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THEORY AND PRACTICE OF VACUUM TECHNOLOGY

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Theory and Practice of Vacuum Technology

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In order to achieve uniformity of presentation, all contributions have been more or less revised by the editors

Preface

This book is the English translation of the fourth (1988) Edition of the German Book „Theorie und Praxis der Vakuumtechnik". The need for an English version to be also available arose as soon as it became evident (e.g. from sales figures) that the comprehensive book on the subject – which has proved to fulfil so accurately current needs – was well accepted internationally by scientists and engineers working in the field. As a result the book quickly became the standard work of reference.

As already stated in the first German edition the aim of this book is to present as comprehensively as possible the field of vacuum technology in the production of vacuum, its measurement and the maintaining of low pressures and related methods.

This book is directed to all those who are dealing with experiments, processes and other work where vacuum is involved. Theoretical principles and practical requirements are covered in equal depth. This is well supported by a large number of numerical examples, an unusual though very helpful feature.

In the course of time diversification and specialization in the various areas have become more and more pronounced. It seemed only appropriate to relay upon the knowledge of specialists in their particular fields, then to integrate their contributions into the whole.

It has been the aim of the editors to adapt the symbols, units and nomenclature to the international and national recommendations (IUPAP). Chapter 16D covers quantities and units, also includes conversion tables and numerous references. This will result in smooth transition to use of the new units and nomenclature.

Comprehensive references have been added at the end of each chapter augmented by numerous references in English. A separate chapter with tables and diagrams will help the user to find quickly important data and simplify his calculations. A comprehensive table on international and national vacuum standards meets present day requirements in this area something which is equally important to both manufacturers and users.

It is hoped that this book will contribute to the further development of the still significant and interesting science of "vacuum" and its increasing number of applications in science and technology.

Cologne, February 1989 *The editors*

Contents

1 **Introduction** 1

1.1 The historical evolution of vacuum technology 1
1.2 Significance, scope and problems of present day vacuum technology 5
1.3 References 8

2 **Gas laws, foundations of the Kinetic theory of gases and Gas dynamics** 9

2.1 The basic quantities defining the gaseous state 9
2.2 Quantities, quantified amounts 11
2.3 Ideal gas laws 14
2.3.1 Gases with single components 14
2.3.2 Gas mixtures (multicomponent gases) 17
2.4 Fundamentals of the Kinetic theory of matter, especially for the gaseous state 19
2.4.1 Basic model of an ideal gas 19
2.4.2 Simplified model of Krönig 19
2.4.3 Distribution (probability distribution) of velocities 21
2.4.4 Velocity mean values 24
2.4.5 Wall flux density (= area related collision rate, DIN 28400) and effusion 24
2.4.6 Even distribution of energy. The thermal capacity of gaseous and solid substances 26
2.4.7 Mean free path. Collision rate 27
2.5 Transport phenomena 30
2.5.1 Diffusion 30
2.5.2 International friction in gases 30
2.5.3 Thermal conduction through a gas 34
2.5.3.1 Thermal conductivity 34
2.5.3.2 Thermal conduction 34
2.5.3.3 Comparison of thermal conductivity with dynamic viscosity 37
2.5.3.4 Thermal conductivity for systems with cylindrical geometries at low pressures 37
2.6 Vapours, evaporation and condensation 38
2.6.1 Vapour pressure 38
2.6.2 Equation of state 39
2.6.3 Evaporation rate related to surface area 40

2.7 Gas dynamics . . . 42
- 2.7.1 Range of application . . . 42
- 2.7.2 Bernoulli equation . . . 42
- 2.7.3 Critical quantities, velocity of sound, Mach number . . . 48
- 2.7.4 One-dimensional flow . . . 49
- 2.7.5 Compression chock . . . 51
- 2.7.6 Equation of Hugoniot . . . 52
- 2.7.7 The pressure ratio $\hat{p}_0/p_0$ under conditions of rest . . . 53
- 2.7.8 The oblique impact compression shock . . . 54
- 2.7.9 Flux forms inside and behind Laval nozzles for different "counter pressures p_A" . . . 55
- 2.7.10 Two-dimensional flow around an edge (Prandtl-Meyer) . . . 56

