



# Mercer Pressure Vacuum Valve

A World First Valve  
for mechanized tank  
protection, dairy level  
clean in place (CIP) and  
filtering to atmosphere

- Empty liquid from tankers at up to 2000ltrs per minute without tank damage
- Cip (clean in place) as standard
- Valves automatically actuated for filling/emptying. No need for manual driver intervention
- EU5 filter to atmosphere units for pre-pasteurised product
- Automatic venting
- Vacuum protection
- Over-pressure protection
- Over filling protection
- Minimises road leakage
- Ideal for food products and other inert liquids



The Mercer PV Valve offers protection against normal volume changes during transportation and routine operation on road and rail tankers. It also provides pressure and vacuum protection for your vessels and tanks during filling and emptying where potential failure situations occur. Additionally, it offers protection from over-filling should an already full tank continue to be filled.

The PV Valve offers a solution to the problem of on-road leakage caused by product surge. This is due to the incorporation of a dwell time in the pressure relief function. The valves are spring to open, air to close, ie normally open, to reduce the risk of tank collapses. There is an indicator that is raised when the valve is open as a visual cue to the operational staff.

The PV Valve design has been enhanced by the development of a patented filter kit to EU 5 level that can be retrofitted to existing valves. This allows for the protection of your transported or stored food products, avoiding the possibility of the ingress of contaminated air, especially while in transit.

All Mercer PV Valves are able to be fitted with an internal CIP system. Those installations where the CIP header is inside the tank, cleaning is available through the addition of a directional spray ball centrally positioned immediately under the valve. External pipe work is easily connected to the valve via a teflon tube reducing maintenance costs and improving access for maintenance staff.



Note: "A" is for a actuated valve, "M" is for manual valve, no actuation required "EU" is a filtered valve for pre possessed product

Features	PV-A60	PV-A60EU	PV-A40	PV-M3	PV-A3C	1-PV-M4EU (manual rail valve)	PV-A60-RH (reduced height rail valve)
Allows air equalisation during filling & emptying	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Actuated to reduce stress under normal filling & emptying conditions	Yes	Yes	Yes	No	Yes	No	Yes
Normal position with actuations	Open	Open	Open	N/A	Closed	N/A	Open
Sight indicator shows valve position	Yes	Yes	Yes	Yes	Yes	Yes	Yes
External connection to CIP system	8mm nylon	10mm nylon	8mm nylon	N/A	6mm nylon	Yes	10mm nylon
Over filling protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwell time to eliminate on-road leakage through product surge	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Air actuation supply connection	6mm dia.	6mm dia.	6mm dia.	N/A	6mm dia.	N/A	6mm dia.
Air actuation supply pressure (minimum)	350kPa	350kPa	350kPa	350kPa	350kPa	N/A	350kPa
CIP	Yes	Yes	Yes	No	Yes	Yes	Yes
EU5 filtration	No	Yes	Yes	Yes	No	Yes	No

Specifications	PV-A60	PV-A60EU	PV-M3	PV-A40	PV-A3C	1-PV-M4EU (manual rail valve)	PV-A60-RH (reduced height rail valve)
Construction material	316 stainless	316 stainless	316 stainless	316 stainless	316 stainless	316 stainless	316 stainless
Sealing piston material	/123	/123	/123	/123	/123	/123	/123
Design fill rate	2 000/min	2000/min	500/min	800/min	500/min	850trs/min	2000trs/min
Design discharge rate	2 000/min	2000/min	500/min	800/min	500/min	850trs/min	2000trs/min
Vacuum protection	-3.5kPa	-3.5kPa	-3.5kPa	-3.5kPa	-3.5kPa	-3.5kPa	-3.5kPa
Over pressure protection	3.5kPa	3.5kPa	3.5kPa	3.5kPa	3.5kPa	3.5kPa	3.5kPa
Height	270mm	270mm	117mm	252mm	252mm	200mm	200mm
Fitting required	150mm RJT male	150mm RJT male	76mm RJT male	102mm RJT male	76mm RJT male	76mm ID flange mount	152mm RJT or flange
CIP requirements @ .5 bar	720L/hr	1140L/hr	N/A	360L/hr	360L/hr	1140L/hr	720L/hr

Note: The PV Valve does not provide high specification sealing protection, so is not suitable for explosive or environmentally harmful products.



## Auckland

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