

# Production Planning

## 1.1 Introduction

The Production module of PrismERP has been developed by the Divine IT limited intending to contribute to the manufacturing industry by automating the Production Planning, Production Control & Production analysis, etc. process

The module can be used as an individual Production Management system as well as an integrated module of PrismERP

The versatile configuration system has made the module industry independent

## 1.2 Purpose

The main purpose is to provide guidelines to the user so that the user can operate the system according to the requirement.

## 1.3 Routing

### 1.3.1 Add BOM Outline

**Navigation:** *Planning > Routing > Add BOM Outline*

The BOM outline is the basic template of a specific item of product. It contains the basic steps of production with stepwise consumption & production details. The BOM Outline is created for further uses in BOM Specifications, Pre-costing, Production Record Entry etc. User has to fill up the form with following data then click on the **Save** button.

**Name:** The name of the BOM Outline

**Code:** The code of the BOM Outline .This codes are displayed as the tab name in the BOM outline details page.

**Unit:** The production unit name.

**Item:** This is the production item for which user is creating the BOM Outline.

**Quantity:** For how much product will be produced by the recipe/ template.

**UOM:** Unit of measurement.

**Other cost:** Users will be able to add the other types of overhead cost to complete the production process for this specific quantity of product. Like Labor cost, Other expenses etc. The cost may be fixed or percentage-wise. The cost head is configurable. Users may add the head as per the demand.

### Add New BOM Outline

**BOM Information**

Name:  Quantity:  Description:

Code:  UOM:

Unit:  Specification:

Item:

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**Other Costs**

Head:  + Amount:  + ADD ROW

	Costing Type	Costing Head	Calculation Type	Amount
1	Direct	Labour Cost	Percent	5.00
2	Direct	Labour Cost	Percent	7.00
3	Direct	Other Expense	Percent	3.00

Figure 1: Add BOM Outline

### 1.3.2 BOM outline List

**Navigation:** *Planning > Routing > BOM Outline List*

Users will be able to view the outline list with a detailed view of all steps. Users are also able to edit each production steps from this window.

BOM Outline				BOM Outline: Pressure Cooker				Calculate Cost																																	
Name	Code	SBU	Item	Basic Info	Others	Material Cost	Quantity																																		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Name: Pressure Cooker	Specification: Pressure Cooker	86900.00	100.00 unit																																		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Code: Pressure Cooker	Description: Pressure Cooker																																				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	SBU: Pressure Cooker	Unit Cost: 955.90	Other Cost: 8,690.00	Total Cost: 95,590.00																																		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Item: Pressure Cooker																																					
SEARCH				<table border="1"> <thead> <tr> <th>Rank</th> <th>Event</th> <th>Product</th> <th>Qty.</th> <th>UOM</th> <th>Unit Cost</th> <th>Est. Cost</th> <th>Equipment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1 Consumption</td> <td>Circle (300mm x1.35mm)</td> <td>-100.00</td> <td>Pcs</td> <td>250.00</td> <td>-25000.00</td> <td>Press Machine</td> </tr> <tr> <td>2</td> <td>3 Production</td> <td>PC Press Product</td> <td>100.00</td> <td>Pcs</td> <td>250.00</td> <td>25000.00</td> <td>Press Machine</td> </tr> <tr> <td colspan="6" style="text-align: right;"><b>Total</b></td> <td><b>25000</b></td> <td></td> </tr> </tbody> </table>						Rank	Event	Product	Qty.	UOM	Unit Cost	Est. Cost	Equipment	1	1 Consumption	Circle (300mm x1.35mm)	-100.00	Pcs	250.00	-25000.00	Press Machine	2	3 Production	PC Press Product	100.00	Pcs	250.00	25000.00	Press Machine	<b>Total</b>						<b>25000</b>	
Rank	Event	Product	Qty.	UOM	Unit Cost	Est. Cost	Equipment																																		
1	1 Consumption	Circle (300mm x1.35mm)	-100.00	Pcs	250.00	-25000.00	Press Machine																																		
2	3 Production	PC Press Product	100.00	Pcs	250.00	25000.00	Press Machine																																		
<b>Total</b>						<b>25000</b>																																			

Figure 2: BOM Outline List

## 1.2 Add Process Step

Navigation: *Planning > Routing > BOM Outline List*; then click on the (+) button on the top right corner.

