

Wellmark Mizer® - Model 1110 Retrofit Kit

Installation and calibration instructions for Model 6900 cantilever level control

WARNING

User must isolate the control from signal pressure prior to disassembly and installation of this product. Failure to do so may result in free flow of gas during installation, property damage and/or personal injury. Always employ upstream and downstream pressure gauges to monitor startup pressures.



Application

The Model 1110 Retrofit Kit is designed to convert an existing continuous-bleed Wellmark Model 6900 Level Control to a non-continuous bleed configuration. This reconfiguration results in significant gas savings, as well as providing a much cleaner and safer environment.

The MIZER Pilot Valve will operate in both snap-acting and throttling applications. User must realize that liquid level control performance is a function of the efficiency of both the control AND the valve, as some valves flow more efficiently than others.

This device can be installed without shutting down or draining the unit, thereby eliminating concerns about spills or lost production. However, since the control will be inactive during the retrofit, and to avert any possibility of overfill during this procedure, it is recommended that installation take place while the vessel is in a low liquid condition.

Installation and calibration

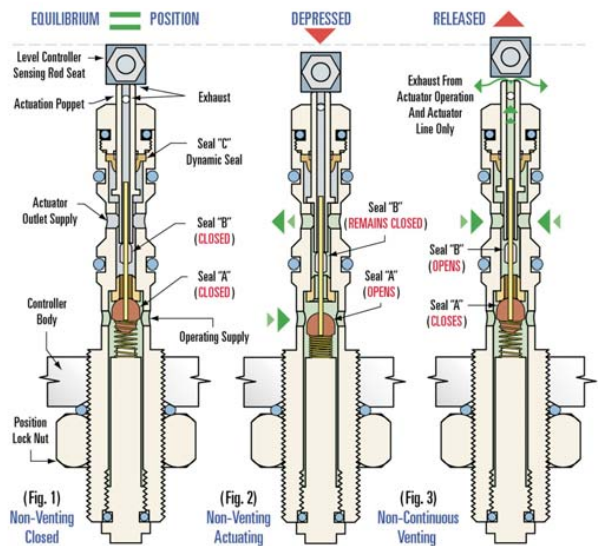
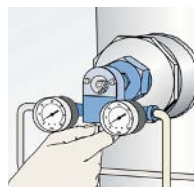
Shut off supply pressure and process pressure to the controller. Remove the controller adjustment screw and blow out the supply line to remove any debris.

Lubricate the MIZER O-rings with a multi-purpose grease and insert the MIZER Pilot Valve, screwing it clockwise until the tip reaches the nozzle seat.

Turn on supply pressure to the controller. Adjust the MIZER Pilot Valve in and out until the desired pressure is achieved.

NOTE: Clockwise adjustment will LOWER the fluid level. Counter-clockwise adjustment will RAISE the fluid level.

Once set, lock the MIZER Pilot Valve in place by tightening the supplied jam nut.



How the Mizer Pilot Valve Operates

Equilibrium position: (Non-venting closed)

When the MIZER® Pilot Valve is in "steady state", both Seal "A" and Seal "B" are closed and the control flapper is in neutral position. (See Fig. 1)

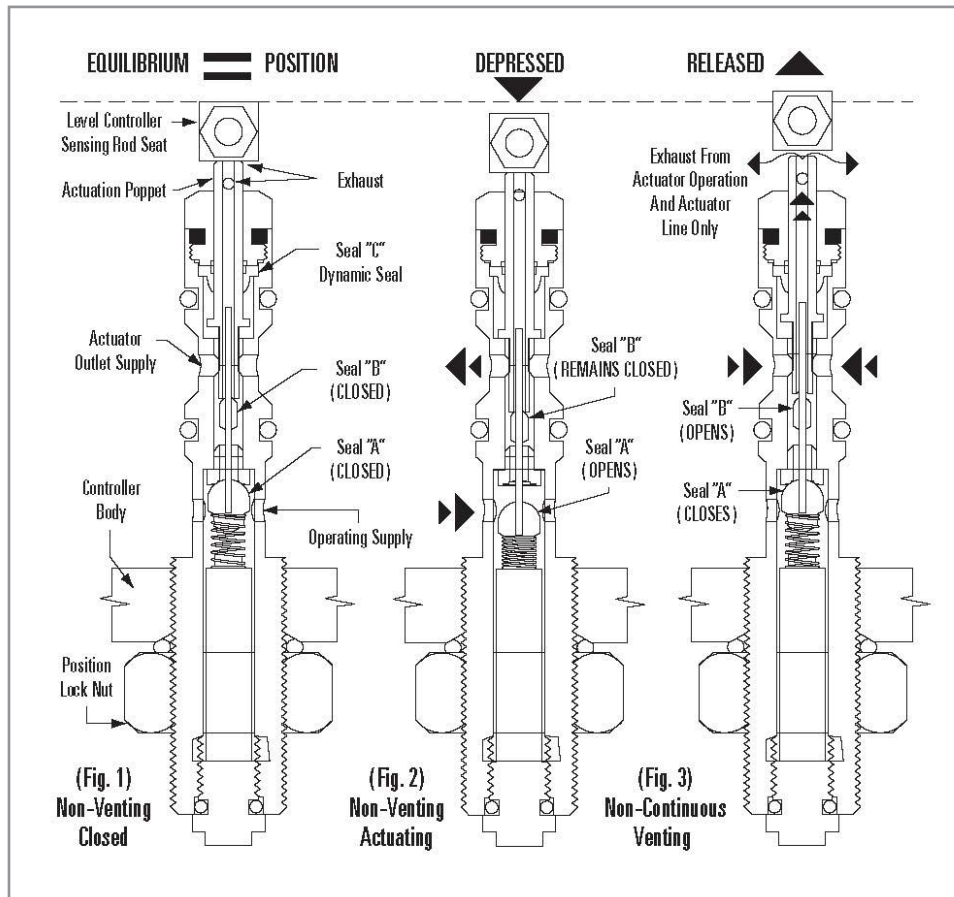
Depressed position: (Non-venting actuating)

