

## TORIT® BACKWARD INCLINED FANS

TBI-3, 5, 7.5, 10, 15, 20, 25  
AND 30 (60 AND 50 CYCLE)

Torit Backward Inclined (TBI) Fans provide a convenient, cost-effective method of integrating a high efficiency fan with a Donaldson Torit dust collector.

- Mounts directly to the clean-air plenum of the dust collector, eliminating costly transition ducting, and reducing footprint of the system
- Sizes range from 3 to 30 hp
- Capacities from 1,400 to 10,300 cfm (2,378 to 17,496 m<sup>3</sup>/h)
- Backward inclined fan wheel provides high efficiency operation
- Direct-drive operation eliminates maintenance of fan bearings and belts
- Computer balanced fan and motor assembly ensures vibration-free operation
- All necessary hardware for quick and easy installation is included
- Standard paint finish is blue
- All 60 Hz motors are EISA compliant and meet or exceed NEMA Premium®\* Efficiency Standards
- Fan inlet spool piece is flanged and punched for easier installation



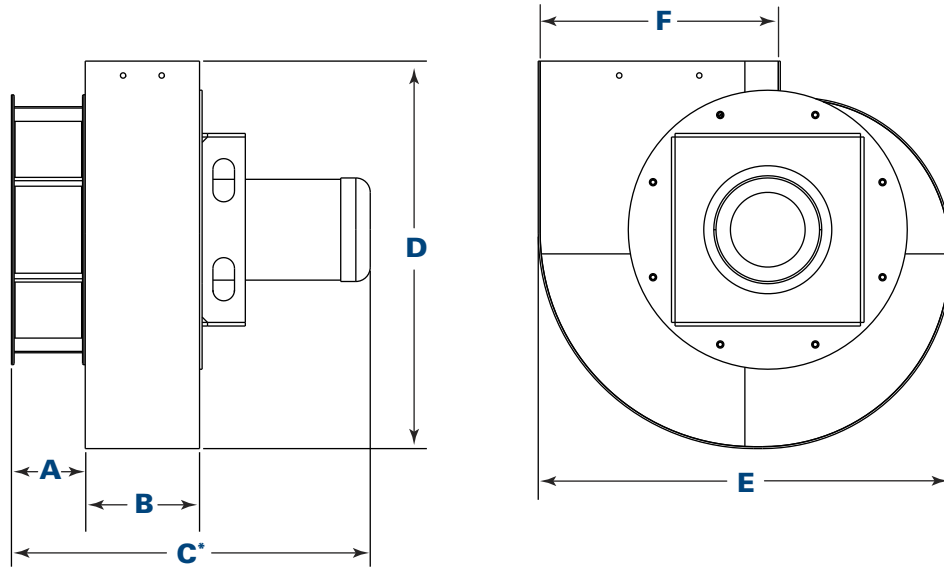
**TBI-15 (60 CYCLE)**

### EQUIPMENT OPTIONS

High performance Torit-Built® silencer (60 cycle only)	High temperature version available
Aluminum fan wheel	50 cycle/IEC motor configurations
Explosion-proof motors - NEMA rated	Flanges for exhaust ductwork
Outlet dampers	

\* NEMA Premium is a registered trademark of National Electrical Manufacturers Association.