2.8 References . . . 59

3 Sorption and desorption . . . 60

3.1 Sorption phenomena and their significance; concepts and terminology . . . 60

3.2 Adsorption and desorption kinetics . . . 62
- 3.2.1 Adsorption rate . . . 62
- 3.2.2 Desorption rate . . . 62
- 3.2.3 Monolayer adsorption; Langmuir adsorption isotherm . . . 65
- 3.2.4 Monolayer time . . . 65
- 3.2.5 Multilayer adsorption: Brunauer-Emmett-Teller (BET) isotherm . . . 66

3.3 Some practical aspects of adsorption and desorption . . . 67

3.4 Absorption, occlusion . . . 68

3.5 Outgassing . . . 69

3.6 References . . . 73

4 Flow of gases in systems . . . 74

4.1 A survey and characterisation of the modes of flow in terms of the various vacuum regions . . . 74

4.2 Gasflux, pumping capacity, pumping speed . . . 76

4.3 The flow resistance of a tubular duct . . . 78

4.4 The effective speed of a vacuum pump . . . 80

4.5 Flow in the rough vacuum region . . . 81
- 4.5.1 Flow in the absence of friction . . . 81
  - 4.5.1.1 Flow through nozzles and apertures . . . 81
  - 4.5.1.2 Nozzle or orifice in the suction pipe to the pump . . . 84
- 4.5.2 Viscous flow in tubes . . . 86
  - 4.5.2.1 Characteristics of viscous flow . . . 86
  - 4.5.2.2 Formulae for the flow of gas through a tube . . . 87
  - 4.5.2.3 Gas flux through a tube; the tube as a pumping resistance . . . 90
  - 4.5.2.4 Cross sections of shapes other than circular . . . 97
- 4.5.3 Gases other than air . . . 99

4.6 Flow in high and ultrahigh vacuum region . . . 100
- 4.6.1 Characteristics for molecular flow . . . 100

4.6.2 Molecular flow through an orifice 104
4.6.3 Molecular flow through tubes of constant cross section 107
4.6.3.1 General considerations 107
4.6.3.2 Circular section tube 108
4.6.3.3 Tubes with rectangular cross section 109
4.6.3.4 Narrow slot between rectangular plates 110
4.6.3.5 Tube with elliptical cross section 111
4.6.3.6 Comparison for tubes with rectangular, elliptical and circular cross sections, for equal coss sectional areas . . . 114
4.6.3.7 Tube with triangular cross section 114
4.6.3.8 Coaxial tube 115
4.6.4 Molecular flow through other components of a vacuum pipe line system 116
4.6.4.1 Transmission probability of a tube containing flow restricting apertures 116
4.6.4.2 Stepped tubes, apertures and interconnected chambers . . 119
4.6.4.3 Tube with right angle or curved bends 122
4.6.4.4 Conical tubes 122
4.6.4.5 Components 123
4.6.4.6 Vacuum pump treated as a "duct": transmission probability of the pump 123
4.7 Flow in medium (or fine) vacuum 124
4.7.1 Characteristics for flow in the region of medium (or fine) vacuum 124
4.7.2 Flow through pipe lines in the medium (or fine) vacuum region . . . 125
4.8 References 128

5 Positive displacement pumps 129

5.1 Summary 129
5.2 Liquid ring vacuum pumps (DIN 28431 – issue 1.87) 131
5.2.1 Operation, technical construction and design 131
5.2.2 Operating range and pumping speed 133
5.2.3 Two stage and multi-stage liquid ring vacuum pumps 133
5.2.4 Combination with gas jet pump 135
5.2.5 General comments concerning the operation of these pumps 136
5.3 Oil sealed rotary vacuum pumps 137
5.3.1 Sliding vane rotary pump 137
5.3.1.1 Operation and structure 137
5.3.2 Rotary plunger pumps 140
5.3.2.1 Operation and technical construction 140
5.3.2.2 Mass balance 145
5.3.3 Additional technical comments 148
5.3.4 Trochoidal pumps 148
5.3.4.1 Operating principle 148
5.3.4.2 Structure 151
5.3.4.3 Comparison with other positive displacement pumps . . . 153

