

"Apollo"®

Valves

INDUSTRIAL
PRODUCTS



CSA 3.16 approval guide

www.apollovalves.com
customer service 905.761.6161



integrated
piping systems

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CSA 3.16-15
LEVER OPERATED NON-LUBRICATED GAS SHUT-OFF VALVES

This Standard applies to manual lever operated gas shut-off valves, sizes NPS 1/4 inch to 8 inch, of metallic construction with welded, or flanged, or threaded ends other than pressure lubricated designs for use with natural gas, manufactured gas, and liquefied petroleum gases (distributed as vapour with or without the admixture of air), or mixtures thereof that are suitable for use between service temperatures of -60°C to 180°C (-76°F to 356°F) over a pressure range of 0 to 860 kPa (125 psig) and that withstand field pressure testing to a maximum permissible pressure of 1290 kPa (187 Psig).

Notes:

1. Valves covered by this Standard may be used on "digester gas" (methane produced during sewage treatment), but because of entrained contaminants their use is to be subject to agreement between the manufacturer and the purchaser.
2. Valves covered by this Standard may not be used on "sour gas" (gas with entrained hydrogen sulphide) without modification(s). Manufacturers should be consulted for their recommendation(s).



ON
OFF

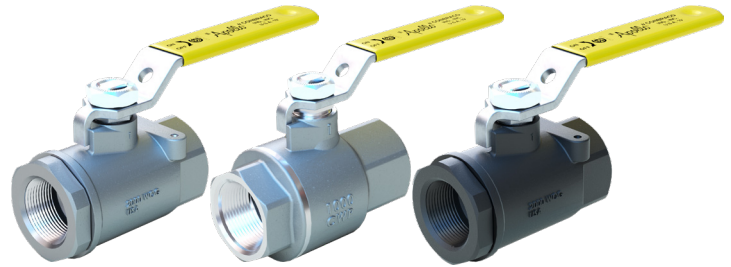
CSA 3.16

"Apollo" CONBRACO
IND., INC.
U.S.A. 19'

2-PIECE BALL VALVES

76, 76F, 89 SERIES

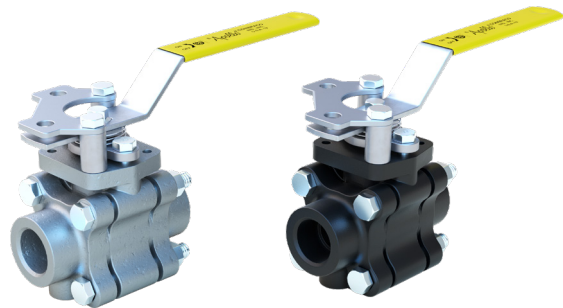
- Investment cast components
- Reinforced seats
- Blowout-proof stem design
- Adjustable packing gland
- Stainless steel lever and nut
- Fire safe to API 607 (requires -24 suffix)
- Meets NACE MR0175 (2000) & MR0103 (2012)
- **-GS suffix required**



3-PIECE BALL VALVES

83B & 86B SERIES

- ASME B16.34, Class 600
- 3-piece construction w/enclosed fasteners
- Two-position locking lever handle
- Full port
- Adjustable multi-piece PTFE "V" style packing
- Swing-out center section
- Compression controlled spiral wound gaskets
- Vacuum service to 29 in of Hg
- Blowout-proof one piece bottom entry stem
- Statically grounded ball, stem & body



FLANGED VALVES

87A & 88A SERIES

- ASME B16.34, Class 150
- Two position locking device (6" - full port, 8" - standard port and smaller)
- Chevron style adjustable stem seals
- Slot vented ball for thermal expansion
- Anti-static grounded ball and stem
- Blowout-proof stem design
- Vacuum service to 29 inches of Hg
- NACE MR0175 (2000) compliance on all 87A/87B/88A/88B/88L valves with SS ball & stem
- NACE MR0103 (2003) compliance on all 87A/87B/88A/88B/88L valves with SS ball & stem
- **-UL suffix required**

