4", 5", 6"
Qualified Pressure Ratings (ANSI Class)	#600, #800, #900
Qualified Valve Material	Ferritic

This certificate is issued in accordance with API 607, 6th 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-KoreaUnicomValve-20130430-007
Ref. Test Report No.: UNI-FSR-0007

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0131-600200
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	8"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	230 kg
Drawing No.	U1304-Q01-007
Date of Test	April 17, 2013

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, 6th 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.





THE WORLDWIDE INSPECTION, EXPEDITING AND PROCUREMENT SPECIALISTS

FIRE TEST CERTIFICATE

Certification No. : FTC-KoreaUnicomValve-20130430-008
Ref. Test Report No.: UNI-FSR-0008

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0121-600200
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	8"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A216-WCB
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	195 kg
Drawing No.	U1304-Q01-008
Date of Test	April 17, 2013

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, 6th 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-KoreaUnicomValve-20130430-009

Ref. Test Report No.: UNI-FSR-0009

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0231-150100
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A351-CF8M
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	30 kg
Drawing No.	U1304-Q01-009
Date of Test	April 18, 2013

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, 6th 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-KoreaUnicomValve-20130430-010
Ref. Test Report No.: UNI-FSR-0010

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0221-150100
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A351-CF8M
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	35 kg
Drawing No.	U1304-Q01-010
Date of Test	April 18, 2013

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, 6th 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-KoreaUnicomValve-20130430-011
Ref. Test Report No.: UNI-FSR-0011

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0231-600100
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A351-CF8M
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	45 kg
Drawing No.	U1304-Q01-011
Date of Test	April 18, 2013

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, 6th 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-KoreaUnicomValve-20130430-012
Ref. Test Report No.: UNI-FSR-0012

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0221-600100
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A351-CF8M
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	60 kg
Drawing No.	U1304-Q01-012
Date of Test	April 18, 2013

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, 6th 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-KoreaUnicomValve-20130430-013

Ref. Test Report No.: UNI-FSR-0013

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 : **KOREA UNICOM VALVE CO., LTD.**
 Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
 Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0331-150100
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A995-5A
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	30 kg
Drawing No.	U1304-Q01-013
Date of Test	April 19, 2013

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, 6th 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-KoreaUnicomValve-20130430-014
Ref. Test Report No.: UNI-FSR-0014

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0321-150100
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	150#
Valve Body Material	ASTM A995-5A
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	35 kg
Drawing No.	U1304-Q01-014
Date of Test	April 19, 2013

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, 6th 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.





THE WORLDWIDE INSPECTION, EXPEDITING AND PROCUREMENT SPECIALISTS

FIRE TEST CERTIFICATE

Certification No. : FTC-KoreaUnicomValve-20130430-015
Ref. Test Report No.: UNI-FSR-0015

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-FSD-0331-600100
Type of Test Valve	Double Eccentric Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A995-5A
Valve Seat Material	316L + RTFE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	45 kg
Drawing No.	U1304-Q01-015
Date of Test	April 19, 2013

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, 6th 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-KoreaUnicomValve-20130430-016
Ref. Test Report No.: UNI-FSR-0016

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 : **KOREA UNICOM VALVE CO., LTD.**
Location : 144B/1Lot, Namdong Industrial Complex 716, Kojan-Dong, Namdong-Gu, Inchun, Korea
Location of Test : 563-7 Bugok-Ri, Songak-Eup, Dangjin-Si, Chungcheongnam-Do, Korea

1. Description of Test Valve :

Valve Model No.	UNI-TOD-0321-600100
Type of Test Valve	Triple Offset Double Flange Type Butterfly Valve
Description of Test Valve	Body & Disc, Seat, Stem, Worm-Gear Actuator
Valve Size (NPS)	4"
Pressure Rating (ANSI Class)	600#
Valve Body Material	ASTM A995-5A
Valve Seat Material	316L + GRAPHITE
Seat Configuration	Symmetric, Bi-directional Service
Valve Weight	60 kg
Drawing No.	U1304-Q01-016
Date of Test	April 19, 2013

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, 6th 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.

