The 12 Principles of Manufacturing Excellence
A Lean Leader's Guide to Achieving and Sustaining Excellence
Larry E. Fast
## Contents

Foreword ................................................................. xiii
Preface ........................................................................... xv
Acknowledgments ............................................................ xix
Author ........................................................................... xxv

### Chapter 1  Leading the Revolution—From the Top .......................... 1

- Examples from the Arena .............................................. 4
- It's Not a Flavor of the Month—It's Continuous Improvement ..................................................................................... 8
- An Example of Great CEO Leadership ............................ 9
- Who's Running the Business? ........................................... 11
- Shop Floor: What Impact Do Senior Leaders Have? .......... 12
- Three Biggest Barriers .................................................... 13
- For Success: Two Senior Leaders That Must Be in Place ..... 14

### SECTION I  12 Principles of Manufacturing Excellence

#### Chapter 2  The Manufacturing Excellence Strategy ................. 19

- The Next Epiphany ....................................................... 25
- Origin of the 12 Manufacturing Principles ....................... 27
- The Manufacturing Excellence Strategy ......................... 28
- Common Metrics ........................................................ 32
- Manufacturing Excellence Audit .................................. 32

#### Chapter 3  Manufacturing Principle 1: Safety ....................... 39

- Plant Champion for Principle 1 ..................................... 42
- Stage Summary .......................................................... 44

#### Chapter 4  Manufacturing Principle 2: Good Housekeeping and Organization ......................................................... 47

- Stage Summary .......................................................... 57
The Power of Communicating the Vision .......................... 121
Stage Summary .................................................................. 122

Chapter 13 Manufacturing Principle 11: Training ...................... 125
Management Has to Take Away the Excuses ......................... 127
Find Out How Local Leadership Thinks and Acts ................. 129
Stage Summary .................................................................. 130

Chapter 14 Manufacturing Principle 12: Operator-Led Process
Control ............................................................................... 133
The Day OLPC Was Born in My Mind .................................. 134
Stage Summary .................................................................. 144

SECTION II Leading Manufacturing Excellence

Chapter 15 Plant Manager’s Role ........................................... 149
Other Things Good Plant Managers Expect ......................... 153
Anticipation ........................................................................ 153
Initiative ............................................................................. 154
Timely Communications ...................................................... 155
Feed Your Own Monkeys ..................................................... 155
Develop Your Own Organization ......................................... 158
Properly Administer Company Policies ............................... 159
Make the Numbers ........................................................... 162

Chapter 16 Manufacturing Manager’s Role ............................ 171
Have a Presence on the Shop Floor ........................................ 172
A Key Administrator of Company and Plant Policies .......... 173
Key Relationships with Peer Group ..................................... 175
The Manufacturing Manager Helps Set the Expectation for No
Compromise to Quality Standards .................................... 177
Interactions with Peer Group ............................................. 178
Responsibilities and Expectations ........................................ 183

Chapter 17 Materials Manager’s Role .................................... 185
Production Control Office .................................................. 185
Sales and Operations Planning Process .................................. 186
Purchasing or Sourcing ......................................................... 188
Supplier Advisory Council ................................................... 190
Formal Systems Zealot ......................................................... 192
Lean Zealot ................................................................. 193
A Word about Cycle Times and Lead Times ...................... 193

Chapter 18 Process Engineering Manager's Role .............. 199
   Engineering Staff .......................................................... 199
   Capital Appropriations ................................................... 201
   Systems Infrastructure ................................................... 203
   Process Engineer: A Key Team Member ......................... 205

Chapter 19 Maintenance Manager's Role ......................... 207
   Preventive Maintenance .................................................. 208
   Rolling 3-Year Facility Maintenance Plan ...................... 209
   Maintenance Staffing ..................................................... 211

Chapter 20 Quality Manager's Role .................................. 213
   Technical Expert on Quality Improvement Tools ............... 213
   Lead the Change from Firefighting to Fire Prevention ....... 215
   Customer Advocate on Product Quality ......................... 216

Chapter 21 Human Resources Manager's Role .................. 219
   Hourly Associate's Voice ............................................... 219
   Service-Oriented Staff of Experts ................................. 221
   Plant Manager's Confidant ............................................. 223
   Policy Administration .................................................... 224
   Environmental Health and Safety .................................. 226
   Culture Change Zealot .................................................. 227

Chapter 22 The Finance Manager/Plant Controller's Role .... 229
   Establishing Rapport ..................................................... 230
   The Finance Manager's Role with the Other Plant Staff Managers .......................................... 231
   Keeper of the Metrics ................................................... 231