

# DUALSAFE™ ASEPTIC MIXPROOF VALVE



The APV DualSafe™ Aseptic Mixproof Valve (AM1) ensures aseptic processing in demanding environments by maintaining aseptic conditions through robust diaphragm technology and two independent shafts that separate incompatible media. It features as standard an aseptic inlet and outlet valve for additional protection against contamination. Enhanced cleanability is achieved through independent seat lifting, seat lift pulsation and optimized flow design, reducing CIP fluid consumption up to 40% compared with standard lifting process during cleaning.

The valve includes a PTFE diaphragm with superior cleaning properties. Key features for product quality and safety include thermal transfer reduction, a smooth surface finish to minimize microbial adhesion, precise temperature monitoring, certified materials and design according to 3A sanitary standards. The DualSafe valve ensures efficiency, safety and reliability.

## Benefits:

- Robust diaphragm technology and two independent shafts to separate incompatible media, maintaining aseptic conditions.
- Independent seat lifting and seat lift pulsation ensure enhanced cleaning.
- Reduced CIP fluid consumption by up to 40%.
- Design without a dome to prevent air pockets and ensures continuous velocity for effective cleaning.
- Minimized hard-to-clean zones.
- Optimized flow efficiency.
- PTFE diaphragm reliable design used to enhance cleaning, reduce thermal transfer and extend the lifetime of the valve.
- Designed to reduce thermal transfer to the product area, preserving temperature-sensitive products.
- Incorporated visual detection leakage path.
- A surface finish of less than 0.8µm and e-polished housing minimize microbial adhesion.
- Product contact metal items come with a 3.1 certificate, and the design meets 3A sanitary standards.
- Service friendly procedures.

## Standard Options:

**Sizes:** 1.5" - 3" DN40 – DN65

**Housing Types:** LT, TT

## Surfaces:

- Inside: Electropolished Ra 0.8 µm
- Outside: Glass-blasted, satin finish

## Product Pressure:

- Max. Pipeline: 10 Bar

**Required Air Pressure:** 6 - 8 bar

**Main valve valve:** Normally Closed

**Inlet side valve:** Normally Open

**Outlet side valve:** Normally Closed

**Max. Temperature:** 135°C (for short time 150°C)

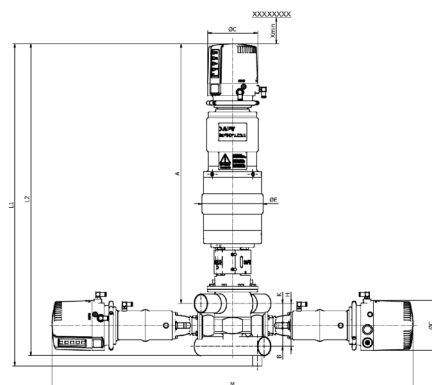
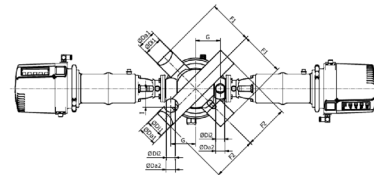
**Diaphragm:** PTFE

## Product Wetted Parts:

- 1.4404/AISI 316L.
- 3.1 Certificate included as standard.

**Other stainless-steel parts:** 1.4301/AISI 304

- Main valve with seat lifting function.
- CU4 Plus control unit on top of the main valve.
- Protection tube provided to install temperature sensor as standard.
- Designed to meet 3A standard.



	A	B	ØC	ØDa1	ØDi1	ØDa2	ØDi2	ØE	F1	F2	G	H	I	K	L1	L2	M	Xmin.	Mass in KG
DN40	691	50,8	134	41	38	25	22,6	163	120	120	65,95	104,8	50	54	853,3	816,3	968	131	36,7
DN50	697	56,8	134	53	50	25	22,6	163	120	120	65,95	116,8	50	60	865	840	968	143	37,2
DN65	708	65,8	134	70	66	25	22,6	192	125	130	65,95	133,8	50	68	908	877	990	163	45,1
1,5"	693	49,3	134	38,1	34,8	25	22,6	163	120	120	65,95	101,7	50	52,4	853,3	813,3	968	131	36,7
2"	698	55,7	134	50,8	47,6	25	22,6	163	120	120	65,95	114,5	50	58,8	865,3	838	968	143	37,2
2,5"	705,4	62,8	134	63,5	60,3	25	22,6	192	125	130	65,95	127,95	50	65,15	902,5	865	990	157	44,9
3"	811,7	68,8	134	76,1	72,9	25	22,6	192	125	130	65,95	140,25	50	71,45	915	890	990	169	45,2

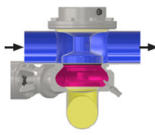
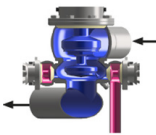
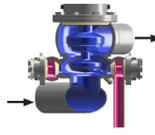
### General data

Max. line pressure	See table below
Max. temperature	135° C
	150° C short term
Diaphragms	PTFE
Lower shaft main valve	PTFE / 1.4301
Shaft side valves	PTFE / 1.4305
Required air pressure	6-8 bar
Standard Elastomer Seal	EPDM
Optional Elastomer Seal	HNBR, FKM

### Pressure rating in bar

Size	Max. pressure in upper line	Max. pressure in separation cavity	Max. pressure in lower line
40, 1,5", 50, 2"	10	8	10
2,5"	10	8	10
65, 3"	10	8	8

### KVs Values in m³/h

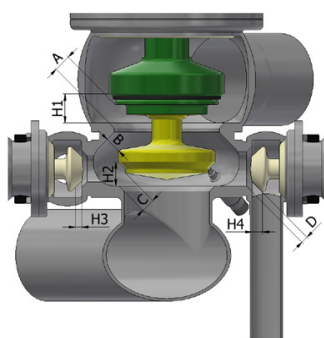
Size	Upper line	Top to bottom	Bottom to top
			
40	41	28	27
50	78	40	41
65	156	70	67
1,5"	36	25	24
2"	72	39	40
2,5"	131	65	62
3"	204	72	68

### Switching time in seconds at 6 bar with CU43

Size	Open	Close
40, 1,5", 50, 2"	2	2,2
2,5", 65, 3"	3,2	4

### Valve strokes in mm and air consumption in NL (normal liter)

Size	Main stroke in mm	NL / stroke to open valve	Seat lift strokes in mm	NL / stroke for upper seat lifting	NL / stroke for lower seat lifting
40, 1,5", 50, 2"	16	2,3	2	1,06	0,34
2,5", 65, 3"	22	4,57	2	1,71	0,5



### Valve stroke / open cross section

	A	B	C	D	Stroke H1 upper shaft	Stroke H2 lower shaft	Stroke H3 inlet valve	Stroke H4 outlet valve
DN40	7	16,7	8,3	5,5	16	12	5	8
DN50	7	16,7	8,3	5,5	16	12	5	8
DN65	13,2	12,6	10,7	5,5	22	18	5	8
1,5"	7	16,7	8,3	5,5	16	12	5	8
2"	7	16,7	8,3	5,5	16	12	5	8
2,5"	13,2	12,6	10,7	5,5	22	18	5	8
3"	13,2	12,6	10,7	5,5	22	18	5	8

**SPXFLOW®**

SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit [www.spxflow.com](http://www.spxflow.com).

The green "X" and "X" are trademarks of SPX FLOW, Inc.

ISSUED 06/2024 APV DualSafe-Aseptic-Mixproof-Valves\_DST\_GB

COPYRIGHT © 2024 SPX FLOW