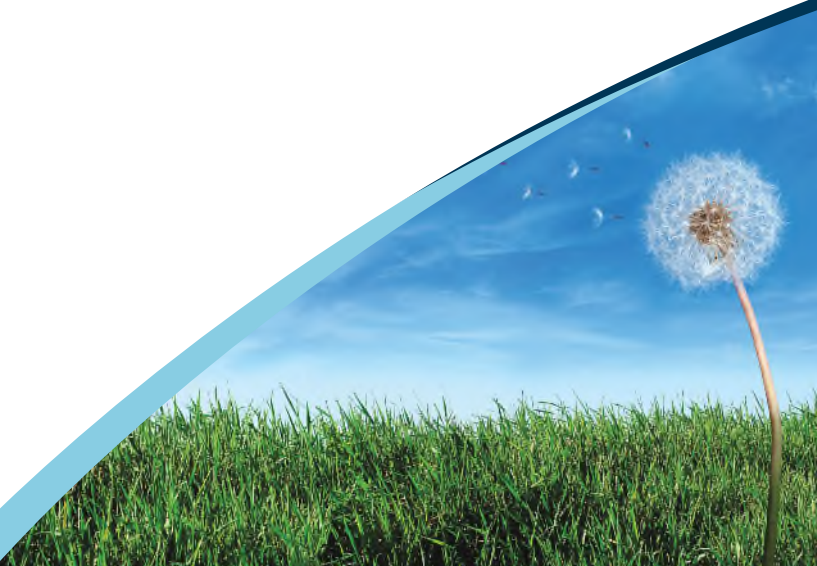




# Inline Fans Options

## Featuring TD-MIXVENT



## Advancing Ventilation

The World's Leading Producer of Air Movement Products

Soler&Palau  
Ventilation Group

# Table of Contents

Overview TD-MIXVENT Series .....	2
TD-MIXVENT Practical Installations .....	3
TD-MIXVENT General Details.....	4
TD-MIXVENT Installation & Maintenance .....	5
TD-MIXVENT Technical Specifications .....	6-7
TD-MIXVENT KIT-Bathroom Kits .....	8

## Overview TD-MIXVENT Series

### 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 motor-impeller assembly to be completely removed or replaced without the need to interfere with the attached ducting.



### Multitude of features-high specification

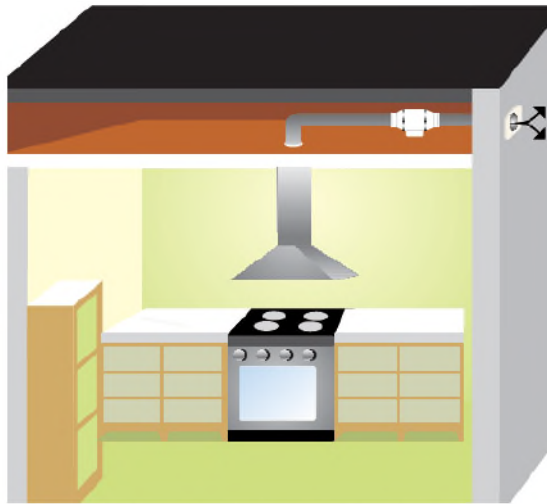
All models within the TD-MIXVENT & TD-SILENT range incorporate a powerful mixed flow impeller and internal air vanes located at the discharge end of the fan housing. This impeller and guide vane combination provides a smooth laminar air flow which in turn minimizes turbulence and noise, and generates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

## TD-MIXVENT Practical Installations

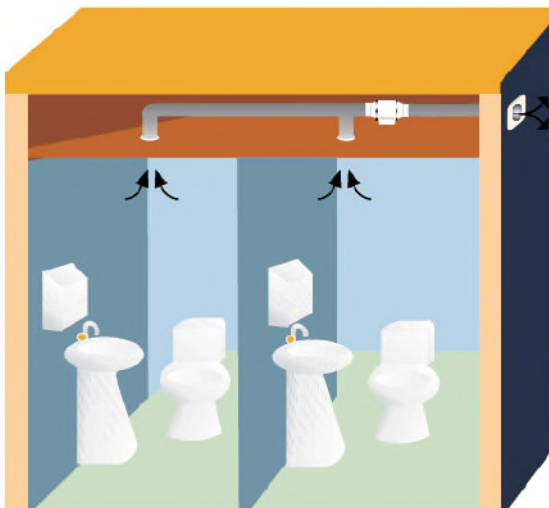
The TD-MIXVENT & TD-SILENT system offers the most versatile installation range on the market, as a result of its multiple combinations; it can be used in a large number of small and mid-range ventilation installations.