To create a new Process step within a BOM Outline, users have to click on the **(+) button** on the top right corner of the detail view page of the BOM. Then fill up the form with suitable data and click on the **Save** button.

### Basic information

<b>Name</b>	:	Name of the Process Step
<b>Code</b>	:	Code of the process step, this code will be displayed as the tab name.
<b>SBU</b>	:	The production unit
<b>Group</b>	:	The production step group
<b>Manpower</b>	:	How many human resources required for this step
<b>Rank</b>	:	The Rank number is used to maintain the sequence the process steps
<b>Main input</b>	:	The main input of the step
<b>Main Output</b>	:	The main output the step

After inputting the basic info users have to select the product form select material section then click on the **Add Row** Button. ***Here the main important part is to select the event properly.*** The consumption event indicates that this material will be consumed in this step. The production event indicates that this product will be produced from this step.

Users have to select if the value of the consumed goods of these steps will be calculated in the BOM or not from the “Calculate in BOM” column.

After completing all the tasks, users have to click on the **Save** Button to create the step.

Process > Pressure Cooker

**Basic Information**

Name: PC Fitting & Packet    Manpower:    Main input of step: PC Riveting Product  
 Code: PC Fitting & Packet    Equipment:    Main output of step: Body Handle ( Pressur  
 SBU: Pressure Cooker    Rank: 9  
 Group: PC Fitting & Packet

**Select Material**

Event:    Product:    UoM:    + ADD ROW  
 Equipment:    Quantity:    Unit Cost:    + ADD ROW

Rank	Event	Product Type	Product	UOM	Calculate in BOM	Equipment	Qty.	Unit Cost	Est. Cost
1	1 Consumption	Direct	PC Riveting Product	Pcs	No	PC Riveting Machine	100.00	250.00	25000.00
2	2 Consumption	Direct	Kiam Classic Pc Sticker Small	Pcs	Yes	Press Machine	100.00	1.00	100.00
3	3 Consumption	Direct	Dakna kovar	Pcs	Yes	Press Machine	100.00	40.00	4000.00
4	4 Consumption	Direct	Rivet Bracket	Pcs	Yes	Press Machine	200.00	4.00	800.00
5	5 Consumption	Direct	Rivet Strip	Pcs	Yes	Press Machine	200.00	4.00	800.00
6	6 Consumption	Direct	body Rivet	Pcs	Yes	Press Machine	400.00	1.00	400.00
7	7 Consumption	Direct	1	unit	Yes	Press Machine	100.00	4.00	400.00
8	8 Consumption	Direct	Long Ferrul	unit	Yes	Press Machine	100.00	402.00	40200.00
9	9 Consumption	Direct	Whistle Small	unit	Yes	Press Machine	100.00	64.00	6400.00
10	10 Consumption	Direct	Safety Valve with nut	unit	Yes	Press Machine	200.00	7.00	1400.00
11	11 Consumption	Direct	Gasket Small	unit	Yes	Press Machine	200.00	5.00	1000.00
12	12 Consumption	Direct	KP 2.5 Ltr. Pc. Packet Kiam	unit	Yes	Press Machine	100.00	1.00	100.00
13	13 Consumption	Direct	MC 2.5 Ltr P. C. Master Carton	unit	Yes	Press Machine	100.00	1.00	100.00
14	14 Consumption	Direct	body handle	unit	Yes	Press Machine	100.00	14.00	1400.00
15	15 Consumption	Direct	Strip handle	unit	Yes	Press Machine	100.00	5.00	500.00
16	16 Consumption	Direct	Steel Bracket Classic	unit	Yes	Press Machine	100.00	37.00	3700.00
17	17 Consumption	Rivet	1 lid washer	unit	Yes	Press Machine	100.00	1.00	100.00

