



Version History

Version 6.00.05 (4/5/16)

- Added CD11-4, Straight Duct, Round, Constant Equal Friction
- Added CD11-3, Straight Duct, Round, Velocity Limited
- Added CD3-22, Elbow, Flexible, $r/D=1.0$
- Added CD3-23, Elbow, Flexible, $r/D=1.5$
- ED5-2: Cs text table not correctly copied going from V6.00.04 to V6.00.05.
- ER2-2: Fixed equations.
- SD5-3: Fixed *.mdb table to agree with Text File.
- CD3-3: *.mdb Table missing: Added (same as Text File)
- CD3-5: *.mdb Table missing: Added (same as Text File)
- SR4-3 input range increased.(D1, Ho, Wo, L)
- ER4-3 input range increased.(D1, Ho, Wo, L)
- CR3-17 input range increased.(W, H, L)
- CR9-3 input range increased.(H, W)

Version 6.00.04 12/1/14)

- CD11-1 & CR11-1: Add dropdown list for Absolute Roughness.
- CD11-2 (Straight Duct, Flexible) updated to 2013 Handbook, Equations 22 & 23, page 21.6.
- ED5-5 (Bullhead Tee with Vanes) removed because loss coefficients may have errors.
- SF4-1 (Transition, Flat Oval, Converging) added.
- EF4-1 (Transition, Flat Oval, Converging) added.
- SF5-1 (Tee, Flat Oval, Supply System), added.
- SF5-3 (Lateral, Flat Oval, Supply System) added.
- EF5-1 (Tee, Flat Oval, Return/Exhaust System) updated.
- EF5-3 (Lateral, Flat Oval, Return/Exhaust System) updated.
- EF5-2 (Tee, Flat Oval, Conical Body Branch, Converging) removed because no data exists.
- EF5-4 (Wye, Flat Oval, 45 Degrees, Conical Body Branch, Converging) removed because no data exists.

Version 6.00.03 (8/21/14)

- Fix an issue of using a comma in place of a decimal in the Regional Settings. This was affecting International Users.

Version 6.00.01 (6/1/12)

- Moved table data from a text file to a database.

Version 6.00.00 (11/15/11)

- Added enhanced Properties view for fittings.

Version 5.00.10 (04/01/10)

- Air Properties> error corrected. Density of dry air calculated correctly. Default value for standard air calculated correctly. The density of moist air was not correctly calculated.

- CD11-2: Flexible Duct: Changed Max size from 10" (250 mm) to 16" (400 mm). Previous revision updated equation to that in the 2009 Handbook.
- SD5-25: Fixed Cs table. One column was not in alignment.
- ED5-3:
 - a. Under Output, Branch: Changed Main Pressure Loss to Branch Pressure Loss
 - b. Under Output, Main: Changed Branch Pressure Loss to Main Pressure Loss

Version 5.00.08 (06/08/09)

- Added Brazil regional settings. This setting uses a different number format from the U.S.

Version 5.00.06 (01/28/09)

