**Manufacturing system**

NAMA provides a comprehensive system to manufactured products in many industries such as medicines, textiles, canned goods, chemicals, and other typical products. Typical products are those products whose defined bill of materials, operations, and resources in order to produce these products periodically according to required quantity of the product.

**Comprehensive files for manufacturing process elements**

**Bill of materials:** NAMA allows defining infinite number of components for each product with the capability of linking each component with its operation. You can also define the method to issue each component from its warehouse whether automatically or manually as well as defining detailed information for each component in terms of quantity, unit, dimension, yield, and others.

Via bill of materials file, you can also define the co-products resultant from manufacturing the final product with a statement of quantity and cost percentage for each co-product.

**Routing:** Via routing file, you can define the consecutive operations to produce the product. You can define the characteristics of each operation in terms of the used resources, the method of charging cost, and others.

**Resources and activities:** NAMA provides a special file to define resources whether workers or machines with the ability of linking these resources with Human resources and Fixed assets modules and determining the cost rate of each resource. You can also define many accounts for each resource. On the other hand, you can define infinite number of activities where the resource may have many activities according to the operation nature.

**Work centers:** NAMA provides defining any number of work centers as well as the resources existing in each work center, resources number and the working hours available for each resource.

**Overheads:** NAMA provides different methods to charge cost of the production order overheads such as charging cost per the value of each resource hour, by a percentage of the total cost of consumed raw materials, by a percentage of the total cost of resources hours.

**comprehensive documentary cycle**

NAMA supports all documents that cover the manufacturing process from issuing the production request into closing the production order and costing the finished products.

**Production order:** Via the production order, you can define the quantity of finished products to be produced, the characteristics of this product in terms of bill of materials, operations, co-products, in addition to many other information such as batch number, production date, quality information, and others.

**Production execution:** Via the production execution document, you can execute an operation - or many operations - for the production order. You can also, execute many operations for multiple production orders all at once.

**Product delivery and product return vouchers:** In order to receive and return finished products and co-products of the production order.

**Raw material vouchers:** NAMA provides raw material issue, and raw material return vouchers to receive and return raw materials that are planned before in the production order.

**Resource voucher:** To charge the cost of working hours for each resource (workers/machines) defined in the production order.

**Scrap receipts:** NAMA allows receiving any scraps resultant from the production order. NAMA also supports different methods to charge the cost of these scraps on the production order.

**Production order close voucher:** As soon as closing the production order, the system collects the costs of consumed raw materials, working hours of resources, and overheads in order to cost the final products, and stop the work on the production order.

**Adjustments for closing production order:** Plannedoverheads for the production order may vary significantly from the actual overheads such as unexpected electricity bill. Via order close adjustment voucher, you can recalculate the cost of the production order and consequently the cost of finished products even after closing the production order taking into account all transactions occurred before adjustment such as sales documents and others.

**Full integration with other NAMA systems**

Manufacturing module integrates with the other NAMA modules where the raw materials are invoked from the inventory items defined before in Inventory module. Workers and machines defined before in Human resources and fixed assets modules are used as resources to execute operations. Product receipt voucher generates a stock receipt voucher automatically to receive final products in the warehouse, while product return voucher generates a stock issue voucher automatically to issue the returned products.

You can also use other inventory documents with the manufactured items such as Quality control document , and quality assurance document.

**Adaptation with the different manufacturing methods**

Manufacturing module has been designed so as to adapt with the different manufacturing method as the following examples

* NAMA supports all supply types such as supplying materials manually or automatically such as operation pull with executing operation or assembly pull with receiving the finished products.
* NAMA supports charging the cost of working hours via issuing the resource vouchers manually, or automatically upon issuing the execution voucher.
* NAMA supports charging the cost of resource per item or per lot.

**Usability**

Manufacturing module was designed so as to ease the manufacturing data entry as well as manipulating this data in a flexible way. For example the following:

* NAMA helps user to determine the standard quantities required to produce the final products where you can define the quantity of raw material required to produce a quantity of final products by any way. For example, you can define 3 liter of a raw material required to produce 3 tons of final product, and leave NAMA to calculate any other quantities.
* NAMA supports executing many operation for multiple production orders all at once.
* You can define standard operation including all its resources and details in order to invoke this operation in the routing file directly rather than having to define the operation each time.
* You can easily view all documents related to a manufacturing document such as receipt vouchers related to a product receipt or raw material return. This way, you can monitor any of manufacturing process details. For example, you can view all documents related to the production order via related documents tab screen.

**Material resource planning MRP**

NAMA supports a planning system for manufacturing products in order to produce the products according to a business plan taking into account the available materials and expected sales.

**Multiple Scenarios**

NAMA supports defining many scenarios to record many forecasts according to different point of views as well as comparing between them. NAMA provides many mechanisms to compare between defined scenarios according to the expectation percentage of each one, where NAMA distinguishes between products to be produced and already have sales orders issued before in defined periods, and those products expected via forecast documents, and those products expected via a manual demand document that issued by the planning manager according to his point of view.

**Planning documents**

Via planning documents, decision maker can choose between different forecasts in a specific period. You can collects the planned products to have information about the required quantity of each product; consequently, the required raw materials to be bought. Via planning document, you can issue the production orders, production requests according to the required quantities. Via planning document, you can also issue purchase orders for raw materials required for the planned products.

**We help you to plan**

NAMA provides many mechanisms to help decision maker to execute the proper planning. For example, when displaying the products to be produced in planning document - desired tab screen, NAMA displays the currently available quantities of the products, the quantities that expected to be received in warehouses, and the quantities that expected to be issued from warehouses in order to make the correct decision to determine the required quantities by which the production order will be issued.

NAMA displays the product quantities whether currently available, expected to be received, or expected to be issued from warehouses by any level of complexity where NAMA distinguishes between quantities in enterprise warehouses and quantities existing in the warehouses related to the enterprise distributors; furthermore, the available and expected quantities could be calculated by special equations desired by the client himself. Where these quantities could calculated based on specific warehouses without the others, or based on sales or purchases documents in specific periods or any other parameters; the matter which provides a great flexibility in adapting with the enterprise work nature.

NAMA provides production order for planning which differs from the normal production order, where production order for planning has a detailed description for the use percentage of each required raw material in the different products which helps the management to recognize the extent of need for each item; consequently, making the proper decision for purchasing according to the market conditions.