

SPECIFICATIONS

APPROVALS, ACCEPTANCES, AND LISTINGS

JAMESBURY products have been accepted by a number of qualifying organizations and agencies world-wide. Many of the approvals are explained herein, with a list of the specific products that have been accepted. Jamesbury Inc. ("JAMESBURY") welcomes inquiries concerning approvals or listings of any products or organizations that are not covered in this bulletin.

While some acceptances cover entire product lines, others apply only to specific valve styles and/or materials of construction. Also, in some instances, acceptances are for

maximum pressures or temperatures set by the organization for that particular service category, which may often be considerably below the full rating of the valve. Use of valves in such services should be followed accordingly.

Most of the products listed in this bulletin are slight modifications of standard products, the difference being in special testing and tagging with the listing/approval agency's pressure rating for the particular service. It is therefore important that when products are ordered for applications requiring a listing or approval, it should be clearly noted.

ISO9001



JAMESBURY quality systems were developed to ensure that all of our products meet international standards of quality world-wide. All of our manufacturing facilities have instituted quality systems designed and approved to ISO-9001 standards'

UNDERWRITER'S LABORATORIES



Users of valves, actuators, and accessories should refer to the applicable directory of listed equipment to determine the specific service category in which the product to be used will fall. Categories for which JAMESBURY products have been examined by UL and subsequently listed are shown below. Information about listings under other categories and listings on products other than those shown is available upon request.

Gas and Oil Equipment List

Valves are listed by UL under several categories in the Gas and Oil Equipment List. These categories, their UL guide designations, and the identification number that appears on the valve tag denoting the service for which the valve was ordered are:

Category	UL Service Designation	UL Guide Designation	Jamesbury Identity Number
Manual valves	Shut-off valves for oil or gas burner equipment	MHKZ	08
Anhydrous ammonia shut-off valves	Liquid and gas line service valves	YQAR	11
Compressed gas shut-off valves	Gas line service valves	YQNZ	14
Flammable liquid shut-off valves	Manual valves for fuels and solvents	YRBX	06
Gas shut-off valves	Manual valves for natural and mfg. gases	YRPV	04
LP-gas shut-off valves	Liquid and gas line service valves	YSDT	05

Valves listed in these categories are shown on cards published by UL with the manufacturer's file MH6330. The valves listed are:

1/4"-2" Series 21 & 23 Clincher®	1/2"-8" Series 5000
1/4"-2" Series 300*	2"-6" Series 6150
1/4"-2" Styles A-LP, AZ-LP	2"-4" Series 6300
1/2"-2" Series 4000	3"-8" Series 7000
	2"-8" Series 9000

* Brass material not suited for anhydrous ammonia (YQAR)

Fire Protection Equipment List

The valves above, up through 2" only, are also UL listed as being suitable for use as indicating type valves for general use in air and water supply piping of fire protection equipment, dry pipe and alarm valve trim, and other applications where either gate or globe valves have been used in the past. Details are:

Category	UL Service Designation	UL Guide Designation	Jamesbury Identity Number
Valves, trim and drain	Shut-off valves for air and water	VQGU	07

Hazardous Location Equipment List

Type 32EX6, 34EX6, and 35EX6 hazardous location limit switches are listed by UL under "Snap Switches for Use in Hazardous Locations-Guide WSQX" (reference number E94406). They are listed as Class I, Groups C and D and Class II, Groups E, F, and G units.

UNDERWRITERS LABORATORIES OF CANADA (ULC)

Jamesbury Inc. has several valve styles listed with ULC for different gas services. These valves are identified by a ULC label (applied at the factory) and by a modifier code shown after the valve figure number, which should be specified when ordering.

ULC Guide No. 167 E49 (modifier code “GC”)

These valves have been examined and tested by ULC as meeting the Canadian Gas Association standard 3.16 (Lever Operated Non-lubricated Gas Shut-off Valves). They are intended for use as manual shutoff valves to be used with natural gas, manufactured gas, and liquified petroleum gases (distributed as vapor with or without the admixture of air), or mixtures thereof, at pressures up to 125 psig (860 kPa).

The valves listed in these categories are:

1/4”–2” Style A/AZ	1/4”–2” Series 3000
1/4”–2” Series 300	1/2”–2” Series 4000
1/4”–2” Series 21 <i>Clincher</i>	1/2”–2” Series 5000
1/4”–2” Series 23 <i>Clincher</i>	3”–8” Series 7000
1/4”–2” Eliminator	2”–8” Series 9150
	2”–6” Series 9300

ULC Guide No. 440 A21.21 (modifier code “KL”)

These valves have been examined and listed by ULC as LP-Gas Shut-off valves, suitable for use in systems storing and handling LP-gas in either liquid or gaseous phase at pressures up to 400 psig (2760 kPa). They may be manually or pressure actuated. The ULC listing covers the valve only, not the combination of valve and actuator.