SAVE

Figure 3: Add a Process Step within a BOM

### 1.4.1 Add BOM Specification

**Navigation:** Planning > Routing > Add BOM Specification

User will create the BOM Specification from a BOM Outline. During creating a BOM Specification user has to select the BOM Outline, then all the basic information will be auto populated. Users may change the populated data according to the demand. Then click on the Save button. The BOM Specification is further used in the Production order creation.



### Add New BOM Specification

**BOM Information**

BOM:  Quantity:  Description:

Outline:  UOM:  Specification:

Name:

Code:

Unit:

Item:

Product:

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**Other Costs**

Head:  + Amount:  + ADD ROW

	Costing Type	Costing Head	Calculation Type	Amount
1	Direct	Electricity	Percent	5.00
2	Direct	Labour Cost	Percent	5.00
-				

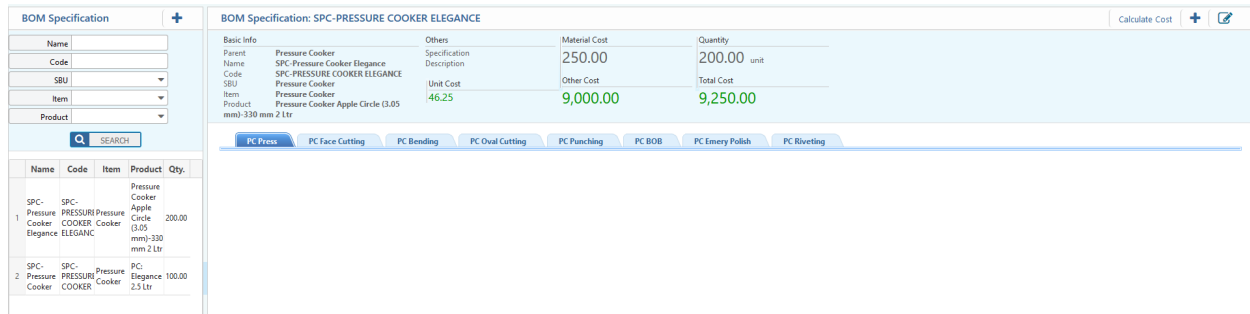
SAVE

Figure 4 : Add a BOM Specification from a BOM Outline

### 1.4.2 BOM Specification List

**Navigation:** *Planning > Routing > BOM Specification List*

Users will be able to view the BOM Specification List from here, user also able to edit the BOM specification from here.



The screenshot shows a software interface for BOM Specification. On the left, there are input fields for Name, Code, SBU, Item, and Product, along with a search bar. The main area displays a table with columns for Name, Code, Item, Product, and Qty. Two items are listed: 1. SPC-Pressure Cooker Elegance (200.00) and 2. SPC-Pressure Cooker (100.00). To the right, a detailed view for 'SPC-PRESSURE COOKER ELEGANCE' shows a cost breakdown table with columns for Material Cost, Quantity, and Total Cost. The table shows a unit cost of 46.25, a material cost of 250.00, and a total cost of 9,250.00. Below the table are tabs for various processes like PC Press, PC Face Cutting, etc.

