

REFERENCES

1. W. O'Neil, J. T. Gabzdyl, "New developments in laser assisted oxygen cutting", *Optics and Lasers in Engineering*, Elsevier Science, 2001.
2. F. W. Lunau and E. W. Paine, "CO₂ Laser Cutting", *Weld. & Metal Fab.*, Jan. (1969), 9-14.
3. M. M. Scheartz, "Laser Welding and Cutting", *W. R. C. Bulletin*, Nov. (1971), No. 167, 1-34.
4. P. T. Houldcroft, "The Importance of the Laser for Cutting and Welding", *Weld. And Met. Fab.*, Feb. (1972), 42-46.
5. G. Brandt, K. D. Kegel, and J. V. Hulle, "Einige Ergebnisse von Schneid- und Schweivversuchen mit einem 900W CO₂ Laser", *Schweissen und Schneiden*, Vol. 24 (1972), H7.
6. I. J. Spalding, "Lasers – Their Applications and Operational Requirements", *Opt. and Laser Tech.*, Dec. (1974), 263-272.
7. J. D. Russel, "The Development of the laser as a Welding and Cutting", *British Wel. Inst. Res. Bulletin*, Vol. 16 (1975), 245-248.
8. S. Roy, "A Comparative Surface Integrity Study of Laser Cutting with Other Conventional Cutting Technique", *Sheet Metal Industries*, Oct. (1977), 994-1014.
9. J. Clarke and M. M. Steen, "Proceedings of Laser '78 Conference, London, March (1978).
10. Y. Arata, S. Takeuchi and I. Miyamoto, "Fundamental Research of Laser Gas Cutting – I", *Journal of High Temperature Society*, Vol. 4 (1978), No. 2, 122-134.
11. V. S. Kovalenko, Y. Arata, H. Maruo and I. Miyamoto, "Experimental Study of Cutting Different Materials with 1.5kW CO₂ Laser", *Trans. Of J. W. R. I.*, Vol. 7 (1978), No. 2, 101-112.
12. C. K. N. Patel, "High Power CO₂ Lasers", *Scientific American*, Vol. 219(2), pp. 22-33, August 1968.
13. C. K. N. Patel, P. K. Tien, and J. H. McFee, "CW High Power CO₂-N₂-He Laser", *Appl. Physics Letter*, Vol. 7(110), pp. 290-290, 1965.

14. C. K. N. Patel, "CW Laser Action On Vibrational-Rotational Transitions of CO₂", *Phys. Rev.* Vol.135(5A), pp. A1187-A1193, November, 1964.
15. C. K. N. Patel, "Selective Excitation Through Vibrational Energy Transfer and Optical Maser Action in N₂-CO₂", *Phys. Rev. Letters*, Vol. 13(21), pp. 617-619, November 1964.
16. Ashish K. Nath and Manoj Kumar, "Scaling of Laser Power with N₂ Partial Pressure in a Convective-Cooled CW CO₂ Laser", *IEEE*, Vol. QE-29 (4), Apr. 1993.
17. W. M. Steen, "Laser Material Processing", *Springer-Verlag*, pp. 110, 1998.
18. J. Fleischer, "How Gaussian is Your Beam?", *Laser Focus World*, pp. 131-135, April, 1989.
19. Masaru Kanaoka and Toru Murai, "Laser cutting characteristics and processing technology for thick steel plate", *Technical Reports*, Mitsubishi Electric Advance.
20. Norikazu Tabata, Shigenori Yagi and Masao Hishii, "Present and Future of Lasers for Fine Cutting of Metal Plate", *Journal of Materials Processing Technology*, Volume 62, Issue 4, December, 1996
21. E. J. Danielewicz, G. H. Sherman, P. Muys, "High-Power CO₂ Laser Driver New Optics Solution", *Laser Focus World*, pp. 113-117, January 1992.
22. J. F. Ready, "Industrial Application of Laser", pp. 59, 1978.
23. J. Wilson and J. F. B. Hawkes, "Laser Principles and Application", *Prentice Hall International Series in Optoelectronics*, pp. 99, 1987.
24. F. O. Olsen, "Cutting with polarized laser beams", pp. 197-200.
25. Gary L. Herrit and David J. Scatena, "Choose the right mirror for industrial CO₂ Laser", *Laser Focus World*, pp 107-118, 1991.
26. Richard J. Drake, "IR coating solve polarization problems in laser cutting and scribbling", *Laser Focus/Electro-Optics*, May 1988.
27. Gary L. Herrit and David J. Scatena, "Laser isolator mirrors cut workpiece back reflection", *Laser Focus World*.
28. Rose IE. "Thick section cutting with CO₂ lasers", *Ind. Laser Rev.* 1992, March, 13-6.

