



# Certificate of Compliance

**Certificate:** 1087464

**Master Contract:** 248050 (248050)

**Project:** 70137572

**Date Issued:** 2017-07-20

**Issued to:** Ningbo EFF Manufactory Co. Ltd.  
LongShan Industrial District  
208 LongZhen Road  
Cixi City, Zhejiang 315311  
CHINA  
Attention: Dong Tai Lin

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



**Issued by:** *Vajira Sarathchandra*  
Vajira Sarathchandra

## PRODUCTS

CLASS C3371 10 - VALVES (GAS)-Lever Operated Non-Lubricated Shutoff

CLASS C3371 90 - VALVES (GAS)-Lever Operated Non-Lubricated-Shutoff-Certified to U.S. Standards

### Model Number

### TYPE

### Size (Inches)

**For use with Natural, Manufactured, Mixed, Liquefied Petroleum or Propane and LP Gas-Air mixtures;**

#### **Regular/Full port, 125 psig and 175 psig ball valves;**

#### **Trade Name: EFF**

|                 |                                    |                 |
|-----------------|------------------------------------|-----------------|
| EFFN-01(-LF*)   | Straight, NPT Female Connections   | 1/4" x 1/4"     |
| EFFN-02(-LF*)   | Straight, NPT Female Connections   | 3/8" x 3/8"     |
| EFFN-03(-LF*)   | Straight, NPT Female Connections   | 1/2" x 1/2"     |
| EFFN-04(-LF*)   | Straight, NPT Female Connections   | 3/4" x 3/4"     |
| EFFN-05(-LF*)   | Straight, NPT Female Connections   | 1" x 1"         |
| EFFN-06(-LF*)   | Straight, NPT Female Connections   | 1 1/4" x 1 1/4" |
| EFFN-07(-LF*)   | Straight, NPT Female Connections   | 1 1/2" x 1 1/2" |
| EFFN-08(-LF*)   | Straight, NPT Female Connections   | 2" x 2"         |
| EFFN-09(-LF*)   | Straight, NPT Female Connections   | 2 1/2" x 2 1/2" |
| EFFN-10(-LF*)   | Straight, NPT Female Connections   | 3" x 3"         |
| EFFN-11(-LF*)   | Straight, NPT Female Connections   | 4" x 4"         |
| EFFLMN-03(-LF*) | Straight, NPT, MIPxFIP Connections | 1/2" x 1/2"     |



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|                  |  |             |
|------------------|--|-------------|
| EFFLMN-04(-LF*)  | Straight, NPT, MIPxFIP Connections           | 3/4" x 3/4" |
| EFFLMN-05(-LF*)  | Straight, NPT, MIPxFIP Connections           | 1" x 1"     |
| EFFLMND-01(-LF*) | Straight, NPT, MIPxFIP Connections, w/ Drain | 1/2" x 1/2" |
| EFFLMND-02(-LF*) | Straight, NPT, MIPxFIP Connections, w/ Drain | 3/4" x 3/4" |
| EFFLMND-03(-LF*) | Straight, NPT, MIPxFIP Connections w/ Drain  | 1" x 1"     |
| EFFDN-01(-LF*)   | Straight, NPT Female Connections             | 1/2" x 1/2" |
| EFFDN-02(-LF*)   | Straight, NPT Female Connections             | 3/4" x 3/4" |
| EFFDN-03(-LF*)   | Straight, NPT Female Connections             | 1" x 1"     |

\*Lead Free Option

**Reduced port, 125 psig and 175 psig ball valves;**

|                 |                                  |                                       |
|-----------------|----------------------------------|---------------------------------------|
| GBV-038         | Straight, NPT Female Connections | <b>Trade Name: EFF</b><br>3/8" x 3/8" |
| GBV-01, GBVD-01 | Straight, NPT Female Connections | 1/2" x 1/2"                           |
| GBV-02, GBVD-02 | Straight, NPT Female Connections | 3/4" x 3/4"                           |
| GBV-03          | Straight, NPT Female Connections | 1" x 1"                               |

**Reduced port, one piece body 125 psig and 175 psig ball valves;**

|          |                                  |                                       |
|----------|----------------------------------|---------------------------------------|
| GBV1P-01 | Straight, NPT Female Connections | <b>Trade Name: EFF</b><br>1/2" x 1/2" |
| GBV1P-02 | Straight, NPT Female Connections | 3/4" x 3/4"                           |

- The 1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2" & 2" valves are certified for operation at ambient temperature range of -40°C to 65°C (-40°F to 149°F).
- The 2 1/2", 3" & 4" valves are certified for operation at ambient temperature range of -20°C to 65°C (-4°F to 149°F).
- \* 1/4" & 3/8" valves are certified for Canadian requirements only.

