



USDA



# AIRLOCK – AL/AXL

The AL and AXL rotary valves are suitable for the metering and pneumatic conveying of powder and granular products. Many different valve configurations are available, due to the modular design of our standard components. The AXL valves with enlarged inlet are specifically designed for applications where inlet size is more important than capacity, or for handling products with poor flowability.

The AL and AXL valve range includes USDA Dairy accepted models and versions conforming to the EC 1935/2004 directive for sanitary use in the food and pharmaceutical industry. These stainless steel valves are easily detachable within minutes and meet the highest hygienic standards. Both AL and AXL standard and Dairy valves are available in MZC execution with supporting rails for easy removal of the

end cover and rotor without damaging the housing. The MZC valves are easily detachable within minutes. These valves are also available with an optional body including one round flange, one square flange, and a larger diameter inlet: the AML version. The AML valves can also act as a transition piece from round to square or vice versa.

The AXL size corresponds with the dimension of the inlet flange.

### Available sizes and capacity

Size AL                    100 150 175 200 250 300 350 400 450 500

Size AXL                    200 250 300 350

Capacity\* FT<sup>3</sup>/REV. 0.03 0.09 0.19 0.37 0.67 1.20 2.05 3.21 4.77 8.12

\*Capacity per revolution at 100% filling



## Specifications

- ▶ Minimum air leakage
- ▶ High filling efficiency
- ▶ Sheared angle inlet
- ▶ Drilled flanges in accordance with PN10, ANSI 150lbs
- ▶ Easy detachable versions available
- ▶ Large inlet size in relation to rotor volume
- ▶ ATEX 2014/34/EU certification available
- ▶ ATEX Autonomous Protective System (APS) certification available
- ▶ Customised solutions
- ▶ EC1935/2004 conformity available

## Product Information

The standard rotor has 9 blades. Various rotor configurations are available, such as adjustable or fixed blades, reduced capacity, scalloped fixed vaned, end disc etc. The end covers have outboard bearings, lubricated and sealed for life. Shaft seals are available with gland packing or lipseal and optional air purge.

The standard AL and AXL models are suitable for product temperatures of up to +302°F and a maximum pressure difference of 29 PSI. Special configurations are available to accommodate temperatures between -328°F and +1112°F. ATEX Autonomous Protective System (APS) certified configurations are available up to 145 PSI.

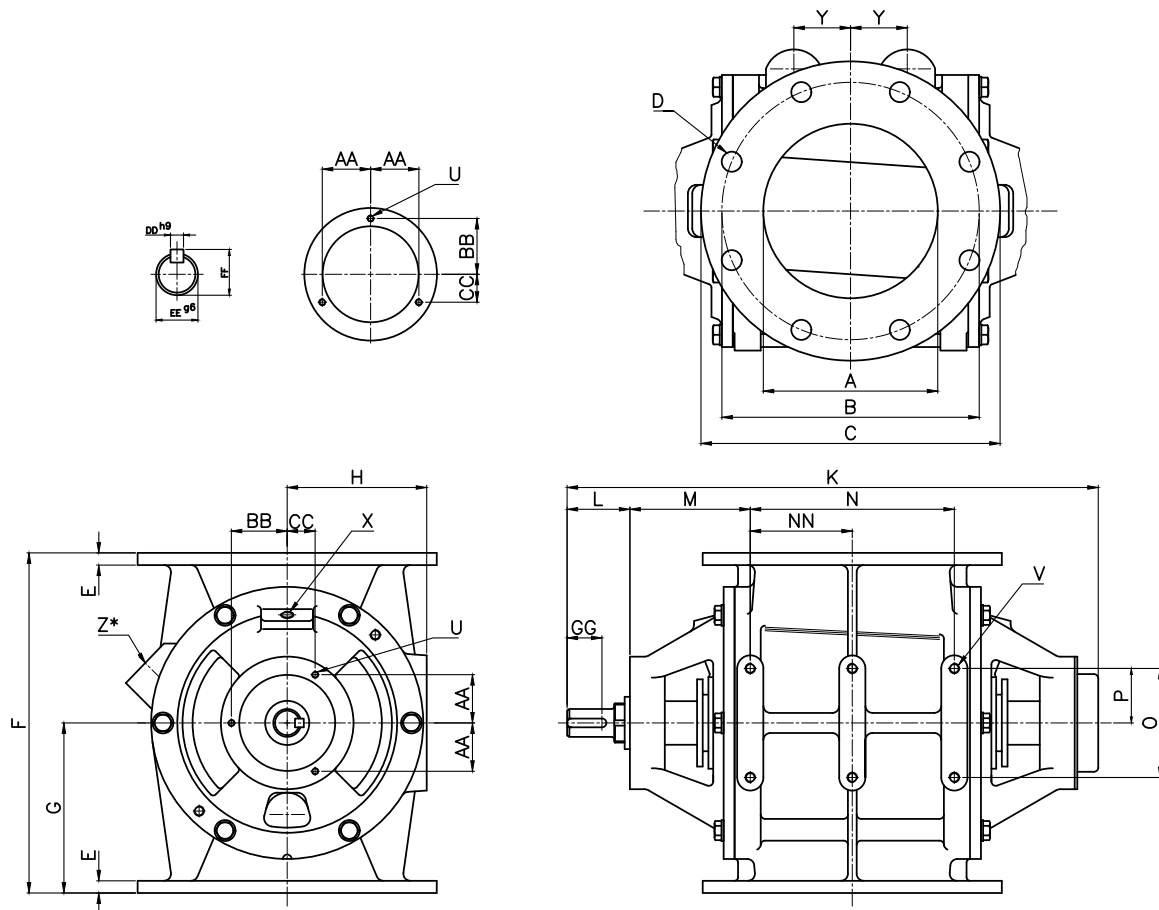
All models offer optimum venting through large vent holes. Vent holes come pre-drilled and plugged on cast iron executions. Venting is optionally available on stainless steel and aluminium versions. DMN-WESTINGHOUSE uses SEW drives as their standard. Other drives can be fitted on request. While having a preference for direct drives, chain drives can also be supplied.

