



DK LOK DBB Overview

DOUBLE BLOCK & BLEED VALVE

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1. DBB ?



■ Definition : DBB & Monoflange

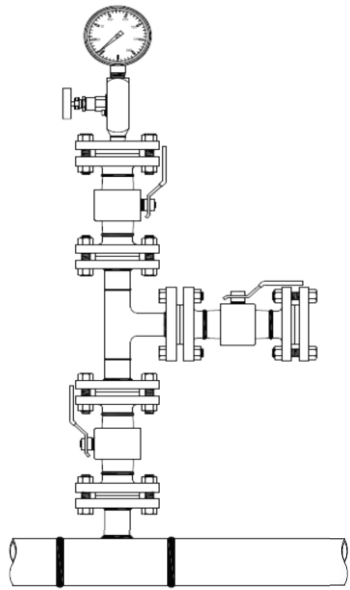
- DK-Lok Double Block & Bleed and Monoflange Valve enable a smooth transition from the process piping system to instrumentation in a single configuration.
- Used for Process piping isolation points, Direct mount to instruments and sampling system etc..
- Providing fewer potential leak points, lower installed weight, and a smaller space envelope.

■ Application

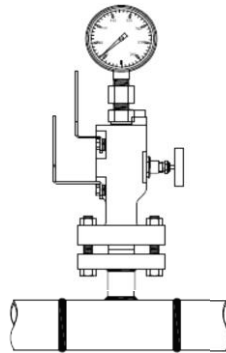
- Offshore oil and gas production
- Offshore terminals
- Chemical, petro-chemical, refining
- Control panel manufactures



