Fan Selection Application

Instructions for Air Turbine Propeller's Axial Fan Selection website www.axialfanselection.com

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Air Turbine Propeller Company

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Company Website: www.airturbine.com

Axial Fan Selection Website: www.axialfanselection.com

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- You are starting with performance requirements and would like the	
application to provide a list of props. Performance requirements include	
AIR VOLUME/CFM, STATIC PRESSURE, HORSEPOWER, FAN SPEED/RPM	
and AIR DENSITY. Some physical requirements may be entered	
As well, such as FAN DIAMETER and FAN STYLE	
Manual Fan Selection	Page 12
- You already know the STYLE, DIAMETER & PITCH INDEX of the prop	
and need to obtain performance data or pricing	
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Air Turbine Propeller

Air Turbine Propeller Company is a leading manufacturer of PROPELLER TYPE FAN BLADES for the Heating, Ventilation, Air Conditioning and Refrigeration markets. Our axial fans are ideally suited for INDUSTRIAL, COMMERCIAL, MARINE, FOOD, and AGRICULTURE use. Air Turbine's strong reputation in the HVAC&R market is based on Quality, Reliability, and Fast and Dependable Delivery.

- Propeller Diameters 8 inches to 96 inches
- Design Seven Styles, 4-to-16 Blades, High and Low Pressure o CW, CCW, INT, EXH, and Reversible
- Blade Materials From 20GA to 7GA
 - o Carbon Steel
 - o Galvanized Steel
 - o Fiberglass
 - o Aluminum Spark Proof / Explosion Proof
 - o Stainless Steel Various Grades
- Finishes
 - o Gray Enamel Paint
 - Epoxy Paint
 - o Bright Zinc Plate
 - Hot-Dip Galvanizing
 - High Temperature Aluminum Paint
 - o Custom Finishes Available
- Quality
 - o Rugged, Reliable Construction including Solid Weld!
 - High Temp Applications
 - Corrosion Resistant Applications
 - Fans are Expertly Tracked and Balanced
- Quantities
 - o Order One or Hundreds of Propellers
- Lead-Time
 - Exceptional Industry Lead-Times
 - o "Quick Ship" Program Available -3 DAYS OR LESS!
- Technical Assistance
 - Fan Selection Assistance via Proprietary Software
 - Optimize Performance, Efficiency and Noise
- Customer Service
 - o Professional and Reliable Service Partner
- Business Focus
 - o Industrial including Engines, Ovens, Generators
 - o Commercial
 - o Marine
 - o Government & DOD
 - o Agriculture
 - o **Food**
- Domestic and International Shipments
- Tiered Pricing for Volume Purchases

For additional information about Air Turbine Propeller, please visit our website at <u>www.airturbine.com</u>.

Or you may call us at (724) 452-9540 and we will answer any questions you may have.

About Air Turbine Propeller's Fan Selection - Application Overview

Air Turbine Propeller's fan selection application has been used for decades. When it was first rolled out to our customers, it was a one of a kind. The programs provided our customers and prospects access to performance and sound data for our axial fan blades.

Originally this was a program written in visual basic and distributed by CD or obtained by downloading the files. Since VB hasn't been supported for some time, the old fan selection program would only run on a PC, and on a PC that was running the XP version of Microsoft Windows or in XP mode under Windows 7. Either way, it had become a bit cumbersome for our customers use the program.

With this latest release, the platform is now web-based and can be utilized by anyone with internet access. While optimized to run under the Fire Fox web browser (available for download here <u>http://www.mozilla.org/en-US/firefox/new/</u>) you should also see favorable results with Chrome, Explorer and Safari. Any differences should be minor and only affect the formatting or display of text and graphics.

Since the older version required Windows XP, users of MAC products could not install the program. By moving the fan selection software to a web-based application those who do not use a Windows operating system can now use the application.

Purpose...

The purpose of the fan selection application is provide customers with an automated fan selection engine that chooses the optimum fan based on specific requirements, access to fan performance data and fan curves, and to provide pricing.

This release of our Fan Selection Application adds some additional functionality in terms of information storage. In the previous release, there was no way to store previous selections. With the launch of this webbased application, you may now create PROJECTS and within these PROJECTS create schedules of fans/fan selections that you may save and return to later.

Note: You will want to <u>always allow popups</u> for the fan selection website with whatever browser you are using.

Obtaining Logon Credentials (first time access to the application)

1. On your browser, enter the following web page address:



2. The following screen will appear.



3. Click on REQUEST A USER ACCOUNT (If you don't already have logon credentials)

			IR TURBL	VE
0000	User Logi	in Information		
0	Username: Password:			
0000		Forgot your password? Request a user account		-

4. Complete the form and click on REQUEST.

see Axial Fan Selection ×	
← → C ff (③ www.axialfanselection.com/eRep/UserAccountRequest.aspx	
User Infomati	on
Company Name	Air Turbine Propeller
First Name	Tim
Last Name	LeFebvre
Job Title	Purchasing Manager
E-Mail Address	timlefebvre@airturbine.com
Address Line 1	PO Box 222
Address Line 2	22329 Perry Highway
City	Zelineople
State	РА
Zip	16037
Country	USA
Phone #1	724-452-9540
Phone #1 Extension	204
Phone #2	
Phone #2 Extension	
Fax	724-453-0961
Pager	
Cell Phone	
	Request Cancel

5. You will receive the following confirmation of from transmission. Please allow up to 24 hours for Air Turbine to process your request for logon credentials.