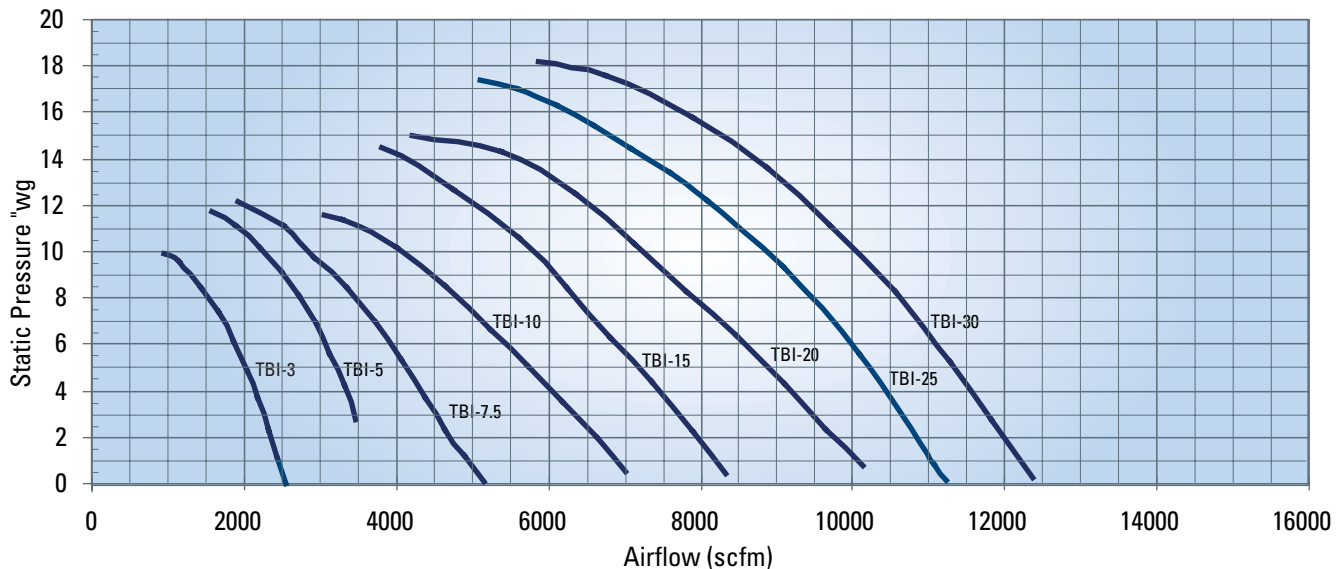
## DIMENSIONS & SPECIFICATIONS FOR 60 CYCLE TBI FAN



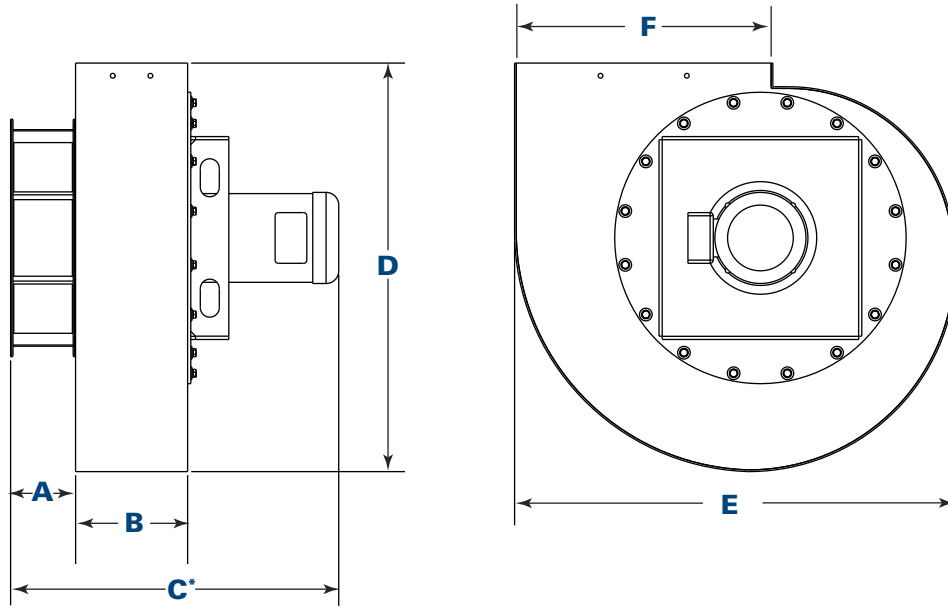
60 Cycle Fans	Dimensions												Shipping Weight	
	A		B		C*		D		E		F			
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
TBI-3	5.2	132.1	7.9	200.7	26.7	678.2	26.9	683.3	28.7	729.0	16.8	426.7	230	104
TBI-5	5.2	132.1	8.7	221.0	27.4	696.0	26.9	683.3	28.7	729.0	16.8	426.7	246	112
TBI-7.5	5.2	132.1	10.1	256.5	31.5	800.1	26.9	683.3	28.7	729.0	16.8	426.7	310	141
TBI-10	5.2	132.1	11.4	289.6	32.8	833.1	26.9	683.3	28.7	729.0	16.8	426.7	327	148
TBI-15	5.2	132.1	11.9	302.3	37.3	947.4	32.3	820.4	34.8	883.9	20.4	518.2	541	245
TBI-20	5.2	132.1	13.6	345.4	39.0	990.6	35.5	901.7	34.8	883.9	20.4	518.2	634	288
TBI-25	5.2	132.1	14.2	360.7	41.3	1049.0	37.3	947.4	38.3	972.8	22.4	569.0	750	340
TBI-30	5.2	132.1	14.8	375.9	41.9	1064.3	37.3	947.4	38.3	972.8	22.4	569.0	806	366