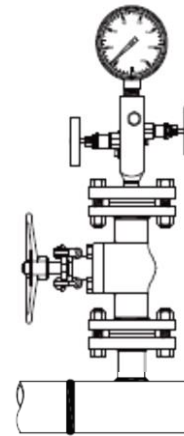
2. Feature



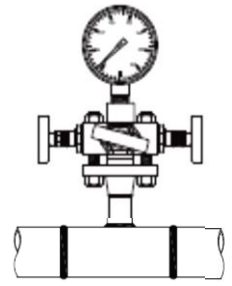
***Compact
Module***



Double Block Bleed V/v



***Compact
Module***

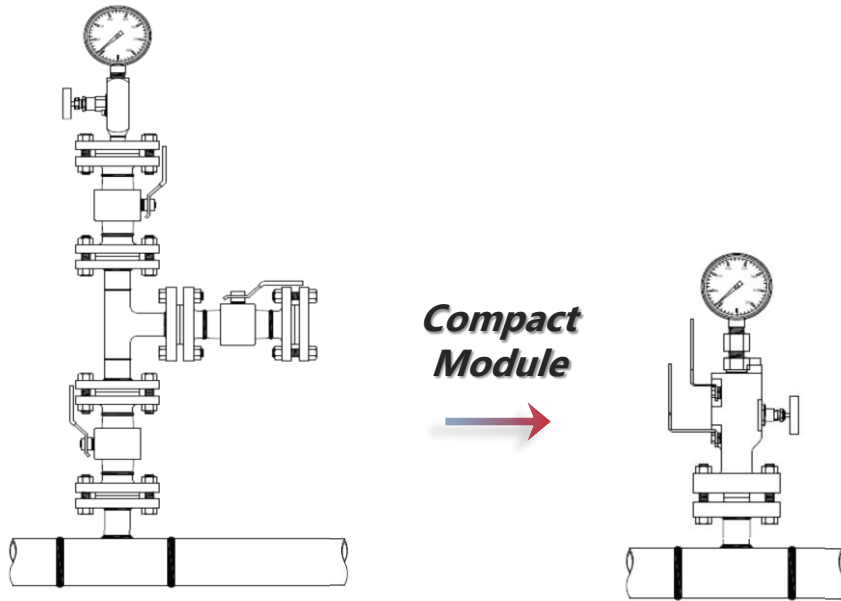


Mono Flange V/v

Installation

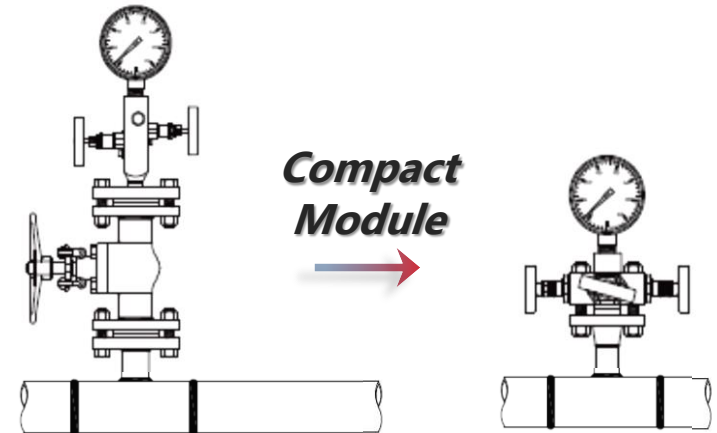
- Compact size and reduced weight minimize space envelopes and support structure required
- Installation of single valve unit is faster than multiple valves
- Single valve unit reduces the number of joints and potential leak paths
- Single-source unit reduces maintenance time and cost

2. Feature



Double Block Bleed V/v

**Compact
Module**



Mono Flange V/v

**Compact
Module**

▪ Advantages

- More compact design
- Reduced weight and height
- High Performance Seats
- Reduced vibrational stresses
- Reduced gaskets and bolting
- Reduced installation cost

▪ Application

- DBB instrument isolation
- Piping instrument interface
- Chemical instrument isolation
- Chemical injection connection
- Direct mounting of instruments
- Remote mounting of instruments
- Gauge isolation
- Instrument drain
- Sample connection

3. Process Interface Valve (DBB)



Size

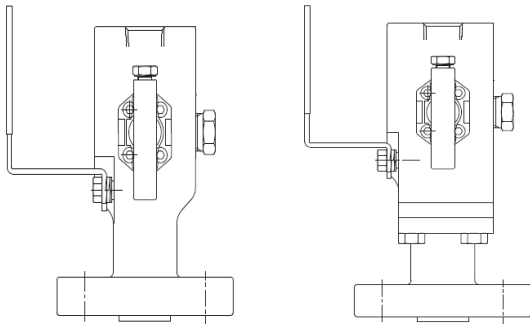
- Flange Size: 1/2" to 3"
- Bore Size(mm): 9.5, 14, 19, 25, 38, 50

Design Standard

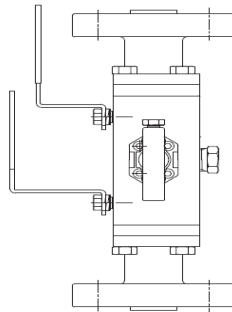
- Valve Body: ASME B16.34 / API 6D
- Flange Connection: ASME B16.5
- Thread Connection: ASME B1.20.1
- Fire Safety Design
- Anti-Static Device
- Blow-Out Proof Stem

Item Range

- Pressure Class 150 To 2,500
- Temperature Range
 - Soft Seat: -46 °C ~ 204 °C
 - Metal Seat: -46 °C ~ 400 °C



Single Block Bleed V/v



Double Block Bleed V/v

3. Process Monoflange



Size

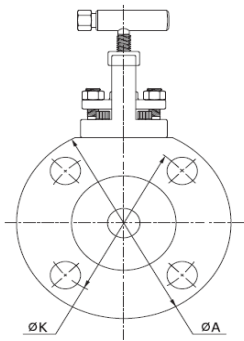
- Flange Size: 1/2", 3/4", 1", 1 1/2", 2"

