# VARDHAMAN COLLEGE OF ENGINEERING, HYDERABAD

**Autonomous institute affiliated to JNTUH**

##### DEPARTMENT OF MECHANICAL ENGINEERING

##### Academic Year: 2024 –2025

##### B. Tech IV Year I Semester – ME

##### **PRODUCTION PLANNING AND CONTROL**

**UNIT-V**

# DISPATCHING

It is concerned with getting the work started. Dispatching ensures that the plans are properly implemented. Dispatching is the physical handing over of a manufacturing order to the operating facility (a worker) through the release of orders and instructions in accordance with a previously developed plan of activity (time and sequence) established by the scheduling section of the [production planning and control](https://www.mbaknol.com/operations-management/steps-in-production-planning-and-control/) department.

Dispatcher transmits orders to the various shops. Dispatch function determines, by whom the job shall be done and it co-ordinates production. It is the key point of a production communications system. It creates a direct link between production and sales.

Dispatching starts with input as route sheet and schedule chart. It concerns itself with starting the processes and operation of production. It triggers the starting of the production activity on the shop-floor through the release of orders and instructions, that are based on pre- planned times and sequences contained in route sheets and schedule charts.

Dispatching determines the person who will do the job. Work order and authorizations are issued to perform the work according to a planned sequence, using prescribed tools and a time schedule.

It is the duty of the dispatching function to issue requisition for material and tools on a production order. Dispatching is a process of translating production plan into output (action). This is because orders are issued for the movement of material, parts, and tools to the work centers, and it also includes instructions for the inspection and' recording of the work.

# Function of Dispatching

* Collecting and issuing to work centre, all the concerned drawings, specifications, material list, job tickets, route card requisition slip, tool card, etc.
* Ensures that right material, tools, parts, jigs and fixtures, etc., are made available at right time and at right machines from operation to operation.
* Issues authorization to start work in accordance with the predetermined date and time.
* Obtains inspection schedules and issues those to the inspection section.
* Distributes machine loading and schedule charts, route sheets, identification tags, etc., to each production and inspection stage.
* Informing and updating progress report and keeping records for reference.

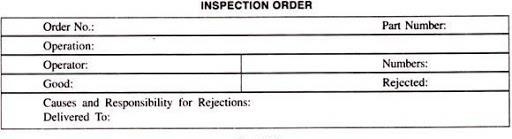
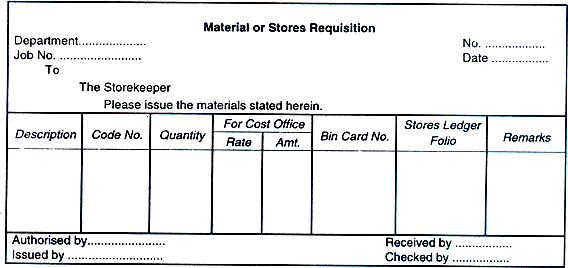
# Common Forms Used in Dispatching

1. **Store Issue Order**: Authorize stores (department) to deliver required raw material.
2. **Tool Order**: Authorize tool store to release the necessary tools. The tools can be collected by the tool room attendant.
3. **Job Order**: Instruct the worker to proceed with the operation.
4. **Time Ticket**: It records the beginning and ending time of the operations and forms the basis for worker’s pay.
5. **Inspection Order**: Notify the inspectors to carried out necessarily inspections and report the quality of the component.
6. **Move Order**: Authorize the movement of materials and components from one facility (machine) to another for further operations.

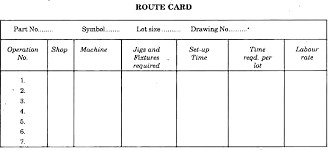
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WORKS ORDER** | | | | | | | | | | Job Number | | | | |
| Customer Name and Address | | | | | Send to (if different) | | | | | | | | | |
| Date issued | | Customer’s order No.  and date | | | | Delivery date  promised | | | | | | Carriage by | | |
|  | |  | | | |  | | | | | |  | | |
| Items to be supplied | | | | | | | | | | | | | | |
| Quantity | Drawing No. | | | Description | | | | Unit price | | | | | Total price | |
|  |  | | |  | | | |  | | |  | |  |  |
| Special instructions Rs.  + Tax @%  Total  Distribution | | | | | | | | | | | | |  |  |
|  |  |
|  |  |
|  |  |
| Catalogue items and specials | | | | | | | | | | | | | | |
| Stock  control | Dispatch | | Accounts | | Chief  engineer | | Chief  inspector | | Works  manager | | | | Production  control | |

# Store Receipt Note or Material Requisition Note

It is issued for receiving material from the store. It works as an order to the store-keeper to issue the mentioned material.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **JOB TICKET** | Operator’s  number | Time on | Time off | | Drawing number | | Batch |
|  |  |  | |
| Description | | | |  | | Quantity | |
| Operation | Instructions, Jigs, Fixtures, etc. | | | Inspection | | Work station | |
|  | Quantity started: Quantity finished | | |  | |  | |



**Dispatching procedure:**

* 1. **Centralized dispatch system:**
  2. **Decentralized dispatching system**
     1. **Centralized dispatch system:**

In a Centralized dispatch system, a central dispatching department, orders directly to the work station. It maintains a full record of the characteristics and capacity of each equipment and work lad against each machine. The orders are given to the shop supervisor, who runs his machines accordingly. In most of the cases, the supervisor can also give suggestions as regards loading of men and machines under him.

