



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 m³/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



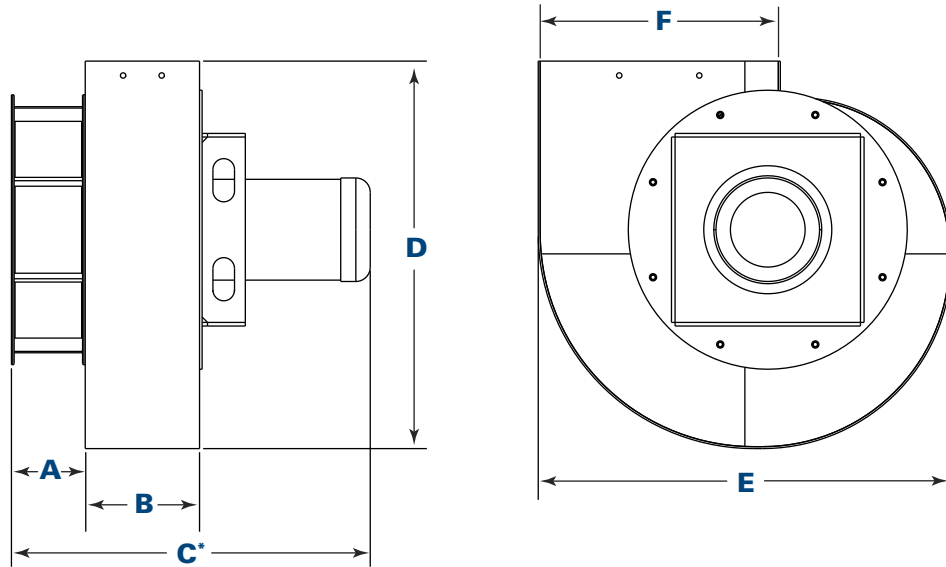
TBI-15 (60 CYCLE)

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.