Design Standard

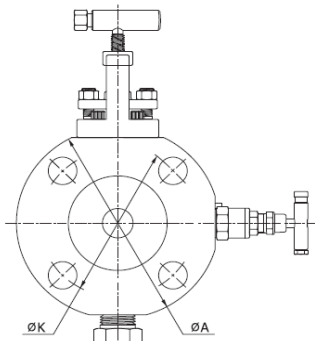
- Valve Body: ASME B16.34 / API 6D
- Flange Connection: ASME B16.5
- Thread Connection: ASME B1.20.1
- Fire Safety Design
- Anti-Static Device
- Blow-Out Proof Stem

Item Range

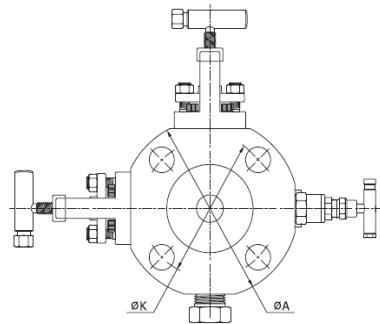
- Pressure Class 150 To 2,500
- Temperature Range
 - Soft Seat: -46 °C ~ 204 °C
 - Metal Seat: -46 °C ~ 400 °C



Block Bleed V/v

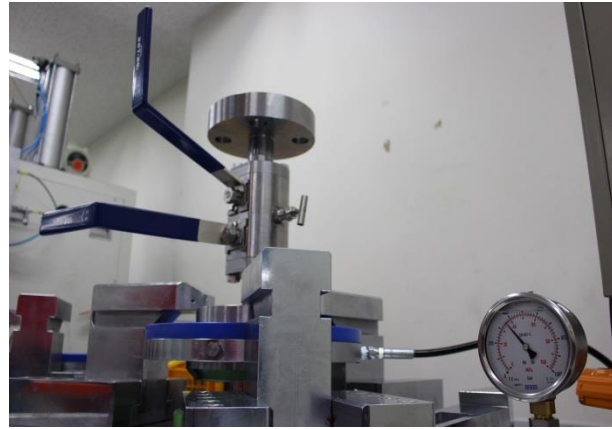
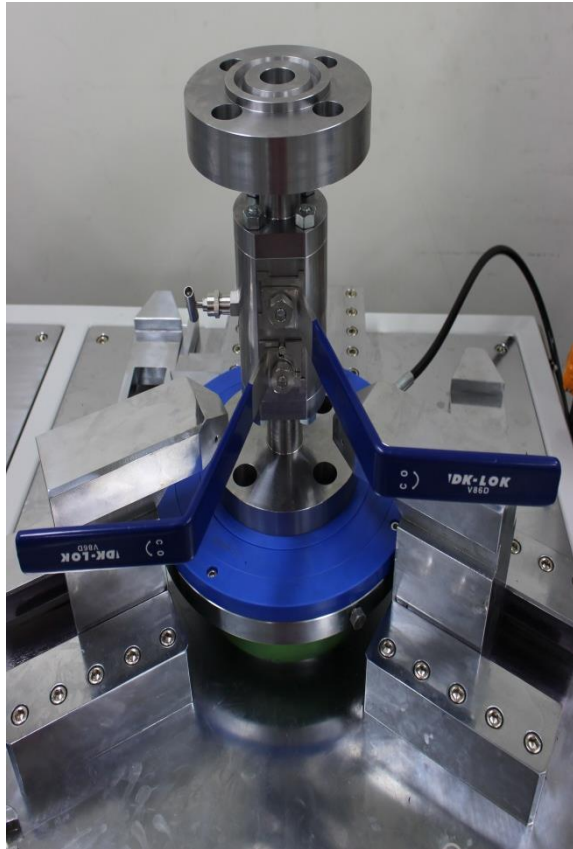


