

Application

The Blow-Through (BT) Aerolock™ configuration enhances rotor cleanout and makes installation in tight quarters possible. It is often used in sticky material applications to prevent material build-up in the rotor pockets. The BT is designed for heavy-duty industrial service in applications of up to 0.8 bar(g) [12 psi(g)] pressure differential and temperatures up to 107.2°C [225°F].

Design

The BT has eight blades that maintain a minimum two-blade labyrinth seal to minimize air leakage. The rotors are equipped with relieved tips for materials that form skins or thin sheets on end plates and housing, or non-relieved tips for cereal products. The BT utilizes two tapered roller bearings on both the thrust and drive sides.



Technical Data

Standard Mechanical Specifications

- Round or square inlet/outlet flange patterns
- Cast iron housing and end plates only (coatings available)
- Carbon steel rotors
- Outboard bearings
- Inlet and outlet tube stubs

Drive

- Right angle
- 460 volt , 3 - phase, inverter ready
- TEFC enclosure
- OSHA protective guarding

Model Size	98	1110	1312	1514	1716
Basic Valve Size mm [in]	203 [8]	254 [10]	305 [12]	356 [14]	406 [16]
Rotor - End Configuration	Open	Open	Open	Open	Open
Displacement dm³/Rev. [ft³/Rev.]	6.8 [0.24]	13 [0.46]	22 [0.79]	35 [1.23]	52 [1.85]
Maximum Allowable Torque in Nm [lbf-in]	118 [1045]	249 [2200]	441 [3900]	441 [3900]	441 [3900]
Unit Weight in kg [lb] without drive	59 [129]	98 [216]	143 [316]	213 [470]	268 [590]
Unit Weight in kg [lb] with drive	107 [237]	147 [326]	215 [474]	263 [580]	316 [698]
Inverter Ready Drive kW [HP]	0.37 [0.5]	0.55 [0.75]	0.75 [1]	0.75 [1]	0.75 [1]

Options

Shaft Seals

- T3: Two quad ring Buna-N seals on a PTFE insert
- Lip: Double spring loaded seal
- Air Purge: Compressed air diffuser followed by a standard seal

Rotor (eight-blade)

- Standard flat or relieved tips
- Open-ended

Coating

- Chrome
- Tungsten carbide
- Nedox (FDA approved)
- Nickel (electroless)
- Other coatings available

Drives

- Right angle or parallel
- Direct or indirect transmission (chain or belt)

Electrical

- Consult factory for NEC or ATEX classifications available

High Temperature

- Standard unit max. 93°C [200°F]
- High temperature option for max. 121°C [250°F]

Tool Kits

Required for field installation of seals and bearings. The tool kit can improve the Aerolock performance by reducing premature wear caused by improper seal and bearing installation.

BT tool kit includes:

- (1) seal driver tool for installing T3 seals, T3 inserts and lip seals
- (1) expansion tool to assist the installation of the T3 inserts
- (1) bearing driver tool for installing drive and bearings
- (1) bearing driver tool for installing thrust end bearings

Accessories

A complete line of accessories is available for Coperion K-Tron Aerolock rotary valves: variable frequency drive controller, disconnect panel, outlet adapters, shear protectors, maintenance slide gates, sight glasses, outlet guards, surge hoppers, floor support stands, flanged transitions and custom transitions allowing an easy fit into an existing facility.

Technical drawings of the 1000 Series 1/2 HP VFD Motor, showing front, side, and rear views with dimensions in inches and millimeters.

Front View Dimensions:

- Overall Width: 246.08 [9.688]
- Shaft Diameter: 25.4 [10] I.D.
- Square Key Width: 6.35 [0.25]
- Overall Height: 304.8 [12] D.B.C.
- Mounting Hole Diameter: 17.46 [0.687]
- Mounting Hole Spacing: 171.45 [6.75]
- Overall Length: 365.13 [14.375]

Side View Dimensions:

- Overall Length: 838.2 [33]
- Shaft Diameter: 30.15 [1.187]
- Overall Height: 304.8 [12] D.B.C.
- Mounting Hole Diameter: 17.46 [0.687]
- Mounting Hole Spacing: 171.45 [6.75]
- Overall Width: 246.08 [9.688]

Rear View Dimensions:

- Overall Width: 171.45 [6.75]
- Overall Height: 365.13 [14.375]
- Mounting Hole Diameter: 17.46 [0.687]
- Mounting Hole Spacing: 171.45 [6.75]

(W) X DIA HOLES

A B DD C D E F G H P R SO KEY

K J L Y N S.DIA

(4) 9.53 [0.375] UNC
DRILLED & TAPPED HOLES NEAR SIDE

CC BB

(4) 11.11 [0.438]
HOLES

G INLET U M Z V AA NPT

Size	98	1110	1312	1514	1716
A	203 [8]	254 [10]	305 [12]	356 [14]	406 [16]
B	267 [10.5]	330 [13]	394 [15.5]	445 [17.5]	508 [20]
C	152 [6]	203 [8]	254 [10]	305 [12]	356 [14]
D	216 [8.5]	279 [11]	349 [13.75]	394 [15.5]	457 [18]
E	241 [9.5]	305 [12]	368 [14.5]	419 [16.5]	483 [19]
F	102 [4]	172 [6.75]	216 [8.5]	241 [9.5]	279 [11]
G	114 [4.5]	152 [6]	178 [7]	203 [8]	203 [8]
H	1901 [7.5]	254 [10]	324 [12.75]	368 [14.5]	432 [17]
J	210 [8.25]	254 [10]	279 [11]	314 [12.375]	340 [13.375]
K	219 [8.625]	251 [9.875]	276 [10.875]	302 [11.875]	327 [12.875]
L	254 [10]	305 [12]	356 [14]	406 [16]	457 [18]
M	102 [4]	127 [5]	152 [6]	152 [6]	203 [8]
N	48 [1.875]	65 [2.563]	67 [2.625]	76 [3]	76 [3]
P	38 [1.5]	60 [2.375]	64 [2.5]	64 [2.5]	64 [2.5]
R	6 [0.25]	6 [0.25]	10 [0.375]	10 [0.375]	10 [0.375]
S	24 [0.938]	30 [1.188]	37 [1.438]	37 [1.438]	37 [1.438]
T	146 [5.75]	175 [6.875]	210 [8.25]	241 [9.5]	273 [10.75]
U	299 [11.75]	359 [14.125]	432 [17]	495 [19.5]	565 [22.25]
V	143 [5.625]	172 [6.75]	203 [8]	238 [9.375]	267 [10.5]
W	8	10	10	10	10
X	11 [0.438]	14 [0.563]	14 [0.563]	14 [0.563]	14 [0.563]
Y	327 [12.875]	378 [14.875]	429 [16.875]	479 [18.875]	527 [20.75]
Z	60 [2.375]	79 [3.125]	95 [3.75]	108 [4.25]	121 [4.75]
AA	[2.5]	[3]	[4]	[4]	[5]
BB	260 [10.25]	311 [12.25]	368 [14.5]	422 [16.625]	476 [18.75]
CC	102 [4]	127 [5]	152 [6]	152 [6]	203 [8]
DD	790.55 [31.124]	838.2 [33]	857.28 [33.751]	908.05 [35.75]	982.68 [38.688]
EE	76.2 [3]	76.2 [3]	101.6 [4]	101.6 [4]	127 [5]



All addresses: / Alle Adressen: / Toutes les adresses: **I-000001**

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