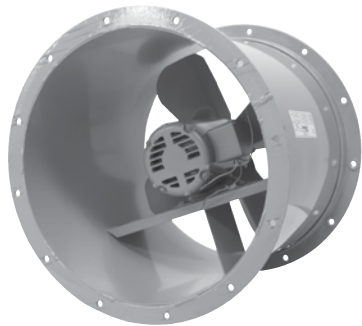


# MODEL DDT

## DIRECT DRIVE TUBEAXIAL DUCT FAN



### **MODEL FEATURES**

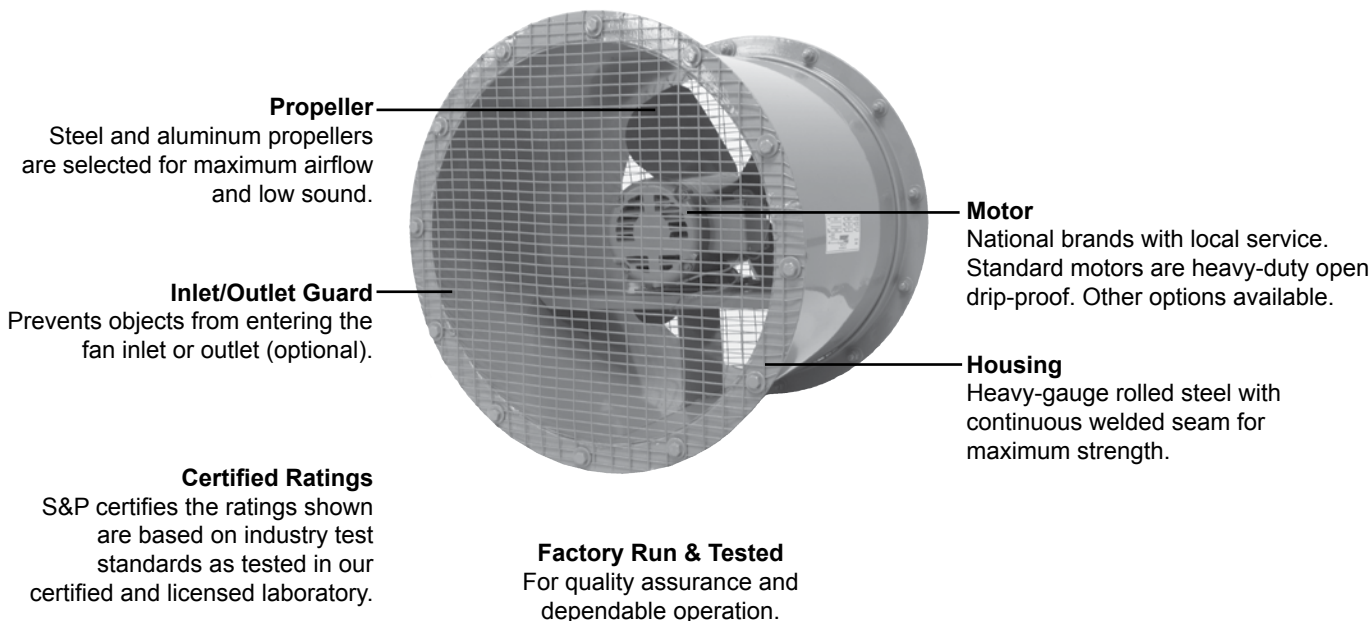
- Rated up to 43,000 CFM in static pressure applications up to 1-1/4" w.g.
- Direct drive units have low sound levels and quiet operation
- Smaller sizes for areas with reduced airflow needs
- Require practically no maintenance

### **MODEL OVERVIEW**

S&P's tubeaxial line offers the widest range of sizes, horsepower and performance in the industry. Models DDT are high capacity tubeaxial fans rated from 390 to 43,000 CFM, with static pressure capability up to 1-1/4". They are used to exhaust air from or supply air to such typical commercial and industrial applications as general building ventilation, enclosed garages, paint spray booths, heat and smoke ventilation systems and other applications where air is moved through a duct system against moderate static pressure.

Direct drive Models DDT are best used for exhausting or supplying relatively clean ambient temperature air. They are available in smaller sizes for areas with reduced airflow needs and require practically no maintenance.

### **CONSTRUCTION FEATURES AND OPTIONS**



**1 year fan housing warranty, 1 year motor warranty**



## **CONSTRUCTION/SPECIFICATION CHECKLIST**

### **Fan Housing**

- Heavy-gauge rolled steel construction.
- Rolled steel flange reinforcement on each end.
- Continuous welded seams.