5.3.5 Pumping speeds and ultimate pressures achieved by oil sealed positive displacement pumps . . . 154
5.3.5.1 Pumping speed and ultimate pressure, not taking the oil into account . . . 154
5.3.5.2 Pumping speed and ultimate pressure, taking into account the influence of the oil . . . 154
5.3.6 Pumping of Vapours – the use of gas ballast . . . 158
5.3.7 Backstreaming of oil . . . 162
5.3.8 Power requirements . . . 163
5.3.8.1 Isothermal compression . . . 164
5.3.8.2 Adiabatic compression . . . 164
5.3.8.3 Polytropic compression . . . 165
5.3.8.4 Power of compression . . . 165
5.3.9 Operational considerations . . . 167
5.3.9.1 Installation . . . 167
5.3.9.2 Switching-on and -off, pump inlet valves . . . 167
5.3.9.3 Selection of pumps used and their operation . . . 170
5.3.9.4 Oil filter and oil purification . . . 171
5.3.9.5 Exhaust filter (oil mist filter) . . . 172
5.3.9.6 Dust filter . . . 172
5.4 Roots pumps . . . 174
5.4.1 Principle of operation . . . 175
5.4.2 Construction . . . 176
5.4.3 Basic theory . . . 178
5.4.3.1 The effective gas flux . . . 178
5.4.3.2 Compression ratio K_0, under zero throughput conditions . . . 179
5.4.3.3 Effective compression ratio and volumetric efficiency . . . 180
5.4.4 Relationschip between pumping speeds of fore vacuum pump to Roots pump; gradation . . . 182
5.4.4.1 Gradation at low inlet pressures . . . 184
5.4.4.2 Gradation at high inlet pressures . . . 184
5.4.5 Pumping speed and ultimate pressure . . . 186
5.4.5.1 Pumping speed and ultimate pressure with oil sealed fore pumps . . . 186
5.4.5.2 Pumping speed and ultimate pressure with liquid ring pumps as fore pumps . . . 188
5.4.5.3 Multistage pump combinations . . . 189
5.4.6 Power requirements . . . 191
5.4.7 Installation and operation . . . 192
5.4.8 Selection of pumps and their operation . . . 194
5.5 References . . . 195

6 Fluid entrainment pumps 197

6.1 Introduction, review 197
6.2 Liquid jet pumps 199
6.3 Vapour jet and gas jet vacuum pumps 200
6.4 Diffusion pumps 207
6.4.1 Operation 207
6.4.2 Pump fluids 209
6.4.3 Vapour barriers in the form of baffles and traps 209
6.4.4 Fractionating pumps, degassing 210
6.4.5 Vacuum without hydrocarbon contamination 211
6.4.6 Pumping speed and critical backing pressure 212
6.4.7 Operational characteristics of diffusion and vapour jet pumps calculated with the aid of a simple pump model 212
6.4.8 Quantitative analysis in the case of a mercury diffusion pump 221
6.5 Diffusion pumps – vapour jet pumps 223
6.6 References 226

7 Molecular pumps 227

7.1 Introduction 227
7.2 Molecular pumps 227
7.3 Turbomolecular pumps 231
7.3.1 Development 231
7.3.2 Construction 233
7.3.3 Pumping mechanism 237
7.4 Theory of the single stage turbine 238
7.5 Performance data for turbomolecular pumps 240
7.5.1 Pumping speed 240
7.5.2 Compression ratio k_0 243
7.5.3 Pumping performance 244
7.5.4 Residual gas composition and ultimate pressure 246
7.6 Operation remarks 248
7.6.1 Type of backing pump to be used 248
7.6.2 General operating hints 249
7.6.3 Starting- up of the pump 249
7.6.4 Admission of air 250
7.6.5 Baking for degassing 250
7.6.6 Operation in magnetic fields 250
7.6.7 Servicing 251
7.7 Applications 252
7.8 References 252

8 Sorption pumps 254

8.1 Adsorption pumps 255
8.1.1 Mode of operation 255
8.1.2 Construction 256
8.1.3 Ultimate vacuum and sorption capability (pumping speed) 258

