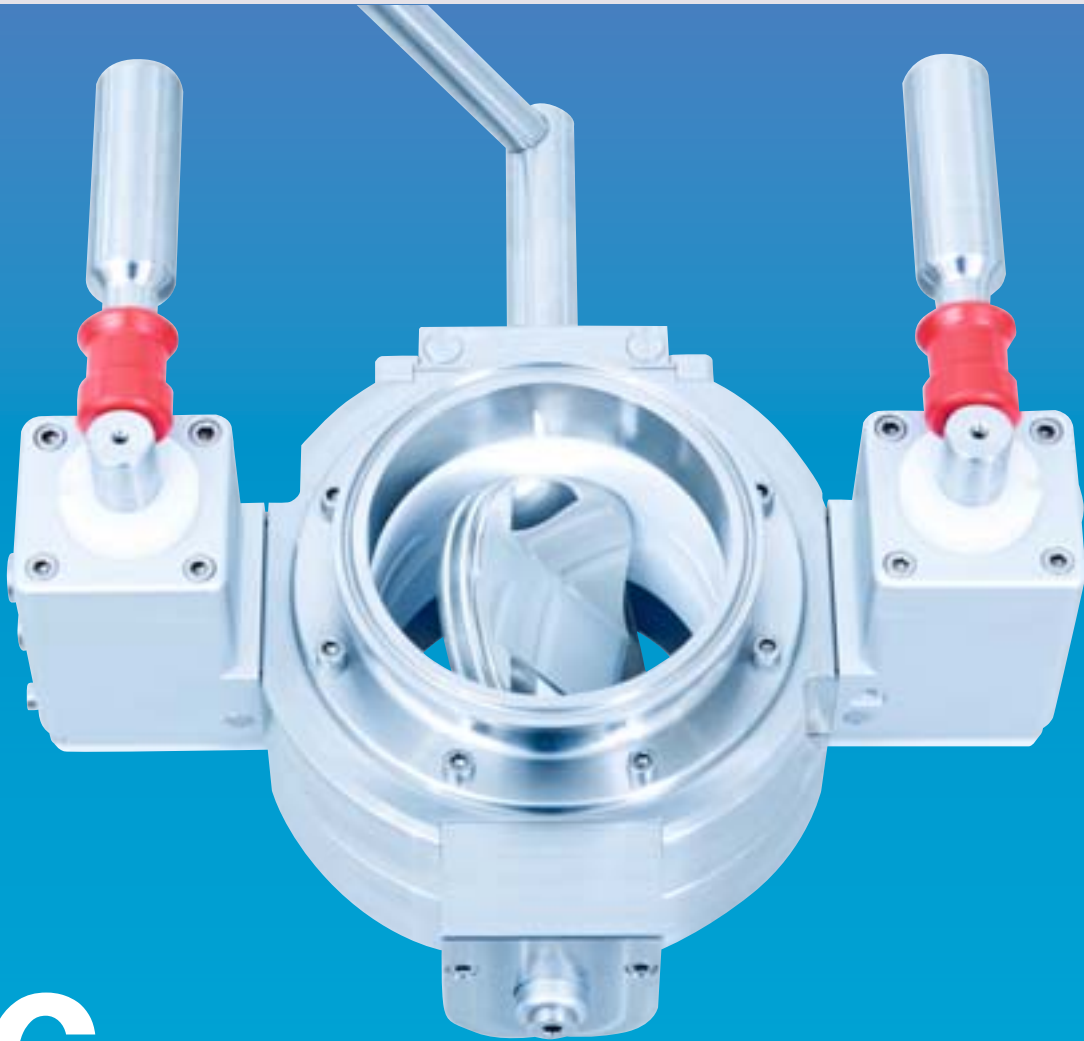


# Müller Containment Valve MCV



1.6



## Transferring highly potent or toxic substances with no contamination?

At last a stable and robust split butterfly valve system for emptying and filling your highly potent or toxic media. Light to handle and safe to use. You can rely on the Müller Containment Valve to safeguard the health of your employees even as you maintain the purity of your product and protect the environment.

The disk of the split butterfly valve is in two halves: the active and passive valve. The active valve incorporates the mechanical system for locking both halves together and a manual lever or actuator for opening and closing the valve. The active half of the valve is fitted to the vessel filling or emptying nozzle, and the passive half to the intermediate bulk container. The two halves of the split valve (active and passive valves) must be docked together in order to open the valve. The ruggedly constructed and GMP-compliant locking device ensures accurate location and the safe docking when the two halves are connected.

When both halves of the valves are locked together, the system is closed to the atmosphere and the valve can then be opened – manually or automatically, whichever way you prefer.

The valve system can be cleaned quickly and simply, thus reducing production line downtime. A valve disk can be replaced in less than two minutes.