### **Propeller (Sizes 12 - 21)**

- Die formed steel blades.
- Steel hub plate/bushing.
- Heavy-duty construction.
- Statically and dynamically balanced.
- Aluminum blades are optional.

### **Propeller (Sizes 24-48)**

- Three, four or six wing airfoil aluminum or heavy-gauge steel blades.
- Steel or aluminum hub plate with steel taper lock bushing.
- Blades are pitched for optimum efficiency.
- Statically and dynamically balanced

### **Motors**

- One year motor warranty.
- Brands are nationally recognized and locally serviced.
- Open drip-proof construction is standard.
- Premium-efficiency, explosion proof, totally enclosed fan cooled (TEFC) and corrosion duty motors can be specified.

### **Entire Fan Unit**

- Factory assembled and tested prior to shipment for quality assurance.

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## **OPTIONS/ACCESSORIES**

**Pedestal Base:** Supports fan for vertical or horizontal mounting.

**Ceiling Brackets:** For suspending fan in ceiling mounted installations. Hanging vibration isolation is available.

**Inlet/Outlet Guard:** Prevents objects from entering the fan inlet or outlet.

**Inspection Door:** For inspection and blade service/cleaning.

**Companion Flanges:** Inlet and/or outlet flanges are available for duct connection.

**Disconnect Switch:** Nonfused safety disconnect available for all motor sizes and enclosures. Specify prewired if desired. (Wiring not available on explosion proof and two speed motors).

**Spark-Resistant Construction:** For use in hazardous locations.

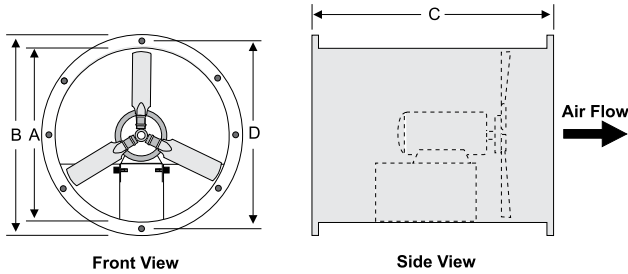
**Special Coatings:** For protective and decorative purposes. Available coatings include: Synthetic Resin, Epoxy, and Heresite (air-dried phenolic). Contact your representative or the factory for more information on available coatings and colors.



# PERFORMANCE & DIMENSIONS

Sizes 12, 16, 18, 21 and 24

<b>Max. Motor Frame:</b>	56	56	143T	145T	213T
<b>Housing Gauge:</b>	14	14	14	14	12
<b>Approx. Weight:</b>	60	65	75	90	130
<b>Flange Holes:</b>	8				
<b>Diameter Flange Holes:</b>	1/2"				
<b>Finish:</b>	Galvanized				



Size	A	B	C	D*
12	13-1/32	16-3/16	15	15
16	17-1/32	20-3/16	19	19
18	19-1/32	22-3/16	19	20-3/4
21	22-1/32	25-3/16	19	23-3/4
24	25-1/8	29-1/8	30	27-1/8

A: ID B: OD C: Length D: Flange Hole Center

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-12	945	670	390	-	-	-	-	-	-	1/4	1140
	1295	1210	1115	820	668	573	466	-	-	1/4	1750
	2340	2280	2245	2188	2141	2092	2039	1955	-	1/2	3450

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-16	2220	1840	1210	525	-	-	-	-	-	1/4	1140
	2700	2484	2269	2050	1829	1683	1192	946	-	1/2	1725

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-18	2895	2549	1788	1184	844	-	-	-	-	1/3	1140
	4550	4235	3920	3693	3458	3228	2170	1758	-	3/4	1725
	4740	4423	4290	3884	3424	3007	2391	1018	-	1	1725

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-21	4681	4442	4174	3782	3265	2438	1998	1668	-	1/2	1140
	4925	4694	4464	4236	4009	3808	3050	2678	2330	3/4	1725
	5998	5631	5331	5001	4634	4215	3835	-	-	1	1725

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-24	5644	5002	4177	2806	-	-	-	-	-	1/3	1160
	6952	6257	5403	4352	-	-	-	-	-	1/2	1160
	7943	7365	6453	5643	-	-	-	-	-	3/4	1160
	8236	7954	7262	6705	5200	-	-	-	-	1	1160
	7337	6968	5905	5344	4923	3500	-	-	-	3/4	1725
	8464	7993	6568	6252	5974	5105	4700	-	-	1	1725
	9365	8826	8356	7926	7486	6902	6456	-	-	1 1/2	1725
	10653	10104	9983	9583	9125	8623	8104	7326	5894	2	1725
	12804	11902	11505	11005	10457	10004	9703	7955	6108	3	1725