- CD11-2: Flexible Duct: (1) Changed equation to be in agreement with the 2009 Handbook, Duct Design chapter, Equation 22. (2) Change minimum diameter from 4" (100 mm) to 6" (150 mm). Revision 5.00.10 updated maximum size so that the size range of flexible duct agrees with the basis of the equation.
- Following fittings have been removed.
 - SR5-16 (not practical): Symmetrical Wye, 30°, Diverging
 - CR3-19 (lacks data): Elbows, Four 45° Smooth Radius Elbows, Arranged to Avoid an Obstruction
- Following fittings have been added.
 - CR3-17: Z-shaped Mitered Elbows (previously removed, now retained)
 - CF3-1: Flat Oval Elbow, 5 Gore, Easy Bend, 90 Deg.
 - CF3-2: Flat Oval Elbow, 5 Gore, Hard Bend, 90 Deg.
 - CF3-3: Flat Oval Elbow, Mitered, Easy Bend (No Vanes), 90 Deg.
 - CF3-4: Flat Oval Elbow, Mitered, Hard Bend (No Vanes), 90 Deg.
 - CF3-5: Flat Oval Elbow, Mitered, Easy Bend with Vanes, 90 Deg.
 - CF3-6: Flat Oval Elbow, Mitered, Hard Bend with Vanes, 90 Deg.
- Following fittings (transitions) have new data files. Change angle from 10° - 180° to 0° to 180°.
 - ED4-1: ED4-2
 - SD4-1: SD4-2
 - ER4-1: ER4-2, ER4-3
 - SR4-1: SR4-2, SR4-3
- Following fittings (dampers) have new data files. Reference "Zolotov (1967)" removed and min. & max. sizes changed to that available from United McGill Corp. and Ruskin Mfg. Co.
 - CD9-1, CR9-1
- Following fittings (Fire Dampers) have been added. Min. and max. sizes from Ruskin Mfg. Co.
 - CR9-8: Fire Damper, Curtain Type, Style A, Vertical Duct
 - CR9-9: Fire Damper, Curtain Type, Style B, Vertical Duct
 - CR9-10: Fire Damper, Curtain Type, Style C, Vertical Duct
 - CD9-4: Fire Damper, Curtain Type, Style C, Vertical Duct
- Following fittings (Bellmouth) have been added. Min. and max. sizes from Spiral Fittings, Inc
 - ED1-8 Bellmouth, Short Radius
 - ED1-3 Bellmouth (Standard Radius), with Wall
- Increased angle to 180° for the following fittings:
 - ED1-4: Conical Bellmouth/Sudden Contraction
 - ED1-5: Conical Bellmouth/Sudden Contraction, with Wall
- Following data files revised
 - SR1-1: Conical Bellmouth/Sudden Contraction, Plenum to Rectangular, Supply Air Systems
 - SD1-1: Bellmouth (Standard Radius), Plenum to Round, Supply Air Systems
 - CD6-1: Input: (1) Changed A_1/A_0 to D_1 and A_1/A_0 is calculated. (2) Increased open area from 0.3-1.0 to 0.05-1.
 - CD6-2: Increased open area from 0.2-1.0 to 0.02-1.
 - CD6-3: Increased y/D offset from 0-0.4 to 0-0.5.

CR6-1: Increased open area from 0.3-1.0 to 0.05-1.
 CR6-2: Increased open area from 0.2-1.0 to 0.02-1.
 CR6-3: Increased L/Dh ratio from 0-5 to 0-10.
 CR6-4: Increased y/D offset from 0-0.4 to 0-0.5.
 CD8-1 to CD8-8: Min/max size changed to 12" (300 mm) / 60" (1500 mm); Descriptive table provided to help select a round silencer (Pending).
 CR8-1 to CR8-4: Min/max size changed to match available sizes; Descriptive table provided to help select a rectangular silencer (Pending).