CLASS C3371 08 - VALVES (GAS)-General Use

CLASS C3371 12 - VALVES (GAS)-Manually Operated For Use on Piping

CLASS C3371 88 - VALVES (GAS)-General Use-Certified to U.S. Standards

CLASS C3371 92 - VALVES (GAS)-Manually Operated For Use in House-Piping Systems-Certified to U.S. Standards

**Model Number                      Type                      Size (Inches)**  
**For use with Natural, Manufactured, Mixed, Liquefied Petroleum or Propane and LP Gas-Air mixtures;**

**Regular/Full port, 1/2, 2 & 5 psig ball valves;**

|               |                                  |                                       |
|---------------|----------------------------------|---------------------------------------|
| EFFN-01(-LF*) | Straight, NPT Female Connections | <b>Trade Name: EFF</b><br>1/4" x 1/4" |
| EFFN-02(-LF*) | Straight, NPT Female Connections | 3/8" x 3/8"                           |
| EFFN-03(-LF*) | Straight, NPT Female Connections | 1/2" x 1/2"                           |
| EFFN-04(-LF*) | Straight, NPT Female Connections | 3/4" x 3/4"                           |
| EFFN-05(-LF*) | Straight, NPT Female Connections | 1" x 1"                               |
| EFFN-06(-LF*) | Straight, NPT Female Connections | 1 1/4" x 1 1/4"                       |
| EFFN-07(-LF*) | Straight, NPT Female Connections | 1 1/2" x 1 1/2"                       |
| EFFN-08(-LF*) | Straight, NPT Female Connections | 2" x 2"                               |



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|                  |  |             |
|------------------|--|-------------|
| EFFLMN-03(-LF*)  | Straight, NPT, MIPxFIP Connections           | 1/2" x 1/2" |
| EFFLMN-04(-LF*)  | Straight, NPT, MIPxFIP Connections           | 3/4" x 3/4" |
| EFFLMN-05(-LF*)  | Straight, NPT, MIPxFIP Connections           | 1" x 1"     |
| EFFLMND-01(-LF*) | Straight, NPT, MIPxFIP Connections, w/ Drain | 1/2" x 1/2" |
| EFFLMND-02(-LF*) | Straight, NPT, MIPxFIP Connections, w/ Drain | 3/4" x 3/4" |
| EFFLMND-03(-LF*) | Straight, NPT, MIPxFIP Connections w/ Drain  | 1" x 1"     |

|                |                                  |             |
|----------------|----------------------------------|-------------|
| EFFDN-01(-LF*) | Straight, NPT Female Connections | 1/2" x 1/2" |
| EFFDN-02(-LF*) | Straight, NPT Female Connections | 3/4" x 3/4" |
| EFFDN-03(-LF*) | Straight, NPT Female Connections | 1" x 1"     |

|               |                           |                 |
|---------------|---------------------------|-----------------|
| EFFC-01(-LF*) | Straight, CxC Connections | 1/2" x 1/2"     |
| EFFC-02(-LF*) | Straight, CxC Connections | 3/4" x 3/4"     |
| EFFC-03(-LF*) | Straight, CxC Connections | 1" x 1"         |
| EFFC-04(-LF*) | Straight, CxC Connections | 1 1/4" x 1 1/4" |
| EFFC-05(-LF*) | Straight, CxC Connections | 1 1/2" x 1 1/2" |
| EFFC-06(-LF*) | Straight, CxC Connections | 2" x 2"         |

|                |                           |             |
|----------------|---------------------------|-------------|
| EFFDC-01(-LF*) | Straight, CxC Connections | 1/2" x 1/2" |
| EFFDC-02(-LF*) | Straight, CxC Connections | 3/4" x 3/4" |
| EFFDC-03(-LF*) | Straight, CxC Connections | 1" x 1"     |

\*Lead Free Option

**Regular/Full port, 1/2 psig ball valves;**

|               |                                  |   |
|---------------|----------------------------------|---|
| EFFN-09(-LF*) | Straight, NPT Female Connections | <b>Trade Name:</b> EFF<br>2 1/2" x 2 1/2" |
| EFFN-10(-LF*) | Straight, NPT Female Connections | 3" x 3"                                   |
| EFFN-11(-LF*) | Straight, NPT Female Connections | 4" x 4"                                   |

|               |                           |                 |
|---------------|---------------------------|-----------------|
| EFFC-07(-LF*) | Straight, CxC Connections | 2 1/2" x 2 1/2" |
| EFFC-08(-LF*) | Straight, CxC Connections | 3" x 3"         |
| EFFC-09(-LF*) | Straight, CxC Connections | 4" x 4"         |

