

An Introduction to CNC Plasma Cutting

Section 1 – Background Information

I.	Introduction to this Manual.....	Page 1
II.	A Brief History of Manufacturing.....	Page 2
III.	A Brief History on CNC Machining.....	Page 14
IV.	The Design to Production Process.....	Page 16
V.	CAD, CAM, CIM and CNC.....	Page 17
VI.	Advantages of CNC Machining.....	Page 18
VII.	Understanding The Coordinate System.....	Page 19
VIII.	Absolute and Incremental Coordinates.....	Page 21
IX.	Understanding ISO Codes.....	Page 23
X.	Working with Programs and File Formats.....	Page 25

Section 1 TestPage 27

Section 2 – Introduction to Plasma Cutting

I.	Plasma Cutting Basics.....	Page 29
II.	Torch Consumables.....	Page 37
VI.	Selecting Stock.....	Page 41
VII.	Improving Cut Quality.....	Page 42
VIII.	Ventilation And Water Tables.....	Page 46
IX.	Safety.....	Page 47

Section 2 TestPage 52

Section 3 – Using the Techno CNC Plasma Cutter

I.	Activity 1 - Cutting a Simple Part.....	Page 54
II.	Activity 2 - Exploring the CNC Interface.....	Page 66

Section 3 TestPage 81

Section 4 – Introduction to CNC Programming

I.	Activity 3 - Using the Line Editor.....	Page 82
II.	Activity 4 - Cutting the NC Code Part.....	Page 86

Section 4 TestPage 90

Section 5 – Using a CAM Package to Create the NC Code

I.	Exploring The CAM Package.....	Page 92
II.	Activity 5 - Simple Toolpath - Lead-In/Out.....	Page 94
III.	Activity 6 - Controlling Cut Order and Direction.....	Page 112
IV.	Activity 7 - Changing Material Thickness.....	Page 131

Section 5 TestPage 138

Section 6 – Other Machining Concepts

I.	Activity 8 - Working with Text.....	Page 140
II.	Activity 9 - Importing Vector Art - Making the Coat Rack.....	Page 162
III.	Activity 10 - Nesting Parts - Making the Hooks.....	Page 181

Section 6 TestPage 194

	Getting Started Working on Your Own.....	Page 195
--	--	----------

	Terminology.....Page 197
--	---------------------------------