

# Back Pressure Check Valves

## General Information

RegO® Back Pressure Check Valves are designed to allow flow in one direction only. The check, normally held in the closed position by a spring, precludes the possibility of flow out of the container. When flow starts into the container, the pressure overcomes the force of the spring to open the check. When the flow stops or reverses, the check closes.

Metal-to-metal seats will allow slight leakage after closure. These valves will restrict the escape of container contents in the event of accidental breakage of the piping or fittings.

## Back Pressure Valves for Container or Line Applications

3146 Series, 3176 Series, A3186, A3187S, A3196, and A3276BC

### Application

Designed to provide protection of a container opening when desired flow is always into the vessel. May be used in line applications where flow must be limited to one direction.

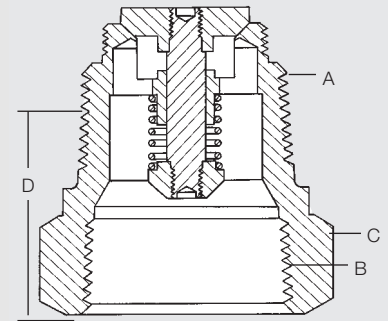
When used with the appropriate single check filler valve, the combination forms a double check filler valve suitable for use in filling of bulk storage tanks.

### Features

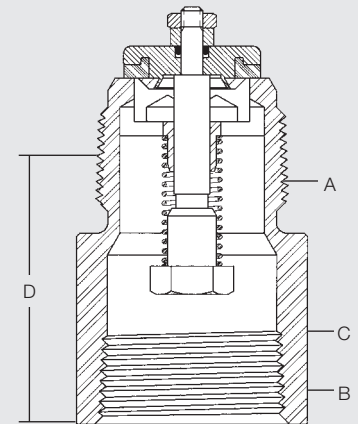
- Generous flow channels for low pressure drop.
- Heavy-duty construction for long service life.
- Soft seat valves have synthetic rubber seat for positive seals.

### Materials

Body (3146, 3146S, 3176) .....	Brass
Body (all others) .....	Cadmium Plated Steel
Disc (3146, 3146S, 3176) .....	Brass
Disc (all others) .....	Cadmium Plated Steel
Stem (3146, 3146S, 3176) .....	Brass
Stem (A3146, A3196, A3276BC) .....	Stainless Steel
Stem (A3176, A3186) .....	Cadmium Plated Steel
Spring .....	Stainless Steel
Seat Disc (3146S, A3276BC) .....	Synthetic Rubber



3146 Series, 3176 Series, A3186, A3196



A3276BC



A3187S

### Ordering Information

Part Number		A Inlet Connection F. NPT	B Outlet Connection M. NPT	C Wrench Hex Flats	D Effective Length (Approx.)	Propane Liquid Capacity at various differential pressures (GPM)			
Brass	Steel					5 PSIG	10 PSIG	25 PSIG	50 PSIG
3146	A3146	3/4"	3/4"	1 3/8"	1 15/16"	11	16	25	36
3146S*									
3176	A3176	1 1/4"	1 1/4"	2"	1 3/8"	28	40	63	89
	A3276BC*					32	45	73	103
	A3186	2"	2"	2 7/8"	2 7/16"	124	175	276	391
	A3187S*	2" Male & 1 1/4" Female	2" Male & 1 1/4" Female	2 3/8"	4 3/8"	60	110	225	350
	A3196	3"	3"	4"	3 15/16"	297	420	664	939

\* Soft Seat

NOTE: Multiply flow rate by .94 to determine liquid butane capacity and by .90 to determine liquid anhydrous ammonia capacity.

# Swing-Away Back Pressure Check Valves for Container or Line Applications

## 6586D and A6586D

### Application

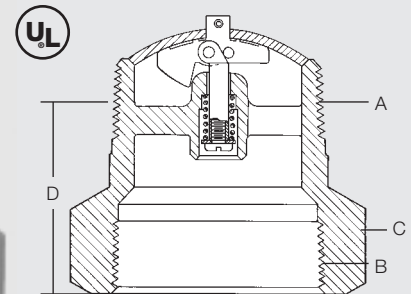
Designed to provide protection of a container opening when desired flow is always into the vessel. May also be used in the line applications where flow must be limited to one direction.