A centralized dispatching system has the following advantages:

1. A greater degree of overall control can be achieved.
2. Effective co-ordination between different facilities is possible.
3. It has greater flexibility
4. Because of urgency of orders, changes in schedules can be affected rapidly without upsetting the whole system.
5. Progress of orders can be readily assessed at any time because all the information is available at a central place.
6. There is effective and better utilization of manpower and machinery.

# Decentralized dispatching system :

In a Decentralized dispatching system the shop supervisor performs the dispatch factions. He decides the sequence of handling different orders. He dispatches the orders and materials to each equipment and worker, and is required to complete the work within the prescribed duration. In case he suspects delay, with due reasons of the same, he informs the production control department.

A decentralized dispatching system has the following advantages.

1. Shop supervisor knows best about his shop, therefore, the work can be accomplished by the most appropriate worker and the machine.
2. Elaborate reports and duplication of postings can be avoided
3. Communication gap is reduced
4. It is easy to solve day-to-day problems
5. It keeps the natural urge of a section to be self-sufficient.

# FOLLOW UP

Follow-up or Expediting is the last step in production planning and control. It is a controlling device. It is concerned with evaluation of the results. The follow up is to check the progress of the order undertaken as it is being produced from the first operation until the order is converted into final product.

Thus it regulates the progress of material and parts through the production processes.

Follow-up is performed by ‘Expediters’ or ‘Stock Chasers’. Follow-up is necessary when production decreases even when there is proper routing and scheduling.

Production may be disturbed due to break-downs of machinery, failure of power, shortage of materials, strikes, absenteeism, etc. Follow-up removes these difficulties and allows a smooth production.

**Follow-up Activities :**

* 1. Watching progress of production process
  2. Identification of delays, disruptions or discrepancies
  3. Physical control of work-in-progress through checking
  4. Expediting corrective measures
  5. Assistance in removing problems during deviations
  6. Coordination with other departments during operations for contingencies and maintenance, if required.
  7. Prepare list of material and tools, etc., which are in short supply.
  8. Report any other production related problems, which need immediate attention by outside agencies.

# Types of Follow Up:

There are mainly five important procedures.

1. Program control
2. Order processing
3. Shortage chasing
4. Daily plan progressing
5. Departmental progress control

# Program Control:

In this method the actual production output is Compared with the production program. In case of sales, compare actual sales with the sales program and report the deviations to the line managers. Then the line Managers will take necessary steps in order to avoid the defects in future.

# Order Processing:

Here the due dates of production orders and Purchase orders are compared with the actual completion dates (or) material received date. Then any over due is identified it is immediately reported to the line managers to see that the corrective action is taken.

# Shortage chasing:

In this procedure the actual availability of materials at workstations are compared with the required quantity of material, if any shortages are found to report and make the immediate arrangements to supply the required material in order to stoppage of the production.

# Daily plan progressing:

This method is used at the third level of production control. In this method to see that the daily plans made during dispatching are achieved or not. If the plans are not achieved to the required no. of products, the reasons are noted and sent in feedback form to the top level management.

# Departmental progress Control:

In this method the department performance is measured with the targeted production plans and a report is prepared regarding the efficiency of the department because of in order to help the line managers to take Corrective action.

# Application of computer in production planning & control:

**Role of Computer**

With the expansion of production and sales activities, the volume of transactions has increased. The manual method of maintaining books of accounts is found to be unmanageable and gradually computers have replaced the manual method of accounting. And finally the database technology has revolutionized the accounting departments of business organizations.

# Some of the areas where computers are used in sales and industry are as follows:

* 1. Inventory Control,
  2. Production Planning,
  3. Budgeting and Variance Analysis,
  4. Plant Capacity Utilization,
  5. Quality Control,
  6. Market Research,
  7. Purchase Accounting,
  8. Sales Accounting,
  9. Payroll Accounting,
  10. Information Management, and so.

# Advantages of Computerised Production planning and control

1. Reduction of work in progress and buffer stocks.
2. Progressive tightening up of management encouraged by providing targets.
3. Management Statistics provided.
4. Long term effects of management decisions shown.
5. Over and under folds on facilities shown.
6. Foremen enabled to plan ahead.
7. Progress chaser shown what and where to chase.
8. More accurate information updated as and when required.
9. Reduced paper work in use at any one time.
10. Better communication made possible.