### Müller quality – your safety assured

- Quality management to ISO 9001
- Certified to the Pressure Equipment Directive 97/23/EC Module A1; manufacturer approved for AD 2000 Code HP 0 and German TRR 100 metal piping code in conjunction with welding standard EN 729-3
- ATEX-compliant design possible for all components
- Only materials with inspection certificates to EN10204-3.1 are used
- Standard seat and gaskets comply with all FDA requirements



**Ingenious details make a perfect solution:  
the Müller Containment Valve (MCV)**

Whether operated manually or automatically, the Mueller Containment Valve ensures that your toxic or highly potent products transfer safely – from the intermediate bulk container into the process line and back into a container again, exactly how you want it. And all this up to OEB Level 5 (SMEPAC), i.e. up to OEL <math><1 \mu\text{g}/\text{m}^3</math>. You can choose between valve sizes DN100, DN150, DN200 and DN250.

**User benefits:**

- Valve disks locked closed automatically in undocked position
- Cleaning without removing the seal
- Easy-to-wipe flat surfaces
- Pressure- and vacuum-rated version available
- Explosion pressure shock resistant version and safety against flame break through for gases of explosion group IIB available up to +10 bar
- No solids build up and product trapped between valve disk and PTFE seat

**Locking device:**

- Compact and self-locking lightweight construction
- Smooth running, powerful locking mechanism without rollers or bolts – no mechanical wear
- Locking without axial travel
- Manual version with self-interlocking hand levers in open and locked position

**Modular design:**

- Simple change over from manual to pneumatic version
- Easy refitting of position sensors

**Valve disk:**

- Valve disks can be replaced very quickly
- Lean design of valve disk seal → inexpensive spare part
- Polished surfaces

Available versions:	NW			
	100	150	200	250
Standard (Operating pressure max. +0,5 bar) Stainless steel AISI 316L Valve seal in EPDM Product contacting lining in PTFE	●	●	●	●
*) Hastelloy for product contacting parts	●	●	●	●
*) Valve seal in Kalrez instead of EPDM	●	●	●	●
*) Pressure rated version acc. to DGRL 97/23/EG for operating pressure -1 to +1,5 bar WITHOUT pressure lid	●	●	●	●
*) Pressure rated version acc. to DGRL 97/23/EG for operating pressure -1 to +6 bar WITH pressure lid	●	●	●	●
*) Explosion pressure shock resistant version and safety against flame break through for gases of explosion group IIB up to +6 bar WITHOUT reinforced valve disk	●	●	●	●
*) Explosion pressure shock resistant version and safety against flame break through for gases of explosion group IIB up to +10 bar WITH reinforced valve disk	●	●	●	●
*) Explosion-proof version to ATEX zone 0/20	●	●	●	●

\*) Options at extra costs



Locking device



Easy-to-wipe flat surfaces



Valve disk



Locking mechanism



Removing tool for disk



Cassette with Compensators



Cleaning tank with spray lance

Passive disk closing a Müller pharma container.



Silo with active valve – depending on the operation procedure it may be convenient to install the active valve at the vessel and the passive valve at the machine (in this case fixed to a mill).



All tests for determination of OEL/OEB classification acc. to SMEPAC were carried out by an independent laboratory.



Müller also supplies the handling equipment that goes well with the MCV – guaranteeing perfect harmony between all the components



## OEB/OEL Level – Classification

Isolators, Split valve systems Total Containment	5	< 1 µg/m³	< 0,1 mg/day	Highly toxic
Split valve systems – Müller Containment Valve MCV	4	1 - 10 µg/m³	0,1 - 1 mg/day	toxic
Split valve systems – Müller Containment Valve MCV	3	10 - 100 µg/m³	1 - 10 mg/day	slightly toxic
Open systems possibly w/exhaustion – Müller Dustfree Systems	2	100 - 1000 µg/m³	10 - 100 mg/day	almost non-toxic
Open systems – Müller Dustfree Systems	1	1000 - 5000 µg/m³	> 100 mg/day	non-toxic
Systems	OEB- Occupational Exposure Band	OEL – Occupational Exposure Limit Maximum Workplace Concentration	Potency	Toxicity

		NW			
		100	150	200	250
Height	Active valve without connecting flange	35 mm	35 mm	50 mm	50 mm
	Passive valve without connecting flange	35 mm	35 mm	50 mm	50 mm
	Standard TC flange	28 mm	35 mm	35 mm	35 mm
	Active and passive valve built-in and with standard TC connecting flange on both sides	126 mm	140 mm	170 mm	170 mm
Weight	Active valve manual without connecting flange	7,9 kg	9,9 kg	23,1 kg	25,9 kg
	Passive valve manual without connecting flange	3,9 kg	5,9 kg	15,3 kg	19,0 kg



## Presenting the other companies of the Müller Group

Today it is of ever increasing importance to cooperate with trustworthy and competent business partners who know what they are doing. As our customer you can rely on a wholehearted partnership. And you gain the innovation and skills of a world class group of companies in the field of packaging, cleaning solutions, handling, transportation and modular systems.

If you now feel the need to talk to us and ask a few questions, then please do not hesitate.

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