

Blow-Through

Rotary Airlock Valves

Series: BT, BT-DCSR, BT-DCSR VER 2T, BT-SD, BT-SD-DCSR, BVT, BVT-DCSR, BVT-DCSR VER 2T, BVT-SD, BVT-SD-DCSR, NBT REC, NBT RND



Description: Blow-Through Rotary Air Lock Valves

Type: Blow-Through

Models: BT, BT-DCSR, BT-DCSR VER 2T, BT-SD, BT-SD-DCSR
BVT, BVT-DCSR, BVT-DCSR VER 2T, BVT-SD, BVT-SD-DCSR
NBT REC, NBT RND

OVERVIEW

The NES Company Inc. Blow-Through Rotary Airlock Valves ensure efficient material discharge while maintaining system pressure. Available in 6" to 18" [150 mm to 450 mm] bore sizes, they offer reliable performance for pneumatic conveying in food, chemical, pharmaceutical, plastics, and bulk material handling industries.

DESCRIPTION

NES Blow-Through Rotary Airlock Valves are designed for efficient, high-capacity pneumatic conveying, ensuring smooth material flow while minimizing air leakage. With bore sizes from 6" to 18" [150 mm to 450 mm], they support up to 15 psi differential pressure and 482°F [250°C] operating conditions, making them ideal for food processing, chemical, pharmaceutical, plastics, and bulk material handling applications.



FEATURES

- Standard cast iron construction with optional 304 or 316 stainless steel for corrosion resistance.
- Six to ten-vane rotors for controlled and efficient material flow.
- Supports up to 15 psi differential pressure and 482°F [250°C] operating conditions.
- Replaceable wear components for extended service life.
- Adjustable air purge connections to minimize product buildup and improve sealing.
- Available in multiple configurations, including bare valve, direct drive, or V-belt systems.

NOTES

NES Company Inc. Blow-Through Rotary Airlock Valves are engineered for efficient and reliable material handling in pneumatic conveying systems, ensuring consistent performance in demanding industrial applications.

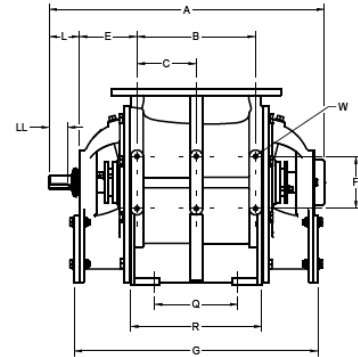
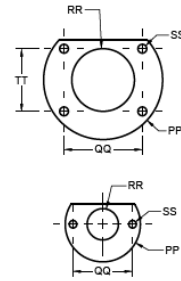
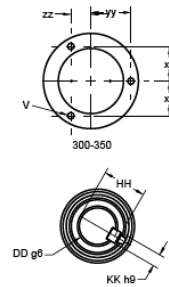
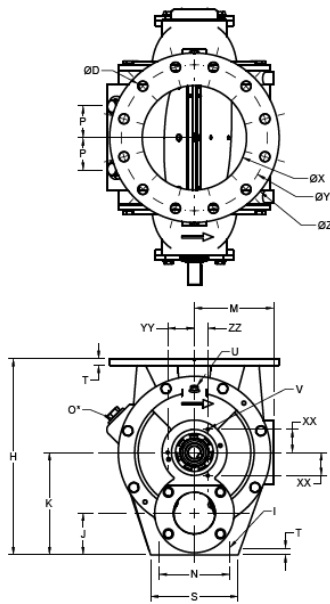
GENERAL TECHNICAL DATA