\*Lead Free Option

**Reduced port, 1/2, 2 & 5 psig ball valves;**

|                 |                                  |                                       |
|-----------------|----------------------------------|---------------------------------------|
| GBV-038         | Straight, NPT Female Connections | <b>Trade Name:</b> EFF<br>3/8" x 3/8" |
| GBV-01, GBVD-01 | Straight, NPT Female Connections | 1/2" x 1/2"                           |
| GBV-02, GBVD-02 | Straight, NPT Female Connections | 3/4" x 3/4"                           |
| GBV-03          | Straight, NPT Female Connections | 1" x 1"                               |

**Regular/Standard port, 1/2, 2 & 5 psig ball valves;**

|         |  |   |
|---------|--|---|
| FIBV-00 | Straight, NPT Female x Flare End Connections | <b>TradeName:</b> EFF<br>1/2" x 3/8" fl |
| FIBV-01 | Straight, NPT Female x Flare End Connections | 3/8" x 3/8" fl                          |
| FIBV-02 | Straight, NPT Female x Flare End Connections | 1/2" x 3/8" fl                          |
| FIBV-03 | Straight, NPT Female x Flare End Connections | 1/2" x 1/2" fl                          |
| FIBV-04 | Straight, NPT Female x Flare End Connections | 1/2" x 5/8" fl                          |
| FIBV-05 | Straight, NPT Female x Flare End Connections | 3/4" x 1/2" fl                          |



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|---------|--|----------------|
| FIBV-06 | Straight, NPT Female x Flare End Connections | 3/4" x 5/8" fl |
| FIBV-07 | Straight, NPT Female x Flare End Connections | 3/4" x 5/8" fl |
| FIBV-08 | Straight, NPT Female x Flare End Connections | 1/2" x 5/8" fl |

**Regular/Standard port, 1/2, 2 & 5 psig ball valves;**

**Trade Name:** EFF

|         |                                 |                   |
|---------|---------------------------------|-------------------|
| FFBV-01 | Straight, Flare End Connections | 3/8" fl x 3/8" fl |
| FFBV-02 | Straight, Flare End Connections | 1/2" fl x 1/2" fl |
| FFBV-03 | Straight, Flare End Connections | 5/8" fl x 5/8" fl |
| FFBV-04 | Straight, Flare End Connections | 5/8" fl x 5/8" fl |

**Regular/Standard port, 1/2, 2 & 5 psig ball valves;**

**Trade Name:** EFF

|         |  |                |
|---------|--|----------------|
| FMBV-01 | Straight, NPT Male x Flare End Connections | 1/2" x 3/8" fl |
| FMBV-02 | Straight, NPT Male x Flare End Connections | 1/2" x 1/2" fl |

**Full port, 1/2, 2 & 5 psig ball valves;**

**Trade Name:** EFF

|          |  |                |
|----------|--|----------------|
| FIFBV-01 | Straight, NPT Female x Flare End Connections | 3/8" x 3/8" fl |
| FIFBV-02 | Straight, NPT Female x Flare End Connections | 1/2" x 3/8" fl |
| FIFBV-03 | Straight, NPT Female x Flare End Connections | 1/2" x 1/2" fl |
| FIFBV-04 | Straight, NPT Female x Flare End Connections | 1/2" x 5/8" fl |
| FIFBV-05 | Straight, NPT Female x Flare End Connections | 3/4" x 1/2" fl |

- The EFF (1/4" thru 2"), GBV, FIBV, FFBV, FMBV & FIFBV series models are certified for operation at ambient temperature range of -40°C to 65°C (-40°F to 149°F).
- The EFF, 2 1/2", 3" & 4" valves are certified for operation at ambient temperature range of -20°C to 65°C (-4°F to 149°F).
- The maximum ambient temperature for the 2 & 5 psig valve is 52°C (149°F).