Single Block Bleed V/v



Double Block Bleed V/v

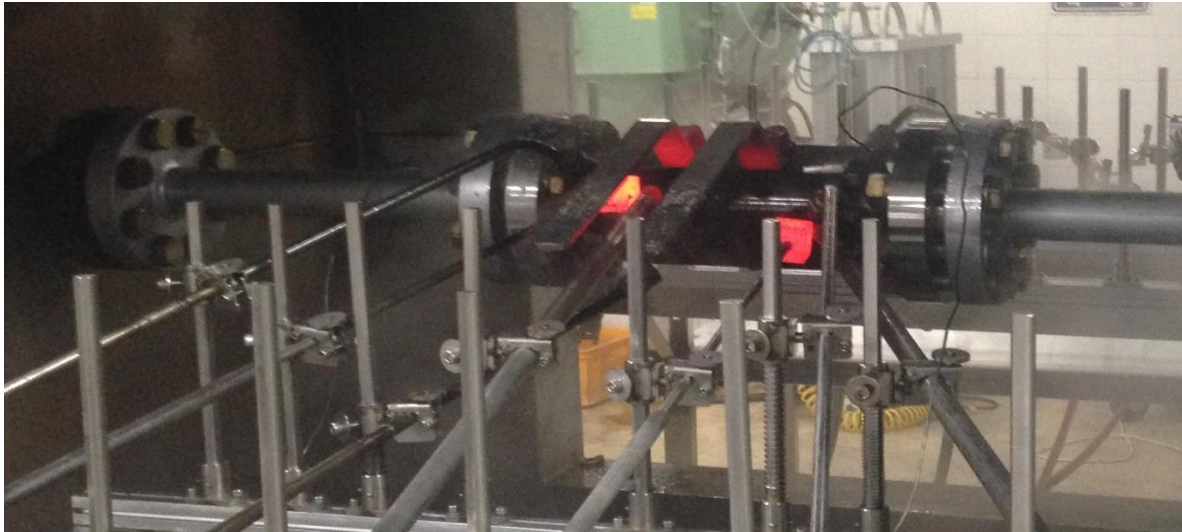
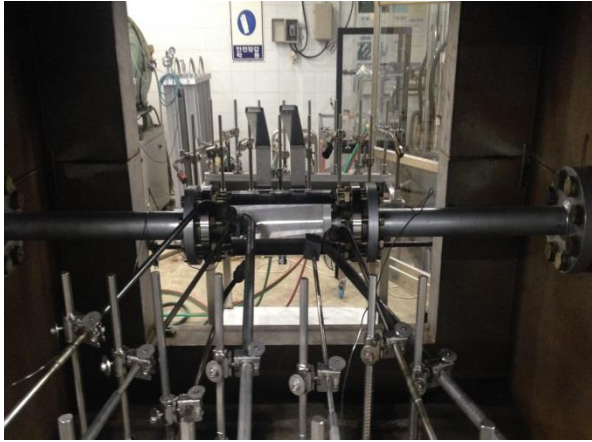
4. Testing 1/2 – Hydrostatic Test



Testing

- **Factory Test (Hydro Test)**
 - Shell Test: Max. Working Pressure X 1.5
 - Seat Test: Max. Working Pressure X 1.1
 - **If Required**
 - API 598 / API6D / ISO 5208 / BS 6755-1
-