RESETTING YOUR PASSWORD - You will receive an email with your assigned USERNAME and a link to a webpage where you will select a password. Click on RESET MY PASSWORD.



Enter your password, confirm the password and click SAVE.



LOGGING IN - After successfully selecting a password, you will be able to logon to Air Turbine Propeller's Axial Fan Selection Application. You will remain logged in for 120 minutes before the system terminates your session. Go ahead and login. You'll access the screen below by typing the following web address into your browser: <u>http://www.axialfanselection.com</u>.

_ `	ATR TORBERT
0000	User Login Information
0	Username:
	Password: Forgot your password? Request a user account Login

Creating A PROJECT

This release of our Fan Selection Application adds some functionality in terms of information storage. In the previous release, there was no way to store previous selections. With the launch of this web-based application, you may now create PROJECTS and within these PROJECTS create schedules of fans/fan selections that you may save and return to later. This can be particularly helpful to engineers/designers that may have multiple projects, in differing environments, and need to set different air densities.

1. In order to begin, you must first create a PROJECT.

First, enter a NAME for the project. Then click on ADD NEW PROJECT.

Axial Fan Sel	ection					I	AIR TOIRBINE
👫 Home 👖 Dash	ooards 🧃 My Projects	🔒 Administration	🖌 🚽 Sign Out				
My Active Projects Project listing for: tper	23 Active, 9 Inactive)						
New Project Name: 0	Cooling Tower 23	Add New Project					
Info Job Name	Description	Schedule	Created By		Date Created	Date Modified	Status
(C)	- E	-	23	-			2

- 2. The screen below is where you will set up the PROJECT, including descriptive information, and establish project-level defaults for the following:
 - Be sure to set your units to METRIC if desired. The default is IMPERIAL.
 - Make AIR DENSITY CORRECTIONS. Be sure to click on CALCULATE if you enter new values.
 - Set the CALCULATION DISTANCE for sound power data. The default is 5ft.

When you are finished, click on UPDATE at the bottom of this screen. Should you return to this screen to make changes in the future, you will need to click on CALCULATE for any changes to AIR DENSITY and also click on UPDATE if any changes, including a recalculation of AIR DENSITY, are made.

Axial Fan	Selection					Arr	(esore)		
🚯 Home 👖	Dashboards 👔 My Projects	🗼 Administration 🛩	🤞 Sign Out			_			
Project Inform	nation								
Project ID: Date Created: Date Last Saved:	1617 Tuesday, June 12, 2012 Tuesday, June 12, 2012	Active D By: tperry Al By: tperry Tr	ensity Calcula Ititude: emperature:	500.0	t.				
Project Name: Description:	Cooling Tower 23	R	elative Humidity: arometric:	0.00	% in.Ho				
Location:	English (Default)		ir Density:	0.07535 lbm/cu.ft Calculate Use 0	efault				
Representative:		P	efaults	5.0	n				
Salesperson:		0	istance:						
Engineering Firm: Designer:			Infor be fo	mation	ent ecific	ered o proje	on this ct. If	page should you change the	
Contractor:			LINE	ES/FAN	ιΥ, IS in	t will on the S	CHED	e it for all DULE.	
Other Contacts:									
Notes:									
	Upd	tate Cancel							

Your PROJECT has now been added. Each additional project you create will be shown on this screen.

You may return to, and edit, PROJECT level information by clicking on the magnifying glass icon.

G	Home 🚺 Da	shboards 🧃 My Projects	s 🤱 Administration	🗸 🌖 Sign Out				
My	Active Projec	ts						
Pro	ject listing for: tpe	rry (24 Active, 9 Inactive)						
Ne	w Project Name:		Add New Project					
nfo	Job Name	Description	Schedule	Created By	Date Created	Date Modified	Status	
	[·]	* [2]	*	53	*		[e]	¥
0	Cooling Tower 23			tperry	6/12/2012	06/12/2012 08:54 AM	Active	
↑								
C	2							
	0							

1. Now, it is time to add LINES or FAN SELECTIONS to your PROJECT. To do so, click on the SCHEDULE ICON, in the column labeled Schedule.



2. The PROJECT SCHEDULE screen appears. It is here that you will begin the fan selection process. To begin, click on ADD NEW LINE(S).

Draiact Schodula																
Project Schedule																
Project: Cooling Tower 23																
Qty to create 1 Ad	ld New	/ Line(s)	←				_									
Gene	ral			1	Performance							Sound				
Tag C	ty Style	Diameter (in.)	Pitch Index	Cnst.	Fan RPM	Flow Rate (CFM)	Static Pressure (in.wg)	Fan BHP	Density (Ibm/cu.ft)	Static Eff	Total Eff	Snd Pwr	Snd Pwr (A-Weighted)	Sound Pressure	Sound Pressure (A-Weighted)	Sones Ratings
No line items in this schedule																

This version of the fan selection software provides for a schedule of fans, as mentioned above. It also, provides some performance information on the PROJECT SCHEDULE screen for quick reference.