When used with the appropriate single check filler valve, the combination forms a double check filler valve suitable for use in filling of bulk storage tanks.

The swing-away check offers more efficient flow rates than conventional designs. It swivels open vertically to reduce pressure drop across the valve and improves flow rates.

### Materials

Body (6586D) .....	Brass
(A6586D) .....	Steel
Disc (6586D).....	Brass
(A6586D) .....	Stainless Steel
Stem Assembly .....	Stainless Steel
Spring .....	Stainless Steel
Screw .....	Stainless Steel



### Features

- Swing-away check design offers faster flow rates.
- Heavy-duty construction for long service life.

### Ordering Information

Part Number		A Inlet Connection F. NPT	B Outlet Connection M. NPT	C Wrench Hex Flats	D Effective Length (Approx.)	Propane Liquid Capacity at Various Differential Pressures (GPM)			
Brass	Steel					5 PSIG	10 PSIG	25 PSIG	50 PSIG
6586D	A6586D	2"	2"	2 <sup>7</sup> / <sub>16</sub> "	2 <sup>7</sup> / <sub>16</sub> "	190	270	420	600

NOTE: Multiply flow rate by .94 to determine liquid butane capacity.

# Back Pressure Check Valves for Flanged Installation

## A3400L4 and A3400L6

### Application

Designed to provide high flow capacity and allow more efficient tank filling than conventional designs. The unobstructed throat area reduces flow turbulence through the valve, thereby reducing pressure drop. Large flow channels and spacious side ports assure ample capacity for the most demanding high capacity filling operations.

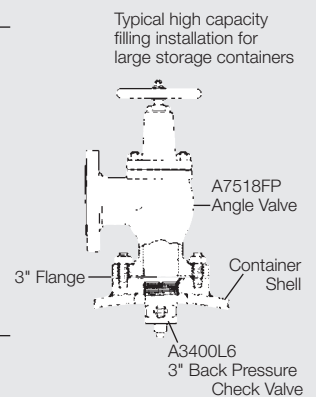
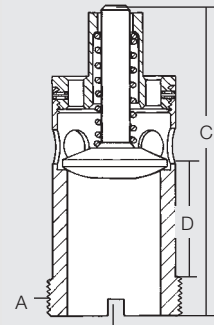
The valve is designed for installation in internally threaded flanges in container bottoms.

### Materials

Body .....	Cadmium Plated Steel
Stem .....	Stainless Steel
Spring .....	Stainless Steel
Disc .....	Cadmium Plated Steel
Guide .....	Stainless Steel
Roll Pin .....	Stainless Steel



A3400L6



### Features

- Speeds up filling operations in bulk tanks.
- All steel and stainless steel construction assures long service life.

### Ordering Information

Part Number	A Flange Connection M. NPT	B Wrench Hex Flats	C Overall Length	D Threaded End To Port	Propane Liquid Capacity at Various Differential Pressures (GPM)			
					5 PSIG	10 PSIG	25 PSIG	50 PSIG
A3400L4	2"	Slotted	5 <sup>1</sup> / <sub>4</sub> "	1 <sup>5</sup> / <sub>16</sub> "	223	316	500	707
A3400L6	3"		5 <sup>9</sup> / <sub>32</sub> "	1 <sup>9</sup> / <sub>16</sub> "	424	600	949	1342

NOTE: For installation in flange tank connections with internal threads, see the "Flanged Installation in Container" section under "Excess Flow Valves." Multiply flow rate by .94 to determine liquid butane capacity and by .90 for liquid anhydrous ammonia capacity.

## ECII® Warning Notice

The following warning information, Part Number 903-500, is included with each shipment of Excess Flow, Check, Filler and Vapor Equalizing Valves to the first purchaser of the product from the factory.

This information is intended to be forwarded throughout the product distribution chain. Additional copies are available from Engineered Controls International, Inc. and Authorized Product Distributors.

