

97220

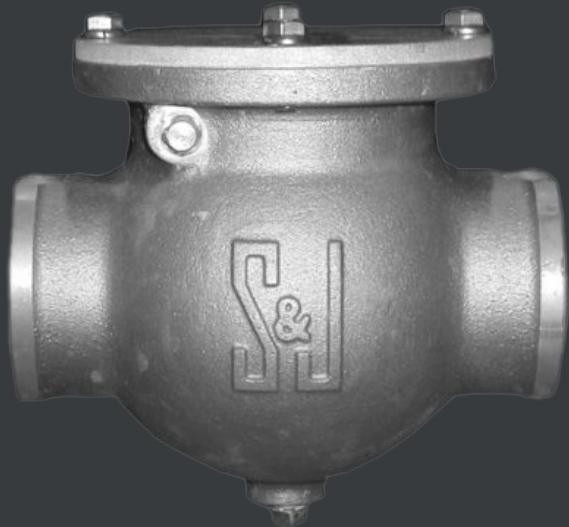
Back Pressure Check Valve

The Shand & Jurs Biogas Model 97220 Back Pressure Check Valve protects low-pressure gas handling systems from reverse flow and downstream pressure migration. Installed downstream regulators, burners, compressors, or conditioning equipment, the check valve maintains directional flow and preserves upstream operating pressure stability.

The valve uses a gravity-assisted sealing element that remains seated under normal conditions and lifts only when forward differential pressure exceeds the closing force. When downstream pressure rises or flow reverses, the element immediately reseats to isolate the upstream piping. This prevents pressure stacking, backfeeding of air, and contamination of upstream treatment equipment.

The design is intended for low-pressure gas systems in which equipment performance depends on maintaining stable pressure zones between process stages.

Available in flanged connections for standard piping integration.



Key Features

Gravity-closing sealing element Provides automatic non-return protection without springs or external actuation.	Low cracking differential Opens with minimal forward pressure to avoid unnecessary system restriction.	Reverse pressure sealing Seats immediately when the downstream pressure exceeds the upstream pressure.
Full-port internal geometry Maintains gas flow capacity without a significant pressure drop.	Horizontal pipeline mounting Designed for stable operation in low-pressure gas piping systems.	Flanged body construction Allows direct installation into process piping runs.

Benefits



PREVENTS BACKFLOW

Protects upstream regulators and conditioning equipment from reverse pressure loading.



MAINTAINS PRESSURE ZONES

Preserves stable operating conditions between gas treatment stages.



PROTECTS EQUIPMENT INTEGRITY

Prevents contamination and air migration into process gas lines.



AVOIDS REGULATOR INSTABILITY

Eliminates oscillation caused by downstream pressure feedback.



PASSIVE OPERATION

No controls or utilities required for system protection.



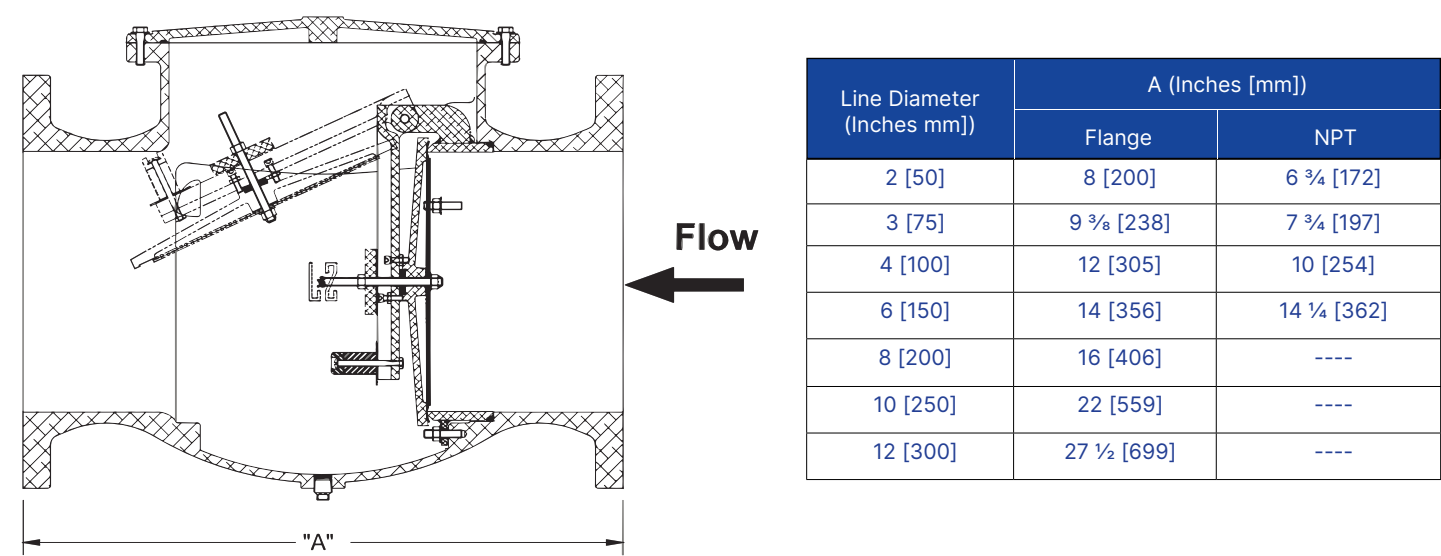
REDUCES MAINTENANCE INTERVENTION

Limits damage and wear caused by pressure reversal events.

Key Performance Data

Parameter	Value
Service	Low-pressure gas systems
Operation	Automatic non-return
Mounting	Horizontal
Connection	Flanged
Materials — Body, Pallet,	Aluminum Standard, 316
Pallet Arm, Seat Ring	Stainless Steel Optional
Materials — Soft Goods	NBR
Materials — Hardware	Stainless Steel
Working Pressure	5psig Maximum

Dimensions



Model Number Selection

The model number will have a base number 97220 followed by 3 digit numbers. These digits will represent 2 sets of option tables.

97220 - AB - C

Table AB - Line Size

Option AB	Line Size
02	2"
03	3"
04	4"
06	6"
08	8"
10	10"
12	12"

Table C - Connection / Body

Option C	Connection / Body
1	Flanged Aluminum
2	Flanged 316 Stainless Steel

Flanged Connection matches Flat Face ANSI 125/150 lb.

Summary

The Model 97220 provides simple, passive protection against reverse flow in low-pressure gas systems. By preserving directional flow and isolating upstream equipment from downstream pressure fluctuations, it stabilizes regulators, protects treatment components, and maintains process reliability. Its gravity-operated design requires no controls or utilities, making it a dependable safeguard within staged gas handling systems.

info@cognesense.com

Tel: (708) 236-6000

5911 Butterfield Road Hillside, Illinois 60162 USA