TD-MIXVENT

Inline Mixed Flow Duct Fans

Advancing Ventilation®
MODEL TD-MIXVENT
INLINE MIXED FLOW DUCT FANS

MODEL FEATURES
- Exhaust air up to 2,630 CFM with static pressure capabilities to 1” w.g.
- Mixed flow impeller for excellent air flow to pressure performance ratio
- Ideal for applications where space is limited
- HVI Certified
- AMCA Seal for Air Performance
- cULus Listed
- Energy Star® qualified

MODEL OVERVIEW

Compact Size-TD Fans require minimum space
The S&P TD-MIXVENT & TD-SILENT series of in-line duct fans have been specially designed to maximize the airflow performance with minimal noise levels within the smallest and most compact of housing sizes. This makes the TD-MIXVENT & TD-SILENT series the ultimate solution for small to medium sized ventilation installations which require a high airflow to pressure ratio and occupy only the minimum space possible. Example: false ceiling voids, cabinets and many other limited space environments.

Easy to Install...fit and forget!
All the models in the TD-MIXVENT & TD-SILENT range have been designed with the professional contractor/engineer in mind. All models include a “removable body” feature that enables the motorimpeller assembly to be completely removed or replaced without the need to interfere with the attached ducting.

Multitude of features-high specification
All models within the TD-MIXVENT & TD-SILENT range incorporate a powerful mixed flow impeller and internal air vanes located at the discharge end of the fan housing. This impeller and guide vane combination provides a smooth laminar air flow which in turn minimizes turbulence and noise, and generates an excellent air flow to pressure performance ratio.

Description
All of the TD-fans include the combination of a powerful motor, factory installed, to a mixed flow impeller. This motor and impeller combination enables the TD-fans to deliver high airflow performances with minimum noise generation against high static pressures typically found in ducted ventilation systems. The unique design of the support brackets, allows the motor and impeller assembly to be fitted or removed without dismantling the adjacent ducting and therefore, facilitating any installation or maintenance. The internal aerodynamic design of the TD-MIXVENT & TD-SILENT fans enable the units to generate large air volumes and pressures with the minimum of in-duct or radiated noise. The TD-fans offer the ideal in-line duct fan solution for a wide range of HVAC ventilation applications.

Industry best 5 year fan housing and motor warranty

All specifications are subject to change without notice unless approved in submittal by S&P
GENERAL DETAILS
Low profile mixed flow fans, manufactured in plastic material (up to model 150) or in galvanized steel sheet protected with Epoxy paint (models 200, 250, 315, 355, and 400), with external terminal box, removable motor-impeller assembly and adjustable single-phase motor, Class B, IP44.

<table>
<thead>
<tr>
<th>Construction characteristics</th>
<th>100</th>
<th>100x1</th>
<th>125</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>315</th>
<th>355</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene housing</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Steel housing with epoxy coating</td>
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<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>ABS fan blades</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum fan blades</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td></td>
<td>•</td>
<td></td>
<td></td>
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<tr>
<td>Thermal link via fuse</td>
<td>•</td>
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<td>•</td>
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<td>•</td>
<td></td>
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<tr>
<td>Thermal link with automatic reset</td>
<td></td>
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<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Permanently lubricated ball bearings</td>
<td>•</td>
<td>•</td>
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</tr>
</tbody>
</table>

The extensive range of the TD-MIXVENT series makes it an effective solution for a wide range of residential and light commercial ventilation installations.
OPTIONS / ACCESSORIES

FT622 - ASHRAE 62.2 Bath Fan Ventilation Control: The FT622 is designed to replace bathroom fan and light switches and provide both functions with one easy operation. The FT622 delivers a precise amount of ventilation, and is a simple solution to meet ASHRAE 62.2 in conjunction with an S&P fan.

FT247 - Programmable Fan Timer: S&P offers the FT247 with easy programming for your bathroom fan ventilation needs. Simply set what time you want the fan to turn on and off and what day or days you want the fan to run.

