

List of Tables

Table No.	Title	Page No.
Table 2.1	Chemical composition of die steel	56
Table 2.2	Important properties of tool materials	58
Table 2.3	Experimental Condition for EDM of Die steel	61
Table 2.4	Level of Independent Variable in EDM	62
Table 2.5	Experimental Condition in EDM	62
Table 2.6	Parameters for XRD Residual Stress Measurement	67
Table 2.7	Parameters used in Barkhausen Noise Analysis	69
Table 2.8	Parameters used in Barkhausen Noise Analysis	62
Table 2.9	Layout of L9 orthogonal array for experimentation	70
Table 2.10	Experimental Condition in EDM using L9 orthogonal array	70
Table A.1	Material Removal Rate for positive polarity copper tool	i
Table A.2	Material Removal Rate for negative polarity copper tool	ii
Table A.3	Material Removal Rate for positive polarity copper tungsten tool	iii
Table A.4	Material Removal Rate for negative polarity copper tungsten tool	iv
Table A.5	Material Removal Rate for positive polarity graphite tool	v
Table A.6	Material Removal Rate for negative polarity graphite tool	vi
Table A.7	Tool Wear for positive polarity copper tool	vii
Table A.8	Tool Wear for negative polarity copper tool	viii
Table A.9	Tool Wear for positive polarity copper tungsten tool	ix
Table A.10	Tool Wear for negative polarity copper tungsten tool	x
Table A.11	Tool Wear for positive polarity graphite tool	Xi
Table A.12	Tool Wear for negative polarity graphite tool	Xii
Table A.13	Microhardness for positive polarity copper tool	Xiii
Table A.14	Microhardness for negative polarity copper tool	Xiv
Table A.15	Microhardness for positive polarity copper tungsten tool	Xv
Table A.16	Microhardness for negative polarity copper tungsten tool	Xvi
Table A.17	Microhardness for positive polarity graphite tool	Xvii
Table A.18	Microhardness for negative polarity graphite tool	Xviii
Table A.19	Surface Roughness for positive polarity copper tool	Xix
Table A.20	Surface Roughness for negative polarity copper tool	Xx
Table A.21	Surface Roughness for positive polarity copper tungsten tool	Xxi
Table A.22	Surface Roughness for negative polarity copper tungsten tool	Xxii
Table A.23	Surface Roughness for positive polarity graphite tool	Xxiii
Table A.24	Surface Roughness for negative polarity graphite tool	Xxiv
Table A.25	Residual Stress for positive polarity copper tool	Xxv
Table A.26	Residual Stress for negative polarity copper tool	Xxvi
Table A.27	Residual Stress for positive polarity copper tungsten tool	Xxvii
Table A.28	Residual Stress for negative polarity copper tungsten tool	Xxviii

Table A.29	Residual Stress for positive polarity graphite tool	Xxix
Table A.30	Residual Stress for negative polarity graphite tool	Xxx
Table A.31	Barkhausen Noise (rms) for positive polarity copper tool	Xxxi
Table A.32	Barkhausen Noise (rms) for negative polarity copper tool	Xxxii
Table A.33	Barkhausen Noise (rms) for positive polarity copper tungsten tool	Xxxiii
Table A.34	Barkhausen Noise (rms) for negative polarity copper tungsten tool	Xxxiv
Table A.35	Barkhausen Noise (rms) for positive polarity graphite tool	xxxv
Table A.36	Barkhausen Noise (rms) for negative polarity graphite tool	Xxxvi
Table A.37	Peak value for positive polarity copper tool	Xxxvii
Table A.38	Peak value for negative polarity copper tool	Xxxviii
Table A.39	Peak value for positive polarity copper tungsten tool	Xxxix
Table A.40	Peak value for negative polarity copper tungsten tool	xl
Table A.41	Peak value for positive polarity graphite tool	xli
Table A.42	Peak value for negative polarity graphite tool	xlii
Table B.1	Experimental Results upon EDM of die steel using positive polarity copper tool	xliii
Table B.2	Experimental Results upon EDM of die steel using negative polarity copper tool	xliv
Table B.3	Experimental Results upon EDM of die steel using positive polarity copper tungsten tool	xlv
Table B.4	Experimental Results upon EDM of die steel using negative polarity copper tungsten tool	xlvi
Table B.5	Experimental Results upon EDM of die steel using positive polarity graphite tool	xlvii
Table B.6	Experimental Results upon EDM of die steel using negative polarity graphite tool	xlviii
Table B.7	Experimental results Machinability Indices of workpiece using three electrode obtained by standard ZNC-EDM	xlix
Table B.8	Experimental Results upon EDM of die steel using positive and negative polarity copper tool	1
Table B.9	Experimental Results upon EDM of die steel using positive and negative polarity graphite tool	li