\* This dimension is subject to change based on the motor manufacturer chosen and on the motor enclosure type (TEFC or EP). If this dimension is critical, you should verify the information with your sales representative.

## PERFORMANCE CURVES FOR 60 CYCLE TBI FAN



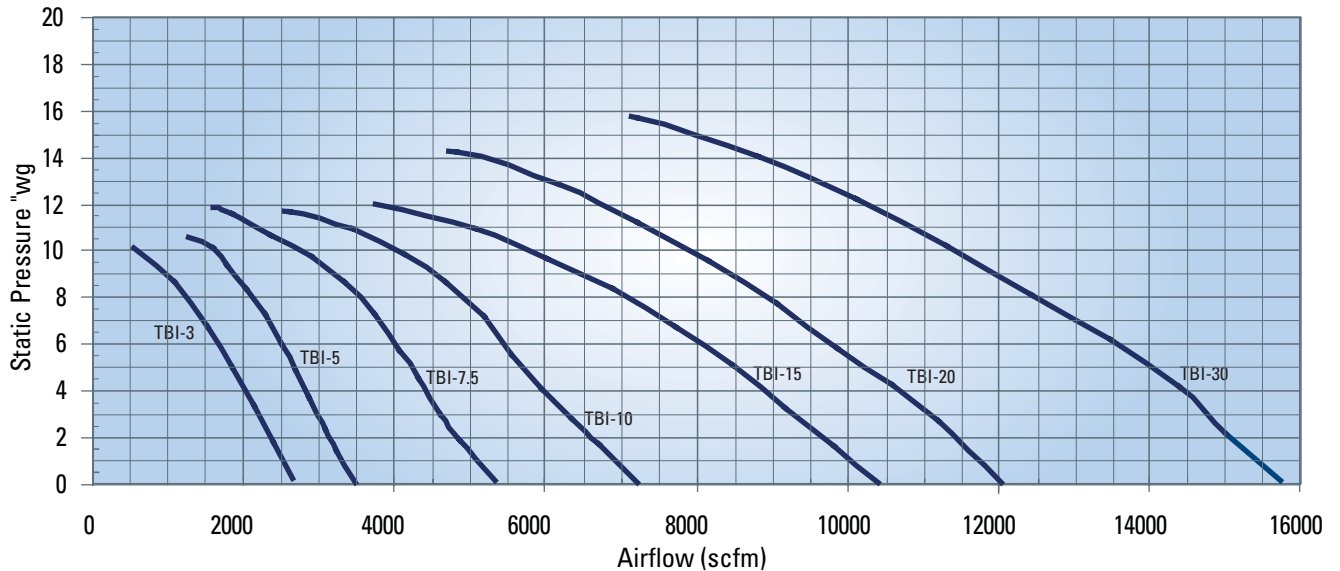
## DIMENSIONS & SPECIFICATIONS FOR 50 CYCLE TBI FAN



50 Cycle Fans	Dimensions												Shipping Weight	
	A		B		C*		D		E		F		lb	kg
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		
TBI-3	5.2	132.1	8.9	226.1	27.9	708.7	32.3	820.4	34.8	883.9	20.4	518.2	315	143
TBI-5	5.2	132.1	10.3	261.6	29.3	744.2	32.3	820.4	34.8	883.9	20.4	518.2	331	150
TBI-7.5	5.2	132.1	11.9	302.3	33.9	861.1	32.3	820.4	34.8	883.9	20.4	518.2	395	179
TBI-10	5.2	132.1	13.6	345.4	35.6	904.2	32.3	820.4	34.8	883.9	20.4	518.2	412	187
TBI-15	5.2	132.1	13.9	353.1	40.4	1026.2	32.3	820.4	34.8	883.9	20.4	518.2	578	262
TBI-20	5.2	132.1	15.4	391.2	41.9	1064.3	37.3	947.4	38.3	972.8	22.4	569.0	632	287
TBI-30	5.2	132.1	16.3	414.0	43.6	1107.4	40.4	1026.2	42.5	1079.5	24.9	632.5	804	365

\* This dimension is subject to change based on the motor manufacturer chosen and on the motor enclosure type (TEFC or EP). If this dimension is critical, you should verify the information with your sales representative.

## PERFORMANCE CURVES FOR 50 CYCLE TBI FAN



## 60 CYCLE TBI FAN SOUND DATA\* & AMCA FAN CLASSES

Model	Fan Speed (RPM)	Overall Assembly Sound		Exhaust Only With Exhaust Silencer <sup>3</sup> Lp (dBA)	Silencer ΔP "wg	AMCA Fan Class
		Without Silencer <sup>1</sup> Lp (dBA)	With Silencer <sup>2</sup> Lp (dBA)			
TBI-3	3,500	86	77	69	1.0	II
TBI-5	3,500	88	79	68	1.0	II
TBI-7.5	3,500	93	83	70	1.2	II
TBI-10	3,500	89	80	75	1.9	II
TBI-15	3,500	93	82	77	0.2	III
TBI-20	3,500	95	84	77	0.6	III
TBI-25	3,500	95	85	74	0.3	III
TBI-30	3,500	96	85	74	0.3	III