MCA - Backdraft Damper: Backdraft dampers are installed at the fans’ discharge. They prevent the entry of odors, air currents and prevent heat leaks when the exhauster is not in operation.

MRJ - Mesh Grille: Grilles fit on the suction and the discharge sides of the installation. They prevent the entry of foreign bodies which could damage the fan.

MBR - Circular Fan Duct Connector: Flanges enable TD devices to connect in a series.

PG - Premium Intake Grille: S&P’s premium, decorative round plastic grilles come standard with steel collars for easy mounting and installation.

BOC - Metal Interior Air Valve: Exhaust grilles for bathrooms, toilets and other small rooms. All models offer an adjustable central valve to regulate the airflow.

BOR - Plastic Interior Air Valve: Exhaust grilles for bathrooms, toilets and other small rooms. All models offer an adjustable central valve to regulate the airflow.
CONSTRUCTION/SPECIFICATION CHECKLIST

Warranty
Five (5) year limited warranty.

Range
The TD-MIXVENT series consists of nine (9) nominal sized in-line fans. All models are specifically designed for direct connection in-line with industry standard diameter round ducting.

Construction
The TD-MIXVENT models 100, 100x1, 125, and 150 are manufactured in tough reinforced plastic, models 200, 250, 315, 355, and 400 have a metal casing and are finished in a tough epoxy-polyester paint coating. The TD fan duct connection flanges are manufactured from reinforced plastic, except for models 200, 250, 315, 355, and 400 which are constructed from epoxy-polyester coated metal.

TD 250 and 315 are UL listed for outdoor use. TD 355 and 400 are UL 507 and UL 705 certified.

Motors
Models 100, 100x1 and 125:
- Single-phase, 120V 60Hz, shaded pole induction asynchronous motor in die cast aluminum. All motors include direct single speed connection and are also suitable for voltage speed control.
- Class II electrical insulation (model 100) & Class I (models 100x1 and 125)
- IP 44 Protection
- Safety auto reset Thermal Overload Protection (fuse type)
- Self-lubricating sleeve bearings.
- Sizes 100-125: Suitable for working airstreams up to 104°F (40°C)

Models 150, 200, 250, 315, 355, and 400:
- Single-phase induction asynchronous motor, with permanent capacitor and external rotor constructed of die cast aluminum. Models 150, 200, 355 and 400 feature single speed, fully speed controllable motors. Models 250 and 315 include direct dual speed (LS/HS) connection motors and are also suitable for voltage speed control.
- Class I electrical insulation
- IP 44 Protection
- Thermal Overload Protection
- Sealed For Life, ball bearings
- Size 200: Suitable for working airstreams up to 104°F (40°C)
- Sizes 150, 250-400: Suitable for working airstreams up to 140°F (60°C)

Impellers
The impeller blades for models 100, 100x1, 125, and 150 are molded in tough ABS plastic. Models 200, 250, 315, 355, and 400 are metal.

Long Life
Permanently lubricated motors are engineered for trouble-free continuous operation for 40,000 hours.
MODEL TD-MIXVENT
INLINE MIXED FLOW DUCT FANS

DIMENSIONS FOR MODELS 100-315 (in/mm)

