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Valves are important to any processing system. That's why many trust the experience and innovation of Alfa Laval.

## Manual and Specialty Valves

### Efficient Fluid Processing

The key to efficient fluid processing is control. And few components in your system are as critical to control as valves. That's why your choice of valves has an enormous impact on the performance of your system.

And for many professionals, there's really only one choice: Alfa Laval.

Alfa Laval products excel in the most important areas of your processing system:

- meeting and exceeding performance standards
- matching exact system requirements

- ease and thoroughness of CIP
- incorporating new technology and innovation

Our products – including Tri-Clover products that remain a key brand within Alfa Laval – deliver performance, quality and reliability. Alfa Laval has the industry's widest selection of valves for the sanitary process industries. That means you have options – and can tailor valve performance to your specific needs. Alfa Laval makes it easy to achieve the highest levels of system productivity and product quality.

Even as the industry evolves, Alfa Laval remains a leader in process development and innovation. Our valves are always one-step ahead of other products, keeping you one-step ahead as well.

As a leading global provider – and worldwide organization that works closely with customers in almost 100 countries – you can trust Alfa Laval to provide quality, cost-effective solutions for your needs.





**LKB Butterfly** – with two position handle



**LKB Butterfly** – with actuator

## LKB Butterfly Valves

### Clean, reliable units

Alfa Laval Butterfly Valves are economical on/off valves, available for either automatic or manually operated systems. Due to large opening areas, these stainless steel valves offer low flow-resistance, allow for reversible flow direction and provide gentle treatment of low- and medium-viscosity products.

### Features include:

- Self-draining
- Can be cleaned in place (with the exception of bio-pharm or dairy applications)
- Lightweight and compact design
- Can be opened or closed using simple pivoting disc within a sealing ring

Various elastomers are used in our sealing ring, depending on factors such as temperature, pressure, operating time and the product being processed.

### LKB-F Flange Connections

The LKB is also available with flange connections (LKB-F). Flange connections in welded systems allow for in-line maintenance such as the removal of existing unit via direct vertical pull-out, which is especially helpful in compact installation areas.

### Actuators

Available in either normally closed or normally open versions for automatic operation, Alfa Laval Butterfly Valves can be fitted with vertically mounted LKLA air actuators, as well as *ThinkTop*® units to transmit electrical signals, and “no touch” sensor systems that indicate valve positions.

### Handles

For manual operation, Alfa Laval offers a complete range of handles including the new LKB multi-position lockable handle.



**LKB Butterfly** – with multi-position handle

## D60T and D60Y Compression Valves

Compression Valves are designed to relieve pressure, sample or shut-off flow. While these components are less visible, they are just as vital to the performance of a processing system as a pump or air-operated seat valve. That's why they undergo the same rigorous, quality-control standards as every other product we manufacture.

- Available in 1" to 3" sizes (1-1/2" to 3" for sample valves)
- Tri-Clamp ends have either metal or molded rubber seats
- Valve body material made of 316L stainless steel
- T-body or Y-body models available



**D60Y**



**D60R**



**650**



**GC60ARV**

## Relief Valves

Our relief valves protect against overpressurization. The relief pressure is adjustable using the manual handle. The D60R is available in 1" to 3" metal seat versions. The 650 is designed for 1/2" and 3/4" lines. Various pressure ranges are available.

GC60ARV vertically mounted air relief valve helps to eliminate air from processing lines or vessels.



## Plug Valves

Plug Valves are designed for low pressure and temperature applications (less than 25 psig, maximum 100°F). They're suited for use with non-hazardous products and are subject to leakage due to normal operating and cleaning procedures (COP – "Clean Out of Place").

- Sizes range from 1-1/2" to 3"
- Offered in Tri-Clamp®, butt-weld or bevel seat ends in either 304 or 316L stainless steel (Butt-weld available in 304 only)
- Available with either two- or three-way ports
- Rubber compound is FDA-approved BUNA for plug material
- Pasteurizer Leak Detect type is available for tank pasteurizer valves

## Vacuum Breakers

Model GHVB air-operated vacuum breakers are used to eliminate vacuum on the downstream side of the pasteurizer in an HTST system. It is truly CIP-able, needing only one air connection for CIP control. GHVB is authorized to carry the 3A symbol.

Models A49-42 and B44MP vacuum breakers are designed for line service only. They are not intended for use on tanks or vessels. Their typical application is at the high point of an HTST system to prevent siphon or back flow in the system.

Model A49-42 is offered with a 2" Tri-Clamp connection only. It uses a diaphragm that seals against a perforated plate. Under vacuum, the diaphragm pulls toward the product and allows air to enter the system. The diaphragm is standard on Buna material, all other wetted parts are 316.

Model B44MP is available in 1-1/2" and 2" Tri-Clamp connection. It uses a teflon plug and o-ring design. Positive pressure keeps the o-ring sealed



**Plug Valve**



**GHVB Vacuum Breaker**



**A49-42 Vacuum Breaker**



**B44MP Vacuum Breaker**

against the base. During vacuum the plug and o-ring drop down allowing air into the system. The standard o-ring is Buna, but can be changed to other elastomers. Other wetted parts are 316.

Both units have a small bell hood on top to direct any product blow-by down towards the floor.



**C45MP Fractional Check Valve**



**45 BYMP Ball Check Valve**



**Air Blow Check Valve**

## Check Valves

LKC disc check valves are engineered exclusively for use in stainless steel pipe installations to prevent reverse flow. Their precise design and durable build make them reliable, high-performance valves for a variety of applications.

