

CONTENTS

SECTION VII. FROZEN FOOD PROCESSING (Concluded)	
41. Frozen Meat Products.....	445
42. Frozen Poultry Products.....	453
43. Ice Cream.....	461
44. Precooked and Prepared Frozen Foods.....	469
SECTION VIII. REFRIGERATED WAREHOUSE PRACTICE	
Chapter 45. Refrigerated Warehouse Practice.....	473
46. Commodity Storage Requirements.....	483
47. Storage of Apples, Pears, Grapes, and Bananas.....	495
48. Citrus Fruit Storage.....	509
49. Storage of Eggs and Egg Products.....	527
50. Storage of Candies, Nuts, Dried Fruits, and Vegetables.....	531
51. Diseases and Deterioration of Products.....	537
52. Supplements to Refrigeration.....	545
53. Locker and Freezer Provisioning Plants.....	551
SECTION IX. REFRIGERATED AND FROZEN FOOD DISTRIBUTION	
Chapter 54. Precooling.....	563
55. Trucks and Trailers.....	569
56. Railway Refrigerator Cars.....	585
57. Marine and Air Transport.....	597
58. Food Service Refrigeration.....	621
59. Retail Food Store Refrigeration.....	631
60. General Commercial Refrigeration.....	637
SECTION X. LOW TEMPERATURE APPLICATIONS	
Chapter 61. Environmental Test Equipment.....	645
62. Cold Treatment of Metals.....	659
63. Properties of Metals at Low Temperatures.....	665
64. Medical Applications.....	671
65. Cryogenics.....	679
SECTION XI. INDUSTRIAL APPLICATIONS OF REFRIGERATION	
Chapter 66. Ice Manufacture.....	701
67. Skating Rinks.....	711
68. Concrete Dams, Sub-Surface Soils, and Foundations.....	719
SECTION XII. REFRIGERANT PIPING SYSTEMS	
Chapter 69. Refrigerant Piping Systems—General.....	727
70. Refrigerant Piping Systems for Refrigerants 12, 22, and 500.....	737
71. Refrigerant Piping Systems for Ammonia.....	765
72. Refrigerant Piping Systems for Multi-Stage Applications.....	781
73. Water and Brine Piping.....	791
SECTION XIII. GENERAL	
Chapter 74. Odor Control.....	799
75. Water Services.....	806
76. Snow Melting.....	831
77. Evaporative Air Cooling.....	843
78. Dehumidification by Sorbent Materials.....	853
79. Owning and Operating Costs.....	859
CATALOG DATA SECTION	
Index to Advertisers.....	•1
Index to Modern Equipment.....	•3
Manufacturers' Catalog Data.....	•7
	•25

INDEX

ASHRAE GUIDE AND DATA BOOK 1962

APPLICATIONS

Technical Data Section

Chapters 1-79 and Pages 1-864

A	Aircraft (continued)	Ammonia piping systems (continued)
Air conditioning	design conditions (continued)	defrosting coils, 778
aircraft, 227, 232	skin temperature, 227, 228	automatic, 775
animals, 319	refrigeration systems, 228, 230	hot gas, 778
caddy manufacture, 379	air cycle, 228, 229	oil in system, 766
cargo compartments, 231	combination, 229, 230	oil receivers, 767
central station systems, 1	vapor-cycle, 229	oil separators, 767
citrus fruit, 620		piping, 767
citrus fruit storage, 520	Air distribution	condenser, 770
dual-duct systems, 9	automobile, 315	crossover connections, 768
fan coil systems, 31	bus, 225	evaporator, 774
heat pump systems, 53	dual duct system, 19	pipe coils, 774
hospitals, 309, 312	food service, 627	receiver, 769
induction unit systems, 20	grapefruit storage, 512, 520	sizing, 768
libraries and museums, 305-308	industrial environment, 246	piping requirements, 765
benefits to exhibits, 306	laboratories, 291	compressor, 767
calculation, 307	lemon storage, 511, 512, 521	fittings, 765
equipment for, 307	libraries, 307	flexibility, 766
maintenance, 308	marine, 237	gasketed joints, 766
system design, 306	multistore buildings, 193, 194	hangers, 766
marine, 233	orange storage, 518	installation, 767
panel-air systems, 45	nozzles, 520	joints, 765
photographic material, 329	refrigeration cars, 592	location, 766
precision manufacturing, 231	residential, 184	material recommended, 765
printing plants, 293-298	stores, small, 188	threaded joints, 765
process and product, 275	supermarkets, 189, 190, 192	union joints, 766
public buildings, 193	test equipment, 645	welded joints, 765
residential systems, 181		regulators, suction pressure, 766
schools, 207	Air transport, 618-619	relief valves, 770
stores, 187	cargo, 617	return, pressurized, 778
surface transportation, 213	carrying capacities, 617	traps, 776
textile processes, 299-304	containers, 618	horizontal suction and hot gas pipe,
	ground handling, 618	777
	perishables, 617, 618	suction, 776
	refrigerant sources, 618-619	vertical suction and coil, 777
		vertical suction and pump, 776
Air cooling, evaporative		valves, 766
(see evaporative air cooling)		control, 766
	Ammonia piping systems, 765	discharge check, 767
Aircraft	air blowers, 774, 775	relief, 770
air conditioning, 227, 232	defrost, 774	solenoid, 766
increased importance of, 227	flooded operation, 775	stop, 766
requirements, 227	piping, 775	
cabin air sources, 228	ammonia liquid, 778	Animal air conditioning, 319
engine driven compressors, 228	recirculation and evaporator piping,	air filters, 327
engine bleed air, 228	778	controlling environments, 322, 326
passenger seat control, 228	recirculation, single stage, 778	controls, 326
cargo compartments, 231, 232	recirculation systems, 778	dairy cattle shelters, 323
animals, 231, 232	ammonia properties, 765	fans, 328
perishable goods, 231	cascade systems, 780	filters, 328
ventilated compartments, 231	compound compression systems, 778	insulation, 325
unventilated compartments, 231	intercoolers, gas and liquid, 779	poultry house ventilation, 323
control systems, 230, 231	two-stage piping, 779	swine cooling, 324
cabin pressure, 231	compressor cooling, 769	swine housing, 323
programmers, 230	condensers, 770-773	swine ventilation, 324
regulators, 230	evaporative, 772	systems in use, 321
selectors, 230	parallel, 771, 773	ventilation, 322, 324
sensing devices, 230	vertical, 772	cooling, summer, 323
temperature control, 230	control, 775	design factors, 324
design conditions, 227	high pressure float, 776	load calculation, 324
ambient temperature, 227	low pressure float, 776	insulation, 324
	defrost, air blower, 774	