3. You will see a LINE has been added.

First, let's identity all the icons on this page. Hovering over the icons will also provide a description.



- SELECT ITEM
 - o Manual Selection
 - You will need to provide FAN STYLE, DIAMETER, AND PITCH INDEX
 - o Auto/Optimized Fan Selection
 - You will need to provide some of the following physical or performance requirements in order to select a fan.
- PRICE ITEM
 - Typically you will price and item once you've selected it. However, you can go directly to this feature. In order to obtain a price you will need to provide the following information:
 - FAN STYLE, DIAMETER, PITCH INDEX, CONSTRUCTION/DUTY RATING, BORE SIZE, HUB/BUSHING TYPE, BUSHING POSITION, ROTATION, AND MATERIAL. All of this information is required to order a fan. Without it, the correct fan may not be produced.
 - If you begin with pricing, you will not have any performance data when returning to the above schedule, if you elect to save the fan. You can still obtain performance data by clicking on the SELECT ITEM above and performing a MANUAL SELECTION (PROP SELECT button)
- SELECT DRAWING
 - As with PRICE ITEM, you would typically begin by selecting a specific fan before generating a drawing. However, you may start select a drawing first if you wish. Keep in mind that you performance data or pricing will be calculated. DRAWINGS are not to scale and provide only a generic sketch and assign dimensions based on the user's selections. At this time we do not have scale mechanical drawings of our propellers. Also, not all fans and fan features are represented.
- LINE ITEM INFORMATION
 - The primary purpose of this screen is to input the desired quantity for line. Air Turbine Propeller has tiered pricing based on the annual sales and the quantity of fans ordered. If the user inputs the quantity, the application will provide the appropriate pricing, and highlight it on the pricing report.
- REPORTS
 - The user may select from any of the following, or all, to generate the desired report package: Engineering Data, Fan Curve, Drawing and Pricing Summary. The files download options are PDF, Excel and Word formats.

4. SELECT ITEM

£.

Click on the left most ICON (Select Item icon).

				Gene	ral				Perform	mance						Sound	d			
V				Tag (Qty Sty	e Diameter (in.)	Pitch Index	Cnst.	Fan RPM	Flow Rate (CFM)	Static Pressure (in.wg)	Fan BHP	Density (Ibm/cu.ft)	Static Eff	Total Eff	Snd Pwr	Snd Pwr (A-Weighted)	Sound Pressure	Sound Pressure (A-Weighted)	Sones Rating
	\$ Ð	0	1		1			ERR-Z					0.07535							

The screen on the left appears. You arrive at the AUTO SELECT screen by default. This is the screen you will use to enter your performance and/or physical requirements to select a fan. This screen should look familiar to you if you have used the previous version of our fan selection software.

If you know the fan you'd like to load, you can click on PROP SELECT and the screen to the right will appear. Again, in order to load a prop manually, you will need to know the FAN STYLE, DIAMETER and PITCH INDEX.

In either case, some default information is present when you arrive at these screens and you may need to delete/replace it during your selection process. These defaults are different from previous versions.

AUT	O SELEC	Г scree	n		MA	NUAL	PROP SE	LECT so	reen
Axial Fa	an Selection	My Projects	🌜 Administration 🗸 🏓	Sign Out					
Auto Select	Prop Select		Coloction Oritoria	Linif Ditch		Fan Select	ion		
Tag:	Tower Fan North		Minimize Speed	Half Pitch Index		Auto Select	Prop Select		
Style:	S T		Maximize Flow			Inputs			
Diameter:	10	in.	 Maximize Pressure Minimize Power 			tay.			
Range:						Diamotor:	s •		
Speed:	2500	RPM 🔲 Fix				Ditch Indox:	10 in.		
Flow Rate:	500	CFM				Pitter muex.			
Pressure:	0.250	in.wg				Load Car	icel		
Power:	.75	HP							
Density:	0.07535	lbm/cu.ft							
Select C	ancel								

Also, you can add a descriptive TAG (shown as Tower Fan North) to the line to help identify this selection from others under the PROJECT.

AUTO SELECT. In most cases you will be relying on Air Turbine's Fan Selection Application to provide an optimized fan selection based on some set of requirements. The requirements you may input are shown on the screen below.

In the example below, our user is looking to select the fan (UNKNOWN) that provides the most flow (CFM) given the following requirements:

- DIAMETER: 24 inches
- FAN SPEED / RPM: 1140 RPM
- STATIC PRESSURE: 3/8" (in wg)
- AIR DENSITY: .07535 lbs/cu.ft.

Click select at the bottom of this screen when you are done entering your requirements.