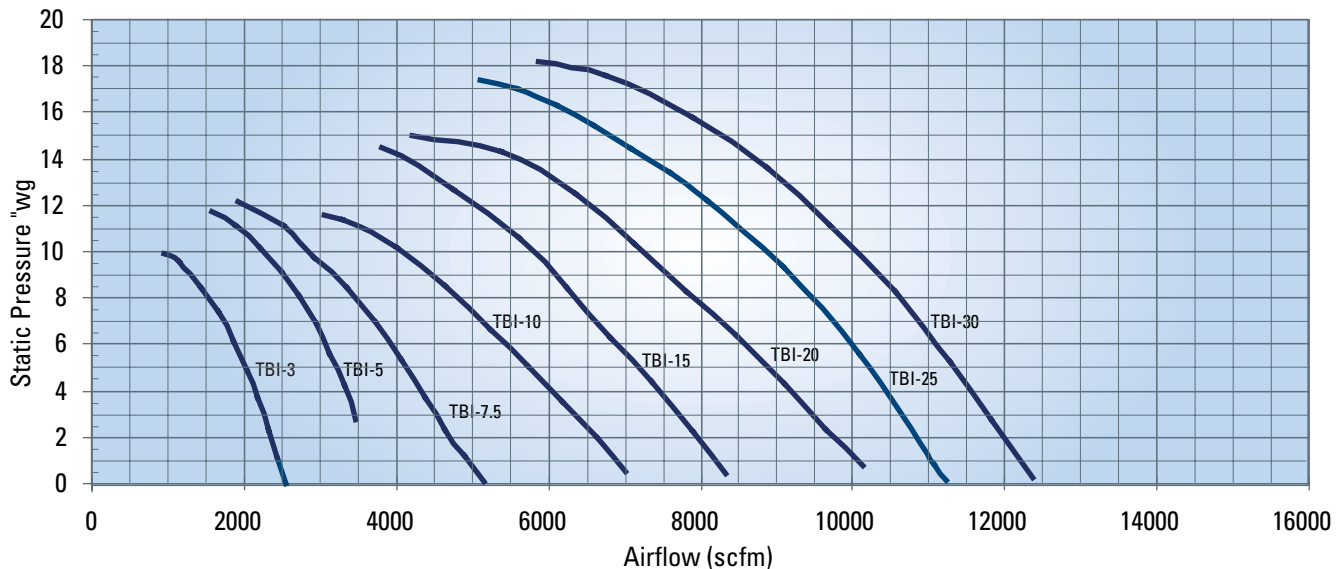
DIMENSIONS & SPECIFICATIONS FOR 60 CYCLE TBI FAN



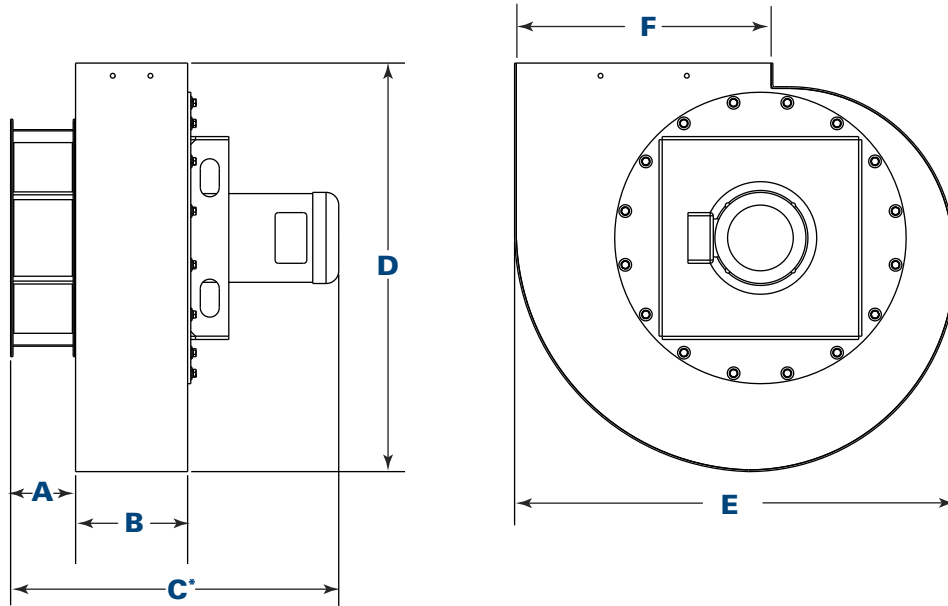
| 60 Cycle Fans | Dimensions | | | | | | | | | | | | Shipping Weight | |
|---------------|------------|-------|------|-------|------|--------|------|-------|------|-------|------|-------|-----------------|-----|
| | A | | B | | C* | | D | | E | | F | | | |
| | in | mm | in | mm | in | mm | in | mm | 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