8.1.3.1 Ultimate vacuum obtained with an adsorption pump . . . 258
8.1.3.2 Ultimate vacuum obtained with two or more adsorption pumps . . . 260
8.1.3.3 Improvement of the final vacuum by pre-evacuation or filling with a foreign gas . . . 263
8.1.3.4 Final vacuum with consideration of wall desorption effects . . . 263
8.1.3.5 Pumping speed . . . 264
8.1.4 Operation and working instructions . . . 264
8.2 Sorption by getters . . . 265
8.2.1 Operation . . . 265
8.2.2 Types of getters and production of getters . . . 266
8.2.2.1 Bulk (NEG-) getters . . . 266
8.2.2.2 Evaporable getters (flash getters) . . . 267
8.2.3 Pumping speed (gettering rate) . . . 268
8.2.4 Getter capacity . . . 271
8.2.5 Getter pumps . . . 271
8.2.5.1 Bulk-getter pumps . . . 272
8.2.5.2 Evaporation or sublimation getter pumps . . . 272
8.2.6 Getter-ion pumps . . . 277
8.2.6.1 Operation . . . 277
8.2.6.2 The orbitron pump . . . 277
8.3 Sputter-ion pumps . . . 278
8.3.1 Operation . . . 278
8.3.2 Construction . . . 280
8.3.3 Pumping speed . . . 280
8.3.4 The triode pump . . . 283
8.3.5 Residual gas spectrum . . . 285
8.3.6 Standard set-up for the measurement of pumping speed . . . 285
8.3.7 Operating techniques . . . 287
8.4 References . . . 289

9 Condensers . . . 291

9.1 Condensers as vacuum pumps . . . 291
9.1.1 Foundations . . . 291
9.1.2 Performance of condensers . . . 293
9.1.3 Gas flux and partial pressures . . . 295
9.1.4 Cooling agents . . . 299
9.2 Design of condensers . . . 300
9.2.1 Surface condensers for condensation into the liquid phase . . . 300
9.2.2 Contact-condensers . . . 301
9.2.3 Discharge of condensates . . . 302
9.2.4 Surface condensers for condensing into the solid phase . . . 303
9.3 Condensers in combination with vacuum pumps . . . 303
9.4 Calculation of condenser-pump-combinations . . . 305
9.4.1 Calculation procedure . . . 305
9.4.2 Examples for calculations . . . 306
9.5 References . . . 310

10 Cryo-technology and cryopumps 311
10.1 Introduction 311
10.2 Cooling processes 312
10.2.1 Concepts and fundamental laws of thermodynamics 312
10.2.2 Special cooling processes 315
10.2.2.1 Joule-Thomson expansion; Linde process 316
10.2.2.2 Expansion machines 318
10.2.2.3 Claude-process 319
10.2.2.4 Stirling-process 320
10.2.2.5 Gifford-McMahon-process 321
10.2.3 General criteria for refrigerating installations 321
10.3 Material properties at low temperatures 323
10.3.1 Cooling agents 323
10.3.2 Materials 328
10.4 Temperature measurement 331
10.4.1 Temperature scales 332
10.4.2 Gas thermometer 334
10.4.3 Vapour pressure thermometer 335
10.4.4 Resistance thermometer 336
10.4.5 Semiconductor-diodes 339
10.4.6 Acoustic thermometer 339
10.4.7 Capacitance thermometer 339
10.4.8 Thermocouples 339
10.4.9 Contacts and attachment of temperature measuring sensors 341
10.4.10 Calibration of secondary thermometers 342
10.5 Cryostat technology 343
10.5.1 Bath cryostats 343
10.5.2 Continuous flow cryostats 347
10.5.3 Refrigerator-cooled cryostats 348
10.5.4 ^{3}He-cryostats and ^{3}He/^{4}He-mixture cryostats 349
10.5.4.1 The ^{3}He-cryostat 349
10.5.4.2 The ^{3}He/^{4}He-mixture cryostat 351
10.5.5 Vacuum insulated ducts 352
10.5.6 Refilling devices 353
10.5.7 Temperature adjustment and -control 356
10.5.7.1 Control valves 357
10.5.7.2 Heater control 359
10.5.8 Cooling agent losses 359
10.5.9 Reservoir containers 365
10.6 Cryopumps 366
10.6.1 The bonding of gases onto cold surfaces (cryosurfaces) 367
10.6.1.1 Gas condensation 367
10.6.1.2 Cryotrapping and cryosorption 368
10.6.2 Characteristic quantities of a cryopump 372
10.6.2.1 Starting pressure p_{St} 372
10.6.2.2 Ultimate pressure p_{end} 372
10.6.2.3 Pumping speed S 374