<table>
<thead>
<tr>
<th>Model</th>
<th>X</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>Wgt. (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD-100</td>
<td>5-15/16</td>
<td>9-1/8</td>
<td>5-7/16</td>
<td>3-3/4</td>
<td>3-7/8</td>
<td>3-1/4</td>
<td>3-3/4</td>
<td>1-3/8</td>
<td>2-1/16</td>
<td>52</td>
</tr>
<tr>
<td>TD-100x1</td>
<td>7-3/8</td>
<td>11-15/16</td>
<td>6-15/16</td>
<td>4-1/2</td>
<td>4-1/2</td>
<td>4-1/2</td>
<td>4-1/2</td>
<td>3-9/16</td>
<td>3-9/16</td>
<td>23-80</td>
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<tr>
<td>TD-125</td>
<td>7-3/8</td>
<td>10-3/16</td>
<td>4-15/16</td>
<td>4-1/2</td>
<td>4-1/2</td>
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<td>4-1/2</td>
<td>3-9/16</td>
<td>3-9/16</td>
<td>23-80</td>
</tr>
<tr>
<td>TD-150</td>
<td>8-3/8</td>
<td>11-5/8</td>
<td>7-7/8</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5-1/8</td>
<td>2-3/8</td>
<td>60</td>
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<tr>
<td>TD-200</td>
<td>9-3/16</td>
<td>11-7/8</td>
<td>8-9/16</td>
<td>4-9/16</td>
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<td>5-1/2</td>
<td>3-15/16</td>
<td>94</td>
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<tr>
<td>TD-250</td>
<td>11-7/16</td>
<td>13-3/16</td>
<td>10-11/16</td>
<td>7-9/16</td>
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<td>6-5/8</td>
<td>5-11/16</td>
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<td>TD-315</td>
<td>14</td>
<td>17-11/16</td>
<td>13-1/4</td>
<td>8-13/16</td>
<td>8-13/16</td>
<td>8-13/16</td>
<td>8-13/16</td>
<td>8-1/4</td>
<td>7-3/16</td>
<td>31</td>
</tr>
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</table>

DIMENSIONS FOR MODELS 355 & 400 (in/mm)

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>Wgt. (lbs)</th>
</tr>
</thead>
</table>
MODEL TD-MIXVENT
INLINE MIXED FLOW DUCT FANS

PERFORMANCE CHARACTERISTICS
The TD-250 and TD-315 have two speed motor connections. All other fan models have a single speed motor connection.

AMCA Certified Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Nom. RPM</th>
<th>Volts / Frequency</th>
<th>Max. Watts @ 0.2&quot; w.g.</th>
<th>Max. CFM</th>
<th>Max. Current (Amps)</th>
<th>Max. SP</th>
<th>Max. Operating Temp. (°F)</th>
<th>Duct Dia. Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD-100</td>
<td>2516</td>
<td>120V / 60Hz</td>
<td>26</td>
<td>101</td>
<td>0.45</td>
<td>0.4°</td>
<td>104°F</td>
<td>4°</td>
</tr>
<tr>
<td>TD-100X1</td>
<td>2500</td>
<td>120V / 60Hz</td>
<td>33</td>
<td>135</td>
<td>0.24</td>
<td>0.45°</td>
<td>104°F</td>
<td>4°</td>
</tr>
<tr>
<td>TD-125</td>
<td>2146</td>
<td>120V / 60Hz</td>
<td>38</td>
<td>197</td>
<td>0.72</td>
<td>0.55°</td>
<td>104°F</td>
<td>5°</td>
</tr>
<tr>
<td>TD-150</td>
<td>2289</td>
<td>120V / 60Hz</td>
<td>65</td>
<td>293</td>
<td>0.54</td>
<td>1.15°</td>
<td>140°F</td>
<td>6°</td>
</tr>
<tr>
<td>TD-200</td>
<td>2781</td>
<td>120V / 60Hz</td>
<td>184</td>
<td>538</td>
<td>0.8</td>
<td>1.62°</td>
<td>104°F</td>
<td>8°</td>
</tr>
<tr>
<td>TD-250 LS</td>
<td>2400</td>
<td>115V / 60Hz</td>
<td>162</td>
<td>541</td>
<td>2.2A</td>
<td>2.03°</td>
<td>140°F</td>
<td>10°</td>
</tr>
<tr>
<td>TD-250 HS</td>
<td>3200</td>
<td>115V / 60Hz</td>
<td>241</td>
<td>754</td>
<td>2.2A</td>
<td>2.53°</td>
<td>140°F</td>
<td>10°</td>
</tr>
<tr>
<td>TD-315 LS</td>
<td>2000</td>
<td>115V / 60Hz</td>
<td>208</td>
<td>751</td>
<td>2.3A</td>
<td>1.62°</td>
<td>140°F</td>
<td>12.4°</td>
</tr>
<tr>
<td>TD-315 HS</td>
<td>2500</td>
<td>115V / 60Hz</td>
<td>335</td>
<td>1050</td>
<td>2.3A</td>
<td>2.95°</td>
<td>140°F</td>
<td>12.4°</td>
</tr>
<tr>
<td>TD-355</td>
<td>1536</td>
<td>115V / 60Hz</td>
<td>522</td>
<td>2089</td>
<td>3.9A</td>
<td>1.0°</td>
<td>140°F</td>
<td>14°</td>
</tr>
<tr>
<td>TD-400</td>
<td>1559</td>
<td>115V / 60Hz</td>
<td>916</td>
<td>3127</td>
<td>6.3A</td>
<td>1.2°</td>
<td>140°F</td>
<td>16°</td>
</tr>
</tbody>
</table>

