

# Bill Of Materials & Formula

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# Introduction

# Introduction

## **Overview**

1. It is a list of all the sub assemblies, intermediates, parts and raw material that go into a parent assembly showing the quantity of each required to make an assembly. There are a variety of display formats of bill of material, including single level bill of material, indented bill of material, modular (planning), costed bill of material, etc. May also be called "formula", "recipe", "ingredients list" in certain industries. It answers the question, what are the components of the product?
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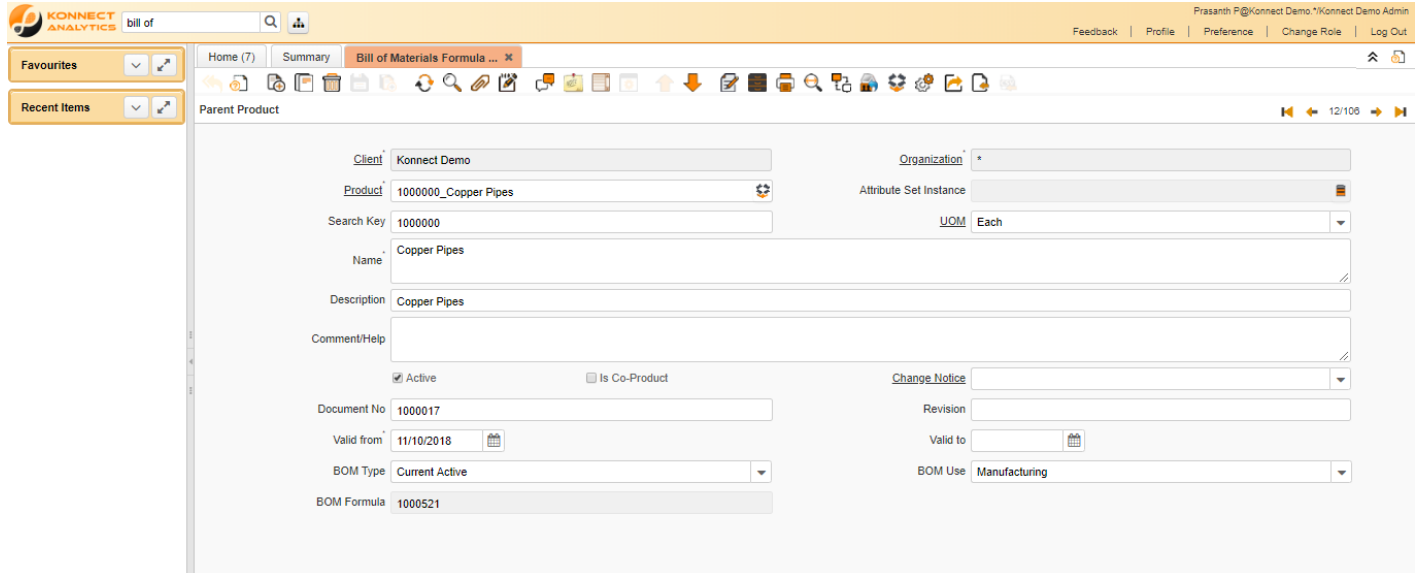
## **Business Case**

1. In a company Bill of materials are used to mention the parent product and the component products quantity details .

Tab

Tab

# Parent Product



The screenshot shows the 'Parent Product' form in the KONECT ANALYTICS application. The form is titled 'Parent Product' and contains various fields for product information. The top navigation bar includes 'Home (7)', 'Summary', and 'Bill of Materials Formula ...'. The left sidebar shows 'Favourites' and 'Recent Items'. The main form fields include:

- Client: Kconnect Demo
- Organization: \*
- Product: 1000000\_Copper Pipes
- Search Key: 1000000
- Name: Copper Pipes
- Description: Copper Pipes
- Comment/Help:
- Active: ☒ Active
- Is Co-Product: ☐ Is Co-Product
- Change Notice:
- Document No: 1000017
- Revision:
- Valid from: 11/10/2018
- Valid to:
- BOM Type: Current Active
- BOM Use: Manufacturing
- BOM Formula: 1000521

## Critical Fields

1. Product : We need to select the manufacturing parent product from the product master.
2. Name : It is used to mention the Bill of material name.