10.6.2.4 Stay-down time t_B . . . 375
10.6.2.5 Capacity (maximum gas sorption) C . . . 375
10.6.2.6 Heat transfer to the cold surface . . . 376
10.6.2.7 Thermal conductivity of the condensates . . . 377
10.6.2.8 Rate of growth of the condensate layer . . . 377
10.6.3 Construction principles . . . 379
10.6.3.1 Bath cryopumps . . . 379
10.6.3.2 Continuous flow cryopumps . . . 381
10.6.3.3 Cryopumps with refrigerators (refrigerator-cooled cryopumps) . . . 383
10.6.4 Examples of applications . . . 386
10.6.4.1 Cryopumps for applications in nuclear fusion technology . . . 387
10.6.4.2 Cryopumps for applications in space technology . . . 387
10.6.4.3 Cryopumps for applications in particle-accelerators . . . 388
10.6.4.4 Cryopumps for industrial systems . . . 388
10.6.5 Development trends for the application of cryopumps . . . 388
10.7 References . . . 390

11 Vacuum gauges and leak detection instruments . . . 393

11.1 Pressure and particle number density; review . . . 393
11.2 Mechanical vacuum gauges . . . 394
11.2.1 Operating principles and classification of different types . . . 394
11.2.2 Bourdon tube vacuum gauge (measuring range 1013 ... 10 mbar) . . . 395
11.2.3 Capsule vacuum gauge (measuring range 1013 ... 10mbar) . . . 395
11.2.4 Diaphragm vacuum gauge (measuring range 1013 ... 1 mbar) . . . 396
11.2.5 Differential diaphragm vacuum gauges for high sensitivity . . . 398
11.2.6 Spinning rotor gauge . . . 399
11.2.6.1 Instrument details and principle of measurement . . . 400
11.2.6.2 Gas frictional braking effect . . . 401
11.2.6.3 Method of measurement . . . 404
11.2.6.4 Limits of the measuring range . . . 406
11.2.6.5 Sources of error, uncertainties of measurements . . . 407
11.2.7 Pressure sensitive switches and pressure regulators and control . . . 409
11.3 Liquid level manometers . . . 411
11.3.1 Open type liquid level manometer . . . 411
11.3.2 U-tube manometer (closed end liquid manometer) . . . 412
11.3.3 Compression vacuum gauge of the McLeod type (measuring range 10 ... 10^{-4} mbar, or 10^{-6} mbar) . . . 412
11.4 Thermal conductivity vacuum gauge (Pirani gauge) (pressure range 10^{-3} ... 100 mbar) . . . 417
11.4.1 Operating principle . . . 417
11.4.2 Modes of operation . . . 420
11.4.3 Thermal conductivity vacuum gauges operating with constant filament temperature . . . 420
14.4.4 Thermal condutivity vacuum gauges operated at constant heating power . . . 422
11.4.5 The applications of thermal conductivity vacuum gauges . . . 424

11.5 Ionization vacuum gauges (pressure range 1 ... 10^{-11} mbar) ... 425
11.5.1 Operating principle and classification of different types ... 425
11.5.2 Thermionic ionization vacuum gauge ... 428
11.5.2.1 Concentric triode gauge ($p = 10^{-2}$ ... 10^{-7} mbar) ... 429
11.5.2.2 Medium vacuum ionization vacuum gauge ($p = 1$ ... 10^{-6} mbar) ... 429
11.5.2.3 Bayard-Alpert ionization gauge ($p = 10^{-3}$ ... 10^{-9} mbar) ... 430
11.5.2.4 Extractor ionization vacuum gauge ($p = 10^{-4}$ ... 10^{-12} mbar) ... 431
11.5.2.5 Other types of thermionic cathode ionization gauges ... 433
11.4.3 Cold cathode ionization gauges ... 433
11.5.3.1 Penning vacuum gauge ... 433
11.5.3.2 Other types of cold cathode vacuum gauges ... 438
11.5.4 General remarks ... 438
11.6 Partial pressure vacuum gauges ... 439
11.6.1 Introduction ... 439
11.6.2 Magnetic sector field mass spectrometer ... 441
11.6.3 Omegatron ... 443
11.6.4 Quadrupole mass spectrometer ... 444
11.7 Leak detection instruments ... 449
11.7.1 General remarks concerning the detection of leaks ... 449
11.7.2 Mass spectrometer leak detection instruments ... 451
11.7.3 Technical details of helium leak detection instruments ... 453
11.7.3.1 Helium leak detectors based on double focussing mass spectrometers ... 453
11.7.3.2 Helium leak detector of the counterflow type ... 454
11.7.4 Halogen leak detector ... 455
11.7.5 Halogen leak detector probe ... 457
11.7.6 Halogen leak detector sniffer ... 457
11.8 Calibration of vacuum gauges ... 457
11.8.1 Basic methods ... 457
11.8.2 Calibration by direct comparison ... 458
11.8.3 Pressure determination by static expansion ... 459
11.8.4 Dynamic calibration system (DIN 28 416 and DIN 28 417) ... 460
11.8.5 The establishment of calibration pressures for the pressure range 10^{-12} mbar up to 10^{-8} mbar based on the molecular beam method ... 461
11.8.6 Pressure scales ... 462
11.9 References ... 463

