

### **TD-MIXVENT**



# Inline Mixed Flow Duct Fans

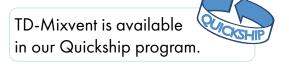
# Advancing Ventilation®





#### **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® qualufied



#### 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

### MODEL TD-MIXVENT







#### **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.



#### Construction characteristics

	100	100x1	125	150	200	250	315	355	400
Polypropylene housing	•	•	•	•					
Steel housing with epoxy coating					•	•	•	•	•
ABS fan blades	•	•	•	•	•				
Aluminum fan blades						•	•	•	•
Thermal link via fuse	•								
Thermal link with automatic reset		•	•	•	•	•	•	•	•
Permanently lubricated ball bearings	•	•	•	•	•	•	•	•	•

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, decrotive 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.

#### **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.

#### 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)

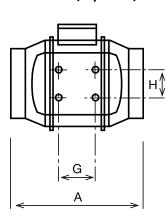


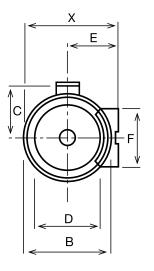
### **MODEL TD-MIXVENT**

INLINE MIXED FLOW DUCT FANS



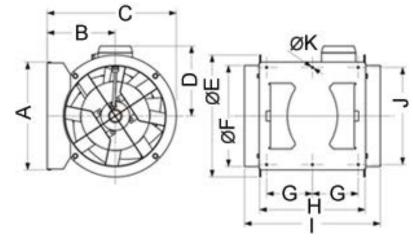
### DIMENSIONS FOR MODELS 100-315 (in/mm)





Model	Х	Α	В	С	D	Е	F	G	Н	Wgt. (lbs)
TD-100	5-15/16	9-1/8 232	5-7/16	3-3/4 96	3-7/8 98	3-1/4 82	3-3/4 95	1-7/8 48	2-1/16 52	4
TD-100x1	7-3/8	11-15/16	6-15/16	4-1/2	3-13/16	3-15/16	3-9/16	3-1/8 80	2-3/8 60	6
TD-125	7-3/8	10-3/16	6-15/16	4-1/2	4-13/16	3-15/16	3-9/16	3-1/8 80	2-3/8 60	6
TD-150	8-3/8 212	11-5/8	7-7/8 200	5 127	5-13/16	4-7/16	5-1/8	3-1/8 80	2-3/8 60	9
TD-200	9-3/16 233	11-7/8	8-9/16 217	5-9/16	7-13/16 198	4-7/8	5-1/2	3-15/16	3-11/16 94	13
TD-250	11-7/16	15-3/16	10-11/16	7-9/16	9-3/4 248	6-1/8	6-5/8	5-11/16	5-1/2	21
TD-315	14 356	17-11/16 450	13-1/4 336	8-13/16	12-5/16	7-3/8	8-1/4 210	7-3/16	7 178	31

#### DIMENSIONS FOR MODELS 355 & 400 (in/mm)



Model	Α	В	С	D	Е	F	G	Н	1	J	K	Wgt. (lbs)
TD-355	14-13/16 376	9-3/8 238	17-3/4 451	8-13/16 224	16-3/4 425	13-15/16	6-5/16	14-1/2 368	18-11/16 475	13-3/8 340	5/16 8	68
TD-400	16 407	9-13/16 249	19-3/8 492	10-1/2 267	19-3/16	15-11/16	6-5/16	16-3/4 425	21-1/2 546	14-9/16 370	5/16 8	<i>7</i> 8