## Critical & onetime setup fields

1. Organization Field- This Field is used to select the organization which you are going to process the document.

## Non-Critical Fields

1. Attribute Set Instance : The values of the actual Product Attribute Instances. The product level attributes are defined on Product level.(Refer Attribute master)
2. UOM : We should mention the Parent product Unit here.(Refer UOM master)

3. BOM Type : We should select the BOM type for Manufacturing product.
    - a) Current Active : Indicates that this BOM is the currently active BOM for the BOM Use selected
    - b) Make To Kit : If it exists with a BOM Use of Manufacturing, a Manufacturing Order will be created, processed and closed when the parent product is added to a Sales Order. See the notes below.
    - c) Make To Order : Similar to Make To Kit but the created Manufacturing Order will be left at the prepared state and will need to be completed, and processed. See the notes below.
    - d) Product Configure : The BOM used to configure a product where there are options. For more information, see Product Configuration
    - e) Repair : Not currently used by the system.
  4. BOM Use : It is used to select the BOM use.(Ex : Engineering,Manufacturing,Master,Planning,Quality)
  5. Change Notice : Select the Change Notice that relates to this Component. This is a link to a change process describing what was changed and why.(Refer master window)
  6. Valid From : It is used to mention this BOM validation starting date.
  7. Valid To : It is used to mention this BOM validation ending date.
  8. Revision : It is used to mention the revision number , It will help to enter the current revision for the FG Product. also you can see the existing revision details in change BOM master.
  9. Is Co-Product : This field is allow us to enter the consumption products against the parent service product
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## **Zoom condition's**

1. We can zoom and find the manufacturing orders by using this BOM.
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## **Customization**

Tab

# Components Of The BOM Formula

The screenshot displays the 'Bill of Materials Formula' screen in the KONECT ANALYTICS application. The form is used to define a BOM component. Key fields and their values are as follows:

- Line No:** 10
- Product:** Pipe 20 MM\_Pipe 20 MM
- UOM:** Each
- Component Type:** Component
- Attribute Set Instance:** (empty)
- Description:** (empty)
- Comment/Help:** (empty)
- Active:** ☒
- Valid from:** 17/04/2020
- Is Qty Percentage:** ☐
- Quantity:** 0.0
- Scrap %:** 0.0
- Issue Method:** Issue
- Lead Time Offset:** 0
- BOM Formula:** 1000000\_Copper Pipes\_1000017
- Change Notice:** (empty)
- Valid to:** (empty)
- Is Critical Component:** ☐
- Quantity Assay:** 0

## Critical Fields

1. Product : It is used to select the Component product from the product master.

## Critical & onetime setup fields

1. Organization Field- This Field is used to select the organization which you are going to process the document.

## Non-Critical Fields

1. UOM : Here this is used to select the UOM for the component product.(Refer UOM Master)

2. Component Type : It is used to select the component type. The Component Type can be:
  - a)- By Product : A product produced as a result of the manufacturing process. By-Products are treated differently when calculating the rolled-up cost of the BOM and are not included in the final Product costs nor do they absorb a portion of the cost of the production. By-Products are used in Material Resource Planning (MRP) to calculate supply.
  - b)- Component : The default. A component is consumed or incorporated into the final product by the manufacturing process. The quantity entered is in UOM selected.
  - c)- Option : A component that will be optionally added to an Order Line when the BOM is "dropped" onto an Order, Invoice or Project. Option components are not allowed on Manufacturing Orders.
  - d)- Phantom : A Component of this type, when added to a Manufacturing Order, will have its Quantity Required amount set to zero and, if the Product has a default BOM , all the default BOM Components will be added to the Order at the same level with the original Quantity Required. This is useful for adding common material and process components to a large number of BOMs while keeping the BOMs rather simple. It also allows the Phantom BOM to be changed independently of all the BOMs that make use of it.
  - e)- Packing : A Packing component quantity is assumed to be per batch when the component is entered on a Manufacturing Order.
  - f)- Planning : Define Planning as Component into BOM
  - g)- Tools : A Tools component quantity is assumed to be quantity one per BOM quantity when the component is entered on a Manufacturing Order.
  - h)- Variant : Similar to the *Option* type but used as a choice of one from several variant Components within a group where the variants share a Feature. Variant components are not allowed on Manufacturing Orders.
3. Attribute Set Instance : The values of the actual Product Attribute Instances. The product level attributes are defined on Product level.
4. Quantity : The quantity of the component required to create one BOM UOM. This field is shown if the Is Quantity Percentage field is not selected.
5. Issue Method : It is used to select the Issue method type.
  - a) Issue : Indicates that manual material handling processes will be followed to draw material from inventory and provide the component to the manufacturing process. The component can be issued individually from other components and in partial quantities if necessary.
  - b) Backflush : The required quantity of the component will be automatically issued to the manufacturing process with no material handling involved. Components using the Backflush Issue Method can be grouped using the Backflush Group



field. This Issue Method is useful where the quantities of the component in stock are high and readily available to the manufacturing process.

