



Vortron Industrial Data Sheet

Centrifugal Blowers, Dryers, Aerators, Forced-Air Cleaners

Vortron's AIRPOWER® Series Of Industrial Blowers

Z40e

The flagship of Vortron's **AIRPOWER®** series. Where flows of 600 to 1600 SCFM at pressures at or above 70 in-H₂O are required, the **Z40e** surpasses all others! This model exhibits an extraordinarily flat flow/pressure characteristic that is notably absent of the typical "drooping" curve. In some cases, this enables a single **Z40e** to do the work of multiple units. 80% peak efficiency is attained. Ideal for ultra high-performance air knives, high volume blow-off, and de-watering applications typical with canning, beverage, and electronic industries. Also, air evacuation, aeration, large fluidized beds; air or non-corrosive process gas.

MODEL DESIGNATION: Z40e

DESCRIPTION: Single-stage centrifugal compressor, belt driven, permanently-lubed high-speed spindle.

DRIVE SYSTEM: Micro-groove multi-ribbed belt with dual-bearing backside automatic tensioner. Integral Fresh-Aire™ cooling system for belt, tensioner/idler, spindle assembly longevity.

SPINDLE ASSEMBLY: ABEC 9 precision bearings, permanently lubricated.

SEALS: **Standard:** High Performance PTFE Lip
High-Speed: (1) Controlled-Gap Labyrinth Seal.

MATERIALS of CONSTRUCTION:

Housing, Volute, Mounting Plate: A356-T6 Aluminum

Impeller: Investment Cast Aluminum

Shaft: **Standard:** Alloy Steel, Heat-treated
Optional: Stainless Steel

Main Drive Pulley: A356-T6, Hard Anodized

Compressor Pulleys: Stainless Steel

Cover: High-Impact Cross-Linked PE

OPERATING SPEED: 14,000 to 28,400 RPM

PERFORMANCE: See Compressor Map For Actual Performance At Specific Operating Point:

Max. Flow (SCFM): 1600

Max. Pressure (in-H₂O): 200+

Peak Isentropic Effy (%): 80

Ratings: To 25 HP

PEAK TEMPERATURE:

Inlet (°F): To 130°; max. not to exceed 200° at discharge

Discharge (°F): To 200°

LAYOUT: NEMA C-Face Mount (180 - 284 Series Frame)
Vertical or Horizontal Orientation

Connections (Tubular O.D.):

Inlet: 5.0 in.

Discharge: 3.5 in.; Full 360° Discharge Orientation

Rotation: Clockwise (as viewed from inlet)

Dimensions: Refer to installation drawing

SYSTEM OPTIONS:

Suction Filters: (1) High-Performance washable element or HEPA.
(2) Integrated filter/silencer.

Mounts: (1) Rigid steel rails.
(2) Compliant vibration isolation mounts.

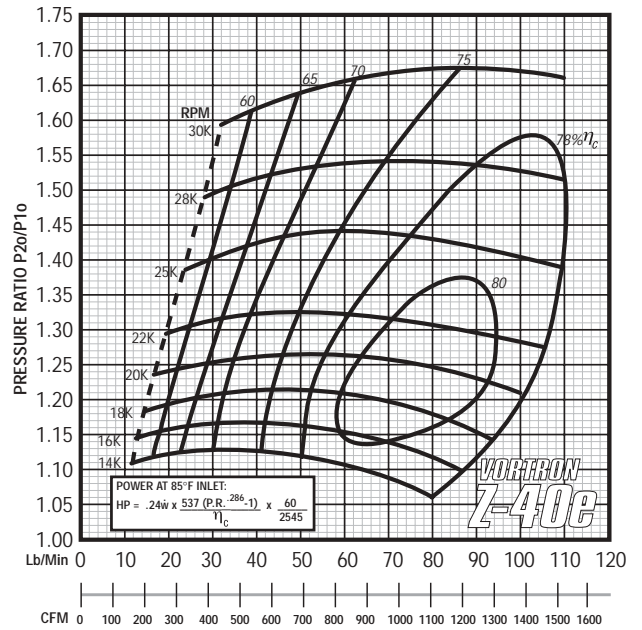
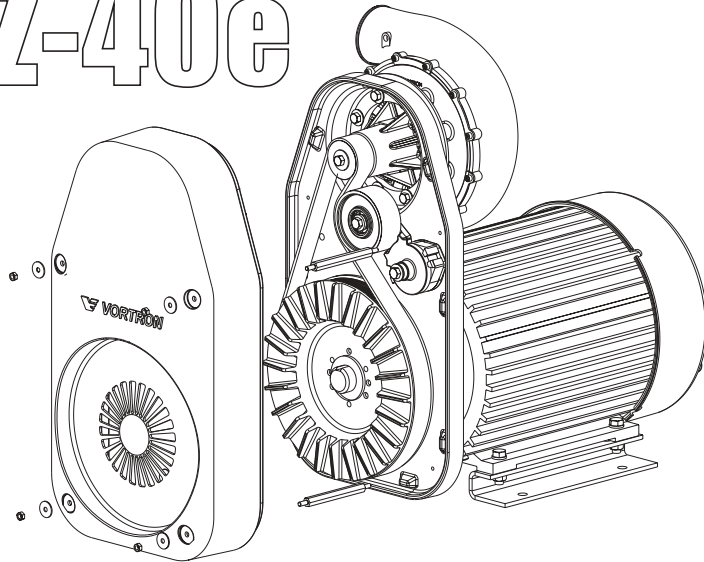
Motors: Inverter duty, premium efficient, washdown, explosion proof



