

HEATING VENTILATING AIR CONDITIONING GUIDE 1943

Stoker, stokers (continued)

- overfeed flat grate, 205
- overfeed inclined grate, 207
- sizing and ratings, 213
- underfeed, 849
 - rear cleaning, 207
 - side cleaning, 207
- Storage refrigeration system, 499
- Straight vanes, 593
- Sub-atmospheric systems, 278
- Summer air conditioning system, 395
- Summer comfort, 66
- Superheated steam, 849
- Supply mains, 849
- Supply openings, 596, 590
 - measurement of velocities, 676
 - types of, 596
- Supports, pipe, 353
- Surface
 - condensation, 116
 - conductance, 87, 849
 - coefficients, 100
 - heating, 846
 - extended, 845
 - temperature, 522
 - Suspended unit heater, 428
 - Symbols, 851
 - heat transfer, 87
 - Symbols for drawings, 856
 - ductwork, 857, 858
 - heating, 859
 - heating, 859
 - refrigerating, 860
 - ventilating, 859

T

Table

- air conditioning temperatures and humidities, 720
- altitude, pressure and temperature, 39
- areas flanged fittings, 779
- attenuation between grille and room, 632
- average maximum water main temperatures, 539
- capacity constants
 - blow-through unit heaters, 430
 - draw-through unit heaters, 431
- chimney sizes, 198
- circular equivalents of rectangular ducts, 611
- classification of
 - coals, 173, 175
 - motors, 690
- climatic conditions, 133
- combustible elements and compounds, 166
- conductivity materials, 74, 97
- copper elbow equivalents, 317
- degree days for cities, 232
- design dry- and wet-bulb temperatures, 148
- dryers for evaporation of water, 748
- duct attenuation, 630
- elbow attenuation, 630
- emissivity factors, 79
- explosive properties of anesthetic, 700
- factors influencing drying, 752
- flame temperature data, 168
- free convection factors, 75
- heat gain
 - appliances, 160
 - glass blocks, 157
 - insulated cold pipes, 785

Table (continued)

- heat loss
 - bare copper pipe, 777, 778
 - bare steel pipe, 777
- heat transmission, 75
 - coefficients, 92, 97
- hot water pipe sizes, 316, 317
- humidities, industrial air conditioning, 720
- infiltration through outside doors, 124
- infiltration through windows, 120, 122
- iron elbow equivalents, 317
- minimum outdoor air requirements to remove, odors, 44
- moisture content for materials, 755
- noise levels, 629
- pressure loss
 - refrigerant line, 494
 - water disc meters, 823
- properties of
 - ammonia, 476
 - carbon dioxide, 480
 - dichlorodifluoromethane, 478
 - gaseous fuels, 184
 - methyl chloride, 478
 - monofluorotrichloromethane, 482
 - saturated steam, 24
 - water, 482
- radiating surface
 - copper tubing, 779
 - pipe, 779
- radiation factors, 79
- radiator sizes, 260, 261
- regain of hygroscopic materials, 724
- relation between metabolic rate and activity, 52
- requirements for fuel oil, 182
- return pipe capacities, 294
- sheet metal gages for ducts, 621
- solar radiation, 150, 151
- specific heat of solids, liquids, gases, 861
- state codes, standards or laws
 - air conditioning, 862
 - heating, 862
 - ventilating, 862
- steady-state conduction problems, 82
- steam pipe capacities, 293
- temperatures, industrial air conditioning, 720
- theoretical air requirements, 169
- thermodynamic properties of moist air, 10
- toxicity of gases and vapors, 559
- weight of saturated air, 26
- Tank, tanks
 - expansion, 315
- Tax, pipe, 249
- Temperature, temperatures
 - absolute, 4, 843
 - attic, 135
 - automatic control, 344
 - basement, 137
 - heated, 137
 - unheated, 137
 - British equivalent, 806
 - control for railway passenger cars, 714
 - control service water, 839
 - design wet-bulb, 542
 - design zone map, 134
 - dew-point, 20
 - dry-bulb, 845
 - drying, 753
 - effective, 58, 130, 845
 - ground, 136
 - hazards in treatment of disease, 706
 - humidity, railway cars, 714