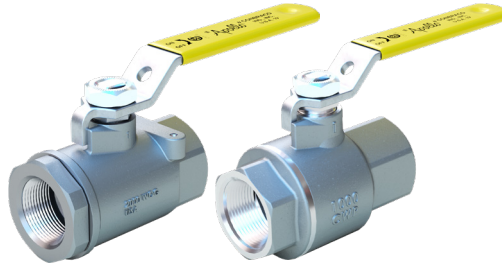


HIGH PERFORMANCE BUTTERFLY VALVES

215L/W SERIES

- Rocker style packing gland
- Chevron style adjustable stem seals
- Anti-extrusion ring prevents extrusion of stem seal
- Full length stem bearing
- Blowout-proof stem design
- Vacuum service to 29 inches of Hg
- Taper pins are tangential putting them in compression, rather than sheer stress
- Seat retainer ensures full pressure, bi-directional dead end service





Certificate of Compliance

Certificate: 2646937 (112384_0_000) **Master Contract:** 187265
Project: 70051388 **Date Issued:** 2016-01-11
Issued to: Apollo Valves (Conbraco Industries, Inc.)
 1418 S Pearl St
 Pageland, South Carolina 29728
 USA
Attention: Stephen Vollentine

The products listed below are eligible to bear the CSA Mark shown



Issued by: *James Sekerak*
 James Sekerak

PRODUCTS

CLASS - C337110 - VALVES (GAS)-Lever Operated Non-Lubricated Shutoff

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

For Use with Natural, Mfd., Mixed, Liquefied Petroleum or Propane Gases and LP Gas-Air Mixtures

Straight Through

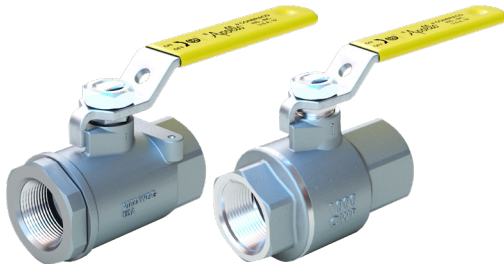
Model Number

76-100 Series

- 76-10101A, Rated Pressure: 125 psi, Inlet Size: 1/4"
- 76-102-01A, Rated Pressure: 125 psi, Inlet Size: 3/8"
- 76-103-01A, Rated Pressure: 125 psi, Inlet Size: 1/2"
- 76-104-01A, Rated Pressure: 125 psi, Inlet Size: 3/4"
- 76-105-01A, Rated Pressure: 125 psi, Inlet Size: 1"
- 76-106-01, Rated Pressure: 125 psi, Inlet Size: 1-1/4"
- 76-107-01, Rated Pressure: 125 psi, Inlet Size: 1-1/2"
- 76-108-01, Rated Pressure: 125 psi, Inlet Size: 2"
- 76-109-01, Rated Pressure: 125 psi, Inlet Size: 2-1/2"
- 76-100-01, Rated Pressure: 125 psi, Inlet Size: 3"

76 & 76F SERIES

CERTIFICATE OF COMPLIANCE



Certificate: 2646937
Project: 70051388

Master Contract: 187265
Date Issued: 2016-01-11

76F-100 Series

- 76F-101-(01,27), Rated Pressure: 125 psi, Inlet Size: 1/4"
- 76F-102-(01,27), Rated Pressure: 125 psi, Inlet Size: 3/8"
- 76F-103-(01,27)A, Rated Pressure: 125 psi, Inlet Size: 1/2"
- 76F-104-(01,27)A, Rated Pressure: 125 psi, Inlet Size: 3/4"
- 76F-105-(01,27)A, Rated Pressure: 125 psi, Inlet Size: 1"
- 76F-106-(01,27)A, Rated Pressure: 125 psi, Inlet Size: 1-1/4"
- 76F-107-(01,27)A, Rated Pressure: 125 psi, Inlet Size: 1-1/2"
- 76F-108-(01,27)A, Rated Pressure: 125 psi, Inlet Size: 2"
- 76F-100-(01,27)A, Rated Pressure: 125 psi, Inlet Size: 3"