Performance certified is for installation Type D: Ducted Inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances.

HVI Certified Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Nom. RPM</th>
<th>Volts / Frequency</th>
<th>Max. Watts @ 0.2&quot; w.g.</th>
<th>Max. CFM</th>
<th>Max. Current (Amps)</th>
<th>Max. SP</th>
<th>Max. Operating Temp. (°F)</th>
<th>Duct Dia. Inches</th>
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</thead>
<tbody>
<tr>
<td>TD-100</td>
<td>2564</td>
<td>120V / 60Hz</td>
<td>26</td>
<td>101</td>
<td>0.45</td>
<td>0.4°</td>
<td>104°F</td>
<td>4°</td>
</tr>
<tr>
<td>TD-100X1</td>
<td>2352</td>
<td>120V / 60Hz</td>
<td>33</td>
<td>135</td>
<td>0.24</td>
<td>0.45°</td>
<td>104°F</td>
<td>4°</td>
</tr>
<tr>
<td>TD-125</td>
<td>2392</td>
<td>115V / 60Hz</td>
<td>38</td>
<td>197</td>
<td>0.72</td>
<td>0.55°</td>
<td>104°F</td>
<td>5°</td>
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<td>TD-150</td>
<td>2290</td>
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<td>65</td>
<td>293</td>
<td>0.54</td>
<td>1.15°</td>
<td>140°F</td>
<td>6°</td>
</tr>
<tr>
<td>TD-200</td>
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<td>115V / 60Hz</td>
<td>184</td>
<td>538</td>
<td>0.8</td>
<td>1.62°</td>
<td>104°F</td>
<td>8°</td>
</tr>
<tr>
<td>TD-250 LS</td>
<td>2400</td>
<td>115V / 60Hz</td>
<td>162</td>
<td>541</td>
<td>2.2A</td>
<td>2.03°</td>
<td>140°F</td>
<td>10°</td>
</tr>
<tr>
<td>TD-250 HS</td>
<td>3200</td>
<td>115V / 60Hz</td>
<td>241</td>
<td>754</td>
<td>2.2A</td>
<td>2.53°</td>
<td>140°F</td>
<td>10°</td>
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<tr>
<td>TD-315 LS</td>
<td>2000</td>
<td>115V / 60Hz</td>
<td>208</td>
<td>751</td>
<td>2.3A</td>
<td>1.62°</td>
<td>140°F</td>
<td>12.4°</td>
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<td>TD-315 HS</td>
<td>2500</td>
<td>115V / 60Hz</td>
<td>335</td>
<td>1050</td>
<td>2.3A</td>
<td>2.95°</td>
<td>140°F</td>
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<td>TD-355</td>
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<td>115V / 60Hz</td>
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<td>2089</td>
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<td>1.0°</td>
<td>140°F</td>
<td>14°</td>
</tr>
<tr>
<td>TD-400</td>
<td>1559</td>
<td>115V / 60Hz</td>
<td>916</td>
<td>3127</td>
<td>6.3A</td>
<td>1.2°</td>
<td>140°F</td>
<td>16°</td>
</tr>
</tbody>
</table>

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AMCA Licensed performance ratings.