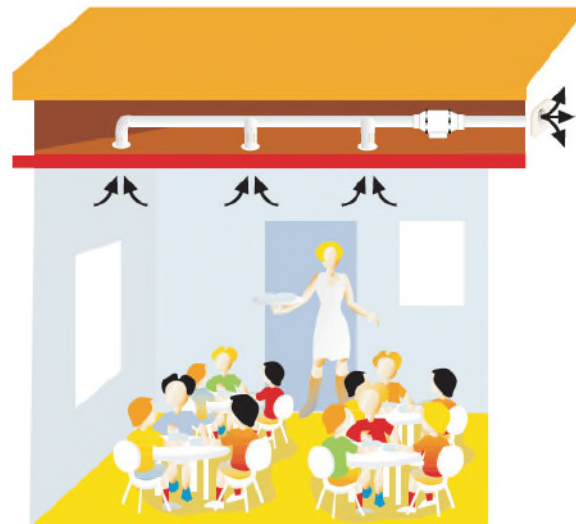
Domestic - Range Hood Exhaust



Commercial - Office



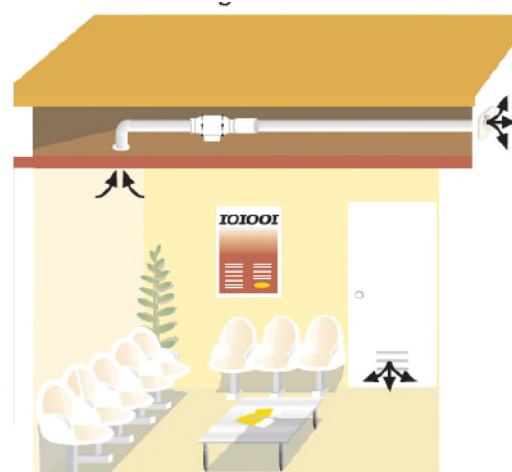
Industrial - Public Restroom



School - Dining Hall



Industrial - Locker Room



Health - Waiting Room



## General Details of the TD-MIXVENT Range



**Low profile** mixed flow fans, manufactured in plastic material (up to model 200) 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.

# TD-MIXVENT Installation & Maintenance

## Low Profile



The low profile of the fans in the TD-MIXVENT range makes them the ideal product for installations with low height limits, such as the case of suspended ceilings.

## Easy to Install

1



Secure the support.

2



Make the connections.

3



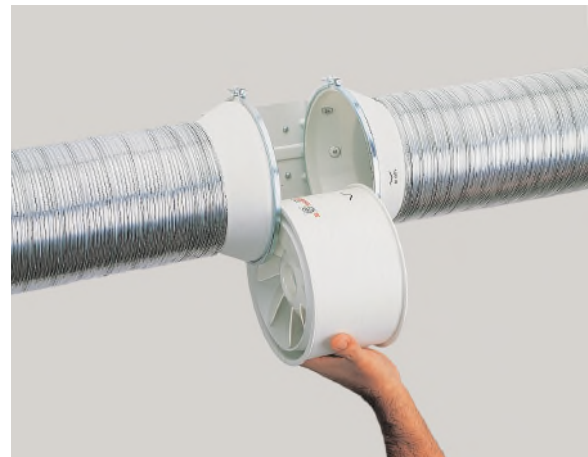
Connect the ducts.

## Flexibility in Location



The fans can be connected at any point along the ventilation duct: along the duct or at the end.

## Easy Maintenance

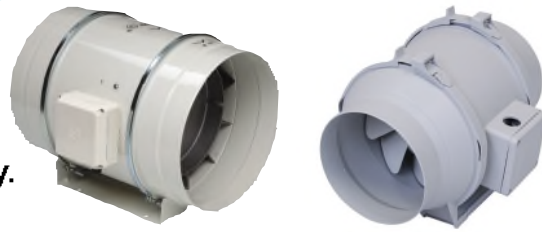


Removable body, for repair or cleaning, without the need to touch the ducts.