## 50 CYCLE TBI FAN SOUND DATA\* & AMCA FAN CLASSES

Model	Fan Speed (RPM)	Overall Assembly Sound <sup>1</sup>		Exhaust Only With Exhaust Silencer <sup>3</sup> Lp (dBA)	Silencer ΔP "wg	AMCA Fan Class
		Without Silencer <sup>1</sup> Lp (dBA)	With Silencer <sup>2</sup> Lp (dBA)			
TBI-3	2,920	82	72	80	0.2	II
TBI-5	2,920	85	74	80	0.4	II
TBI-7.5	2,920	88	77	80	0.9	II
TBI-10	2,920	89	79	80	0.8	II
TBI-15	2,920	92	82	80	0.6	III
TBI-20	2,920	94	83	80	0.8	III
TBI-30	2,920	95	85	80	1.3	III

All cases are for uniform free-field propagation into a hemisphere (i.e. reflecting ground plane and neglecting any source directionality).

Sound pressure levels are an overall average determined at the point of fan peak mechanical efficiency at one fan speed. (3500 rpm for 60 Hz fan/motor assemblies, 2920 rpm for 50 Hz.)

1 Sound pressure level at 1 meter (39") from fan case with fan inlet ducted and fan outlet open.

2 Sound pressure level at 1 meter (39") from fan case with Donaldson Torit High Performance Silencer and fan inlet and outlet ducted.

3 Sound pressure level (Lp) at 45 degrees and 1 meter (39") from Donaldson Torit High Performance Silencer discharge. No fan case/motor noise (silencer discharge noise only).

\* dB(A) sound levels are an average of measurements made in a laboratory environment. Installed sound levels will vary depending on the measurement location, operating conditions, and installation.

### Important Notice

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.



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Donaldson Company, Inc.  
Torit  
P.O. Box 1299  
Minneapolis, MN 55440-1299 U.S.A.

[donaldson.com](http://donaldson.com)  
Tel 800-365-1331 (USA)  
Tel 800-343-3639 (within Mexico)  
[donaldson@donaldson.com](mailto:donaldson@donaldson.com)

**EXACTLY WHAT YOU NEED.™**

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