4. Testing 2/2 – Fire Safe Test

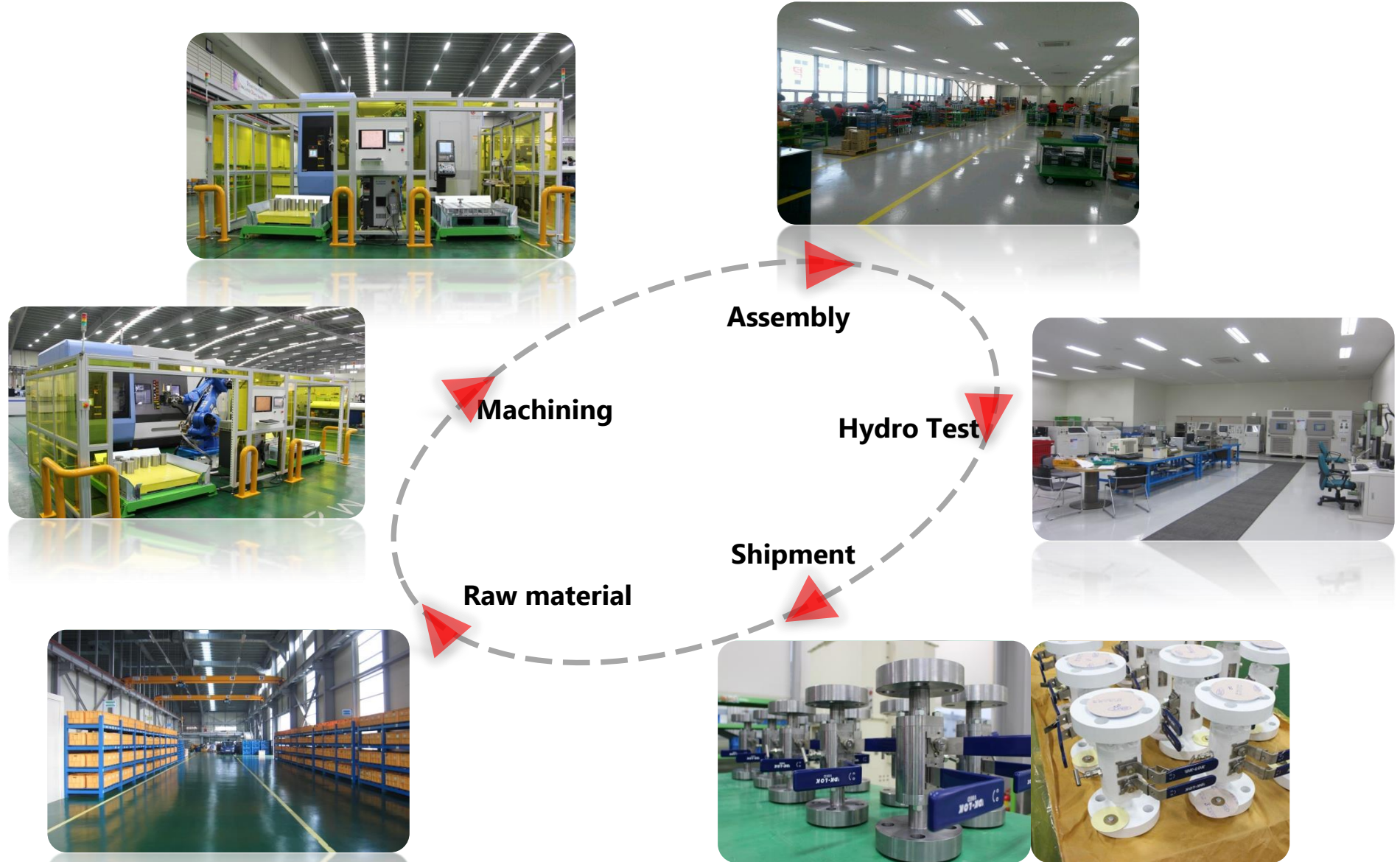


Optional Test


- Performed by Dong-A University
Technical Center

- Fire Safe Test: API 607
 - Fugitive Emission Test: ISO 15848 ½
 - Class : 150 through 1,500
 - Flange size : 2", 2 ½", 3", 4"
 - Material: A105, A182
-

5. Manufacturing Process



6. Certification



Pacific Technical Service Co., Ltd.
Certificate No. FTS-2015-DKL-BV-150-2-F316-1
Tel: 82-2-458-4289
www.pts-korea.com
e-mail: pts@pts-korea.com

Fire-safe Test Certificate for Design Validation

Certificate No. FTS-2015-DKL-BV-150-2-F316-1 Date : Nov. 06, 2015

Applicant / Manufacturer : DK-LOK Corporation

Kind of test : Fire-safe design validation test for type-approval

Test item : DBB Ball Valve 2" Class 150 Flanged, RF 1 set
Body & Flange Connector : A182-F316
Ball & Seat Retainer : A276-type 316
Ball Seat / Pack, Retainer Seal / Graphite
O-Ring / Back-up Ring / Viton / RTFE
Stem : A276-type 316, Stem Bearing / Pack
Flange Conn. Stud Bolt/Nut : A193-B8M/A194-8M
Drawing No. : 150-SOA-RF-F316-Rev.0/2015.09.08