APPLICABLE REQUIREMENTS

CSA/CAN 3.16-M88 (R-2014) – Lever Operated Non-Lubricated Gas Shut-Off Valves

*-GS suffix required



Certificate of Compliance

Certificate:	2652246 (112384_0_000)	Master Contract:	187265
Project:	70051389	Date Issued:	2016-01-11
Issued to:	Apollo Valves (Conbraco Industries, Inc.) 1418 S Pearl St Pageland, South Carolina 29728 USA Attention: Stephen Vollentine		

The products listed below are eligible to bear the CSA Mark shown



Issued by: James Sekerak
James Sekerak

PRODUCTS

CLASS - C337110 - VALVES (GAS)-Lever Operated Non-Lubricated Shutoff

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

For Use with Natural and Propane Gas

For Use with Natural, Mfd., Mixed, Liquefied Petroleum or Propane Gases and LP Gas-Air Mixtures

Straight Through

Model Number

- 89-101-01A, Rated Pressure: 125 psi, Inlet Size: ¼"
- 89-102-01A, Rated Pressure: 125 psi, Inlet Size: 3/8"
- 89-103-01A, Rated Pressure: 125 psi, Inlet Size: ½"
- 89-104-01A, Rated Pressure: 125 psi, Inlet Size: ¾"
- 89-105-01A, Rated Pressure: 125 psi, Inlet Size: 1"
- 89-106-01, Rated Pressure: 125 psi, Inlet Size: 1-1/4"
- 89-107-01, Rated Pressure: 125 psi, Inlet Size: 1-1/2"
- 89-108-01, Rated Pressure: 125 psi, Inlet Size: 2"
- 89-109-01, Rated Pressure: 125 psi, Inlet Size: 2-1/2"
- 89-100-01, Rated Pressure: 125 psi, Inlet Size: 3"

489 SERIES CERTIFICATE OF COMPLIANCE



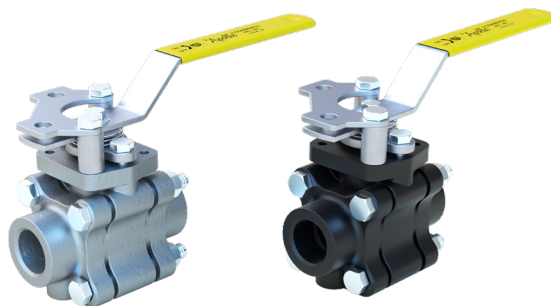
Certificate: 2652246
Project: 70051389

Master Contract: 187265
Date Issued: 2016-01-11

- 489-101-01A, Rated Pressure: 125 psi, Inlet Size: 1/4"
- 489-102-01A, Rated Pressure: 125 psi, Inlet Size: 3/8"
- 489-103-01A, Rated Pressure: 125 psi, Inlet Size: 1/2"
- 489-104-01A, Rated Pressure: 125 psi, Inlet Size: 3/4"
- 489-105-01A, Rated Pressure: 125 psi, Inlet Size: 1"
- 489-106-01, Rated Pressure: 125 psi, Inlet Size: 1-1/4"
- 489-107-01, Rated Pressure: 125 psi, Inlet Size: 1-1/2"
- 489-108-01, Rated Pressure: 125 psi, Inlet Size: 2"
- 489-109-01, Rated Pressure: 125 psi, Inlet Size: 2-1/2"
- 489-100-01, Rated Pressure: 125 psi, Inlet Size: 3"

APPLICABLE REQUIREMENTS

CSA/CAN3.16-M88 (R-2014) – Lever Operated Non-Lubricated Gas Shut-Off Valves



Certificate of Compliance

Certificate: 70034925 (112384) **Master Contract:** 187265
Project: 70075463 **Date Issued:** 2016-06-17
Issued to: Apollo Valves (Conbraco Industries, Inc.)
 1418 S Pearl St
 Pageland, South Carolina 29728
 USA
 Attention: Stephen Vollentine