#### 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**

Model	Nom. RPM	Volts / Frequency	Max. Watts @ 0.2″ w.g.	Max. CFM	Max. Current (Amps)	Max. SP	Max. Operating Temp. (°F)	Duct Dia. Inches
TD-100	2516	120V / 60Hz	26	101	0.45	0.4"	104°F	4"
TD-100X1	2500	120V / 60Hz	33	135	0.24	0.45"	104°F	4"
TD-125	2146	120V / 60Hz	38	197	0.72	0.55"	104°F	5"
TD-150	2289	120V / 60Hz	65	293	0.54	1.15"	140°F	6"
TD-200	2781	120V / 60Hz	184	538	0.8	1.625"	104 F	8"
TD-250 LS	2400	115V / 60Hz	162	541	2.2A	2.03"	140°F	10"
TD-250 HS	3200	115V / 60Hz	241	754	2.2A	2.53"	140°F	10"
TD-315 LS	2000	115V / 60Hz	208	<i>7</i> 51	2.3A	1.62"	140°F	12.4"
TD-315 HS	2500	115V / 60Hz	335	1050	2.3A	2.95"	140°F	12.4"
TD-355	1536	115V / 60Hz	522	2089	3.9A	1.0"	140°F	14"
TD-400	1559	115V / 60Hz	916	3127	6.3A	1.2"	140°F	16"

S&P USA Ventilation Systems, LLC. certifies that
all TD fan sizes shown herein are licensed to
bear the AMCA Seal. The ratings shown are
based on tests and procedures performed in
comply with AMCA Publication 211 and
comply with the requirements of the AMCA
Certified Ratings Program.

Performance certified is for installation Type D: Ducted Inlet, Ducted Outlet. Performance ratings do not include the effects of appurtenances. LS = Low Speed / HS = High Speed AMCA Licensed performance ratings.

#### **HVI Certified Performance**

			Max.	CFM v Static Pressure (SP) Ins. WG													Duct
Model	Nom. RPM	Volts	Watts @ 0.2" w.g.	0	0.125	0.2	0.25	0.3	0.375	0.4	0.5	0.75	1	1.25	1.5	Max. Current (Amps)	Dia. Ins.
TD-100	2564	120	23.5	101	84	<i>7</i> 0	57	34	18	15	1	-	-	-	-	0.45	4"
TD-100x1	2352	120	26.4	131	112	100	90	<i>7</i> 8	57	44	27	-	-	-	-	0.23	4"
TD-125	2392	120	37.8	200	177	160	146	129	89	<i>7</i> 8	41	-	-	-	-	0.32	5″
TD-150	2290	120	62.1	295	272	260	251	242	229	224	204	122	33	-	-	0.54	6″
TD-200	2022	120	113	475	448	430	418	406	385	3 <i>7</i> 8	352	264	142	-	-	1.03	8″
TD-250 HS	2721	120	210	815	<i>7</i> 82	<i>7</i> 60	744	<i>7</i> 26	699	690	654	561	449	322	241	2.27	10"
TD-250 LS	1982	120	147	612	557	520	493	463	417	401	329	233	1 <i>7</i> 8	135	<i>7</i> 5	1.32	10"
TD-315 HS	2559	120	303	1027	965	940	925	908	875	862	803	672	505	368	291	2.49	12"
TD-315 LS	1888	120	194	811	<i>7</i> 26	660	633	592	532	512	421	234	168	110	51	1.55	12″



LS = Low Speed / HS = High Speed

HVI certified performance is at 0.2" of static pressure

#### SOUND CHARACTERISTICS

Fan sound levels are measured in sones. At this time there are no sone 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.





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.





#### 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-TD 100:

- 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-TD 150:

- 1 TD 150 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 TD 150 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.



#### 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 TD 100X1 exhaust fan
- 1 Vent Light with Fluorescent Bulb (VLF-100)
- Integral mounting bracket



#### KIT-TD150-DV:

- 1 TD 150 exhaust fan
- 2 Vent Lights with LED Bulb (VLED-100)
- 1 Y-fitting (SY44-6)
- Integral mounting bracket

#### KIT-TD150H:

- 1 TD 150 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.

SCAN ME FOR S&P USA



SCAN ME FOR S&P CANADA





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