ALPHABETICAL INDEX TO TECHNICAL DATA SECTION

Temperature, temperatures (continued)

- industrial, 720
- inside, 129
 - ceilings, high, 130
 - proper level, 130
- mean radiant, 810
- measurement, 669
 - thermocouple, 670
 - thermometers, 669
- outside, 131
- surface, 522
- thermodynamic wet-bulb, 21
- unheated spaces, 135
- water main, 539
- wet-bulb, 850
- Terminology, 843
- Test methods, 669
- Therapy
 - cold, 706
 - fever, 705
 - oxygen, 708
- Therm, 849
- Thermal
 - conductance, 88
 - conduction equation, 72
 - conductivity, 88
 - convection, 72
 - convection equation, 73
 - expansion of pipe, 352
 - interchanges of body, 46
 - radiation equation, 77
 - resistance, 849
 - resistivity, 849
 - steady-state conduction problems, 82
 - transmittance, 88
 - unit conductances for convection, 76
- Thermocouple, 670
- Thermodynamic
 - air and water mixture, 1
 - laws of, 847
 - wet-bulb temperature, 21
- Thermometers, 669
 - alcohol, 669
 - dry-bulb, 69
 - globe, 69, 679, 815
 - Kata, 69, 675
 - mercurial, 669
 - resistance, 671
 - stem correction, 670
- Thermostat, 849
 - elements, 846
 - room, 648
- Thermostatic trap, 286
- Tilting trap, 286
- Time lag through walls and roofs, 155
- Ton day of refrigeration, 849
- Ton of refrigeration, 849
- Total heat 849 (see *Enthalpy*)
- Total pressure, 849
- Tower, towers
 - cooling, design, 546
 - cooling, performance, 553
 - mechanical draft, 546
 - natural draft, 545
 - performance, 552
 - spray cooling, 545
- Tower dryer, 746
- Transmission
 - coefficient, 844
 - heat losses, 127
 - normal heat, 149
 - solar heat, 149

- Transmittance, 88
- Transportation air conditioning, 711
- Trap, traps, 285
 - automatic return, 286
 - bucket, 285
 - float, 285
 - impulse, 286
 - steam, 849
 - thermostatic, 286
 - tilting, 286
- Traveling-grate stoker, 206
- Treatment of disease, 699
- Tube radiator, 849
- Tunnel dryer, 746
- Tunnels, pipe, 334
- Turning vane, 595

U

Ultra-violet light, 45, 560, 702

- Underfeed stoker, 207, 849
- Underground pipe insulation, 789
- Unheated space temperatures, 135

Unit, units, 849

- air cleaners, 563
- air conditioners, 441, 442
 - application, 448
 - cooling, 443
 - dehumidifying, 443
 - filtering, 443
 - heating, 442
 - humidifying, 442
 - ratings, 450
 - types of, 444
 - ventilating, 443
- air coolers, 441, 452
- defrosting, 454
- design, 452
- economics, 455
- performance, 452
- ratings, 454
- types of, 453
- air filters, 563
- British thermal, 843
- direct-indirect heating, 845
- fuel consumptions, 234
- heaters, 426
 - application, 433
 - boiler capacity, 429
 - control, 661
 - direct-fired, 434
 - electric, 795
 - features, 426
 - pipings connections, 429
 - ratings, 427
 - suspended, 428
 - types of, 427
- humidifiers, 440
 - types of, 440
- induction, 415
- noise measurement, 625
- systems, 661
- ventilators, 435
 - air vents, 435
 - applications, 438
 - control, 662
 - ratings, 435
 - window, 439
- Unitary equipment, 425
- definitions, 425