Name	Code	Item	Product	Qty.
1	SPC-Pressure Cooker Elegance	SPC-PRESSURE COOKER ELEGANCE	Pressure Cooker Apple Circle (3.05 mm)-330 mm-2 Ltr	200.00
2	SPC-Pressure Cooker	SPC-PRESSURE COOKER	PC-Elegance 2.5 Ltr	100.00

Parent	Others	Material Cost	Quantity
Name: Pressure Cooker	Specification	250.00	200.00 unit
Code: SPC-PRESSURE COOKER ELEGANCE	Description	Other Cost	Total Cost
SBU: Pressure Cooker	Unit Cost	9,000.00	9,250.00
Item: Pressure Cooker			
Product: Pressure Cooker Apple Circle (3.05 mm)-330 mm 2 Ltr			

Figure 5: BOM Specification List

## 1.5 Pre-costing

### 1.5.1 Add Pre-costing

Navigation: *Planning > Pre -Costing > Add Pre-Costing*

Users will be able to create a pre costing sheet from a BOM Outline & BOM specification. To create a Pre Costing sheet, users have to select a specific BOM Outline or a BOM specification , then all the relevant data will be populated , user may change the populated data according to the demand then click on the Save button to create the Pre costing Sheet.

#### Add New Pre-Costing Simulation

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**Pre-Costing Information**

BOM » SPC-Pressure Cooker	Quantity	1000	Description
Name » SIM-SPC-Pressure Cooker	UOM »	unit	
Code » SIM-SPC-PRESSURE COOKER	Specification		
Unit		Pressure Cooker	
Item » Pressure Cooker			
Product » PC: Elegance 2.5 Ltr			

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**Other Costs**

Head	Other Expense	+	Amount	3	<span style="background-color: #007bff; color: white; padding: 2px 5px;">+</span> ADD ROW
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	Costing Type	Costing Head	Calculation Type	Amount
1	Direct	Labour Cost	Percent	5.00
2	Direct	Electricity	Percent	8.00
3	Direct	Other Expense	Percent	3.00
-				

SAVE

Figure 6: Pre Costing from a BOM Specification

Pre-Costing Simulation: SIM-SPC-PRESSURE COOKER Calculate Cost + Base BOM

Basic Info		Others	Material Cost	Quantity
Parent	SPC Pressure Cooker	Specification	869000.00	1000.00 unit
Name	SIM-SPC Pressure Cooker	Description		
Code	SIM-SPC-PRESSURE COOKER	Unit Cost	Other Cost	Total Cost
SBU	Pressure Cooker	1,008.04	139,040.00	1,008,040.00
Item	Pressure Cooker			
Product	PC Elegance 2.5 Ltr			

Rank	Event	Product	Qty.	UOM	Unit Cost	Est. Cost	Equipment
1	1 Consumption	Circle (350mm x1.35mm)	-1000.00	Pcs	250.00	-250000.00	Press Machine
2	3 Production	PC Press Product	1000.00	Pcs	250.00	250000.00	Press Machine
<b>Total</b>						<b>250000</b>	

Figure 31: Pre-Costing Details View

## 1.5.2 Pre-costing List

Navigation: *Planning > Pre -Costing > Pre-Costing List*

Users will be able to see all the Pre Costing List from here.

Pre-Costing Simulation: SIM-SPC-PRESSURE COOKER Calculate Cost + Base BOM

Name	Code	Item	Product	Qty.
SIM-SPC-Pressure Cooker	SIM-SPC-Pressure Cooker	PC Elegance 2.5 Ltr	1000.00	

Basic Info		Others	Material Cost	Quantity
Parent	SPC Pressure Cooker	Specification	869000.00	1000.00 unit
Name	SIM-SPC Pressure Cooker	Description		
Code	SIM-SPC-PRESSURE COOKER	Unit Cost	Other Cost	Total Cost
SBU	Pressure Cooker	1,008.04	139,040.00	1,008,040.00
Item	Pressure Cooker			
Product	PC Elegance 2.5 Ltr			

Rank	Event	Product	Qty.	UOM	Unit Cost	Est. Cost	Equipment
1	1 Consumption	Circle (350mm x1.35mm)	-1000.00	Pcs	250.00	-250000.00	Press Machine
2	3 Production	PC Press Product	1000.00	Pcs	250.00	250000.00	Press Machine
<b>Total</b>						<b>250000</b>	

Figure 7: List of All Pre Costing