|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ACCA Manual Q Duct Design Pressure Loss Table** | | | | | | | | | | | | | | | |
|  | A | B | C | | D | E | F | G | H | I | J | K | L | M | N |
| Duct Run | Section | Component | | CFM | f/100 | Velocity  fpm | Velocity  Pressure\* | Loss  Coef. | Dia. | Non-Round Size | Duct Material  Correction | Loss Item | Loss for Section | Total Loss |
| Ft. | Item |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 33 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \*Velocity Pressure (fpm) = [velocity ÷ 4005 × (air correction factor when needed)]2  Note: for Wye fittings the rectangular listed in non-round column J is the outlet side. | | | | | | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Zone 2 Maria’s Restaurant Duct Design | | | | | | | | | | | | | | | |
|  | A | B | C | | D | E | F | G | H | I | J | K | L | M | N |
| Duct Run | Section | Component | | CFM | f/100 | Velocity  fpm | Velocity  Pressure\* | Loss  Coef. | Dia. | Non-Round Size | Duct Material  Correction | Loss Item | Loss for Section | Total Loss |
| Ft. | Item |
| 1 | Casing | A1 | - | OB Damp | 3,200 | - | 823 | - | - | - | - | - | 0.015 |  |  |
| 2 |  | A2 | - | Filter | 3,200 | - | 400 | - | - | - | - | - | 0.100 |  |  |
| 3 |  | A3 | - | Coil | 3,200 | - |  | - | - | - | - | - | 0.350 | 0.465 | 0.465 |
| 4 | Supply Fan | A4 | - | Inlet | 3,200 | - | 500 | - | 0 | - | - | - | 0 |  |  |
| 5 |  |  | - | Outlet | 3,200 | - | 823 | - | 0 | - | - | - | 0 | 0 | 0.465 |
| 6 | B to H | BH | - | Man Q  Table A5-4 | 3,200 | - | 823 | - | - | - | - | - | 0 |  |  |
| 7 |  | BC | 4 | Straight | 3,200 | 0.045 | 823 | - | - | 26 | 28×20 | - | 0.0018 |  |  |
| 8 |  | C |  | Wye@90 | 3,200/2,670 | - | 860 | 0.638 | 0 | 26/24 | 28×17 | - | 0 |  |  |
| 9 |  | CD | 3 | Straight | 2,670 | 0.045 | 840 | - | - | 24 | 28×17 | - | 0.0014 |  |  |
| 10 |  | D |  | Wye@90 | 2,670/2,140 | - | 840 | 0.286 | 0 | 24/22 | 28×15 | - | 0 |  |  |
| 11 |  | DE | 2 | Straight | 2,140 | 0.045 | 840 | - | - | 22 | 28×15 | - | 0.0009 |  |  |
| 12 |  | E | - | Wye@90 | 2,140/1,610 | - | 780 | 0.161 | 0 | 22/20 | 22×15 | - | 0 |  |  |
| 13 |  | EF | 3 | Straight | 2,550 | - | 780 | - | - | 20 | 22×15 | - | 0.0014 |  |  |
| 14 |  | F | - | Wye@90 | 1,610/1,080 | - | 700 | 0.024 | 0 | 20/17 | 22×11 | - | 0 |  |  |
| 15 |  | FG | 3 | Straight | 2,040 | 0.045 | 700 | - | - | 17 | 22×11 | - | 0.0014 |  |  |
| 16 |  | G | - | Wye@90 | 1,080/550 | - | 600 | 0.019 | 0 | 17/13 | 22×7 | - | 0 |  |  |
| 17 |  | GH | 4 | Straight | 550 | 0.045 | 600 | - | - | 13 | 22×7 | - | 0.0018 |  |  |
| 20 |  |  |  | SR 3V 90 | 550 | - | 518 | 0.0167 | 0.01 | 13 | 22×7 | - | 0.0002 |  |  |
| 17 |  |  | 10 | Straight | 550 | 0.045 | 518 | - | - | 13 | 22×7 | - | 0.0045 |  |  |
| 18 |  | H |  | Diffuser\*\* | 550 | - | 550 |  | 0 | - |  | - | 0.025 | 0.0384 | 0.503 |
| \*Velocity Pressure (fpm) = [velocity ÷ 4005 × (air correction factor when needed)]2 Note: no air correction factor needed for Maria’s location.  Diffuser Item loss from OEM Chart | | | | | | | | | | | | | | | |