Blow-Through Rotary Airlock Valve BT / Enlarged Inlet/Outlet BVT

Blow-Through

Rotary Airlock Valves

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	Swept Volume		DIN															
Size	in m ³	ø X	ø Y	ø D	ø Z	A	B	C	E	F	G	H	I	J	K	L	M	
BT-150	0.003	150	240	8xø23	285	484	146	-	127	100	420	295	4xø12	65	155	60	110	
BT-175	0.006	175	270	8xø23	315	524	190	-	125	100	460	340	4xø14	75	175	60	130	
BT-200	0.011	200	295	8xø23	343	609	234	-	138	125	535	410	4xø18	90	215	72	160	
BT-250	0.019	250	350	12xø23	406	659	284	142	138	125	585	470	4xø18	100	245	72	190	
BT-300	0.034	300	400	12xø23	483	763	360	180	150	125	685	565	4xø23	120	295	74	225	
BT-350	0.058	350	460	16xø23	530	833	420	210	155	125	755	665	4xø23	132	335	74	270	
BVT-200	0.006	200	295	8xø23	343	524	190	-	125	100	460	340	4xø14	75	175	60	165	
BVT-250	0.011	250	350	12xø23	406	609	234	-	138	125	534	415	4xø18	90	15	72	197.5	
BVT-300	0.019	300	400	12xø23	483	659	284	142	138	125	584	495	4xø18	100	245	72	222.5	
BVT-350	0.034	350	460	16xø23	530	763	360	180	150	125	684	595	4xø23	120	295	74	225	

Size	N	O* (BSP)	P	Q	R	S	T	U (BSP)	V	W	XX	YY	ZZ	DD	KK	HH	LL	PP	QQ	RR	TT	SS
BT-150	110	¾"	40	100	154	140	12	¼"	3xM6	4xM10	37.1	52.5	37.1	30	8	33	35	120	95	50	-	2xØ12
BT-175	130	1"	53	130	190	160	14	¼"	3xM6	4xM10	37.1	52.5	37.1	30	8	33	35	140	103.9	65	60.4	4xØ12
BT-200	160	1¼"	65	160	230	200	14	¼"	3xM8	4xM12	55.4	64	32	32	10	35	43	170	114.7	80	80.3	4xØ14
BT-250	170	1½"	75	200	274	210	16	3/8"	3xM8	6xM12	55.4	64	32	32	10	35	43	190	125	100	100	4xØ14
BT-300	190	1½"	95	260	350	240	21	3/8"	3xM10	6xM12	73.6	85	42.5	38	10	41	44	230	163.8	125	114.7	4xØ14
BT-350	220	1½"	112	310	410	270	26	3/8"	3xM10	6xM12	73.6	85	42.5	38	10	41	44	244	152	150	152	4xØ14
BVT-200	130	1"	53	130	190	160	14	¼"	3xM6	4xM10	37.1	52.5	37.1	30	8	33	35	140	103.9	65	60.4	4xØ12
BVT-250	160	1¼"	65	160	230	200	16	¼"	3xM8	4xM12	55.4	64	32	32	10	35	43	170	114.7	80	80.3	4xØ14
BVT-300	170	1¼"	75	200	274	210	21	¼"	3xM8	6xM12	55.4	64	32	32	10	35	43	190	125	100	100	4xØ14
BVT-350	190	1½"	95	260	350	240	26	3/8"	3xM10	6xM12	73.6	85	42.5	38	10	41	44	230	163.8	125	114.7	4xØ14

All dimensions in mm.

*Standard pre-drilled & plug tapped holes for Cast Iron construction.

Note: We reserve the right to modify the dimensions without prior notice.


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Blow-Through Dual Cross Slide Rail BT-DCSR / Enlarged Inlet/Outlet BVT-DCSR

Comparison of Dairy CSR Version 1 and Version 2TE Rotary Valve	
Version 1	Version 2TE
	
Old Design. Followed by many European Manufacturers	Newly Developed Design for High Level Hygienic Standards (Patent pending)
Designed for Dairy Standards with Diagonal Cross Slides for Easy Cleaning Purpose	Designed for Dairy Standards with Diagonal Cross Slides for Easy Cleaning Purpose
Special Tools required for Clearance Setting	No Special Tools or Techniques required for Clearance Setting
Special Spring Washer setup is required for Clearance Setting	No Spring Washer is required. Clearance is prefixed in Valve while Manufacturing
Separate Tool is required to extract the rotor with end cover for cleaning	No Separate Tool is required for rotor extraction
Rotor cannot be rotated for cleaning	Rotor can be rotated for cleaning. It makes cleaning process easier for operators
Straight Bore and Straight Rotor Concept (Usual problem in Version 1 is the rotor will tend to touch the body bore while opening and closing of the valve; it causes scoring marks on body bore. Presence of scoring marks on body bore will void the USDA /EHEDG / ALL Dairy Standards validation)	Tapered Rotor and Tapered Body Concept (At no point of time the rotor and body will come in contact while opening and closing of the valve. Specially designed for Dairy valves with CSR to avoid scoring marks on the Bore)
Difficult to engage the Rotor Shaft with Dummy Shaft	Easy to engage the Rotor Shaft with Dummy Shaft.
Chances for product deposition between dummy shaft and rotor shaft is more. Also, it is not a hygienic practice in Dairy industries	Designed to keep the dummy shaft area always clean. Product entry into dummy shaft is not possible
High product deposition on dummy shaft area will cease the rotor from rotating. Sudden failure of rotary valve causes heavy loss to production and also involves more cost to fix the issue.	No such failure is possible in Version 2TE

