DUCTSIZE FEATURES

- Calculates Optimal Air Conditioning Duct Sizes
- Computes round, rectangular & flat oval duct sizes
- Calculates for Both Supply and Return Systems
- Selects Registers and Diffusers from Titus & others
- Calculates Total Duct Section Surface Area & Weight
- Four Sizing Methods Available: Static Regain, Equal Friction, Constant Velocity, & Presize
- Analyzes and Troubleshoots Existing Duct Systems
- Determines Noise Levels and required Attenuation
- Built-in Library of Fan Data for Noise Calculations
- Uses ASHRAE & SMACNA Procedures
- Over 120 ASHRAE Duct Fittings Built-in
- Works with Drawing Board, our simple drawing program for Floor Plans and Duct Layouts
- Allows for all Types of Duct Materials
- Number of Trunks and Runouts is Virtually Unlimited
- Instantaneous Input Error Checking
- No Copy Protection Hassles!
- Works with AutoCAD MEP to create single and double line duct drawings

DUCTSIZE OVERVIEW

The Elite Software DUCTSIZE Program quickly calculates optimal duct sizes using either the static regain, equal friction, or constant velocity method. The calculated duct sizes can be printed on a round, rectangular, and flat oval basis. Grilles, registers, and diffusers from manufacturers such as Titus can also be selected from with DUCTSIZE. Noise levels and required attenuation are printed for each runout duct. A library of fan data for noise calculations is built into the program. DUCTSIZE allows unlimited duct sections, and is suitable for both constant volume and VAV systems as diversity is accounted for. DUCTSIZE also has an option for specifying duct height and width constraints to control sizes. The duct dimension constraints can also be used for analyzing problems in existing systems where the duct sizes are already specified. The DUCTSIZE Program is based on the design procedures given in the ASHRAE Handbook of Fundamentals and the SMACNA HVAC Systems Duct Design manual. Important new features include a Project Explorer that provides a tree-style graphical representation of all trunks and runouts in the project. In addition, both supply and return duct systems can be entered in the same project.

TWO VERSIONS AVAILABLE

DUCTSIZE is available in two versions: equal friction and static regain. The static regain version of DUCTSIZE costs $495 and it provides four sizing methods: static regain, equal friction, constant velocity and presize. The equal friction version of the program costs $295, and it provides all methods of sizing except the static regain method. A functional demo of DUCTSIZE complete with manual costs $35 plus shipping, and it provides all three methods of sizing as does the full version, but it limits the duct systems to only 8 trunks and 8 runouts. The demo can be "unlocked" if you decide to license the full program. $35 of the demo price can be credited to the full purchase price. The functional demonstration version of DUCTSIZE (without manual) may also be downloaded free of charge from Elite’s web site, www.elitesoft.com.

CALCULATION METHOD

The DUCTSIZE Program is based on the design procedures of the ASHRAE Handbook of Fundamentals, the ASHRAE Duct Fitting Database, and the SMACNA HVAC Systems Duct Design manual. The DUCTSIZE user manual gives detailed information on the equations used, and explains how to manually verify program results.

PROGRAM INPUT

The DUCTSIZE program can run stand alone using standard Windows data entry procedures in a simple “fill in the blank” approach or it can obtain the necessary input data from a drawing created with Elite’s own Drawing Board program or from the AutoCAD MEP cad package. Drawing Board is built right into DUCTSIZE and can be “unlocked” for an additional charge at any time desired. Extensive help information is provided for all input data. Four types of data are requested: general project data, system and fan data, trunk data, and runout data. The general project data includes the project name, location, client name, duct material, desired sizing method, and more. The fan system data includes the fan type, minimum and maximum allowable air velocities, desired noise levels and more. Trunk and runout data includes such information as duct length, connection numbers, material type, insulation R-values, fitting types and quantities, runout cfm values, velocity constraints and any duct height and width constraints.

SYSTEM REQUIREMENTS

DUCTSIZE will run on computers with Windows 2000 or higher including Windows 7.
The DUCTSIZE program provides both input and output data reports. The input reports provide a title page, general project data, trunk and runout input data and overall system data. The output reports include trunk and runout duct calculations, a sound analysis, and a system summary report. The trunk and runout data lists all data needed to manually verify the sizing results. Printed for each duct section are size, air cfm, velocity, all fitting names and loss coefficients, friction loss, dynamic loss and total pressure loss. In addition, the velocity, static and total pressure are printed both on a cumulative basis and on a per duct section basis. The runout duct where the greatest total system static pressure loss occurs is clearly identified. DUCTSIZE’s comprehensive color reports can be printed, previewed on screen, saved to disk or created as a pdf file for emailing purposes.

DUCTSIZE also works with AutoCAD MEP and Elite’s Drawing Board program, our easy-to-use drawing tool for creating floor plans and duct layouts.

<table>
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<th>Runout</th>
<th>Duct Size</th>
<th>Length</th>
<th>Branch</th>
<th>Fitting</th>
<th>Velocity</th>
<th>Static Pressure</th>
<th>Total Pressure</th>
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</table>

Duct size and layout information can be shared with AutoCAD MEP and Drawing Board for detailed visualization and planning.

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