When the control flapper depresses the actuation poppet, Seal "A" is opened, supplying gas to the process valve. Seal "B" is closed, preventing gas from bleeding or venting through the vent port. The MIZER Pilot Valve is designed so that the gas flow is related to the position of the controller flapper. (See Fig. 2)

Released position: (Non-continuous venting)

When the control flapper is released it closes Seal "A" and opens Seal "B" allowing gas to vent. Venting occurs ONLY when the control valve calls for it, and then, ONLY the gas in the process line and actuator is released. (See Fig. 3)

Method of Operation



Equilibrium position: (Non-venting closed)

When the MIZER® Pilot Valve is in "steady state", both Seal "A" and Seal "B" are closed and the control flapper is in neutral position. (See Fig. 1)

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Conversion Kit Assembly Part Numbers

Type control	Conversion kit model no.	Part No.	Converts
Liquid Level	1110-111	06500-6905	CEMCO Cantilever Control
Pressure	4010-111	31066	FMC/INVALCO Flexlever Control

Wellmark Mizer® - Model 1110 Retrofit Kit

Installation and calibration instructions for Invalco level control

WARNING

User must isolate the control from signal pressure prior to disassembly and installation of this product. Failure to do so may result in free flow of gas during installation, property damage and/or personal injury. Always employ upstream and downstream pressure gauges to monitor startup pressures.

Application

The Model 1110 Retrofit Kit is designed to convert an existing continuous-bleed Wellmark Model 6900 Level Control to a non-continuous bleed configuration. This reconfiguration results in significant gas savings, as well as providing a much cleaner and safer environment.

The MIZER Pilot Valve will operate in both snap-acting and throttling applications. User must realize that liquid level control performance is a function of the efficiency of both the control AND the valve, as some valves flow more efficiently than others.

This device can be installed without shutting down or draining the unit, thereby eliminating concerns about spills or lost production. However, since the control will be inactive during the retrofit, and to avert any possibility of overflow during this procedure, it is recommended that installation take place while the vessel is in a low liquid condition.

Installation and calibration

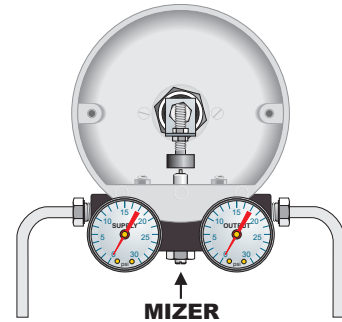
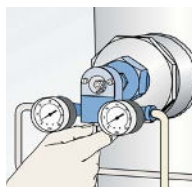
Shut off supply pressure and process pressure to the controller. Remove the controller adjustment screw and blow out the supply line to remove any debris.

Lubricate the MIZER O-rings with a multi-purpose grease and insert the MIZER Pilot Valve, screwing it clockwise until the tip reaches the nozzle seat.

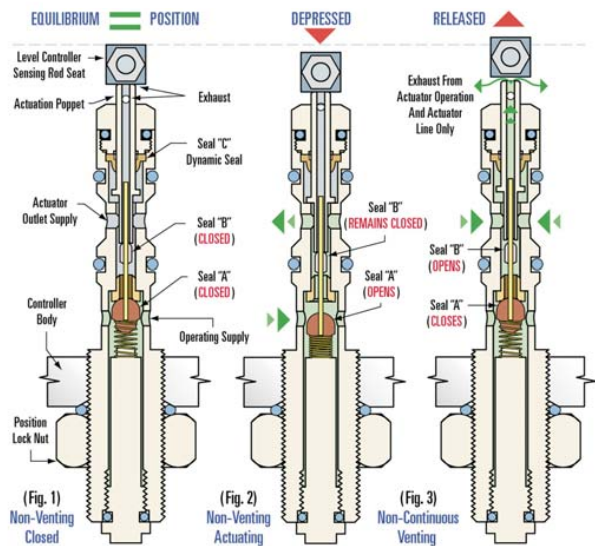
Turn on supply pressure to the controller. Adjust the MIZER Pilot Valve in and out until the desired pressure is achieved.

NOTE: Clockwise adjustment will LOWER the fluid level. Counter-clockwise adjustment will RAISE the fluid level.

Once set, lock the MIZER Pilot Valve in place by tightening the supplied jam nut.



Invalco control



How the Mizer Pilot Valve Operates

Equilibrium position: (Non-venting closed)

When the MIZER® Pilot Valve is in "steady state", both Seal "A" and Seal "B" are closed and the control flapper is in neutral position. (See Fig. 1)

Depressed position: (Non-venting actuating)

When the control flapper depresses the actuation poppet, Seal "A" is opened, supplying gas to the process valve. Seal "B" is closed, preventing gas from bleeding or venting through the vent port. The MIZER Pilot Valve is designed so that the gas flow is related to the position of the controller flapper. (See Fig. 2)

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