Two types are available – vertical and horizontal. In both, the tough valve body consists of two parts, held together with a clamp and sealed with a sanitary gasket. Internally, the valves consist of a valve cone with guide legs, and they incorporate an o-ring seal. Seat alignment is carefully maintained with an internal guide plate.

The C45MP fractional check valve is available in 316 stainless steel with PTFE ball or PTFE plug with spring.

### Ball Check

Model 45BYMP ball check valve is available in 1-1/2" to 3" sizes with molded Buna-N, Viton or a solid Nylon ball. Body design allows full flow and can be used in conjunction with air blow check valve.

### Air Blow Check

Our air blow check valve is designed to evacuate lines of product or CIP solution and for air agitation of product in tanks and other vessels. Air drying of lines permits formation of protective oxide film: the key to placing a system in its most corrosion-resistant condition. Thus, the air agitation thoroughly mixes and blends product to improve product uniformity and quality.

The disposable air filter media, designed for use with the air blow valve, will filter out the impurities in air placed under pressure for drying out process tubing after it has been cleaned and rinsed. It also serves as a filter for air used in the air agitation of products in tanks or vessels.

## A30S Sampling Valve



**660 Fractional Sampling Valve**



## Sampling Valves

The A30S sampling valve is available with a Tri-Clamp or plain bevel seat connection, designed to connect directly to a port in the side of a tank. The sample is taken with a simple press of the spring return manual actuator. Available models include 1-1/2" and 2" versions with a Buna plug.

Our 660 model sampling valve has a 1/2" Tri-Clamp connection and a 1/4" hose or 1/2" Tri-Clamp outlet. It also features a PTFE plug.



**LKC Disc Check Valve**

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## AH Koltek Shutter Valves

- Manually or pneumatically operated, these self-draining valves allow for multi-directional flow of product
- An internal shutter closes ports progressively to help minimize pressure shock and stress
- Available with 2- or 3-port connections at the same level
- CIP-able in automated systems
- Authorized to carry the 3A symbol



## Ball Valves

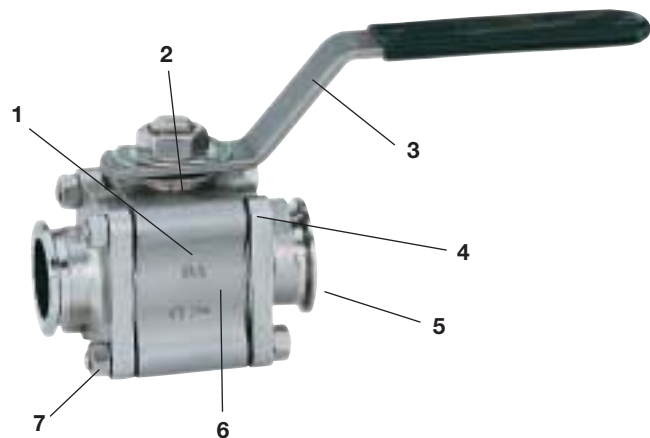
Corrosion- and contaminant-resistant ball valves have earned an enviable reputation for rugged dependability. They provide leak-proof operation and are easy-to-install and service, and they mate with other Tri-Clamp fittings. The full-flow body design minimizes line turbulence and pressure drop and an optional encapsulated seat reduces the threat of product entrapment on critical process applications.

- Wetted parts are wrought AISI Type 316L stainless steel
- ID finish of ball and ports. 1/2" and 3/4" – 20Ra finish, 1" to 4" – 32Ra finish
- Ball seats are PTFE or reinforced PTFE
- Ball valves are approved for use in USDA meat and poultry inspected plants

External thrust springs maintain constant pressure on the stem packing. The ring and seal compensates for wear and assures a leak-proof stuffing box. A quarter-turn handle makes the valve quick-acting, and also gives visual indication of flow with stop lug.

Sealing performance is also easily maintained. Replacement kits are available for body seats, body o-rings, packing and stem seals. No special tools required, making replacement fast and easy.

This product is designed for low-torque operation. Electric or pneumatic actuators are available, so the ball valve can be operated from a remote location. Ball valves are available as manual valves or with pneumatic or electronic actuators.



**Ball Valve**

1. Stem and packing design eliminates possibility of stem becoming dislodged or blown out
2. Thrust springs maintain constant pressure on stem packing
3. High-strength 304 stainless steel handle
4. O-ring seal ensures tight body connections
5. Tri-Clamp end connections for ease-of-installation. Butt-weld end connections for dependable service in permanently installed pipelines
6. Replaceable PTFE ball seats, reinforced PTFE optional
7. Body bolting design permits easy assembly and disassembly

## Providing the world with processing solutions.

Alfa Laval is a leading global provider of specialized products and engineering solutions. Our equipment, systems and services are dedicated to assisting customers in optimizing the performance of their processes, time and time again. We help them heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuff, starch and pharmaceuticals. Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

Our U.S.-based sanitary group offers Alfa Laval and Tri-Clover fluid handling and heat transfer equipment. Since 1919, Tri-Clover has been the leading supplier of processing equipment to the sanitary flow industry in North America. Part of Alfa Laval since 1986, Tri-Clover's sales and marketing functions were consolidated within the overall Alfa Laval organization in December 2000, creating the undisputed global leader in this industry. Tri-Clover remains a key brand within Alfa Laval.

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