Auto Select	Prop Select			
nputs			Selection Criteria	Half Pitch
ag:	Tower Fan North		O Minimize Speed	U Half Pitch Index
Style:	UNKNOWN -		Maximize Flow Maximize Breasure	
Diameter:	24	in.	Minimize Pressure Minimize Power	
Range:				
Speed:	1140	RPM 🕅 Fix	< ſ	
low Rate:	-	CFM		Remember to check FIX or the motor speed
Pressure:	0.375	in.wg		will change.
Power:	3.000	HP	2	
Density:	0.07525	Ib as few #		

5. The following results are displayed. The fans are ordered by HIGHEST FLOW given the constraint of 3HP.

Click the left most icon to select a fan. In most cases, you will select the fan displayed on top (A-24-12.5 SD)

sib	le Sele	ctions											
ityle	Diameter (in.)	Pitch Index	Fan Speed (RPM)	Flow Rate (CFM)	Static Pressure (in.wg)	Power (Hp)	Density (Ibm/cu.ft)	Cnst.	Sound Power	Sound Power A Weighted	Sound Pressure	Sound Pressure A Weighted	Soun Valu
Α	24	12.5	1140	7563	0.375	1.661	0.07535	SD	95.7	88.2	84.1	76.6	26.
А	24	13	1140	7379	0.375	1.692	0.07535	SD	95.7	88.3	84.1	76.6	26.5
A	24	12	1140	7321	0.375	1.556	0.07535	SD	94.6	86.7	83	75	24.2
A	24	11.5	1140	7077	0.375	1.456	0.07535	SD	94.6	86.7	82.9	75.1	24.1
A	24	10.5	1140	6879	0.375	1.355	0.07535	SD	94.5	86.0	82.8	75.2	24.2
A	24	11	1140	6832	0.375	1.361	0.07535	SD	94.5	86.8	82.9	75.1	24.2
A	24	10	1140	6646	0.375	1.254	0.07535	SD	94.1	85.4	82.5	73.8	23
A	24	9.5	1140	6401	0.375	1.167	0.07535	HD	94,1	85.5	82.5	73.9	23
A	24	9	1140	6149	0.375	1.087	0.07535	HD	94.1	85.6	82.5	73.9	23.1
S	24	12	1140	6010	0.375	0.988	0.07535	HB	96.1	85.9	84.5	74.3	24.5
A	24	8.5	1140	6002	0.375	1.043	0.07535	HD	94.1	85.7	82.5	74	23.1
S	24	11.5	1140	5770	0.375	0.921	0.07555	HD	97.7	85.6	86.1	74	24.4
A	24	8	1140	5744	0.375	0.965	0.07535	HD	91.8	83.9	80.2	72.3	20.5
Y	24	12	1140	5679	0.375	1.31	0.07535	SD	93.3	87.4	81.6	75.8	24
S	24	11	1140	5527	0.375	0.857	0.07535	SD	97.6	85.7	86	74	24.4
γ	24	11.5	1140	5479	0.375	1.225	0.07535	SD	93.4	87.5	81.8	75.8	24.2
S	24	10.5	1140	5347	0.375	0.826	0.07535	SD	95.8	85.3	84.2	73.7	23.3
S	24	9.5	1140	5330	0.375	0.766	0.07535	SD	95.1	85.2	83.5	73.6	23.1
A	24	7.5	1140	5325	0.375	0.85	0.07535	SD	91.9	84.1	80.3	72.5	20.7
γ	24	11	1140	5277	0.375	1.144	0.07535	SD	93.6	87.6	82	75.9	24.3
MS	24	12	1140	5241	0.375	0.978	0.07535	HD	95.6	86.6	84	75	24.3
Х	24	12	1140	5162	0.375	1	0.07535	SD	93.8	85.4	82.1	73.7	22.5
Υ	24	10.5	1140	5108	0.375	1.037	0.07535	SD	93.5	87	81.8	75.4	23.6
А	24	7	1140	5094	0.375	0.779	0.07535	SD	92.1	84.3	80.5	72.7	20.9
S	24	10	1140	5072	0.375	0.769	0.07535	SD	95.8	85.5	84.2	73.8	23.5

You may reorder the list by clicking on the column headings. For instance, if you wanted to reorder the list by Sound Pressure, you could do so by clicking here.

6. After selecting the desired fan (from above) the fan curve, construction limits, and fan data will be displayed as seen below. From here you may move on to pricing (if you have been set up as such), create a drawing, or save and return to the LINES or SCHEDULE of fans under the PROJECT.

You must select SAVE if you are NOT going on to PRICING or creating a DRAWING or your fan selection will not be saved.