The products listed below are eligible to bear the CSA Mark shown



Issued by: Vajira Sarathchandra
 Vajira Sarathchandra

PRODUCTS

CLASS - C337110 - VALVES (GAS)-Lever Operated Non-Lubricated Shutoff

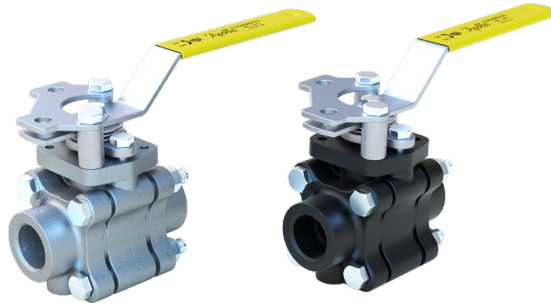
For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

Description: 3-Piece Full Port Ball Valve
 Trade Name: Apollo
 Rated Pressure: 125 psi

Model Numbers	Connection	Sizes
83B-(141 to 148)	NPT Female	1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83B-(241 to 248)	Socket-Weld	1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83B-(343 to 348)	Butt-Weld, Schedule 5	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83B-(443 to 448)	Butt-Weld, Schedule 10	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83B-(543 to 548)	Butt-Weld, Schedule 40	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83B-(643 to 648)	Butt-Weld, Schedule 80	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
86B-(101 to 108)	NPT Female	1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
86B-(201 to 208)	Socket-Weld	1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
86B-(303 to 308)	Butt-Weld, Schedule 5	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
86B-(403 to 408)	Butt-Weld, Schedule 10	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
86B-(503 to 508)	Butt-Weld, Schedule 40	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
86B-(603 to 608)	Butt-Weld, Schedule 80	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

83B & 86B SERIES

CERTIFICATE OF COMPLIANCE



Certificate: 70034925
Project: 70034925

Master Contract: 187265
Date Issued: 2015-10-22

Model Numbers	Connection	Sizes
83L-(141 to 148)	NPT Female	1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83L-(241 to 248)	Socket-Weld	1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83L-(343 to 348)	Butt-Weld, Schedule 5	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83L-(443 to 448)	Butt-Weld, Schedule 10	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83L-(543 to 548)	Butt-Weld, Schedule 40	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
83L-(643 to 648)	Butt-Weld, Schedule 80	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

APPLICABLE REQUIREMENTS

CGA 3.16-2015 - Lever Operated Non-Lubricated Gas Shut-Off Valves

87A & 88A SERIES

CERTIFICATE OF COMPLIANCE



Certificate: 1160163
Project: 70121023

Master Contract: 187265
Date Issued: 2017-03-03

Class 3371-10 VALVES (GAS) Lever Operated Non-Lubricated Shutoff

<u>Model Number</u>	<u>Rated Pressure</u>	<u>Size</u>
87A-203, 87A-903, 88A-203, 88A-903, 88L-203, 88L-903	125	½
87A-204, 87A-904, 88A-204, 88A-904, 88L-204, 88L-904	125	¾
87A-205, 87A-905, 88A-205, 88A-905, 88L-205, 88L-905	125	1
87A-107, 87A-207, 87A-707, 87A-907, 88A-107, 88A-207, 88A-707, 88A-907 88L-107, 88L-207, 88L-707, 88L-907	125	1½
87A-108, 87A-208, 87A-708, 87A-908, 88A-108, 88A-208, 88A-708, 88A-908 88L-108, 88L-208, 88L-708, 88L-908	125	2
87A-109, 87A-209, 87A-709, 87A-909, 88A-109, 88A-209, 88A-709, 88A-909 88L-109, 88L-209, 88L-709, 88L-909	125	2½
87A-100, 87A-200, 87A-700, 87A-900, 88A-100, 88A-200, 88A-700, 88A-900, 88L-100, 88L-200, 88L-700, 88L-900	125	3
87A-10A, 87A-20A, 87A-70A, 87A-90A, 88A-10A, 88A-20A, 88A-70A, 88A-90A 88L-10A, 88L-20A, 88L-70A, 88L-90A	125	4
87A-10C, 87A-20C, 87A-70C, 87A-90C, 88A-10C, 88A-20C, 88A-70C, 88A-90C, 88L-10C, 88L-20C, 88L-70C, 88L-90C	125	6
87A-10E, 87A-70E, 88A-10E, 88A-70E, 88L-10E, 88L-70E	125	8

