



# Vortron Industrial Data Sheet

## Centrifugal Blowers, Dryers, Aerators, Forced-Air Cleaners

### Vortron's AIRPOWER® Series Of Industrial Blowers

# J-70

Vortron's most compact AIRPOWER® model, the J70 specializes in the lower flow, but higher pressure applications (90-130 in-H<sub>2</sub>O) without need for excessive impeller speeds. Still, the J70 attains a peak efficiency of 76%! Ideal for high-performance air knives, blow-off, or de-watering systems where high production throughput is required, but manufactured articles are smaller in scale. Also ideal for medium-sized fluidized beds or where large pressure drop/long piping runs exist. Use with air or non-corrosive process gas.

#### MODEL DESIGNATION: J-70

**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):* 1050  
*Max. Pressure (in-H<sub>2</sub>O):* 154  
*Peak Isentropic Effy (%):* 75  
*Ratings:* To 20 HP

#### PEAK TEMPERATURE:

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

*Discharge (°F):* To 200°

**LAYOUT:** NEMA C-Face Mount (180 - 256 Series Frame)  
Vertical or Horizontal Orientation

#### Connections (Tubular O.D.):

*Inlet:* 4.0 in.  
*Discharge:* 3.0 in.; Full 360° Discharge Orientation  
*Rotation:* Clockwise or Optional Counterclockwise (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.

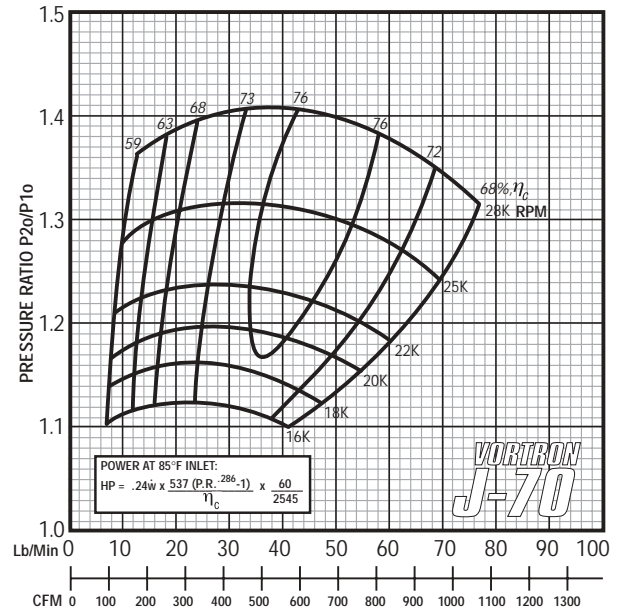
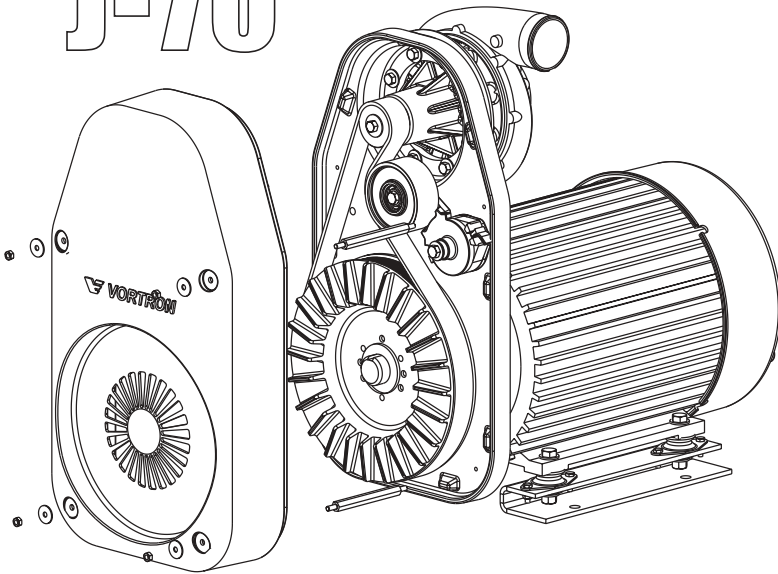
*Motors:* Inverter duty, premium efficient, washdown, explosion proof



**IMPELLER:**  
*Optimized inducer  
blading with  
splitter, radial  
discharge*

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## J-70



MOTOR SERIES	STANDARD MOUNTS			ISOLATION MOUNTS			AG	A	B	C	Wt(lbs)
	OAH	INLET	OUTLET	OAH	INLET	OUTLET					
182TC, 182TCH	27 9/16	21-3/4	25 3/4	27 1/2	21-3/4	25 3/4	13-1/2	3	10	8-1/2	123
184TC, B184TC, 184TCH, B184TCH	27 9/16	21-3/4	25 3/4	27 1/2	21-3/4	25 3/4	13-1/2	3-1/2	10	8-1/2	140
213TC	27 9/16	21-3/4	25 3/4	27 1/2	21-3/4	25 3/4	15-1/2	3-1/2	11	8-1/2	170
215TC	27 9/16	21-3/4	25 3/4	27 1/2	21-3/4	25 3/4	17	4-1/4	11	8-1/2	180
254TC	27 9/16	21-3/4	25 3/4	28	22-5/16	26 5/16	20-1/8	4-7/8	12-1/2	8-1/2	280
256TC, B256TC	27 9/16	21-3/4	25 3/4	28	22-5/16	26 5/16	21-7/8	5-3/4	12-1/2	8-1/2	300