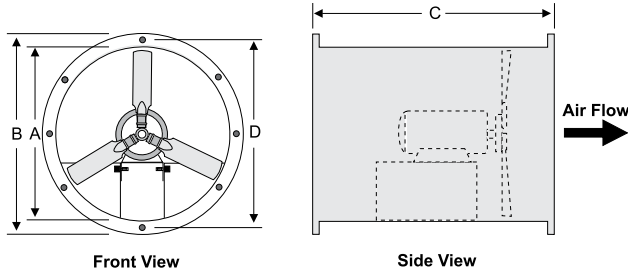
Performance shown for Model DDT is with inlet and outlet ducts.



**MODEL DDT**  
DIRECT DRIVE TUBEAXIAL DUCT FAN



**Sizes 30 and 36**



**Max. Motor Frame:** 215T  
**Housing Gauge:** 12  
**Approximate Weight:** 30" = 195 lbs.  
 36" = 250 lbs.  
**Flange Holes:** 8  
**Diameter Flange Holes:** 1/2"  
**Finish:** Galvanized

Size	A	B	C	D
30	31-1/8	35-18	30	33-1/8
36	37-1/8	41-1/8	30	39-1/8

A: ID B: OD C: Length D: Flange Hole Center

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-30	11698	10451	8895	6290	-	-	-	-	-	1	870
	8995	8791	7498	5700	-	-	-	-	-	3/4	1160
	10591	10063	9897	9478	9005	7908	6549	-	-	1	1160
	12891	11895	10906	9841	9398	8749	7325	-	-	1 1/2	1160
	14462	13571	12467	11349	9841	8291	6744	-	-	2	1160
	13831	13293	12286	11395	10414	8612	-	-	-	2	1725
	16138	15641	14869	13590	12740	11450	10743	9355	-	3	1725
	20883	18493	17986	17487	16838	16147	15338	13547	8211	5	1725

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-36	13941	11846	10276	8295	6834	-	-	-	-	1	870
	16383	14993	13267	11890	7984	-	-	-	-	1 1/2	870
	18653	16849	15671	12928	9603	-	-	-	-	2	870
	21196	19839	18186	15981	12980	9663	8633	-	-	3	870
	13561	12281	10794	8891	6561	-	-	-	-	1	1160
	15998	14561	13814	11216	9271	-	-	-	-	1 1/2	1160
	17741	16630	14841	13411	11735	10218	8556	-	-	2	1160
	20876	19765	18693	17312	15971	14375	12630	9361	-	3	1160
	18768	17665	16983	15612	13971	12571	11663	9147	-	3	1725
	2618	22276	21573	20213	19537	18657	17556	15616	12192	5	1725

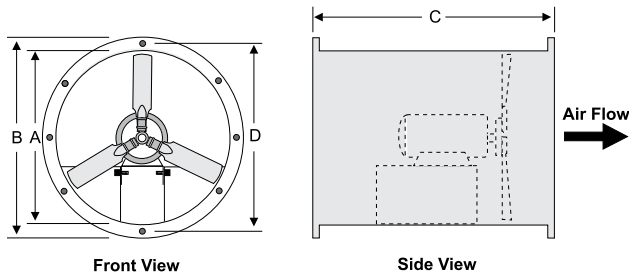
Performance shown for Model DDT is with inlet and outlet ducts.  
 Standard propeller is aluminum construction.



**MODEL DDT**  
**DIRECT DRIVE TUBEAXIAL DUCT FAN**



**Sizes 42 and 48**



**Max. Motor Frame:** 256T  
**Housing Gauge:** 42" = 12  
 48" = 10  
**Approximate Weight:** 42" = 400 lbs.  
 48" = 510 lbs.  
**Flange Holes:** 16  
**Diameter Flange Holes:** 1/2"  
**Finish:** Galvanized

Size	A	B	C	D
42	43-1/8	47-1/8	32	45-1/8
48	49-1/8	53-1/8	32	51-1/8

A: ID B: OD C: Length D: Flange Hole Center

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-42	28291	27402	25870	24938	22841	20958	18956	13717	9819	5	1160
	24260	33917	32745	30270	28357	26440	24306	19478	16110	7 1/2	1160

Model	CFM / BHP @ Static Pressure									HP	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4		
DDT-48	46749	44837	42480	39817	36991	32040	27603	20176	-	10	860
	43917	42111	40050	39119	37872	35941	33191	28221	28223	10	1160

Performance shown for Model DDT is with inlet and outlet ducts.  
 Standard propeller is aluminum construction.