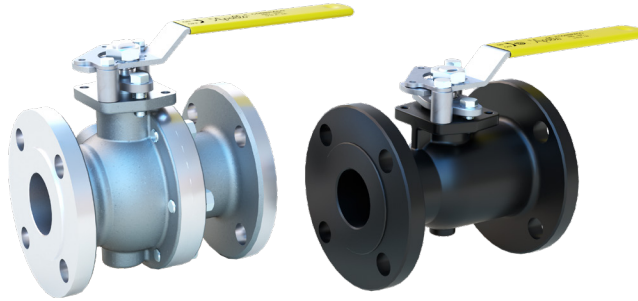
Class 3371- (14, 94) VALVES (GAS), Manually Operated Metallic for Use in Piping

<u>Model Number</u>	<u>Rated Pressure</u>	<u>Size</u>
87A-203, 87A-903	125	½
87A-204, 87A-904	125	¾
87A-205, 87A-905, 88A-205, 88A-905, 88L-205, 88L-905	125	1
87A-107, 87A-207, 87A-707, 87A-907, 88A-107, 88A-207, 88A-707, 88A-907 88A-107, 88A-207, 88A-707, 88A-907	125	1½
87A-108, 87A-208, 87A-708, 87A-908, 88A-108, 88A-208, 88A-708, 88A-908 88L-108, 88L-208, 88L-708, 88L-908	125	2

*-UL suffix required

87A & 88A SERIES

CERTIFICATE OF COMPLIANCE



Certificate: 1160163
Project: 70121023

Master Contract: 187265
Date Issued: 2017-03-03

Class 3371-(17, 97) VALVES (GAS) For Anhydrous Ammonia and LP GAS (Other than Safety Relief)

<u>Model Number</u>	<u>Size</u>
87A-203, 87A-903	½
87A-204, 87A-904	¾
87A-205, 87A-905, 88A-205, 88A-905, 88A-205, 88A-905	1
87A-107, 87A-207, 87A-707, 87A-907, 88A-107, 88A-207, 88A-707, 88A-907, 88A-107, 88A-207, 88A-707, 88A-907	1½
87A-108, 87A-208, 87A-708, 87A-908, 88A-108, 88A-208, 88A-708, 88A-908, 88A-108, 88A-208, 88A-708, 88A-908	2
87A-109, 87A-209, 87A-709, 87A909, 88A-109, 88A-209, 88A-709, 88A909, 88A-109, 88A-209, 88A-709, 88A909	2½
87A-100, 87A-200, 87A-700, 87A-900, 88A-100, 88A-200, 88A-700, 88A-900, 88L-100, 88L-200, 88L-700, 88L-900	3
87A-10A, 87A-20A, 87A-70A, 87A-90A, 88A-10A, 88A-20A, 88A-70A, 88A-90A, 88L-10A, 88L-20A, 88L-70A, 88L-90A	4
87A-10C, 87A-20C, 87A-70C, 87A-90C, 88A-10C, 88A-20C, 88A-70C, 88A-90C, 88L-10C, 88L-20C, 88L-70C, 88L-90C	6
87A-10E, 87A-70E, 88A-10E, 88A-70E, 88L-10E, 88L-70E	8

APPLICABLE REQUIREMENTS

ASME B16.33-2012 for Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 125 psig (Sizes ½ through 2)