The valves listed are:

Valve Size and Style	Max. Pressure Rating	
	psig	kPa
1/4”–2” Style A/AZ	250	1720
1/4”–2” Style 300	400	2760
1/4”–2” Series 21 <i>Clincher</i>	400	2760
1/4”–2” Series 23 <i>Clincher</i>	400	2760
1/4”–2” Series 3000	400	2760
1/2”–2” Series 4000	400	2760
1/2”–2” Series 5150	275	1900
1/2”–2” Series 530S/5300	400	2760
1/4”–2” Eliminator	400	2760
3”–4” Series 7150	295	1900
6”–8” Series 7150	275	1900
2”–8” Series 9150	275	1900
2”–6” Series 9300	400	2760
3”–8” Series 730S/7300	400	2760

FACTORY MUTUAL



Several *JAMESBURY* products for critical plant applications have been approved by the research laboratory of the Factory Mutual Insurance Companies and are listed in the Factory Mutual Approved Equipment Handbook. We will work in liaison with Factory Mutual upon request for approval on the use of products for service categories that are not listed, for products not included among those that are approved, or for assistance in acceptance of arrangements of equipment in which company products are involved.

Hazardous Location Equipment

Type 32EX6, 34EX6, and 35EX6 switches and NAMUR versions for hazardous locations are approved by Factory Mutual for use in Class I, Groups C and D and Class II, Groups E, F, and G service, indoors and outdoors (NEMA 4), as standard.

Flammable Liquid Equipment

Firesafe Shutoff Valves

Fire-Tite Series 5150 ball valves in sizes 1/2”–2” and *Fire-Tite* Series 4000 ball valves in sizes 1/2”–2” have been successfully subjected to Factory Mutual fire testing and are accordingly approved as Fire-safe Valves.

Emergency Switch Valves

Integral assemblies consisting of either Series 2000 screwed-end or Series 5000 flanged valves and spring-return Torq-Handle® with a fusible link and optional limit switches, having the designation Fig. 1075, are Factory-Mutual approved under the category Flammable Liquid Equipment.

These special units are approved as (a) Emergency Shut-off Valves that will close automatically in the event of excess environment temperature, and (b) Fire-safe Shut-off Valves, specifically designed for flammable liquid service which have been tested and qualified to resist exposure to a representative 15 minute uncontrolled fire and still provide effective shut-off. Refer to Bulletin B132-1 for details.

Burner Management Valves

Two Factory Mutual approved lines of products developed specifically for combustion control systems are available. These units are for controlling the flow of manufactured, natural, and LP-gases, unheated #4 and lighter and heated #5 and #6 fuel oils. Full information including designations, rating, and other specifications are contained in separate bulletins that describe each line.

Figure 1051 Supervisory Cocks (Electric Interlocking Fuel Gas and Fuel Oil Cocks) consist of a conventional manually operated *Double-Seal* ball valve (Style A and Series 2000 screwed end, Series 4000 screwed and weld end, Series 5150 flanged through 2” in size, and Series 7000 in 3” size), with an integrally mounted limit switch assembly arranged so that primary switch contacts close only when the cock is closed. These are available in both screwed end and flanged designs. Refer to Bulletin B131-1 for details.

Figure 1052 Gas and Oil Safety Shutoff Valves (Automatic Opening, Electric and Pressure Opening, and Holding Valves) consist of a conventional *Double-Seal* Series 4000 ball valve in screwed end or weld design in 1/2”–2” sizes or ANSI Class 150 flanged design in 3” and 4” sizes with Type ST-MS pneumatic spring-return piston or Quadra-Pow® spring-diaphragm actuator, integrally-mounted limit switch, assembly like that on the Figure 1051 unit, and with appropriate solenoid pilot valve. Also approved are Figure 1052 valves consisting of Type 6150 full-port flanged valves in 3/4”–1-1/2” sizes, Type 9150 full-port flanged valves in 2”–6” sizes, Type 5150 standard-bore flanged valves in 2” sizes, and Type 7150 valves in 3”–8” sizes. Consult Bulletin B131-2 for further information.

CHLORINE INSTITUTE



JAMESBURY offers a variety of ball, butterfly, and globe valves specially processed to meet the recommendations of the Chlorine Institute as listed in pamphlet #6 (Edition 13) that include design, application, testing, and marking of valves.

For complete information on chlorine service *Double-Seal* ball valves and *Wafer-Sphere* high-performance butterfly valves refer to Bulletins B150-2 and W150-2, respectively. Refer to the individual globe valve Bulletins when ordering globe valves for chlorine service.



AMERICAN PETROLEUM INSTITUTE

JAMESBURY valves meet several applicable standards of the American Petroleum Institute, such as API 60, qualifying them for a wide range of services throughout the petroleum industry.

For general applications, valves are available meeting specific standards for design and materials of construction. *Fire-Tite* ball valves and high-performance butterfly valves are also available meeting API Standard 607 (4th Edition) for fire-tested valves.