12 Leak detection technology ... 465

12.1 Review ... 465
12.1.1 Magnitude of a leak and leak rate ... 465
12.1.2 Types of leaks ... 469
12.1.2.1 Leakage through porous leaks ... 469

12.1.2.2 Leaks in demountable and non-demountable joints or flange connections . . . 470
12.1.2.3 Virtual leaks or apparent leaks . . . 470
12.1.3 Leak detection procedures . . . 470
12.2 Pressure methods . . . 471
12.2.1 Pressure leak testing by the pressure drop method . . . 471
12.2.2 Pressure leak testing by the bubble test . . . 472
12.2.3 Pressure method by soap bubble test . . . 473
12.2.4 Pressure method by liquid penetrant . . . 473
12.2.5 Pressure method based on chemical tests . . . 473
12.2.6 Pressure method based on halogen containing gases . . . 473
12.2.7 Pressure method based on helium. Carrier gas principle . . . 474
12.2.8 Critical evaluation of leak test methods based on overpressure . . . 476
12.3 Vacuum leak test methods . . . 477
12.3.1 Pressure rise measurement . . . 477
12.3.2 Soap bubble test . . . 479
12.3.3 Vacuum leak testing with a high frequency vacuum tester . . . 479
12.3.4 Vacuum leak detection using the halogen detector . . . 479
12.3.5 Vacuum leak detection with the helium leak detector . . . 480
12.4 Calibrated leaks for leak detectors . . . 481
12.4.1 Calibrated leak with no gas reservoir (capillary leak) . . . 481
12.4.2 Calibrated leak with helium reservoir (diffusion leak) . . . 483
12.4.3 Calibration of helium test leaks . . . 483
12.4.4 Halogen calibrated leak for overpressure leak testing . . . 484
12.5 General remarks concerning leak testing . . . 484
12.6 Leak testing techniques for mass production applications . . . 486
12.6.1 Industrial leakage tests . . . 486
12.6.2 Leak test plant: requirements for industrial tests . . . 487
12.6.3 Design of a helium leak test plant . . . 488
12.6.4 Fully automatic (integral) leak detection . . . 489
12.6.5 (Semi automatic) localised leak detection . . . 489
12.6.6 Large scale testing of small components . . . 490
12.6.7 Range of applications . . . 490
12.7 References . . . 491

13 Materials . . . 492

13.1 General features of materials for vacuum technology and classification . . . 492
13.1.1 Requirements and selection . . . 492
13.1.2 Classification of materials (according to their application) . . . 493
13.2 Materials and their particular properties . . . 493
13.2.1 Metals . . . 493
13.2.1.1 Structure and production . . . 493
13.2.1.2 The most important metals . . . 494
13.2.2 Technical glass . . . 497
13.2.2.1 Brief general review . . . 497
13.2.2.2 Properties of the most important glass types . . . 497
13.2.2.3 Vacuum technological applications of glass . . . 501

13.2.3 Ceramic materials . . . 501
13.2.3.1 General remarks . . . 501
13.2.3.2 Properties of the most important ceramic materials . . . 501
13.2.3.3 Applications of ceramics in vacuum technology . . . 502
13.2.3.4 Zeolite . . . 502
13.2.4 Plastic materials . . . 503
13.2.4.1 General comments . . . 503
13.2.4.2 Properties of the most important plastic materials . . . 503
13.2.5 Grease and fats . . . 505
13.2.6 Oils . . . 505
13.2.7 Gases . . . 505
13.2.8 Cooling agents . . . 505
13.3 Permeability to gas . . . 506
13.3.1 Gas permeability of metals . . . 507
13.3,2 Permeability of glass and ceramics . . . 508
13.3.3 Gas permeability of plastic materials . . . 509
13.4 Outgassing, gas desorption or emission . . . 510
13.4.1 Saturation vapour pressure . . . 510
13.4.2 Desorption from surfaces . . . 512
13.4.3 Diffusion from within . . . 513
13.4.4 Diffusion from within and permeation . . . 516
13.4.5 Guide lines for the total gas emission rates . . . 518
13.5 References . . . 518