ASME B16.38-2012 for Large Metallic Valves for Gas Distribution (Manually Operated, NPS 2½ to 12, 125psig Maximum)

ANSI/UL125 (Ninth Edition) for Flow Control Valves for Anhydrous Ammonia and LP-Gas

CAN/CGA – 3.16-M88 (R2009) Lever Operated Non-Lubricated Gas Shut-Off Valves



Letter of Attestation

Document: 70130344 **Master Contract:** 159958
Project: 70130344 **Date Issued:** April 11, 2017
Issued to: Apollo Valves
 Conbraco Industries, Inc.
 701 Matthews-Mint Hill Rd.
 Matthews, North Carolina, 28106
 U.S.A

CSA Group, Certification and Testing hereby confirms that it has completed an evaluation of:

*APOLLO HIGH PERFORMANCE BUTTERFLY VALVES
 Manually Operated, Non-Lubricated, Rated for 125 PSIG, Gas Applications*

<u>Model Number</u>	<u>Rated Pressure (PSIG)</u>	<u>Diameter (inches)</u>
215 Series TFM1700 Sear & Fire Safe Seat	125	2, 2½, 3, 4, 5, 6, 8

CSA Group, Certification and Testing hereby attests that the products identified above and described in test report 70130344 dated April 11, 2017 complies with the following standards/tests, to the extent applicable:

CSA 3.16-2015 – Lever Operated Non-Lubricated Gas Shut-Off Valves
 ASME B16.33-R2012 – Manually Operated Metallic Gas Valves for Use in Piping Systems upto 175 PSI*
 ASME B16.38-R2012 – Large Metallic Valves for Gas Distribution, 125 PSIG*
 Note: Observed 'Flow Capacity' was under minimum requirements

Issued by: Vajira Sarathchandra
 Vajira Sarathchandra
 Certifier - CSA

**THIS LETTER OF ATTESTATION DOES NOT AUTHORIZE THE USE OF THE CSA MARK ON THE SUBJECT PRODUCTS.
 QUOTATIONS FROM THE TEST REPORT OR THE USE OF THE NAME OF THE CANADIAN STANDARDS ASSOCIATION AND CSA GROUP OR ITS REGISTERED TRADEMARK, IN ANY WAY, IS NOT PERMITTED WITHOUT PRIOR WRITTEN CONSENT OF THE CANADIAN STANDARDS ASSOCIATION OPERATING AS CSA GROUP, CERTIFICATION AND TESTING DIVISION**

This report shall not be reproduced, except in full, without the approval of CSA Group.

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DQD 507.10 Rev 2016-01-18

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www.apollovalves.com

Regional Management List:

www.apollovalv.es/rmlist

Corporate Office	Canada Office
Matthews, NC	Concord, ON
704.841.6000	905.761.6161



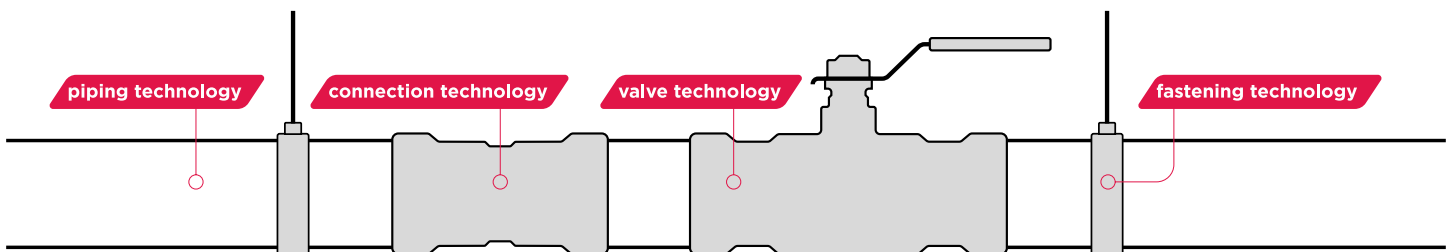
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574.264.3181	260.368.7246	479.443.2360



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