xial Fa	an Sele	ection										Airt	CRBDVD IRBDV ELLER CO
Mome 🚯	Dashi	boards 🧃 M	ly Projects	👗 Admir	listration 🗸	🚽 Sign O	ut						
an Curve	e												
Tag:	Tower F	an North				1.6 -						F 25	
Propeller Desi	ignation: /	A-24-12.5				01.4 01.2	1					2	
This screen all or a chosen fai	lows you to cha n.	nge operating points	5			U 1 20.8		\searrow				1.5 Wer 1 (H	
Fan Speed:	1140		RPM			0.6 20.6 80.4						0.5	
an Diameter:	24		in.			0.2		+ -				S	
Ir Density:	0.07535		lbm/cu.ft			1000 20	00 3000	Flow R	late (CF	1000 700 M)	0 800	0 9000	
Calculation Distance:	5.0		π.			[- Selec	ction RPI	M	BHP			
Adjust Deep	meters Ca	alculate						Constr	ruction	Limits		_	
Aujust Paran									2.5	3.5	Нр	_	
Aujust Paran		_					Power	1.7					
Aujust Parar		_					Power Speed	1.7	1300	1510	RPM	_	
Rojust Paran	ssure (in.wg)	Flow Rate (CFM)	Power Hp	Static Eff. %	Total Eff. %	Sound Power	Power Speed Sound Pov	1.7 1140 ver Weig	1300 hted	1510 Sound Pr	RPM	Sound Pressure Weighted	Sones Rati
t. Static Pres	ssure (in.wg) 0 0.125	Flow Rate (CFM) 8523 9272	Power Hp 1.507	Static Eff. %	Total Eff. %	Sound Power 97.8	Power Speed Sound Pov	1.7 1140 ver Weigi 89.3	1300 hted	1510 Sound Pro 86. or	RPM essure 2	Sound Pressure Weighted	Sones Rati
t. Static Pres	ssure (n.wg) 0 0.125 0.250	Flow Rate (CFM) 8523 8273 7940	Power Hp 1.507 1.545 1.595	Static Eff. % 0 11 20	Total Eff. % 38 44 48	Sound Power 97.8 96.9 96	Power Speed Sound Pow	1.7 1140 ver Weigi 89.3 88.8 88.8 88.8	1300 hted	1510 Sound Pro 86. 85. 84	RPM essure 2 2	Sound Pressure Weighted 77.7 77.2 76.8	Sones Rati 28.5 27.6 26.8
t. Static Pres	ssure (in.wg) 0 0.125 0.250 0.375	Flow Rate (CFM) 8523 8273 7940 7563	Power Hp 1.507 1.545 1.596 1.661	Static Eff. % 0 11 20 27	Total Eff. % 38 44 48 51	Sound Power 97.8 96.9 96 95.7	Power Speed Sound Pov	1.7 1140 89.3 88.8 88.5 88.2	1300 hted	1510 Sound Pr 86. 85. 84. 84. 84.	RPM essure 2 2 3 1	Sound Pressure Weighted 77.7 77.2 76.8 76.6	Sones Rati 28.5 27.6 26.8 26.5
t. Static Pres	ssure (in.wg) 0 0.125 0.250 0.375 0.500	Flow Rate (CFM) 8523 8273 7940 7563 7141	Power Hp 1507 1545 1596 1661 1761	Static Eff. % 0 11 20 27 32	Total Eff. % 38 44 48 51 51	Sound Power 97.8 96.9 96 95.7 95.7	Power Speed Sound Pov	1.7 1140 89.3 88.8 88.5 88.2 88.1	1300 hted	1510 Sound Pr 86. 85. 84. 84. 84. 84. 84.	RPM essure 2 2 3 1	Sound Pressure Weighted 77.7 77.2 76.8 76.6 76.4	Sones Rati 28.5 27.6 26.8 26.5 26.3
t. Static Pre	ssure (n.wg) 0 0.125 0.250 0.375 0.500 0.625	Flow Rate (CFM) 8523 8273 7940 7563 7141 6526	Power Hp 1507 1545 1596 1661 1761 1858	Static Eff. % 0 11 20 27 32 35	Total Eff. 96 28 44 48 51 51 48	Sound Power 97.8 96.9 96 95.7 95.7 95.8	Power Speed Sound Pov	1.7 1140 89.3 88.8 88.5 88.2 88.1 87.9	1300 hted	1510 Sound Pro 86. 85. 84. 84. 84. 84. 84.	RPM essure 2 2 3 1 1	Sound Pressure Weighted 77.7 77.2 76.8 76.6 76.4 76.2	Sones Rati 28.5 27.6 26.8 26.5 26.3 26.2
t. Static Pre	ssure (n.wg) 0 0.125 0.250 0.375 0.500 0.625 0.750	Flow Rate (CFM) 8523 8273 7940 7563 7141 6526 5331	Power Hp 1507 1545 1596 1661 1761 1858 1869	Static Eff. % 0 11 20 27 32 35 34	Total Eff. % 38 44 48 51 51 51 48 41	Sound Power 97.8 96.9 96 95.7 95.7 95.8 96.1	Power Speed Sound Pov	1.7 1140 89.3 88.8 88.5 88.2 88.1 87.9 88.1	1300 hted	1510 Sound Pr 86. 85. 84. 84. 84. 84. 84.	RPM 2 2 3 1 1 4 1 4	Sound Pressure Weighted 77.7 77.2 76.8 76.6 76.4 76.2 76.5	Sones Rati 28.5 27.6 26.8 26.5 26.3 26.2 26.2 26.2