14 Vacuum components and their interconnections to vacuum systems . . 519

14.1 Non-demountable interconnections . . . 519
14.1.1 Welded joints . . . 519
14.1.2 Soldered joints . . . 520
14.1.3 Fused seals . . . 522
14.1.4 Sealing techniques based on metallization . . . 524
14.1.5 Sealing with glues . . . 525
14.2 Demountable joints . . . 526
14.2.1 Sealing materials . . . 526
14.2.2 Force requirements . . . 526
14.2.3 Ground joints . . . 527
14.2.4 Flange connections . . . 528
14.2.4.1 Small flange connections (quick-release couplings) . . . 529
14.2.4.2 Screwed flange connections . . . 530
14.2.4.3 Socket joints . . . 533
14.3 (Vacuum-) vessel . . . 533
14.3.1 Wall thickness required . . . 533
14.3.2 Double walled vessels . . . 536
14.4 Lead-throughs . . . 536
14.4.1 Mechanical lead-throughs . . . 536
14.4.2 Current lead-throughs . . . 538
14.4.3 Lead-throughs for liquids and gases . . . 540
14.4.4 Inspection ports (viewing windows) . . . 540
14.4.5 Lubrication in vacuum systems . . . 541

14.5 Flexible joints . . . 541
14.6 Isolation devices (valves) . . . 542
14.6.1 Construction, types, notation . . . 542
14.6.2 Modes of operation . . . 542
14.6.3 Sealing methods . . . 543
14.6.4 Right-angle valves . . . 544
14.6.5 Straight-through valves . . . 546
14.6.6 Gas inlet valves . . . 548
14.6.7 Special constructions . . . 549
14.7 References . . . 551

15 Technology used dependent upon the different pressure regions . . . 552

15.1 General comments . . . 552
15.1.1 Ultimate pressure p_{end} and ultimate operating pressure $p_{\text{B,end}}$ of a vacuum pump . . . 552
15.1.2 Ultimate pressure of a vacuum apparatus or plant, $p_{\text{end,A}}$ . . . 553
15.1.3 Operational pressure p_{arb} . . . 553
15.1.4 Operational pressure, resulting from the process gas flux . . . 554
15.1.5 Operating pressure dependent on evaporating materials . . . 555
15.1.6 Operating pressure, determined by gas release (desorption and outgassing) . . . 556
15.1.7 Operating pressure, as determined by permeation flux rates . . . 557
15.1.8 Operating pressure, limited by leakage gas flow . . . 558
15.1.9 The dry, clean and leakproof vacuum system . . . 558
15.2 Technology for rough vacuum (1013 ... 1 mbar) . . . 558
15.2.1 Review . . . 558
15.2.2 Construction of a rough vacuum plant or apparatus . . . 560
15.2.3 Pumps, types and pumping speeds . . . 560
15.2.4 Pumping units for rough vacuum . . . 561
15.2.5 Pressure measurement under rough vacuum conditions . . . 562
15.2.6 Pump-down time in the rough vacuum region . . . 563
15.2.7 Air admission . . . 567
15.3 Technology for operating in the fine vacuum region (1 ... 10^{-3} mbar) . . . 569
15.3.1 Review . . . 569
15.3.2 Construction of a fine vacuum system . . . 570
15.3.3 Pumps. Types of pumps and their pumping speeds . . . 570
15.3.4 Pressure measurement . . . 570
15.3.5 Pump-down time and ultimate pressure . . . 571
15.3.6 Air admission . . . 574
15.3.7 Fine vacuum pumping units . . . 574
15.4 Technology for operating in the high vacuum region (10^{-3} ... 10^{-7} mbar) . . . 575
15.4.1 Construction of high vacuum apparatus or plant . . . 576
15.4.2 Pumps. Types available and their pumping speed . . . 577
15.4.3 Pressure measurement in the high vacuum region . . . 578
15.4.3.1 Recommendations concerning the use of vacuum gauge heads . . . 578