CLASS C3371 01 - VALVES (GAS)-Appliance Connector

CLASS C3371 81 - VALVES (GAS)-Appliance Connector-Certified to U.S. Standards

**Model Number                      Type                      Size (Inches)**  
**For use with Natural, Manufactured, Mixed, Liquefied Petroleum or Propane and LP Gas-Air mixtures;**

**Regular/Standard port, 1/2, 2 & 5 psig ball valves;**

**Trade Name:** EFF

|         |  |                |
|---------|--|----------------|
| FIBV-00 | Straight, NPT Female x Flare End Connections | 1/2" x 3/8" fl |
| FIBV-01 | Straight, NPT Female x Flare End Connections | 3/8" x 3/8" fl |
| FIBV-02 | Straight, NPT Female x Flare End Connections | 1/2" x 3/8" fl |
| FIBV-03 | Straight, NPT Female x Flare End Connections | 1/2" x 1/2" fl |
| FIBV-04 | Straight, NPT Female x Flare End Connections | 1/2" x 5/8" fl |
| FIBV-05 | Straight, NPT Female x Flare End Connections | 3/4" x 1/2" fl |
| FIBV-06 | Straight, NPT Female x Flare End Connections | 3/4" x 5/8" fl |
| FIBV-07 | Straight, NPT Female x Flare End Connections | 3/4" x 5/8" fl |
| FIBV-08 | Straight, NPT Female x Flare End Connections | 1/2" x 5/8" fl |

**Regular/Standard port, 1/2, 2 & 5 psig ball valves;**

**Trade Name:** EFF

|         |  |                |
|---------|--|----------------|
| FMBV-01 | Straight, NPT Male x Flare End Connections | 1/2" x 3/8" fl |
|---------|--|----------------|



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FMBV-02 Straight, NPT Male x Flare End Connections 1/2" x 1/2" fl

**Full port, 1/2, 2 & 5 psig ball valves;**

**Trade Name:** EFF

|          |  |                |
|----------|--|----------------|
| FIFBV-01 | Straight, NPT Female x Flare End Connections | 3/8" x 3/8" fl |
| FIFBV-02 | Straight, NPT Female x Flare End Connections | 1/2" x 3/8" fl |
| FIFBV-03 | Straight, NPT Female x Flare End Connections | 1/2" x 1/2" fl |
| FIFBV-04 | Straight, NPT Female x Flare End Connections | 1/2" x 5/8" fl |
| FIFBV-05 | Straight, NPT Female x Flare End Connections | 3/4" x 1/2" fl |

- The FIBV, FMBV & FIFBV series models are certified for operation at ambient temperature range of -40°C to 65°C (-40°F to 149°F).
- The maximum ambient temperature for the 2 & 5 psig valve is 52°C (149°F).

**APPLICABLE REQUIREMENTS**

For 1/2 psig valves:

ANSI Z21.15-2009 / CSA 9.1-2009 R(2014) Manually Operated Gas Valves For Appliances, Appliance Connector Valves And Hose End Valves

For 2& 5 psig valves:

CGA Requirement CR91-002 Manually Operated Gas Valves For Use On Piping  
ASME B16.44-2012 Manually Operated Metallic Gas Valves For Use In Aboveground Piping Systems Up To 5 Psig

For 125 psig valves:

CSA 3.16-2015 Lever Operated Non-Lubricated Gas Shut-Off Valves.  
ASME B16.33-2012 Manually Operated Metallic Gas Valves For Use In Gas Piping Systems up to 125 psig. (1/2" thru 2").  
ASME B16.38-2012 Manually Operated Metallic Gas Valves For Use In Gas Piping Systems up to 125 psig. (2½" thru 12").

For 175 psig valves:

Interim Requirement No. 60 Lever Operated Gas Shut-Off Valves



## *Supplement to Certificate of Compliance*

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**Master Contract:** 248050 (248050)

*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

| <b>Project</b> | <b>Date</b> | <b>Description</b>  |
|----------------|-------------|---|
| 70137572       | 2017-07-20  | Addition of LEAD-FREE valves to EFFC, EFFDC, EFFN & EFFDN series. Addition EFFLMN/EFFLMND series with LEAD-FREE option. Updated to CSA 3.16-2015 as per CSA Gas Notice No. 378. |
| 70060015       | 2016-01-14  | Addition of models FFBV-04, FIBV-00, FIBV-06, FIBV-07, and FIBV-08  |
| 2533660        | 2012-08-07  | Add standard IR 60 to certification. This was never added and should have been. This supports the 175 psi pressure rating on previous reports.                                  |
| 2507745        | 2012-05-22  | Transfer listed models and to new master contract and revise model numbers.   |
| 2111144        | 2009-03-06  | Update to report 1087464 to add new models GBVD-01 & GBVD-02 with pressure tap  |
| 1898266        | 2007-03-30  | Update Report and Certification Record to Fix Model Number/Size Errors on GBV-038 & FFBV-02   |
| 1571429        | 2005-02-07  | Evaluation to compliance with ASME B16.33 & ASME B16.44   |
| 1476792        | 2003-11-13  | Certification of Gas Valves, models GBV1P(01,02)  |
| 1432588        | 2003-07-28  | Certification of 3/8" and address change  |