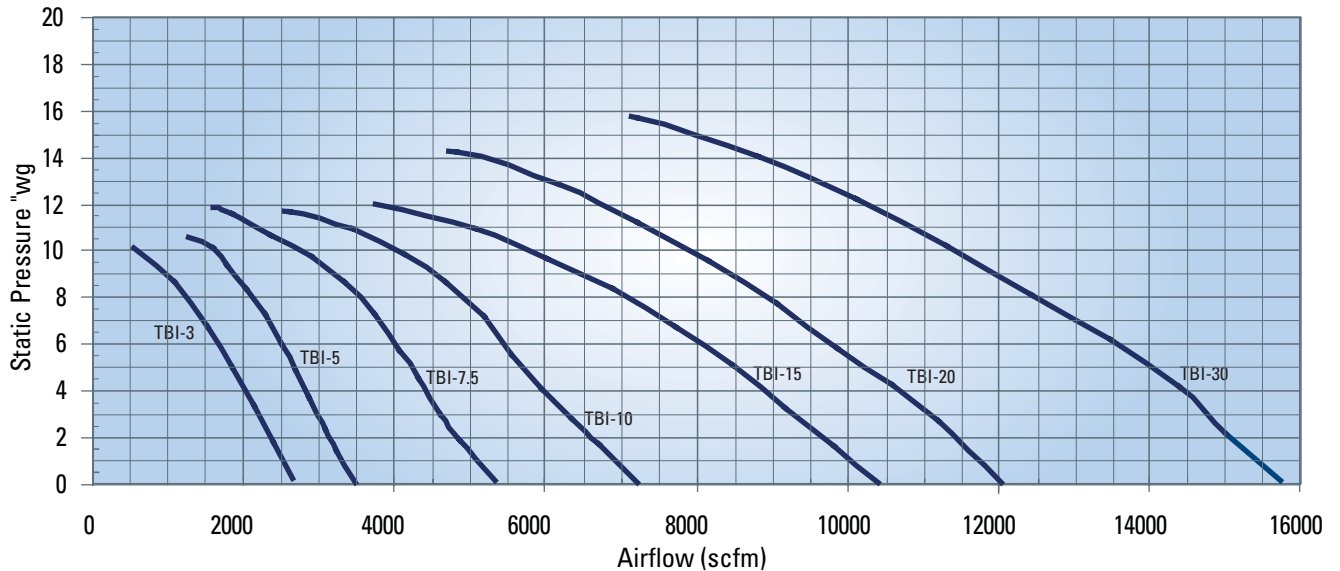
DIMENSIONS & SPECIFICATIONS FOR 50 CYCLE TBI FAN



| 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 HP Silencer | | | Exhaust Only With 70 dBA Silencer | | |
|---------|-----------------|------------------------------------|---|-------------------------------|--------|-----------------|-----------------------------------|--------|-----------------|
| | | Inlet Ducted Lp (dBA) ¹ | Inlet/Outlet Ducted Lp (dBA) ² | Lp (dBA) ³ | CFM | Silencer DP "wg | Lp (dBA) ³ | CFM | Silencer DP "wg |
| TBI-3 | 3,500 | 86 | 77 | 69 | 1,400 | 1.0 | 70 | 1,400 | 0.3 |
| TBI-5 | 3,500 | 88 | 79 | 68 | 2,050 | 1.0 | 70 | 2,050 | 0.6 |
| TBI-7.5 | 3,500 | 93 | 83 | 70 | 3,300 | 1.2 | 70 | 3,300 | 1.1 |
| TBI-10 | 3,500 | 89 | 80 | 75 | 4,250 | 1.9 | 70 | 4,250 | 0.8 |
| TBI-15 | 3,500 | 93 | 82 | 74 | 5,650 | 0.2 | 70 | 5,650 | 0.6 |
| TBI-20 | 3,500 | 95 | 84 | 74 | 7,600 | 0.6 | 70 | 7,600 | 0.6 |
| TBI-25 | 3,500 | 95 | 85 | 77 | 8,840 | 0.3 | 70 | 8,840 | 0.7 |
| TBI-30 | 3,500 | 96 | 85 | 77 | 10,300 | 0.3 | 70 | 10,300 | 0.9 |

50 CYCLE TBI FAN SOUND DATA* & AMCA FAN CLASSES

| Model | Fan Speed (RPM) | Overall Assembly Sound | | Exhaust Only With 70 dBA Silencer | | | Exhaust Only With 80 dBA Silencer | | |
|---------|-----------------|------------------------------------|---|-----------------------------------|--------|-----------------|-----------------------------------|-------|-----------------|
| | | Inlet Ducted Lp (dBA) ¹ | Inlet/Outlet Ducted Lp (dBA) ² | Lp (dBA) ³ | CFM | Silencer DP "wg | Lp (dBA) ³ | CFM | Silencer DP "wg |
| TBI-3 | 2,920 | 82 | 72 | 70 | 1,300 | 0.1 | 80 | 1,300 | 0.1 |
| TBI-5 | 2,920 | 85 | 74 | 70 | 1,900 | 0.1 | 80 | 1,900 | 0.2 |
| TBI-7.5 | 2,920 | 88 | 77 | 70 | 2,880 | 0.6 | 80 | 2,880 | 0.3 |
| TBI-10 | 2,920 | 89 | 79 | 70 | 4,000 | 1.0 | 80 | 4,000 | 1.7 |
| TBI-15 | 2,920 | 92 | 82 | 70 | 5,800 | 1.0 | N/A | N/A | N/A |
| TBI-20 | 2,920 | 94 | 83 | 70 | 7,600 | 1.0 | N/A | N/A | N/A |
| TBI-30 | 2,920 | 95 | 85 | 70 | 11,700 | 1.0 | N/A | N/A | N/A |

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

dBA 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.

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 fan inlet and outlet ducted.

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

Significantly improve the performance of your collector with genuine Donaldson Torit replacement filters and parts.

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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905-821-8860

