

# Contents

<b>Introduction</b>	2
<b>1. The Philosophy of Production</b>	3
1.1 The Fundamentals of Manufacturing	3
1.2 The Management of Production Process	6
1.3 Production Management and its Description	13
1.4 The Status of Production in Corporate Management System	15
1.5 The Core of Production Management	17
1.6 Strategic Management of Production	20
1.7 Tactical Production Management	23
1.8 Supervisory (Operative) Management of Production	26
<b>2. Standardization and the Information Base</b>	53
2.1 Process Planning Management	60
2.2 The Regulative Base of Management	64
2.3 Capacity Planning	72
2.4 Material Requirements Planning	80
<b>3. A Project of Manufacturing System</b>	84
3.1 Spatial Structure of Production System	90
3.2 Basic Methods of the Layout of Workplaces	97
<b>4. Lead Time of Product and Production</b>	100
4.1 The Calculation of Production Lead Time of a Complicated Product	102
4.2 The Calculation of Lead Time for a Batch of Parts	105
<b>5. Production Servicing Systems</b>	111
5.1 Economy of Tools	111
5.2 Serviceability of production devices	120
5.2.1 Modern Organizing of Maintenance	120
5.2.2 Maintenance Systems	134
5.2.3 Totally Productive Maintenance	146
5.4 Energy Management	159
<b>6. The Concept of Operative Production Planning</b>	164
6.1 The Form of Production Planning	164
6.2 Creation of a Purposeful System of Material Flows	168
6.3 The Process of Operative Production Planning	172
<b>7. IT Supported Techniques of Production Planning and Scheduling</b>	175
7.1 Methods Used in PPS Systems	178
7.2 Production Planning and Control in Practice – the XPPS System	186