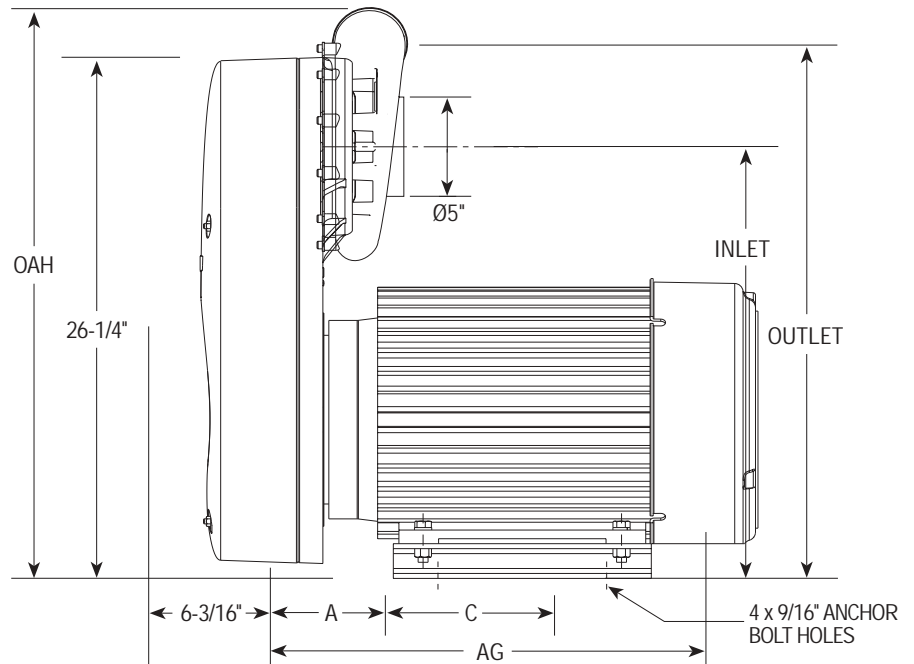
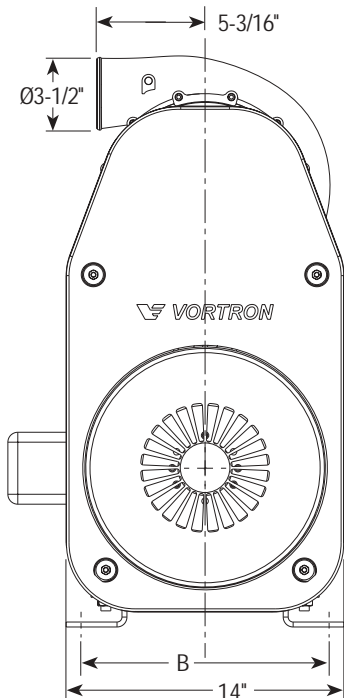
IMPELLER:
Optimized inducer
blading with
splitter, radial
discharge

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Z-40e



MOTOR SERIES	STANDARD MOUNTS			ISOLATION MOUNTS			AG	A	B	C	Wt(lbs)
	OAH	INLET	OUTLET	OAH	INLET	OUTLET					
182TC, 182TCH	28-3/4	21-3/4	26-7/8	28-3/4	21-3/4	26-7/8	13-1/2	3	10	8-1/2	123
184TC, B184TC, 184TCH, B184TCH	28-3/4	21-3/4	26-7/8	28-3/4	21-3/4	26-7/8	13-1/2	3-1/2	10	8-1/2	140
213TC	28-3/4	21-3/4	26-7/8	28-3/4	21-3/4	26-7/8	15-1/2	3-1/2	11	8-1/2	170
215TC	28-3/4	21-3/4	26-7/8	28-3/4	21-3/4	26-7/8	17	4-1/4	11	8-1/2	180
254TC	28-3/4	21-3/4	26-7/8	29-1/4	22-5/16	27-3/8	20-1/8	4-7/8	12-1/2	8-1/2	280
256TC, B256TC	28-3/4	21-3/4	26-7/8	29-1/4	22-5/16	27-3/8	21-7/8	5-3/4	12-1/2	8-1/2	300
284TC	30-1/64	23-1/16	28-3/8	30-1/64	23-1/16	28-3/8	23-7/8	6-1/4	13-1/2	8-1/2	360



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