t. Static Pre	ssure (n.wg) 0 0.125 0.250 0.375 0.500 0.625 0.750 0.875	Flow Rate (CFM) 8523 8273 7940 7563 7141 6526 5331 4494	Power Hp 1507 1545 1596 1661 1761 1859 1869 1933	Static Eff. % 0 11 20 27 32 35 34 32	Total Eff. % 38 44 48 51 51 51 48 41 36	Sound Power 95.9 96.9 95.7 95.7 95.8 96.1 96.6	Power Speed Sound Pov	1.7 1140 89.3 88.8 88.5 88.2 88.1 87.9 88.1 88.9	1300 hted	1510 Sound Pn 86. 85. 84. 84. 84. 84. 84. 84. 84. 85.	RPM 22 23 11 4 5	Sound Pressure Weighted 77.7 77.2 76.8 76.6 76.4 76.5 76.5 77.3	Sones Rati 28.5 27.6 26.8 26.5 26.3 26.2 26.6 27.7
t. Static Pres	ssure (n.wg) 0 0.125 0.250 0.375 0.500 0.625 0.750 0.875 1.000	Flow Rate (CFM) 8523 8273 7940 7563 7141 6526 5331 4494 4126	Power Hp 1507 1545 1596 1661 1761 1858 1869 1933 2.045	Static Eff. % 0 11 20 27 32 35 34 32 32 32	Total Eff. % 38 44 48 51 51 48 41 36 25	Sound Power 97.8 96.9 95.7 95.7 95.8 96.1 96.6 97.2	Power Speed Sound Pov	1.7 1140 89.3 88.8 88.5 88.2 88.1 87.9 88.1 88.9 88.9 89.8	1300 htad	1510 Sound Pro 86. 85. 84. 84. 84. 84. 84. 85. 85.	RPM 22 23 11 14 5 6	Sound Pressure Weighted 77.7 77.2 76.6 76.6 76.4 76.2 76.5 77.3 78.2	Sonas Rati 28.5 27.6 26.8 26.5 26.3 26.2 26.6 27.7 29.2
at. Static Pres D D D D D D D D D D D	ssure (n.wg) 0 0.125 0.250 0.375 0.500 0.625 0.750 0.875 1.000 1.125	Flow Rate (CFM) 8523 8273 7940 7563 7141 6526 5331 4494 4126 3572	Power Hp 1.507 1.545 1.596 1.661 1.761 1.859 1.969 1.933 2.045 2.119	Static Eff. % 0 11 20 27 32 35 34 32 32 32 32 30	Total Eff. % 28 44 51 51 48 41 36 35 32 22	Sound Power 97.8 96.9 95.7 95.7 95.7 95.8 96.1 96.6 97.2 97.9	Power Speed Sound Pov	1.7 1140 89.3 88.8 88.5 88.2 88.1 87.9 88.1 88.9 89.8 90.7	1300 hted	Sound Pri 86. 85. 84. 84. 84. 84. 84. 85. 85. 85. 85. 86.	RPM essure 2 2 3 1 1 4 6 6 2	Sound Pressure Weighted 77.7 77.2 76.8 76.6 76.4 76.2 76.5 77.3 78.2 79.1	Sones Rati 28.5 27.6 26.8 26.5 26.3 26.5 26.3 26.2 26.6 27.7 29.2 30.8
Aujust Petra at. Static Pre- D D D D D D D D D D D D D D D D	ssure (n.wg) 0 0.125 0.250 0.375 0.500 0.625 0.750 0.875 1.000 1.125 1.250	Flow Rate (CFM) 8523 8273 7940 7563 7141 6526 5331 4494 4126 3572 2980 2980	Power Hp 1507 1545 1596 1661 1761 1858 1869 1963 2045 2119 2003	Static Eff. % 0 11 20 27 32 35 34 32 32 32 30 27 20	Total Eff. % 28 44 48 51 51 48 41 36 35 32 22 28	Sound Power 97.8 96.9 95.7 95.7 95.8 96.1 96.6 97.2 97.9 98.1	Power Speed Sound Pov	1.7 1140 ver Weig 89.3 88.8 88.5 88.2 88.1 88.9 88.1 88.9 89.8 90.7 91 01	1300 hted	50und Pro 86. 85. 84. 84. 84. 84. 85. 85. 85. 85. 85. 86. 85. 86. 85.	RPM essure 2 2 3 1 1 4 5 6 2 2 4 4	Sound Pressure Weighted 77.7 77.2 76.8 76.6 76.4 76.2 76.5 77.3 78.2 79.1 79.3 79.3	Sones Rati 28.5 26.8 26.5 26.3 26.2 26.6 27.7 29.2 30.8 31.3
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* All of the above data is based on Air Turbine's testing. When the testing took place, only steel propellers were tested and the data displayed above is for steel props.