- Change all maximum sizes per Table 1, except the following:
 1. CD3-1 (Die Stamped Elbow): 250 mm (10")
 2. CD3-2 (Die Stamped Elbow): 250 mm (10")
 3. CD3-3 (Die Stamped Elbow): 250 mm (10")
 4. CD3-4 (Die Stamped Elbow): 250 mm (10")
 5. CD3-5 (Pleated): 400mm (16")
 6. CD3-7 (Pleated): 400mm (16")
 7. CD3-9 (5-Gore Elbow): 1500 mm (60")
 8. CD3-10 (7-Gore Elbow): 1500 mm (60")
 9. CD3-11 (Flat-Back): 1200 mm (48")
 10. CD3-12 (3-Gore Elbow): 1500 mm (60")
 11. CD3-13 (3-Gore Elbow): 1500 mm (60")
 12. CD3-14 (3-Gore 45° Elbow): 1500 mm (60")
 13. CD3-15 (Mitered Elbow): 1500 mm (60")
 14. CD3-16 (Mitered 60° Elbow): 1500 mm (60")
 15. CD3-17 (Mitered 45° Elbow): 1500 mm (60")
 16. CD3-18 (Mitered 30° Elbow): 1500 mm (60")
 17. CD3-19 (Mitered 22.5° Elbow): 1500 mm (60")
 18. CD3-20 (Mitered w/vanes): 1500 mm (60")
 19. CD3-21 (5-Gore, r/D=1.0 Elbow): 1500 mm (60")
 20. CD9-1 (Butterfly Damper): 500 mm (20")
 21. CD9-2 (Gate Damper): 500 mm (20")
 22. CD9-4 (Fire Damper): 2159 mm (85")
 23. CR9-1 (Butterfly Damper): 300 mm (12") H x 600 mm (24") W
 24. CR9-5 (Fire Damper): 2286 mm (90") W x 1829 mm (72") H
 25. CR9-6 (Fire Damper): 2286 mm (90") W x 1753 mm (69") H
 26. CR9-7 (Fire Damper): 2235 mm (88") W x 1727 mm (68") H
 27. CR9-8 (Fire Damper): 914 mm (36") W x 1219 mm (48") H
 28. CR9-9 (Fire Damper): 914 mm (36") W x 1067 mm (42") H
 29. CR9-10 (Fire Damper): 864 mm (34") W x 1067 mm (42") H
 30. ED1-2 (Bellmouth, Standard Radius): 1200 mm (48")
 31. ED1-3 (Bellmouth, With Wall): 1200 mm (48")
 32. ED1-8 (Bellmouth, Short Radius): 2150 mm (86")
 33. SD1-1 (Bellmouth, Standard Radius, Plenum to Round, Supply Air Systems): 1200 mm (48")
- Change all minimum duct sizes per Table 1, except the following:
 1. CD3-5 (Pleated): 100 mm (4")
 2. CD3-7 (Pleated): 100 mm (4")
 3. CD9-1 (Butterfly Damper): 100 mm (4")
 4. CD9-4 (Fire Damper): 76 mm (3")
 5. CR9-1 (Butterfly Damper): 100 mm (4") H x 125 mm (5") W.

6. CR9-5 (Fire Damper): 102 mm (4") W x 102 mm (4") H
7. CR9-6 (Fire Damper): 102 mm (4") W x 102 mm (4") H
8. CR9-7 (Fire Damper): 102 mm (4") W x 76 mm (3") H
9. CR9-8 (Fire Damper): 152 mm (6") W x 152 mm (6") H
10. CR9-9 (Fire Damper): 152 mm (6") W x 102 mm (4") H
11. CR9-10 (Fire Damper): 152 mm (6") W x 102 mm (4") H
12. ED1-2 (Bellmouth, Standard Radius): 100 mm (4")
13. ED1-3 (Bellmouth, with Wall): 100 mm (4")
14. ED1-8 (Bellmouth, Short Radius): 150 mm (6")
15. SD1-1 (Bellmouth, Standard Radius, Plenum to Round, Supply Air Systems): 100 mm (4")

Table 1		
	Minimum, in. (mm)	Maximum, in. (mm)
Rectangular	3 (75)	156 (4000)
Round:	3 (75)	120 (3000)
Flat Oval:		
Major Axis	7 (175)	140 (3500)
Minor Axis	3 (70)	40 (1000)
Fans:		
Tubeaxial	12 (300)	120 (3000)
Vaneaxial	12 (300)	120 (3000)
Fan, Centrifugal:		
Inlet (ER7 Series)	13 x 13 (325 x 325)	120 x 120 (3000 x 3000)
Inlet (Round)	13 (325)	104 (2600)
Outlet	9 W x 13 H (225 x 325)	78 W x 104 H (1950 x 2600)

Version 5.00.05 (10/01/08)

- Fixed an issue when a project file was output to a PDF file.
- Corrected an issue for friction factor.

Version 5.00.00 (03/24/08)

- Added Network functionality to the program. Created the ability to install to a server and run multiple copies from this area.
- Added an 'Export' feature. This feature will export the Table coefficients to the Windows clipboard which allows pasting into another program. We use Tab delimited vales as spacing between the values. This makes it easy to paste in Microsoft Excel.
- Corrected 'Out of Table Range' error message box.
- Added Version History document to <Help> menu.