



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* LTR/REV. 0.8 2.5 5.5 10.5 19 34 58 91 135 230

*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 +150°C and a maximum pressure difference of 2 bar. Special configurations are available to accommodate temperatures between -200°C and +600°C. ATEX Autonomous Protective System (APS) certified configurations are available up to 10 barg.

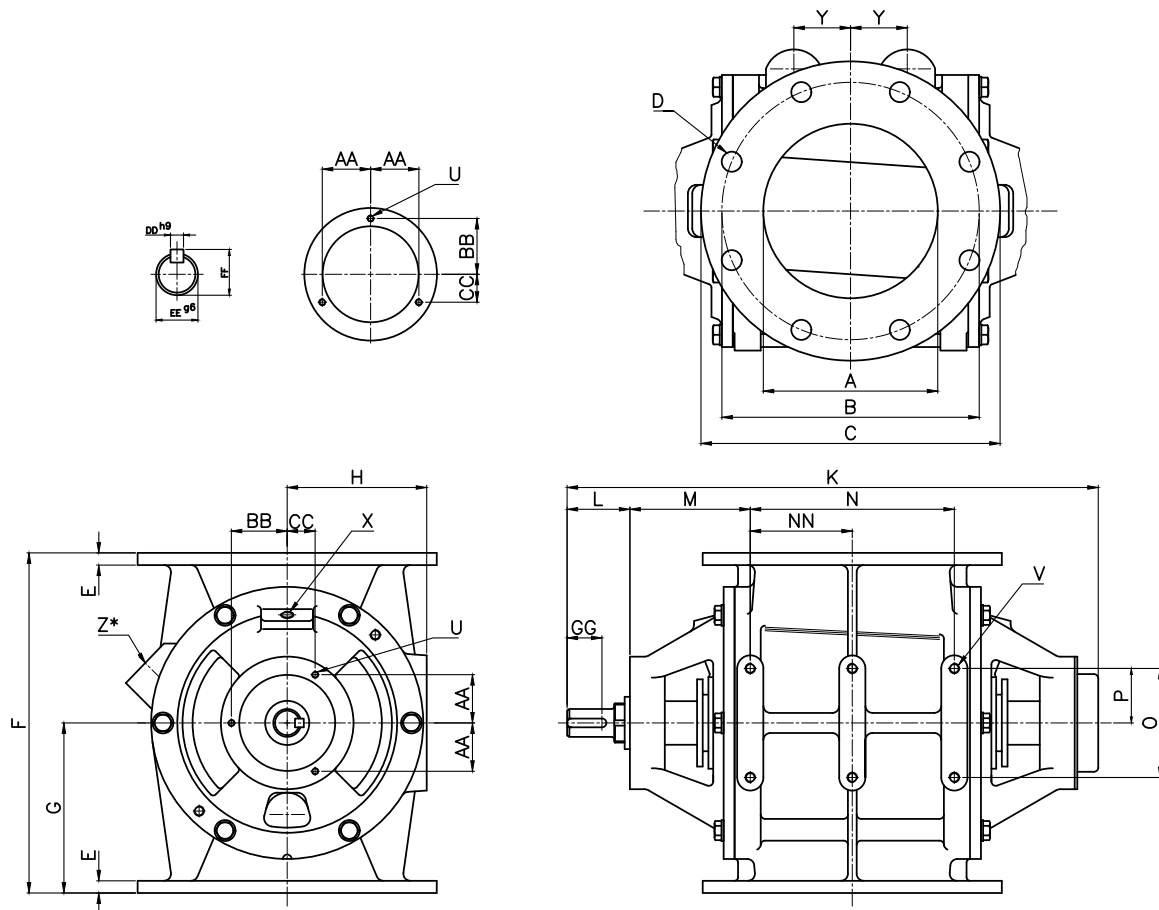
All models offer optimum venting through large vent holes. Vent holes come pre-drilled and plugged on cast iron executions. Venting is optionally available on stainless steel and aluminium versions. DMN-WESTINGHOUSE uses SEW drives as their standard. Other drives can be fitted on request. While having 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		Ltr/rev	DIN			ANSI			E	H	ØA	DIN			ANSI			E	H	F	G
AL	AXL		ØA	ØB	D	ØC	ØB	D				ØB	D	ØC	ØB	D	ØB				
100		0,8	100	170	4xØ18	210	-	-	10,5	90								180	90		
150		2,5	150	240	8xØ23	285	241,3	8xØ22,2	12	110								280	140		
175	200	5,5	175	270	8xØ23	315	-	-	14	130	200	295	8xØ23	343	298,4	8xØ22,2	14	165	330	165	
200	250	10,5	200	295	8xØ23	343	298,4	8xØ22,2	14	160	250	350	12xØ23	406	361,9	12xØ25,4	16	197,5	390	195	
250	300	19	250	350	12xØ23	406	361,9	12xØ25,4	16	190	300	400	12xØ23	483	431,8	12xØ25,4	21	222,5	450	225	
300	350	34	300	400	12xØ23	483	431,8	12xØ25,4	21	225	350	460	16xØ23	530	476,2	12xØ28,6	21	225	540	270	
350		58	350	460	16xØ23	530	476,2	12xØ28,6	26	270								660	330		
400		91	400	515	16xØ26	595	539,7	16xØ28,6	26	325								750	375		
450		135	450	565	20xØ26	635	577,8	16xØ31,7	26	380								855	427,5		
500		230	500	620	20xØ27	700	635	20xØ31,7	28	435								960	480		

TYPE		K	L	M	N	NN	O	P	U	V	X	Y	Z*	AA	BB	CC	DD	EE	FF	GG
AL	AXL																			
100		328	54	84	90	-	75	32,5	2xM6	4xM8	1/8"	-	-	35	-	-	8	25	28	39
150		484	60	127	146	-	100	50	3xM6	4xM10	1/4"	40	3/8"	37.1	52.5	37.1	8	30	33	36
175	200	524	60	125	190	-	100	50	3xM8	4xM10	1/4"	53	1"	37.1	52.5	37.1	8	30	33	36
200	250	609	72	138	234	-	125	62.5	3xM8	4xM12	1/4"	65	1 1/4"	55.4	64	32	10	32	35	44
250	300	659	72	138	284	142	125	62.5	3xM10	6xM12	1/4"	75	1 1/4"	55.4	64	32	10	32	35	44
300	350	763	74	150	360	180	125	62.5	3xM10	6xM12	3/8"	95	1 1/2"	73.6	85	42.5	10	38	41	45
350		833	74	155	420	210	125	62.5	3xM10	6xM12	3/8"	112	1 1/2"	73.6	85	42.5	10	38	41	45
400		944	108	154	500	250	200	100	3xM10	6xM16	3/8"	125	2"	73.6	85	42.5	14	50	54	70
450		1052	111	170	572	286	300	150	3xM10	6xM16	3/8"	163	2"	73.6	85	42.5	18	60	64	70
500		1147	110	171	650	325	340	130	3xM10	6xM16	3/8"	180	2"	99.6	115	57.5	18	60	64	70

* Standard pre-drilled for cast iron

Technical modifications are possible, dimensions in mm.