The main differences between NC Machine and CNC Machine are NC Machine works on the X-Y or Straight-line axis but CNC Machine works X-Y-Z axis.

Today we are going to study the differences between NC and CNC Machine in detail.

Note: At the end of the article you can easily download PDF version.

So let’s start,

NC (Numerical Control) Machine:
As a name indicates Numerical control Machine, The operation is done to be feeding or inserting the code into the NC Machine.
This is a kind of manufacturing machine tool to perform several operations automatically.

CNC (Computer Numerical Control) Machine:
CNC Machine is an advanced version of NC and other Machine tools. CNC Machine is also a manufacturing machine tool in which several operations are performed automatically and the main features in it that in-between operation if code we want to change we can easily change.

So Now let’s move to differences,
Difference between NC and CNC Machine

NC Machine

CNC Machine

Difference Between NC Machine and CNC Machine
Difference between NC machine and CNC Machine:

Here are the 15 Point on differences between NC Machine and CNC Machine:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>NC Machine</th>
<th>CNC Machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NC stands for Numerical control machine.</td>
<td>CNC stand for computer numerical control machine.</td>
</tr>
<tr>
<td>2.</td>
<td>Here Punch card is used for storage. There is no memory storage card here.</td>
<td>Memory storage is present because of the computer system here.</td>
</tr>
<tr>
<td>3.</td>
<td>In the NC machine, The operation parameter can not be changed once indexed but</td>
<td>In the case of the CNC machine, the operation parameter can be changed easily.</td>
</tr>
<tr>
<td>5.</td>
<td>NC machine is less costly.</td>
<td>CNC machine is more costly.</td>
</tr>
<tr>
<td>6.</td>
<td>It requires less maintenance.</td>
<td>It requires require more maintenance.</td>
</tr>
<tr>
<td>7.</td>
<td>In terms of accuracy, NC machine is less.</td>
<td>Whereas the CNC machine has good accuracy.</td>
</tr>
<tr>
<td>8.</td>
<td>NC machines are less flexible.</td>
<td>CNC machines are more flexible.</td>
</tr>
<tr>
<td>9.</td>
<td>The operation time is more here that means time taking is more for performing the operation.</td>
<td>The operation time is less here.</td>
</tr>
<tr>
<td>10.</td>
<td>A good or skilled operator require to perform on the NC machine.</td>
<td>A semiskilled can perform on the CNC machine. The main things are users must have knowledge of computer system</td>
</tr>
<tr>
<td>11.</td>
<td>The continuous running of machine is not possible but</td>
<td>Here the continuous running of machines is possible.</td>
</tr>
<tr>
<td>12.</td>
<td>For the execution of a job, the NC machine takes more time.</td>
<td>CNC machine takes less time.</td>
</tr>
</tbody>
</table>
13. The **NC machine** works on only numeric, symbol and letters.

14. NC machine understands numeric, symbol.

15. This is hardware based type system.

This CNC machine works on G and M code.

It understands binary data (1s, 0s).

This is software base system.

**NC Machine vs CNC Machine**

So here are all the points I have discussed and try to understand you. Now you tell us by commenting down Have you understood or not?

You can read all the terms of *Manufacturing Technology* in detail.

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