Design Std / Test Std : ANSI B16.34 / API 607-6th:2010


Test Date : Oct. 27, 2015 (Report # TCHPV-15-11-112)


Test Place : Technical Center for High Performance Valves,
Dong-A University in Busan, Korea


This is to certify that the fire test has been performed by the manufacturer under our witness as above, and the results are satisfied with the requirements of API 607 for the above product, so we hereby confirm the qualification of Stainless Steel valves of Class 150 through Class 300 rating with 2" and below, 2 1/2", 3", 4" size per API 607 Clause 7.3 & 7.4.

API 607 FIRE SAFE TEST


Note: This certificate reflects only our witnessing findings at the time and place of test and does not refer to any other matters.

Witnessed by:  S.H. Koo / Manager, Industrial Service Dept.

Reviewed by:  S.H. Koo / Manager, Industrial Service Dept.

Approved by:  S.H. Koo / Manager, Industrial Service Dept.

A182 Class 150~2500(Carbon steel)



Pacific Technical Service Co., Ltd.
Certificate No. FTS-2015-DKL-BV-150-2-A105-1
Tel: 82-2-458-4289
www.pts-korea.com
e-mail: pts@pts-korea.com

Fire-safe Test Certificate for Design Validation

Certificate No. FTS-2015-DKL-BV-150-2-A105-1 Date : Oct. 07, 2015

Applicant / Manufacturer : DK-LOK Corporation

Kind of test : Fire-safe design validation test for type-approval

Test item : DBB Ball Valve 2" Class 150 Flanged, RF 1 set
Body & Flange Connector : A105
Ball & Seat Retainer : A276-type 316
Ball Seat / Pack, Retainer Seal / Graphite
O-Ring / Back-up Ring / Viton / RTFE
Stem : A276-type 316, Stem Bearing / Pack
Flange Conn. Stud Bolt/Nut : A193-B7A/A194-2H
Drawing No. : 150-SOA-RF-A105-Rev.0/2015.09.08

Design Std / Test Std : ASME B16.34 / API 607-6th:2010


Test Date : Sept. 22, 2015 (Report # TCHPV-15-10-109)


Test Place : Technical Center for High Performance Valves,
Dong-A University in Busan, Korea


This is to certify that the fire test has been performed by the manufacturer under our witness as above, and the results are satisfied with the requirements of API 607 for the above product, so we hereby confirm the qualification of Steel valves of Class 150 through Class 300 rating with 2" and below, 2 1/2", 3", 4" size per API 607 Clause 7.3 & 7.4.

API 607 FIRE SAFE TEST

Note: This certificate reflects only our witnessing findings at the time and place of test and does not refer to any other matters.

Witnessed by:  S.H. Koo / Manager, Industrial Service Dept.

Reviewed by:  S.H. Koo / Manager, Industrial Service Dept.

Approved by:  S.H. Koo / Manager, Industrial Service Dept.

A105 Class 150~2500(Stainless steel)

■ Fire safe Test Certificate

- Certified by: PTS Pacific Technical Service Co.,Ltd.

- Certificate No.:

- 1) A182 Class 150: FTS-2015-DKL-BV-150-2-F316-1
- 2) A182 Class 600: FTS-2015-DKL-BV-600-2-F316-2
- 3) A182 Class 1500: FTS-2015-DKL-BV-1500-2-F316-3
- 4) A105 Class 150: FTS-2015-DKL-BV-150-2-A105-1
- 5) A105 Class 600: FTS-2015-DKL-BV-600-2-A105-2
- 6) A105 Class 1500: FTS-2015-DKL-BV-1500-2-A105-3

IDK-LOK

Fittings & Valves

