INDEX

HEATING VENTILATING AIR CONDITIONING

GUIDE 1956

Technical Data Section

Chapters 1–53 and Pages 1–1176

A

Abatement
  air pollution, 151, 154
  smoke, 8, 155, 332

Abbreviations, 11
Absolute
  humidity, 5
  pressure, 7
  temperature, 9, 30
  zero, 1, 9
Absorbent, 885, 889, 890
  equipment, 891
  process, 890
  temperature, pressure, concentration, 891

Absorbers, 799
  duct, sound, 950
  outlet, 955
  plate cells, 953
  plenum, 955
Absorption systems, 863
Acceleration, 1
Acclimatization, 118
Acoustics, 941
Activated alumina, 886
Activated carbon, 148, 1092
Activated bauxite, 887
Adiabatic, 1
  mixing
    two air streams, 57
  saturation, 60

Adsorbents, 799, 885
  equipment, 888
  process, 887
  temperature, pressure, concentration, 885
Adsorption, odor, vapor, 156, 792
Aerosol, 1, 134, 151

Air
  change measurement, 1158
  change method, 232, 258
  chemical vitiation of, 111, 152, 155
  circulation, 112, 463, 475, 685, 731, 1090
  circulation in dry, 1080
  classification of impurities, 151, 782
    dust, 151, 782
    lint, 151, 782
  cleaner, 151, 781, 1090
    viscous impingement type, 783
  cleaning, 781
  cleaning devices, 781, 799, 800
    charged media, 786
    classification of, 781
    electrostatic, 793
    installation, 790
    maintenance, 789
    performance, 787
    safety requirements, 791
    selection, 789, 793
    testing, 787
    vapor adsorption, 792
  combustion, 357, 358

Air (*continued*)
  conditioning process, 685, 1005
  contaminants, 111, 151, 164, 782, 1041, 1163
  cooled condensers, 872
  coolers, 615, 619
  cooling, tropics, 136
  current measurement, 1157
  dehumidification, 885
  distribution, 463, 475, 701, 703, 1086, 1090, 1100, 1134
    air entrainment, 713
    application of methods, 727, 1090
    balancing the system, 722
    ceiling outlets, 719
    definitions, 701
    design methods, 748
    directional control, 724
    duct approaches to outlets, 465, 723
    entrainment ratios, 713
    flow patterns, 723
    friction chart, 734, 735
    furnace systems, 463, 475
    jet pattern, 715
    long slot, discharge from, 711
    noise level, 717
    outlet location, 476, 477, 720, 726
    outlet performance, 715, 721
    outlets, 704, 718
    perforated panels, 711
    principles, 703
    radial jets, 710
    railway car, 1090
    recommended velocity, 476, 747
    return and exhaust intakes, 726, 958
    return grille, 465, 958
    room air motion, 703, 717
    selection, 720
    smudging, 718
    spread, 702, 704
    standards for, 702
    throw, 709, 715, 716
    vanes, 715, 716
    velocity, 597, 705, 747
    velocity across jets, 706, 707, 709
    velocity profiles, 709
    vertical drop and rise, 716
    volume control, 725, 725
    wall outlets, 476, 718
  duct construction, 755, 1053
  duct design, 478, 731, 746, 757, 1053
  duct friction loss, 731
  dust concentrations, 155, 160, 161
  excess, 340, 354, 358, 387
  filter, 783, 790
  flow measurement, 78, 1152
  flow resistance of coils, 840
  impurities, 113, 151, 782
  infiltration, 227
    causes of, 227
    due to wind pressure, 228
    through walls, 228
  leakage, 229, 231

Air (*continued*)
  moist, 25
  motion, 122
  movement, influence of, 117
  movement, measurement of, 1152, 1156
  outdoor, 113, 685
  physical impurities in, 113, 151, 155, 782
  pollution, 151, 154
    abatement, 155, 336, 1071
  primary, 338, 350, 354
  quantity required, 113, 357, 358, 1091, 1093
  refrigeration cycle, 880
  requirements, 113, 356, 358, 1094
  room motion, 703, 717
  saturated, 1
  secondary, 338, 354, 387
  space conductance, 170, 178
  standard, 1
  sterilization of, 132, 142
  supply and return openings, 464, 465, 476, 715, 726
  supply opening noise, 717, 955
  temperature requirements, 122, 126, 251, 276, 1016–1026, 1101
  thermodynamics of, 23
  unit cleaning devices, 781, 803
  washers, 1, 803
Air change method
  computing infiltration, 230, 265

Air conditioning, 1
  aircraft, 1097
  automobiles in summer, 1095
  central system, 685, 1131
  comfort, 2
  hospitals, 131–148
  humidity, table, 1016
  industrial, 1015
    atmospheric conditions required, 277, 1016–1026
    calculations, 1031
    general requirements, 1015
    problem classification, 1015
    typical applications, 1015
  owning and operating cost, 1005, 1134
  passenger bus, 1094
  processes, 54
    adiabatic mixing, 57
    adiabatic saturation, 60
    cooling, 55
    heating, 54
  railway passenger car, 1089
  residential, 1129
  ship, 1100
  stoker-fired units, 368
  storage systems, 865
  streetcar, 1093
  summer design conditions, 276, 277, 279
  temperature table, 276, 279, 1016
  transportation, 1089
  treatment of disease, 131
  unit, 609