NOTE:

With years of experience in Pre sales and Post sales for Food, Dairy and Pharma, The Version 2TE has been developed to be User Friendly For End Users in terms of Operation and Maintenance.

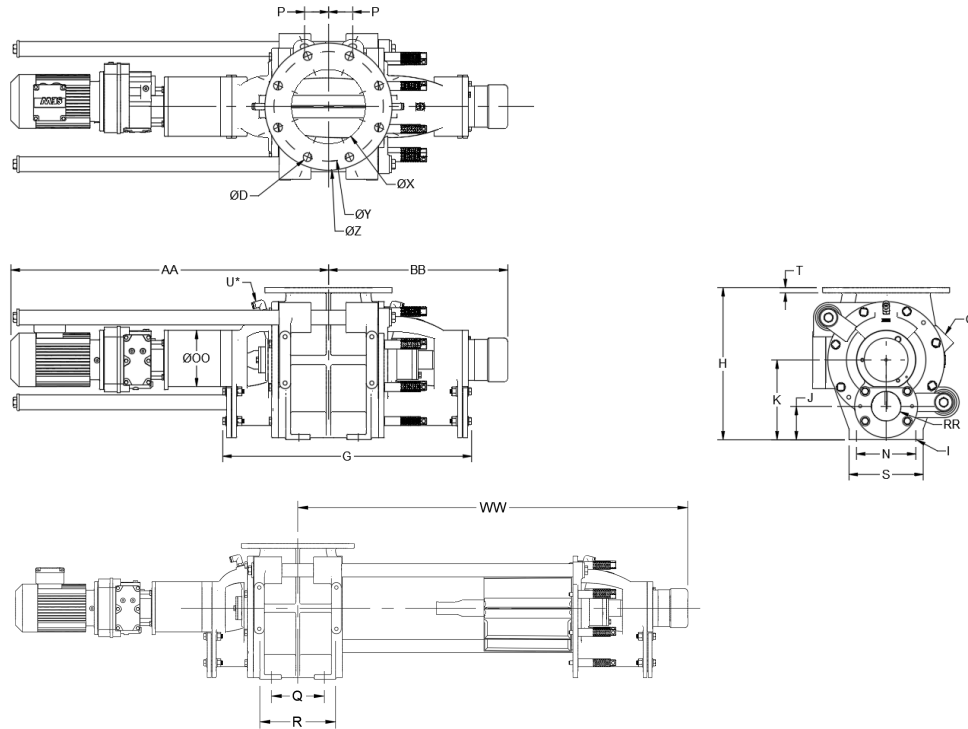
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Blow-Through Dual Cross Slide Rail, rev.2 BT-DCSR VER 2T / Enlarged Inlet/Outlet BVT-DCSR VER 2T



			DIN			ANSI								
Size	Swept Volume <i>m</i> ³	øX	øY	øD	øZ	øY	øD	H	I	J	K	N	P	Q
BT-150	0.003	150	240	8xø23	285	241.3	8xø23	295	4xø12	65	155	110	40	100
BT-175	0.006	175	270	8xø23	31	-	-	340	4xø12	75	175	130	53	130
BT-200	0.011	200	295	8xø23	343	298.4	8xø23	410	4xø18	90	215	160	65	160
BT-250	0.019	250	350	12xø23	406	361.9	12xø25.4	470	4xø18	100	245	170	75	200
BT-300	0.034	300	400	12xø23	483	431.8	12xø25.4	565	4xø23	120	295	190	95	260
BT-350	0.058	350	460	16xø23	530	476.2	16xø28.6	665	4xø23	132	335	220	112	310

Size	R	S	T	U* (BSP)	O (DAIRY) UNEF	G Dairy	RR Dairy	G	RR (Max)	AA	BB	ØOO	WW	Type SEW
BT-150	154	140	12	1/4"	1 1/8"	495	35	460	50	715	350	120	760	RF 37
BT-175	190	160	14	1/4"	1 1/8"	545	50	505	65	740	370	120	880	RF 37
BT-200	230	200	14	1/4"	1 1/8"	695	50	650	80	860	490	160	1130	RF 47
BT-250	274	210	16	1/4"	1 1/8"	745	70	700	100	940	510	160	1190	RF 47
BT-300	350	240	21	3/8"	1 1/8"	855	100	810	125	1015	580	200	1430	RF 57
BT-350	410	270	26	3/8"	1 1/8"	930	125	885	150	1190	620	200	1670	RF 67

*Air purge connection

All dimensions are in mm.

