

DDT Tubeaxial Duct Fans

Direct Drive

Catalog /DDT01-July 2007



The World's Leading Producer of Air Movement Products





Models DDT Direct Drive Tubeaxial Duct Fans

Application

Soler & Palau'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 I-I/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.

Model DDT - 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/Specification Checklist

Fan Housing

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

Propeller (size 12 - 21)

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

Propeller (size 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 (Model DDT).

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.

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.

Access Panel: Allows access to interior of fan housing for inspection. Location must be specified.

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.

Epoxy Finish: For use in an alkaline type atmosphere (not for use in acetic and nitric acids). Epoxy forms an excellent hard heavy film barrier against chemical attack as well as physical damage from direct impact and abrasion.

Other Finishes: Heresite and polyester resin are also available when special coatings are required.

All specifications are subject to change without notice unless approved in submittal by Soler & Palau.



Model DDT

Propeller-

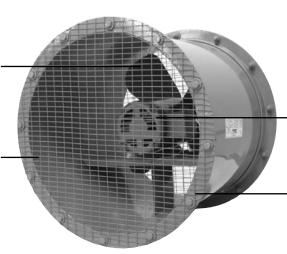
Steel and aluminum propellers are selected for maximum airflow and low sound.

Inlet/Outlet Guard

Prevents objects from entering the fan inlet or outlet (optional).

Certified Ratings

Soler & Palau certifies the ratings shown are based on industry test standards as tested in our certified and licensed laboratory.



Factory Run & Tested

For quality assurance and dependable operation.

Motor

National brands with local service. Standard motors are heavy-duty open drip-proof. Other options available.

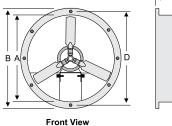
Housing

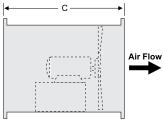
Heavy-gauge rolled steel with continuous welded seam for maximum strength.

Performance/Dimensional Data - Direct Drive



Model DDT Sizes 12, 16, 18, 21 and 24





Side View

	12	16	18	21	24
Max. Motor Frame:	56	56	143T	145T	213T
Housing Gauge:	14	14	14	14	12
Approx. Weight:	60	65	75	90	130

Flange Holes: 8

Diameter Flange Holes: 1/2"

Finish: Galvanized

Size	A	В	С	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				шв	DDM						
Model	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4	HP	RPM
	945	670	390	-	-	-	-	-	-	1/4	1140
DDT-12	1295	1210	1115	820	668	573	466	-	-	1/4	1750
	2340	2280	2245	2188	2141	2092	2039	1955	-	1/2	3450

Model			HP	RPM							
Model	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4	È	KFM
DDT I	2220	1840	1210	525	-	-	-	-	-	1/4	1140
DDT-16	2700	2484	2269	2050	1829	1683	1192	946	-	1/2	1725

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

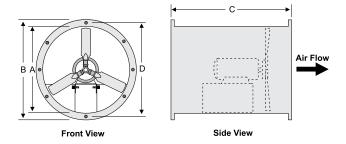
Madal	CFM / BHP @ Static Pressure										RPM
Model	0	1/8	1/4	3/8	1/2	5/8	3/4	I	1 1/4	£	KPM
	4681	4442	4174	3782	3265	2438	1998	1668	-	1/2	1140
DDT-21	4925	4694	4464	4236	4009	3808	3050	2678	2330	3/4	1725
	5998	5631	5331	5001	4634	4215	3835	-	-	I	1725

Model			CFI	M / BHP	@ Stat	ic Press	ure			шр	RPM
Model	0	1/8	1/4	3/8	1/2	5/8	3/4		1 1/4	£	RPM
	5644	5002	4177	2806	-	1	-	-	-	1/3	1160
	6952	6257	5403	4352	-	1	ı	-	1	1/2	1160
	7943	7365	6453	5643	-	1	1	-	-	3/4	1160
	8236	7954	7262	6705	5200	-	-	-	-	_	1160
DDT-24	7337	6968	5905	5344	4923	3500	-	-	-	3/4	1725
	8464	7993	6568	6252	5974	5105	4700	-	-	_	1725
	9365	8826	8356	7926	7486	6902	6456	-	1	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 Sizes 30 and 36



Max. Motor Frame: 215T Housing Gauge: 12

Approximate Weight: $30^{\circ} = 195 \text{ lbs.}$ $36^{\circ} = 250 \text{ lbs.}$

Flange Holes: 8
Diameter Flange Holes: 1/2"

Finish: Galvanized

Size	Α	В	С	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			С	FM / BH	e @ Stati	ic Pressu	re			шв	RPM
Model	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4	HP	KPM
	11698	10451	8895	6290	-	-	-	-	-	I	870
	8995	8791	7498	5700	-	-	-	-	-	3/4	1160
	10591	10063	9897	9478	9005	7908	6549	-	-	- 1	1160
DDT 30	12891	11895	10906	9841	9398	8749	7325	-	-	1 1/2	1160
DDT-30	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

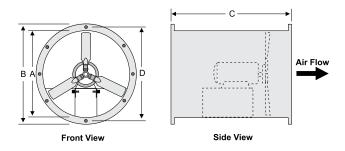
Madal			C	FM / BH	e @ Stati	c Pressu	re			НР	RPM
Model	0	1/8	1/4	3/8	1/2	5/8	3/4	- 1	1 1/4	È	KPM
	13941	11846	10276	8295	6834	-	-	-	-	_	870
	16383	14993	13267	11890	7984	-	-	-	-	1 1/2	870
	18653	16849	15671	12928	9603	-	-	-	-	2	870
	21196	19839	18186	15981	12980	9663	8633	-	-	3	870
DDT-36	13561	12281	10794	8891	6561	-	-	-	-	_	1160
DD 1-36	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.

SaP

Performance/Dimensional Data - Direct Drive

Model DDT Sizes 42 and 48



Max. Motor Frame: 256T Housing Gauge: 42" = 12

48" = 10

Approximate Weight: $42^{\circ} = 400 \text{ lbs}.$

42'' = 510 lbs.

Flange Holes: 16
Diameter Flange Holes: 1/2"

Finish: Galvanized

Size	Α	В	С	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

Madal		CFM / BHP @ Static Pressure									
Model	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4	HP	RPM
DDT 43	28291	27402	25870	24938	22841	20958	18956	13717	9819	5	1160
DDT-42	24260	33917	32745	30270	28357	26440	24306	19478	16110	7 1/2	1160

Model	CFM / BHP @ Static Pressure									НР	RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4	FIF	RPM
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.