#### c) Floor Stock : The

Component will be drawn from Floor Stock with no material handling involved. Floor Stock is an expense account similar to the Product Asset or Inventory account but that represents material that will be consumed in production. It is used for issue methods such as Kanban where the Kanban locations are filled from inventory and treated as an internal use expense when filled. This "fill" process would remove products from inventory, credit Inventory and debit Floor Stock as an expense. The Floor Stock Issue Method will allocate this expense to the cost of the BOM Product as debit Work-In-Progress, credit Floor Stock

6. Change Notice :
7. Valid From : The Valid From date indicates the first day of a date range .
8. Valid To : The Valid To date indicates the last day of a date range.
9. Is Qty Percentage : If selected, this indicates that the quantity of the Component will need to be calculated as a percentage of the Quantity Ordered on a Manufacturing Order. When this field is selected, the quantity is entered as a batch quantity percentage. If deselected, the quantity is a quantity per BOM UOM.
10. Is Critical Component : A flag that indicates that this component Is Critical. It is not currently used by the Application.
11. Scrap % : Scrap is useful to determinate a right Standard Cost and management a good supply.
12. Lead Time Offset : Optional Lead Time offset before starting production.
13. Quantity Assay : Indicated the Quantity Assay to use into Quality Order

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## **Zoom condition's**

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## **Validation**

# Validations

# Validations

## **Save**

1. It is used to save the records after the mandatory fields are filled.
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## **Delete**

1. It is used to delete the records , After the transactions cannot delete the records.

# Process

# Order Process

Home (76) | Summary | Bill of Materials & Formula... x

Parent Product

Data requested

Client: Konnect Demo Organization: Manufacturing SPM

Product: Pack machine 1000\_Pack machine 1000 Attribute Set Instance

Search Key: Pack machine 1000 UOM: Each

Name: Pack machine 1000

Description: Alphanumeric identifier of the entity

Comment/Help

☒ Active ☐ Is Co-Product Change Notice

Document No: 1000000 Revision

Valid from: 22/07/2020 Valid to

BOM Type: Make-To-Order BOM Use: Manufacturing

Verify Bill of Material(Production & Sales) Verified

- 1.Copy Bom lines from : This process will help you to copy the Bom from the Bom master
- 2.Verify Bill of Material(Production & Sales):its used for verified the Bom

Process

# Operation process

Not Applicable

# Video

# Form and process



# BOM Viewer

The screenshot shows the BOM Viewer application interface. At the top, there is a navigation bar with tabs: 'Home (112)', 'Summary', and 'BOM Viewer' (which is active). Below the navigation bar, there are several input fields and a checkbox. The 'Organization' field is set to 'Manufacturing Discreb'. The 'Product' field is empty. The 'BOM' field is empty. The 'Routing' field is empty. The 'SFG Warehouse' field is empty. The 'SFG Plant' field is empty. There is a checkbox labeled 'Implosion' which is unchecked. The 'Selected Product' field is empty. Below these fields, there are three large empty rectangular areas for displaying data. At the bottom left, there is a checkbox labeled 'Expand Tree' which is unchecked. At the bottom right, there are two buttons: a green checkmark button and a red X button.

## Parameters :

- 1) Organisation : It is used to display the organisation name.
  - 2) Product : It is used to select the Finished goods product for which bom is created.
  - 3) BOM : It is used to select bill of material created for the product.
  - 4) Routing : It is used to display routing created for the bill of material.
  - 5) SFG Warehouse : It is used to display warehouse details mentioned data planning.
  - 6) SFG Plant : It is used to display the plant name mentioned in data planning.
  - 7) Implosion : By using this check box it is used to hide Bom,Routing,Warehouse & SFG Plant.
  - 8) Expand tree : By using this check box it used to expand full bom.
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## **Form Use :**

By using this form we can able to view full bom with quantity mapped.