# TD-MIXVENT Technical Specifications

## 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, 150, and 200 are manufactured in tough reinforced plastic, models 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.

## Impellers

The impeller blades for models 100, 100X1, 125, 150, and 200 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 (model 100), or permanent split capacitor (models 100X and 125). 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 (40C)

*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 deg F (40C)
- Sizes 150, 250-400: Suitable for working airstreams up to 140 deg F (60C)

# Performance characteristics

Models 250 and 315 include a direct single speed motor connection.

Model	Nom. RPM	Volts	Max. Watts	Speed	CFM v Static Pressure (SP) Ins. WG							Max. SP	Max operating temp. (°F)	Wgt (lbs)	Duct Dia. Ins.
					0"	0.125"	0.25"	0.375"	0.5"	0.75"	1.0"				
TD-100	2516	120	26	-	101	85	57	-	-	-	-	.4	104	4	4"
TD-100x1	2500	120	29	-	138	119	96	66	21	-	-	.45	104	6	4"
TD-125	2146	120	38	-	197	168	133	86	22	-	-	.55	104	6	5"
TD-150	2289	120	65	-	293	273	250	227	206	131	35	1.15	140	9	6"
TD-200	2781	120	184	-	538	495	458	418	367	190	10	1.625	104	13	8"
TD-250	2400	120	162	LS	541	475	418	355	295	218	170	2.03	140	21	10"
	3200	120	241	HS	754	715	680	640	606	520	405	2.53	140	21	10"
TD-315	2000	120	208	LS	751	670	545	420	285	190	130	1.62	140	31	12.4"
	2500	120	335	HS	1050	990	932	850	770	600	420	2.95	140	31	12.4"
TD-355	1536	120	522	-	2089	2013	1934	1855	1775	1591	1306	1.0	140	68	14"
TD-400	1559	120	916	-	3124	3032	2936	2836	2733	2505	2210	1.2	140	78	16"

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



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 accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.



TD-100x1, TD-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.



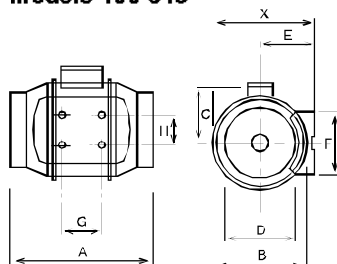
TD 250 & 315 are UL listed for outdoor use.

## 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.

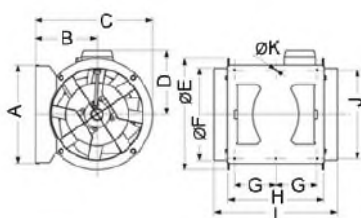
## Dimensions (inches/mm)

### Models 100-315



Model	X	A	B	C	D	E	F	G	H
TD-100	5 15/16 151	9 1/8 232	5 7/16 138	3 3/4 96	3 7/8 98	3 1/4 82	3 3/4 95	1 7/8 48	2 1/16 52
TD-100x1	7 3/8 188	11 15/16 303	6 15/16 176	4 1/2 115	3 13/16 97	3 15/16 100	3 9/16 90	3 1/8 80	2 3/8 60
TD-125	7 3/8 188	10 3/16 258	6 15/16 176	4 1/2 115	4 13/16 123	3 15/16 100	3 9/16 90	3 1/8 80	2 3/8 60
TD-150	8 3/8 212	11 5/8 295	7 7/8 200	5 127	5 13/16 147	4 7/16 112	5 1/8 130	3 1/8 80	2 3/8 60
TD-200	9 3/16 233	11 1/8 302	8 9/16 217	5 9/16 141	7 13/16 198	4 7/8 124	5 1/2 140	3 15/16 100	3 11/16 94
TD-250	11 7/8 291	15 3/16 386	10 11/16 272	7 9/16 192	9 3/4 248	6 1/8 155	6 5/8 168	5 11/16 145	5 1/2 140
TD-315	14 356	17 11/16 450	13 1/4 336	6 13/16 224	12 9/16 312	7 3/8 188	8 1/4 210	7 3/16 182	7 178

### Models 355 - 400



Model	A	B	C	D	E	F	G	H	I	J	K
TD-355	14 13/16 376	9 3/8 238	17 3/4 451	8 13/16 224	16 3/4 425	13 15/16 354	6 5/16 160	14 1/2 368	18 11/16 475	13 3/8 340	5/16 8
TD-400	16 407	9 13/16 249	19 3/8 492	10 1/2 267	19 3/16 487	15 11/16 398	6 5/16 160	16 3/4 425	21 1/2 546	14 9/16 370	5/16 8



# TD-MIXVENT KIT Bathroom Kits

If the strongest, quietest, bathroom exhaust system is what you seek...look no further. S&P offers the perfect solution with the most options. 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



### 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



### 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 a non-insulated attic space, or in a cold climate, insulated flexible duct is strongly recommended for condensation issues.