### **DANGER**      **READ THIS FIRST**      **WARNING**

#### **LP-GAS IS EXTREMELY FLAMMABLE AND EXPLOSIVE**

**AVOID SERIOUS INJURY AND PROPERTY DAMAGE. IF YOU SEE, SMELL, OR HEAR ESCAPING GAS . . . EVACUATE AREA IMMEDIATELY! CALL YOUR LOCAL FIRE DEPARTMENT! DO NOT ATTEMPT TO REPAIR. DO NOT STORE IN BUILDING OR ENCLOSED AREA. DO NOT USE ON HOT AIR BALLOONS OR AIRCRAFT.**

Make sure you are thoroughly trained before you attempt any valve installation, maintenance, or repair. Improper conditions or procedures can cause accidents resulting in property damage and personal injury. Become thoroughly familiar with NPGA Safety Pamphlet 306-79 "LP-Gas Regulator and Valve Inspection & Maintenance" and ECII® Safety Warnings WB-2 "LP-Gas Cylinder Valves", WB-3 "LP-Gas Excess Flow Valves", and WB-4 "LP-Gas Filler Valves and Hose End Filling Valves." Follow their recommendations.

Know and understand NFPA Pamphlet 58 "Storage and Handling Petroleum Gases," which is the law in many states. This publication is available from NFPA, Batterymarch Park, Quincy, MA 02269. Following its requirements is essential in the safe use of LP-Gas. Section 15 states that "In the interests of safety, all persons employed in handling LP-Gases shall be trained in proper handling and operating procedures."

Make sure this valve is the proper one for this installation. Avoid misusing LP-Gas equipment.

Apply thread joint compound compatible with LP-Gas on valve external threads only. Make sure compound never comes into contact with other parts of the valve.

Install valves by applying force to wrenching flats only.

Tighten pipe threads approximately 1 to 1½ turns beyond the hand-tight insertion point using a wrench which avoids damage to other valve parts.

Check for damage and proper operation after valve installation. Check that the valve is clean and free of foreign material.

Check container-valve connection with a non-corrosive leak detection solution before filling with LP-Gas. Purge container before filling with LP-Gas (refer to the ECII® LP-Gas Serviceman's Manual for recommended procedure).

Test excess flow check valve for proper operation before placing into service. See NPGA Bulletin 113-78 for recommended procedure.

Check outlet connection make-up for leaks with a non-corrosive leak detection solution when placing into service.

If container is not being placed into service at the present time, insert a plug or cap onto the outlet connection.

In selecting a label for posting at the installation site, consider ECII® 903-400 or 901-400 along with your own, NPGA's and others.

Remember to instruct the owner/user/customer in safety matters concerning LP-Gas and this equipment.

Engineered Controls International, Inc., ECII® requests that this information be forwarded to your customers. Additional copies are available from ECII® and your Authorized Product Distributor.

**ECII® Engineered Controls International, Inc.**

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Warning 903-500

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## ECII® Chek-Lok® Adhesive Warning Labels

These adhesive warning labels are intended for application as close as possible to the Chek-Lok® once the Chek-Lok® is installed.

The basic information contained on the label is intended for the benefit of the user of the Chek-Lok® and is not intended to be an "all-inclusive" product warning.

This label is printed on a heavy duty material with pressure sensitive adhesive backing. The ultra-violet ink stands up well when exposed to the environment.

### Ordering Information

Part Number	Description
7572-400	Adhesive Warning Label

### **DANGER**      **WARNING**

#### **LP-GAS IS EXTREMELY FLAMMABLE AND EXPLOSIVE**

**AVOID SERIOUS INJURY AND PROPERTY DAMAGE. IF YOU SEE, SMELL, OR HEAR ESCAPING GAS... EVACUATE AREA IMMEDIATELY! CALL YOUR LOCAL FIRE DEPARTMENT! DO NOT ATTEMPT TO REPAIR. DO NOT STORE IN BUILDING OR ENCLOSED AREA. DO NOT USE ON HOT AIR BALLOONS OR AIRCRAFT.**

#### **CAUTION!**

Use this CHECK-LOK® connection *only* for liquid evacuation before moving tank in accordance with NFPA Pamphlet 58, which is the law in many states. This publication is available from NFPA, Batterymarch Park, Quincy, MA 02269. Read and follow ECII® product instruction number 7572FA-301.

**DO NOT REMOVE, DEFACE OR OBLITERATE THIS LABEL. DO NOT FILL THIS CONTAINER UNLESS THIS LABEL IS READABLE.**

ADDITIONAL SAFETY INFORMATION IS AVAILABLE FROM

**ECII® Engineered Controls International, Inc.**

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Part No. 7572-400

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