Note: we reserve the right to modify the dimensions without prior notice.

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Other Configurations

Blow-Through Simply Demountable BT-SD / Enlarged Inlet/Outlet BVT-SD

- *Refer to the technical drawings and documentation to view.

Blow-Through Simply Demountable with Dairy Cross Slide Rail BT-SD-DCSR / Enlarged Inlet/Outlet BVT-SD-DCSR

- *Refer to the technical drawings and documentation to view.

Blow-Through Simply Demountable with Dairy Cross Slide Rail, rev. 2 BT-SD-DCSR VER 2T / Enlarged Inlet/Outlet BVT-SD-DCSR VER 2T

- *Refer to the technical drawings and documentation to view.

Blow-Through NUCON Bolt-in Replacement with Round Inlet/Outlet NBT-RND / Square Inlet/Outlet NBT-REC

- *Refer to the technical drawings and documentation to view.

Application table

Applications
Dairy
Food
Chemical
Plastics
Pet Food
Pharmaceuticals
Other Bulk Material Handling Applications

Blow-Through

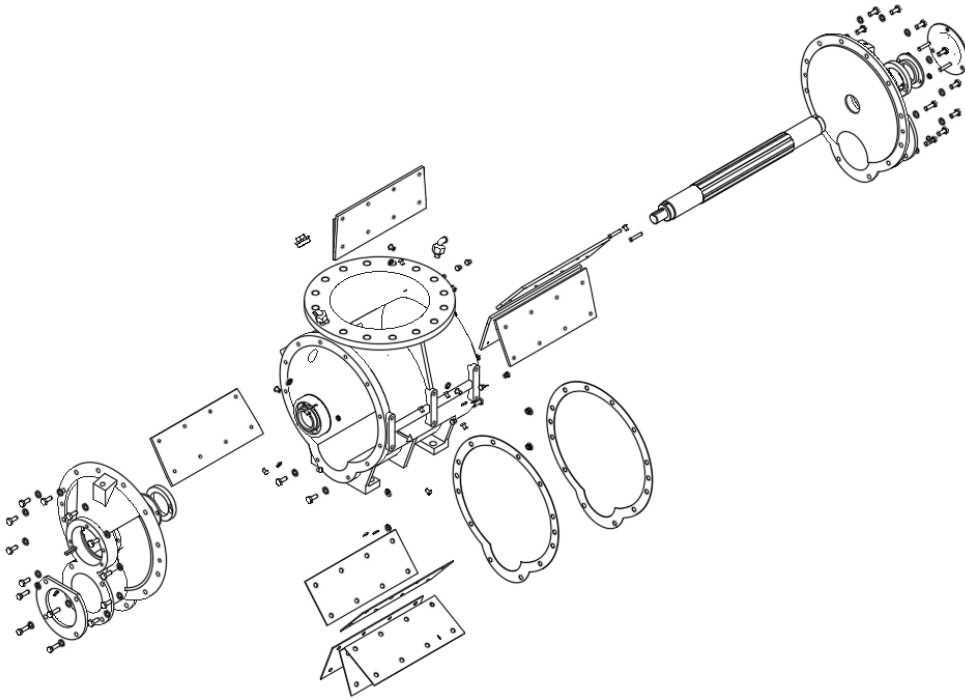
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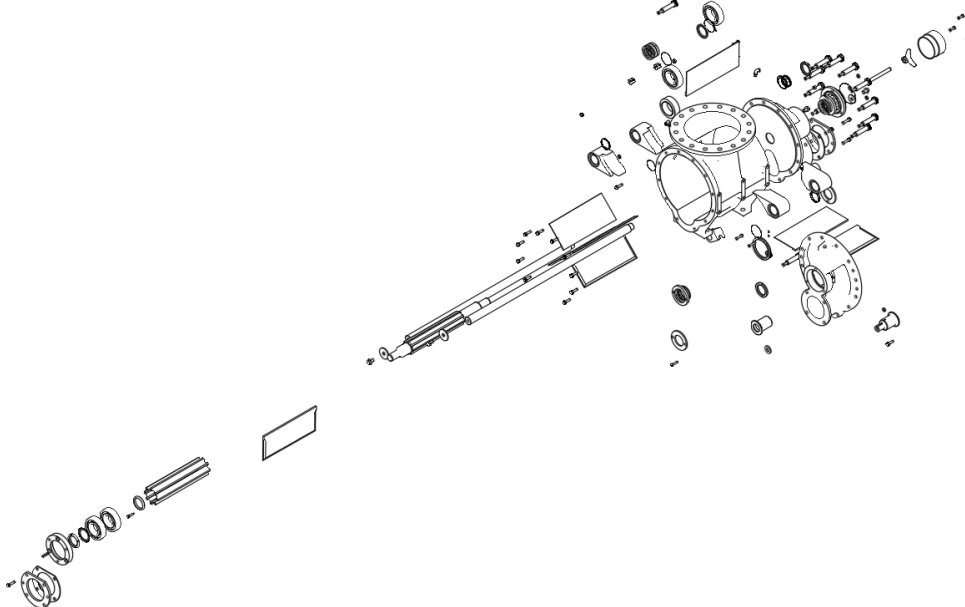