## Application

The AL/AXL is suitable for the following industries:

- ▶ Food
- ▶ Chemicals
- ▶ Paint
- ▶ Pet food
- ▶ Biomass
- ▶ Minerals
- ▶ Animal feed
- ▶ Aquaculture
- ▶ Recycling
- ▶ Pharmaceutical
- ▶ Dairy
- ▶ Batteries
- ▶ Infant formula
- ▶ Cosmetics
- ▶ Tires

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AL											AXL												
TYPE			DIN				ANSI					DIN				ANSI							
AL	AXL	Ft <sup>3</sup> /rev	ØA	ØB	D	ØC	ØB	D	E	H	ØA	ØB	D	ØC	ØB	D	E	H	F	G			
100		0.03	3.94	6.69	4xØ0.71	8.27	-	-	0.41	3.54									7.09	3.54			
150		0.09	5.91	9.45	8xØ0.91	11.22	9.50	8xØ0.87	0.47	110									11.02	5.51			
175	200	0.19	6.89	10.63	8xØ0.91	12.40	-	-	0.55	5.12	7.87	11.61	8xØ0.91	13.50	11.75	8xØ0.87	0.55	6.50	12.99	6.50			
200	250	0.37	7.87	11.61	8xØ0.91	13.50	11.75	8xØ0.87	0.55	6.30	9.84	13.78	12xØ0.91	15.98	14.25	12xØ1.00	0.63	7.78	15.35	7.68			
250	300	0.67	9.84	13.78	12xØ0.91	15.98	14.25	12xØ1	0.63	7.48	11.81	15.75	12xØ0.91	19.02	17.00	12xØ1.00	0.83	8.76	17.72	8.86			
300	350	1.20	11.81	15.75	12xØ0.91	19.02	17.00	12xØ1	0.83	8.86	13.78	18.11	16xØ0.91	20.87	18.75	12xØ1.13	0.73	8.86	21.26	10.63			
350		2.05	13.78	18.11	16xØ0.91	20.87	18.75	12xØ1.13	1.02	10.63									25.98	12.99			
400		3.21	15.75	20.25	16xØ1.02	23.43	21.25	12xØ1.13	1.02	12.80									29.53	14.76			
450		4.77	17.72	22.24	20xØ1.02	25.00	22.75	16xØ1.25	1.02	14.96									33.66	16.83			
500		8.12	19.69	24.41	20xØ1.06	27.56	25.00	20xØ1.25	1.10	17.13									37.80	18.90			

TYPE			K	L	M	N	NN	O	P	U	V	X	Y	Z*	AA	BB	CC	DD	EE	FF	GG
100			12.91	2.13	3.31	3.54	-	2.95	1.28	2xM6	4xM8	¾" BSP (Ø10)	-	-	1.38	-	-	0.31	0.98	1.10	1.54
150			19.06	2.36	5.00	5.75	-	3.94	1.97	3xM6	4xM10	¼" BSP (Ø10)	1.57	½" BSP	1.46	2.07	1.46	0.31	1.18	1.30	1.42
175	200		20.63	2.36	4.92	7.48	-	3.94	1.97	3xM8	4xM10	¾" BSP (Ø10)	2.09	1" BSP	1.46	2.07	1.46	0.31	1.18	1.30	1.42
200	250		23.98	2.83	5.43	9.21	-	4.92	2.46	3xM8	4xM12	¼" BSP (Ø10)	2.56	1½" BSP	2.18	2.52	1.26	0.39	1.26	1.38	1.73
250	300		25.94	2.83	5.43	11.18	5.59	4.92	2.46	3xM10	6xM12	¼" BSP (Ø10)	2.95	1½" BSP	2.18	2.52	1.26	0.39	1.26	1.38	1.73
300	350		30.04	2.91	5.91	14.17	7.09	4.92	2.46	3xM10	6xM12	¾" BSP (Ø10)	3.74	1½" BSP	2.90	3.35	1.67	0.39	1.50	1.61	1.77
350			32.80	2.91	6.10	16.54	8.27	4.92	2.46	3xM10	6xM12	¾" BSP (Ø10)	4.41	1½" BSP	2.90	3.35	1.67	0.39	1.50	1.61	1.77
400			37.17	4.25	6.06	19.69	9.84	7.87	3.94	3xM10	6xM16	¾" BSP (Ø10)	4.92	2" BSP	2.90	3.35	1.67	0.55	1.97	2.13	2.76
450			41.42	4.37	6.69	22.52	11.26	11.81	5.91	3xM10	6xM16	¾" BSP (Ø10)	6.42	2" BSP	2.90	3.35	1.67	0.71	2.36	2.52	2.76
500			45.16	4.33	6.73	25.59	12.80	13.39	5.12	3xM10	6xM16	¾" BSP (Ø10)	7.09	2" BSP	3.92	4.53	2.26	0.71	2.36	2.52	2.76

\* Standard pre-drilled for cast iron

Technical modifications are possible, dimensions in inches.