Should you require an aluminum prop, you will need to select the next higher duty rating displayed. For instance, if the above selection was made with the intention to purchase an aluminum prop, and the fan would see 3/8" static pressure, when moving on to pricing you would select HD (for heavy duty) rather than SD (for standard duty).

Pricing

You can get to PRICING page one of two ways:

One, from FAN CURVE page (shown on the previous page)



Two, from the PROJECT SCHEDULE page where all of your fan selections are listed for a particular project. You would click on the \$ icon.

					Genera	l.				Perfor	mance						Sound	d	
	↓				Tag Qt	y Style	Diameter (in.)	Pitch Index	Cnst.	Fan RPM	Flow Rate (CFM)	Static Pressure (in.wg)	Fan BHP	Density (Ibm/cu.ft)	Static Eff	Total Eff	Snd Pwr	Snd Pwr (A-Weighted)	So Pre
	\$	0	Q	1	1				ERR-Z	:				0.07535					

In either case you may want to first, return to the PROJECT SCHEDULE page and enter a desired qunaity. This step is not necessary but it is helpful as the fan selection application will use this information to highlight the appropriate quantity level pricing segment. To change the quantity you'll need to return to the PROJECT SCHEDULE and click on the MAGNIFYING GLASS.

Axial Fan	Sele	ction													IR TO BE	BINE LER CO
🖓 Home 🛛 🧗	Dashb	oards	🗍 My Pr	ojects	👗 Ac	lministrati	on 🗸 🏓	Sign	Out				_	_	_	
Project Schedu	le															
Project: Cooling To	ver 23															
Qty to create 1		Add New	Line(s)													
		General			Perfo	rmance						Sound				
	Т	ag Qty Style	Diameter (in.)	Pitch Index	Cnst. Fan RPM	Flow Rate (CFM)	Static Pressure (in.wg)	Fan BHP	Density (Ibm/cu.ft)	Static Eff	Total Eff	Snd Pwr	Snd Pwr (A-Weighted)	Sound Pressure	Sound Pressure (A-Weighted)	Sones Ratings
🔲 🗟 💲 🔁 🤇	2 🌆	1 A	24	12.5	SD 1140	7563	0.375	1.661	0.07535	27	51	95.7	88.2	84.1	76.6	26.5
																1
Print Schedule	Delete S	Selected													Back to F	Projects

And the following will appear. In this example, I'm changing the 1 to 10 and clicking update.

Axial Fa	an Selection
👫 Home	附 Dashboards 🧃 My Projects န Administra
Edit Line I Project: Cooli	tem Information ng Tower 23
Line ID: Tag:	1618
Quantity:	1
Notes:	
	Update Cancel

You'll return to the PROJECT SCHEDULE and you'll now see that the QUANTITY has changed.

Project Schedul	9														
Project: Cooling Towe	er 23														
	_														
Qty to create 1	Acd New	v Line(s)													
Qty to create 1	Gener I	v Line(s)		P	erformance						Sound				
Qty to create 1	Ac d New Gener I Tag C v Style	v Line(s) Diameter (in.)	Pitch Index	P Inst. F	Fan Flow Flow Flow Flow Flow Flow Flow Flow	ate Static Pressure (in.wg)	Fan BHP	Density (lbm/cu.ft)	Static Eff	Total Eff	Sound Snd Pwr	Snd Pwr (A-Weighted)	Sound Pressure	Sound Pressure (A-Weighted)	Son Ratir

Once you're on the PRICING SCREEN you can then finalize the description and obtain pricing.

Mome	🚺 Dashboards	My Projects	Admini	istration 🗸 🌖 Sign C	Dut
Pricing					
Air Turbine	2012 Price Lis	t i i i i i i i i i i i i i i i i i i i			
Unit Style: Diameter:	A • 24 in.	Bore Size: Bushing: SB 🔻	in.	 Bushing Position: Exhaust Intake 	Options Reversible Plated Bushing
Pitch Index: Construction: Material:	12.5 Standard Duty		ther	Rotation: • CW CCW	 Insert Bushing Single Fan Crating Quick Ship
Part Number:	Dignt Zinc Plater	1			
1	2 to 9 10 to 2	4 25 to 49 50 to 3	Sav 99 1	e and Return to Schedule	Calculate Go Back

Remember to select the next higher Construction Duty Rating when the material is complete or semi-aluminum.

DRAWING

You can also get a sketch of the fan just as you did with the previous version. These drawings are not to scale but do provide accurate dimensions for reference. Not all fans are represented.

You can generate a drawing by accessing this feature from two screens within the fan selection application.