Exploded View

Blow Through Standard



Blow Through with Cross Slide Rails, ver. 2



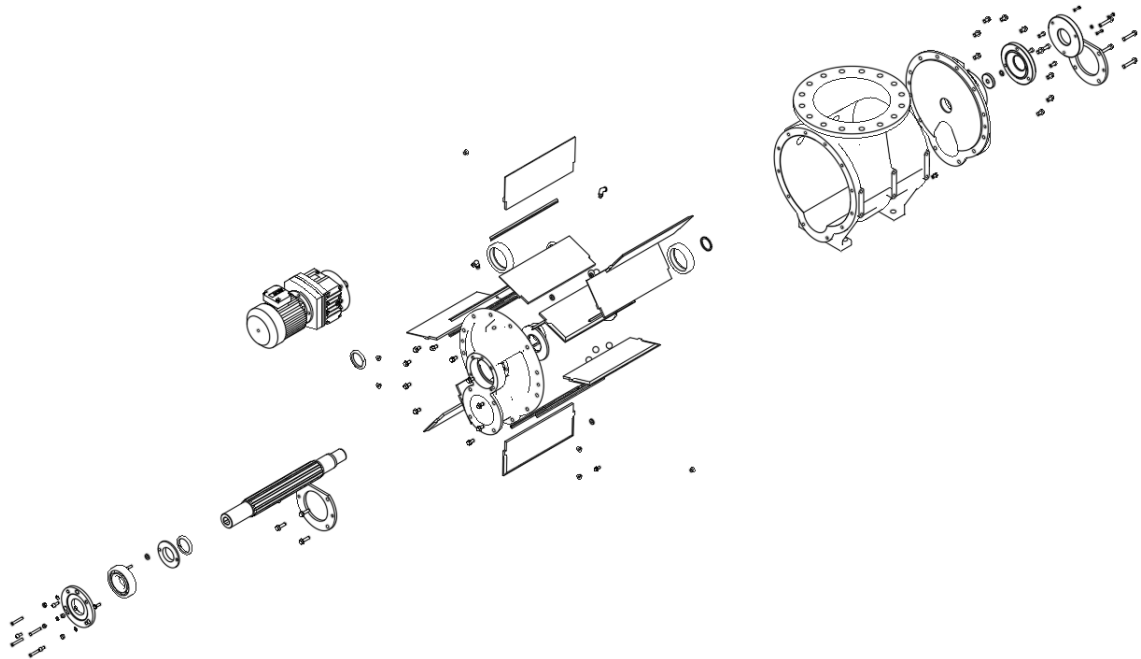
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BVT, BVT-DCSR, BVT-DCSR VER 2T, BVT-SD, BVT-SD-DCSR,
NBT REC, NBT RND



Blow Through, Sanitary Standard Version



Blow Through, Sanitary with Cross Slide Rails, ver. 2

