



Mercer Transport Equipment

Tankers for bulk liquid
transport, and world
class venting solutions.

Mercer have been at the forefront of manufacturing transport solutions for over 50 years. The Mercer PV Valve is the only vent of its kind in the world and the dairy industries choice for over 15 years.



Transport Equipment

Whether it is road, rail, liquids, solids, refrigerated or pressurised Mercer Stainless can engineer a solution for you.

Our streamlined tanks are designed to take everything that the road or rail can throw at it.

With a large variety of tank profiles, we can engineer our design into different combinations to suit local government requirements.

With insulated or uninsulated models, we can maintain product temperature characteristics even in the harshest of conditions. Combined with our patented PV Valve and a complete list of added features, we can transport almost anything, anywhere.

Road/Rail Tankers

Mercer Stainless manufactures stainless steel tankers for many industries. Our proven engineering designs are available to accommodate any fluid or powder product.

Configurations:

- B-Double or B-Train
- Quad or Semi
- 4-Axle
- Rigid
- Helicopter landing pads
- Cells rated for G-Force classification



Road/Rail Tankers cont'd

Special Features: The Mercer Stainless range of Bulk Rail Tankers has been developed to meet the rugged requirements of rail transport.



With frames and loadings rated for standard buggy sizes, the tankers are engineered to easily withstand forces transmitted through shunting and cornering. The design incorporates band panels to enable easy replacement. They can also be equipped with CIP and product handling requirements such as heating, cooling, insulation or power to ensure the product gets to its destination in the same condition it left.

Variety of configurations:

- Bottom mounted
- Frame mount
- Forklift mounts
- Insulated
- CIP able

Clean lines and enclosed glove ribs make cleaning the unit very straightforward. This design means improved streamlining, resulting in better fuel economy and fleet appearance. Valances can be fitted to the top of the unit to protect equipment in the case of roll over or contain product in the event of spillage. Internal knuckle features reduce opportunities for ridging and therefore are much easier to empty and clean.



PV 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
- EU5 filter to atmosphere units for pre-pasteurised product
- Valves automatically actuated for filling/emptying
- No need for drivers to climb up on tanks to clean or open valves

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 design has been enhanced by the development of a patented filter kit to EU6 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.



PV Valve

Moving Dairy Forward



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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.

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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-A60EU-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	Yes

Specifications	PV-A60	PV-A60EU	PV-M3	PV-A40	PV-A3C	1-PV-M4EU (manual rail valve)	PV-A60EU-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	2000/min	2000/min
Design discharge rate	2 000/min	2000/min	500/min	800/min	500/min	2000/min	2000/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	120mm 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 Value does not provide high specification sealing protection, so is not suitable for explosive or environmentally harmful products.

In addition to bulk materials handling Mercer Stainless specialises in the production of stainless steel equipment for the Dairy, Meat, Food Processing, Chemical and Pharmaceutical, Brewing, Pulp and Paper, Mining and Forestry industries. Mercer engineers solutions to meet client requirements and exceed their expectations. This is accomplished by building on our stainless steel, control technology, and process know-how with a large variety of materials and innovative manufacturing solutions. We are continually developing new patented solutions for industry.

Products and services on offer:

Bulk Materials Handling

Bulk bag loading
Unloading stations
Bin tippers
Bin discharges
Bag break stations
Screw feeders
Bag compactors
Hoppers and feeders
Bulk bag conditioners

Materials Handling

HMPS palletisers
Conveyors
Elevators
Singlisers
Accumulators
Pallet handling
Scissor lifts
PIAB Powder transfer systems
Enmin Vibratory feeders & graders

Packaging Equipment

HMPS case packers pick & place
& cartoning solutions
BetaVac cheese vacuum packers
Lineal weighing equipment
Auger fillers
Carton ladders
Carton erectors –all types
Carton closers
Meat compactors
Meat stuffers
Block turners
Bag trimmers
Block inverters
Rotary vacuum packers
Speedweigh scales
Vertical form fill forming shoulders

Transport Equipment

Road tankers
Rail tankers
Liquid tankers
PV Valves

General Fabrication

Platforms
Stairways
Structural steel
Custom fabrication
Architectural
Custom benching
Related Pipe work

Services

Project management
Design
Machine guarding to AS 4024 & fabrication
Plant maintenance
Equipment modification
Installation
Shut down work

Processing Equipment

Titan slicers for high speed slicing
SAS powder & liquid applicators
Tumble drums
Blenders
Mixers
Cooking & heating
Boiling & brazing pans
Cooling tunnels
Boilers
Pasteurizing tunnels & baths
Tumble chilling
Cheese block cutting

Inspection Equipment

Leak detectors
Check weighers
Thermo Fisher EScan product analysers
X-Ray
Metal detection



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