The Bulletins detail standards that each valve type meets.

AMERICAN GAS ASSOCIATION

The series 1056 Automatic Safety Shut-off Gas Valves are approved under ANSI Z21.21-1995/CGA 6.5-M95.

NATIONAL ASSOCIATION OF CORROSION ENGINEERS



JAMESBURY offers a full range of ball valves, butterfly valves, and globe valves conforming to NACE Standard MR-0175 (1996) for petroleum industry applications. These valves are of standard design but have materials of construction that are resistant to the corrosive effects of hydrogen sulfide characteristic of flow from deeper oil and gas wells. Consult the individual Bulletins for details on how to order.

CANADIAN GAS ASSOCIATION

JAMESBURY has various valve styles which comply with CGA standard 3.16 "Lever Operated Non-Lubricated Gas Shut-off Valves." They have been examined for compliance with this standard and listed by ULC. Refer to the Underwriter's Laboratories of Canada (ULC) section of this bulletin — Guide No. 167.E49.

The series 1056 Automatic Safety Shut-off Gas Valves are approved under ANSI Z21.21-1995/CGA 3.9/6.5-M95.

CANADIAN STANDARDS ASSOCIATION

EU, ER & ERV electric actuators have been tested and approved by this association for use in non hazardous atmospheres.

Type 32EX, 34EX, 35EX, and NAMUR hazardous location limit switches are also approved by CSA and are listed under "Switches-Snap-For Hazardous Locations-Guide 380-W-19.8." They are listed as Class I, Groups C and D, and Class II, Groups E, F, and G units.

PROVINCIAL REGISTRATION (CANADA)

In accordance with CSA standard B51 (Boiler, Pressure Vessel, and Pressure Piping Code), *JAMESBURY* product designs have been registered with the Departments of Labour of Canadian Provinces. Contact the factory for individual Canadian Registration Numbers (CRN).



BRITISH STANDARDS INSTITUTE

JAMESBURY valves are available meeting the following British Standards:

BS 5351-Steel Ball Valves for the Petroleum, Petrochemical and Allied Industries. Included are Series 4000, 5000, 6000, 7000, and 9000 *Double-Seal* ball valves.

BS 5146-Inspection and Test of Steel Valves for the Petroleum, Petrochemical and Allied Industries. This standard includes the fire-test procedure sometimes referred to as OCMA FSV-1. Ball valves in Series 4000, 5000, 6000, 7000, and 9000; *Neldisc* butterfly valves; and Series F815, F830, and F860 *Wafer-Sphere* butterfly valves have been independently witness-tested by Lloyd's to this fire-test requirement.

BS 6755 Part 2 - Specification for fire-testing requirements. This is a test similar to API 607 (Third Edition). Series 3000, 4000, 5000, 6000, 7000, and 9000 *Double-Seal* ball valves, C-Series, P-Series, and MBV metal-seated ball valves. Series F815 & F830 *Wafer-Sphere* butterfly valves and *Neldisc* metal-seated butterfly valves have been independently witness-tested by Lloyd's to this requirement.

NUCLEAR SERVICE



JAMESBURY has been certified by the American Society of Mechanical Engineers as a manufacturer of valves for Class 2 and 3 piping systems in nuclear power generating plants, permitting application of the "N" stamp to products *JAMESBURY* provides specifically for these services.

The "N" stamp gives evidence that, based on an audit made by an ASME survey team, the *JAMESBURY* quality assurance procedures covering the material procurement, manufacturing, and testing practices of products for installation in a nuclear system conform rigidly to the requirements of Section III of the ASME Boiler and Pressure Vessel Code, entitled, "Rules for Construction of Nuclear Power Plant Components."

OTHER APPROVALS, ACCEPTANCES, AND LISTINGS

There are additional acceptances of *JAMESBURY* products by various organizations, details of which are available upon request. Some of these are:

- Association of American Railroads
- Department of Transportation-Marine Services (Canada)
- Lloyd's Register of Shipping
- Germanischer Lloyd
- Oil Companies Material Association
- Technical Research Centre of Finland
- Yarsley Technical Centre, Ltd.
- Province of Ontario (Canada), Ministry of the Environment

Installation, Maintenance, and Operation Instructions

IMO's (Installation, Maintenance, and Operating instructions) or AMI's (Assembly, Mounting, and Installation Instructions) are shipped with the products. Additional copies of these instructions are available. Call your local Jamesbury Inc. Distributor, or visit our web site.

INTERNATIONAL MANUFACTURING AND SALES LOCATIONS

Worcester, Massachusetts USA • Chihuahua, Mexico

Jamesbury products are available globally through Jamesbury (UK) Ltd. in the UK and Neles Automation sales offices and representatives. Call +1-508-852-0200 or +44-2392-238500 for your local contact.

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