One, from the FAN CURVE page shown below

		ection										Aret	deenve
A Home	Ni Da	thhoards	Ny Projects	8. Admi	nistration w	Nan O							ELPELLER CO.
fan Cur	rve	in boards	in mj riojooto			- Salar or		-		-			
Tag:	Towe	Fan North											
						1.6						2.5	
Propeller D	esignation:	A-24-12.5				212					~	-2	
This screen for a choser	allows you to o tan.	hange operating (ooints			2 1 20.8						1.5 War	
Fan Speed	: 1140		ROM			e.e						1 3	
Fan Diame	ter:					₩0.4 0.2						0.5	
	24		In.			1000 20	00 3000	4000 8	000 6	000 700	0 800	0 9000	
ur Density	. 0.075	35	lbm/cu.ft					Flow F	late (CF	M)			
Calculation Distance:	5.0		۴.			[- Sele	ction RP	M	BHP			
Adjust Pa	arameters	Calculate						Const	ruction	Limits			
							Power	SD 1.7	2.5	3.5	Нр		
							Speed	1140	1300	1510	RPM		
st. Static	Pressure (in.wg) Flow Rate (C	(FM) Power Hp	Static Eff. %	Total Eff. %	Sound Power	Sound Po	wer Weig	hted	Sound Pr	essure	Sound Pressure Weighted	Sones Ratin
D	0 125	8523	1.507	0	38	97.8		89.3		86	2	77.7	28.5
D	0.250	7940	1.596	20	48	96		88.5		85	3	76.8	26.8
D	0.375	7563	1.661	27	51	95.7		88.2		84	1	76.6	26.5
D	0.500	7141	1.761	32	51	95.7		88.1		8		76.4	26.3
D	0.625	6526	1.858	35	48	95.8		87.9		84	1	76.2	26.2
0	0.750	5331	1.869	34	41	96.1		88.1		84	4	76.5	26.6
5	1.000	4494	1.933	32	36	96.6		88.9		8	6	77.3	27.7
5	1.125	4126	2.045	32	33	97.2		00.7		85	2	78.2	28.2
D	1.250	2980	2 203	27	28	98.1		91		86	4	79.3	31.2
D	1.375	2404	2,315	22	23	98.1		91		86	4	79.3	31.3
D	1.500	1941	2.422	19	19	98.1		91		86	4	79.3	31.3
enormance (xoustic Data	Data From: From:	A-24-12 A-24-13					Ca	iculate Pi	loing	Select	Drawing	Save and Return to Sche	dule Bac

Two, from the PRICING page you can access the drawing feature as well.

Axial Fan S	Sele	cti	on													ł	IR TOR	ANE CO
🛞 Home 👔	Dasht	boards		🗿 My Pr	ojects	18	Ad	ministratio	an - 🔎	Sign	Out							
roject Schedu roject Cooline To Qty to create 1	ule wer 23	Ad	id Nev	v Line(s)														
		Genera	d.				Perfor	mance						Sound				
		Tag Qt	ty Style	Diameter (in.)	Pitch Index	Cnst.	Fan RPM	Flow Rate (CFM)	Static Pressure (in.wg)	Fan BHP	Density (Ibm/cu.ft)	Static Eff	Total Eff	Snd Pwr	Snd Pwr (A-Weighted)	Sound Pressure	Sound Pressure (A-Weighted)	Sones Rating
	2 34	1	A	24	12.5	SD	1140	7563	0.375	1.661	0.07535	27	51	95.7	88.2	84.1	76.6	26.5

In either case, you will be taken to the following screen.

Axial Fan Selection	Administration ~ Sign Out
Drawing Selector	
Style: S Construction Gauge: Diameter: 10 Standard Duty Heavy Duty Extra Heavy Duty Pitch Index: 5 Bushing Position: Rotation: CW Intake 	Material: Carbon Steel Finish: Painted Bushing: Bore: SB View Drawing Save and Return to Schedule Go Back
	This feature has some limitations and may not produce a drawing. If you have any questions, please contact an Air Turbine Propeller representative.
	powered by

Once you've completed the information above, click on VIEW DRAWING to see the sketch. You may need to allow popups for this to occur. Below is an example.



The DRAWING that is displayed in the popup does not have the footer with the title block containing values for the variables on the drawing.

When you run the REPORT, it will display these dimensions. See the example below.

Note: Always remember to SAVE your work when navigating away from the screen you are on.



REPORTS - This release of our Fan Selection Software offers the ability to generate and save reports as well. To do so, you will click on the REPORT icon below from the PROJECT SCHEDULE screen.

Axial Fan Se	lection												IR TORE	LER CO.
👫 Home 🛚 🚺 Da	hboards 🧊	My Projects	&	Administratio	n v	Sign	Out							
Project Schedule Project: Cooling Tower Qty to create 1	23 Add New L	.ine(s)												
	General		Per	formance						Sound				
	Tag Qty Style D	liameter Pitch (in.) Index	Inst. RP	an Flow Rate PM (CFM)	Static Pressure (in.wg)	Fan BHP	Density (Ibm/cu.ft)	Static Eff	Total Eff	Snd Pwr	Snd Pwr (A-Weighted)	Sound Pressure	Sound Pressure (A-Weighted)	Sones Ratings
	🎉 10 A	24 12.5	SD 11	40 7563	0.375	1.661	0.07535	27	51	95.7	88.2	84.1	76.6	26.5 1
Print Schedule Del	ete Selected												Back to F	Projects

After doing so, the box below will appear and prompt you to select the reports you desire. Once generated, you can elect to save them as a PDF, Excel or Word document.



When the report generate you must use the arrows at the top of the page to scroll through the pages if there is more than one.

14 4 1 of	Find Next 😽 😮	
Performance	Drawings	Ant The
Propeller Designation:	S-20-11 SD	TIR LOKBIA
Tag:	S-20-11 HD 5/8" SB, INT- CW, HD, MG&P	
	\square	

Also, to save the REPORT as a PDF, Excel or Word document you must click on the small down arrow next to the icon that resembles a computer disk.

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