29. Martin von Allmen, "Laser-Beam Interactions with Materials", *Springer Series in Materials Science*, 1987.
30. M. Vicanek and G. Simon, "Momentum and heat transfer of an inert gas jet to the melt in laser cutting", *J. Phys. D: Appl. Phys.* 20, 1191-1196 (1987).
31. K. A. Bunting and G. Cornfield, "Toward a general theory of cutting: a relationship between the incident power density and the cut speed", *ASME J. Heat Transf.* 116-122 (1975).
32. L. Cai and P. Sheng, "Theoretical analysis of laser evaporative and fusion cutting", working paper.
33. G. Chryssoulouris, "Laser Machining: Theory and Practice", pp. 47-63, *Springer*, Berlin (1991).
34. G. Chryssoulouris and W. Choi, "Theoretical aspects of laser grooving", *Proc. 14th Conf. on Production Research and Technology*, pp. 323-331, January (1987).
35. G. Chryssoulouris, P. Sheng and W. Choi, "Three dimensional laser machining of composite materials", *ASME J. Engng Mat. Technol.* 112, 387-392 (1990).
36. M. F. Modest and H. Abakians, "Evaporative cutting of a semi-infinite body with a moving CW laser", *ASME J. Heat Transf.* 602-607 (1986).
37. S. Roy and M. Modest, "CW laser machining of hard ceramics – I. Effects of three-dimensional conduction, variable properties and various laser parameters", *Int. J. Heat Mass Transf.* 36, 3515-3528 (1993).
38. W. Schulz, G. Simon, H. M. Urbassek and I. Decker, "On laser fusion cutting of metals", *J. Phys. D: Appl. Phys.* 20, 481-488 (1987).
39. D. Schuocker and W. Abel, "Material removal mechanism of laser cutting", *Proc. SPIE* 88-95 (1983).
40. S. Biyiki and M. Modest, "Beam expansion and focusing effects on evaporative laser cutting", *ASME J. Heat Transf.* 110, 529-532 (1988).
41. S. Bang, S. Roy and M. Modest, "CW laser machining of hard ceramic – 2. Effects of multiple reflections", *Int. J. Heat Mass Transf.* 36, 3529-3540 (1983).
42. D. Petring, P. Abels and E. Beyer, "Absorption distribution on idealized cutting front geometries and its significance for laser beam cutting", *Proc. SPIE – High Power CO₂ Laser Systems and Applications* 1020, 123-131 (1998).