SOUND CHARACTERISTICS
Fan sound levels are measured in sones. At this time there are no some level test standards available through HVI due to the fact that remote mounted fan noise levels are in proportion to the following: type of duct, length of duct, fan distance from the intake source and other miscellaneous factors. However, it is generally accepted that remote mounted venting is usually quieter than standard (in room) venting.

LS = Low Speed / HS = High Speed
AMCA Licensed performance ratings.

TD-100, 100X1, 125, 150, and 200 are ENERGY STAR® qualified.

The TD-MIXVENT Models 100, 100X1 and 150 are California Title 24 compliant and meet ASHRAE 62.2 when installed with a CVC and other TD models are compliant when installed with a 3 way switch and remotely mounted speed control.

TD 250 & 315 are UL listed for outdoor use.
KIT - TD BATHROOM EXHAUST KITS - FEATURING TD-MIXVENT FANS
The TD-MIXVENT fan kits provide all the hardware needed to complete a simple in-line ducted ventilation installation. The kit includes a powerful TD in-line fan and exterior and interior grilles (with or without lights). Available in both Standard Exhaust Kits, for venting a single location, and Deluxe Exhaust Kits, for venting multiple locations with one fan.

The TD-MIXVENT fan kit is the ideal solution for any simple in-line ducted fan installation.

All TD kits have standard 7-year warranty*

STANDARD EXHAUST KITS - SINGLE VENT

KIT-TD100:
- 1 TD100 exhaust fan
- 1 plastic round grille (PG-100)
- 1 exterior louvered grille (PER-100W)
- Integral mounting bracket

KIT-TD100X1:
- 1 TD100X1 exhaust fan
- 1 plastic round grille (PG-100)
- 1 exterior louvered grille (PER-100W)
- Integral mounting bracket

KIT-TD150:
- 1 TD150 exhaust fan
- 1 plastic round grille (PG-150)
- 1 exterior louvered grille (PER-150W)
- Integral mounting bracket

DELUXE EXHAUST KITS - DUAL VENT

KIT-TD150-DV:
- 1 TD150 exhaust fan
- 2 plastic round grilles (PG-150)
- 1 exterior louvered grille (PER-150W)
- 1 Y-fitting (SY-6)
- Integral mounting bracket

IMPORTANT: If venting in an non-insulated attic space, or in a cold climate, insulated flexible duct is strongly recommended for condensation issues.
MODEL TD-MIXVENT
INLINE MIXED FLOW DUCT FANS

LIGHTED DELUXE EXHAUST KITS

KIT-TD100X1L:
- 1 TD100X1 exhaust fan
- 1 Vent Light with LED Bulb (VLED-100)
- Integral mounting bracket

KIT-TD100X1H:
- 1 TD100X1 exhaust fan
- 1 Vent Light with Halogen Bulb (VLH-100)
- Integral mounting bracket

KIT-TD100X1F:
- 1 TD100X1 exhaust fan
- 1 Vent Light with Fluorescent Bulb (VLF-100)
- Integral mounting bracket

KIT-TD150-DV:
- 1 TD150 exhaust fan
- 2 Vent Lights with LED Bulb (VLED-100)
- 1 Y-fitting (SY44-6)
- Integral mounting bracket

KIT-TD150H:
- 1 TD150 exhaust fan
- 2 Vent Lights with Halogen Bulb (VLH-100)
- 1 Y-fitting (SY44-6)
- Integral mounting bracket

KIT-TD150F:
- 1 TD150 exhaust fan
- 2 Vent Lights with Fluorescent Bulb (VLF-100)
- 1 Y-fitting (SY44-6)
- Integral mounting bracket

IMPORTANT: If venting in an non-insulated attic space, or in a cold climate, insulated flexible duct is strongly recommended for condensation issues.

* Bulbs in Lighted Kits not included in warranty.