## Lighted Standard 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

## Lighted Deluxe Exhaust Kits



### KIT-TD150L

- 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



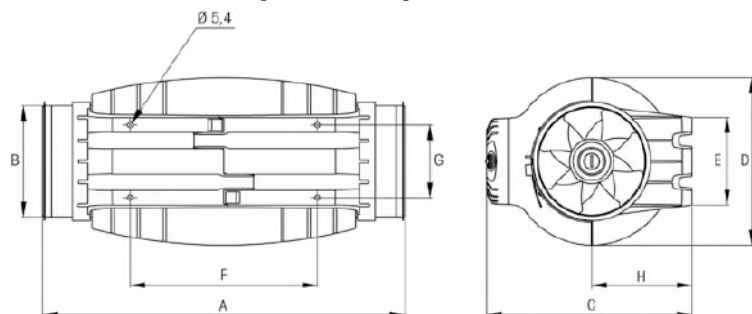
## Air Performance

Model	Duct Dia. Ins.	Nom. RPM	Volts	Max. Watts	CFM v Static Pressure (SP) Ins. WG							Max. SP	Max operating temp. (°F)	Wgt. (lbs)
					0"	0.125"	0.25"	0.375"	0.5"	0.75"	1.0"			
TD-125XS	5"	2500	120	36	203	175	138	84	33	-	-	0.6	104	11.9
TD-150S	6"	2700	120	65	333	315	286	271	257	178	77	1.2	140	13.2
TD-200S	8"	2200	120	122	530	503	472	443	415	349	204	1.2	140	19.2



The TD-SILENT Models 125XS and 150S 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.

## Dimensions (inches)



Model	A	B Ø	C	D Ø	E	F	G	H
TD-125XS	22 5/8	3 13/16	9 15/16	8 1/16	3 15/16	9 13/16	3 1/4	4 3/4
TD-150S	19 1/16	5 13/16	10 13/16	8 11/16	4 9/16	9 13/16	3 3/4	5 1/4
TD-200S	22 3/8	7 13/16	12 7/8	10 3/8	5 11/16	13 3/8	5 1/16	6 7/16

# Mixed Flow Fans vs. Axial & Centrifugal Fans

## Axial Fans

- Low noise levels
- High air volumes
- Very little static pressure capability\*

### Noise Level

High



Low

### Air Volume

High



Low

### Static Pressure

High

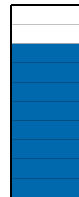


Low

## Centrifugal Fans

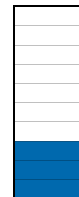
- Higher noise levels
- Lower air volumes
- Very high static pressure capability\*

High



Low

High



Low

High



Low

## Mixed Flow Fans\*\*

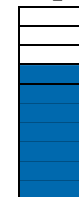
- Low noise levels
- High air volumes
- Significant static pressure capability\*

High



Low

High



Low

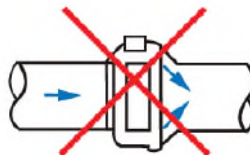
High



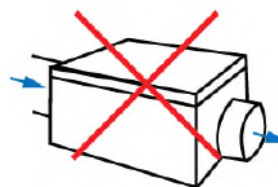
Low



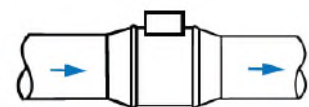
Classic Centrifugal



In-line Centrifugal



Ventilation Box



S&P's TD Fan

\*Static pressure is the ability of the fan to overcome resistance such as long or complicated duct runs.

\*\*Mixed flow fans (TD series) offer the best of both axial and centrifugal fans and are suitable for most air movement applications. S&P's **TD-MIXVENT & TD-SILENT** Series has all the benefits of a mixed flow fan, plus it requires minimal space and it is easy to install.