- 43 D. Petring, P. Abels and E. Beyer, "The absorption distribution as a variable property during laser beam cutting", *ICALEO '88*, Santa Clara, CA, pp. 293-302 (1998).
- 44 D. Schuocker and P. Muller, "Dynamic effects in laser cutting and formation of periodic striations", *Proc. SPIE 801*, 258-264 (1987).
- 45 Pitts, D. R. and L. E. Sissom, "Theory and Problems of Heat Transfer", *McGraw-Hill*, New York, 1977.
- 46 H. S. Carslaw and J. C. Jaeger, "Conduction of Heat in Solids", *Oxford University Press*, 1959 (2nd Edition), Section 2.9.
- 47 Rosenthal, D., "The Theory of Moving Source of Heat and Its Applications to Metal Treatments," *Transactions of the ASME* (Nov. 1946).]
- 48 Y. Arata and I. Miyamoto, "Generation and Applications of CW High Power CO₂ Gas Laser", *Technol. Repts. Osaka Univ.*, Vol. 17 (1967) No. 285.
- 49 A. B. J. Sullivan and R. T. Houldcroft, "Gas-jet Laser Cutting", *British W. J.*, Vol. 14 (1967) No. 8, 443-446.
- 50 Ivarson A, et al., "The role of oxidation in laser cutting stainless and mild steel", *J. Laser Appl* 1990, 3(3), 41-50.
- 51 Chen SL. "Analysis and modeling of reactive three-dimensional high power CO₂ laser cutting", *Proc Inst Mech Engrs*, 1998, 212B, 113-28.
- 52 Y. Arata, H. Maruo, I. Miyamoto, S. Takeuchi, "Dynamic behaviour in laser gas cutting of mild steel", *Transactions of the Japanese Welding Research Institute*, 1979.
- 53 P. Sheng, Li-Hong Cai, "Model-Based path planning for laser cutting of curved trajectories", *Int. J. Mach. Tools Manufact.* Vol 36, No. 6, pp. 739-754, 1996.
- 54 H. S. Choy, K. W. Chan, "A corner-looping based tool path for pocket milling", *Computer-Aided Design*, 35(2003), 155-166, Elsevier Science.
- 55 J. Powell, "CO₂ laser cutting", *Springer-Verlag London Ltd*, pp. 38, 1993.
- 56 Tan Min Dea, "Studies of Fast Axial Flow Continuous Wave CO₂ Laser", *Dissertation for the Degree of Master of Science*, University of Malaya, 1996.

57. Lee Jer Vui, "Investigation of a High Power CO₂ Laser for Material Processing", *Dissertation for the Degree of Master of Science*, University of Malaya, 2001.
58. E. Poonjolai, "Computer-aided Profile Cutting using Carbon Dioxide Laser for Laminated Object Manufacturing", *M. Phil. Thesis*, University of Malaya, 1994.
59. C. H. Tan, "Design and Integration of a CO₂ Laser Hybrid System for Material Processing", *M. Tech. Thesis*, University of Malaya, 2000.
60. Y. N. Phua, "Investigation of a Computer Aided CO₂ Laser Cutting System and Its Application in Material Processing", *M. Sc. Thesis*, University of Malaya, 2002.
61. Baldor Optimised Control, "NextMove PC Installation Manual", *Baldor Optimised Control Ltd.*, 1998.
62. Ibrahim Zeid, "CAD/CAM Theory and Practice", *McGraw-Hill Inc.* 1991.
63. H. M. Deitel, P. J. Deitel, T. R. Nieto, "Visual Basic 6 How to Program", *Prentice Hall*, 1999.
64. Brian Sile and Jeff Spotts, "Using Visual Basic 6", *QUE*, 1998.
65. Rod Stephens, "Visual Basic Graphic Programming", *Wiley*, 2000.
66. Baldor Motor and Drives, "MINT for NextMove Programming Guide", *Baldor Optimised Control*, 1999.
67. MINT MT Application Note, "AN00115-000 – Trapezoidal Move Calculations", *Baldor Motion Products*, Baldor UK Ltd.
68. Baldor Optimised Control, "MINT Interface Library Standard & Developer Edition", *Baldor Optimised Control*, Issue 4.3.
69. Baldor Optimised Control, "NextMove MINT Motion Library Programmer's Manual", *Baldor Optimised Control*, Issue 3.2
70. MINT MT Application Note, "AN00114-000 – 2D Fillet – Corner Rounding", *Baldor Motion Products*, Baldor UK Ltd.
71. Musa K. Jouaneh, ZhiXiao Wang, and David A. Dornfeld, "Trajectory Planning for Coordinated Motion of a Robot and a Positioning Table: Part 1 – Path Specification", *IEEE Transactions on Robotics and Automation*, Vol. 6, No. 6, December, 1990.