Study Of Chip Breaker

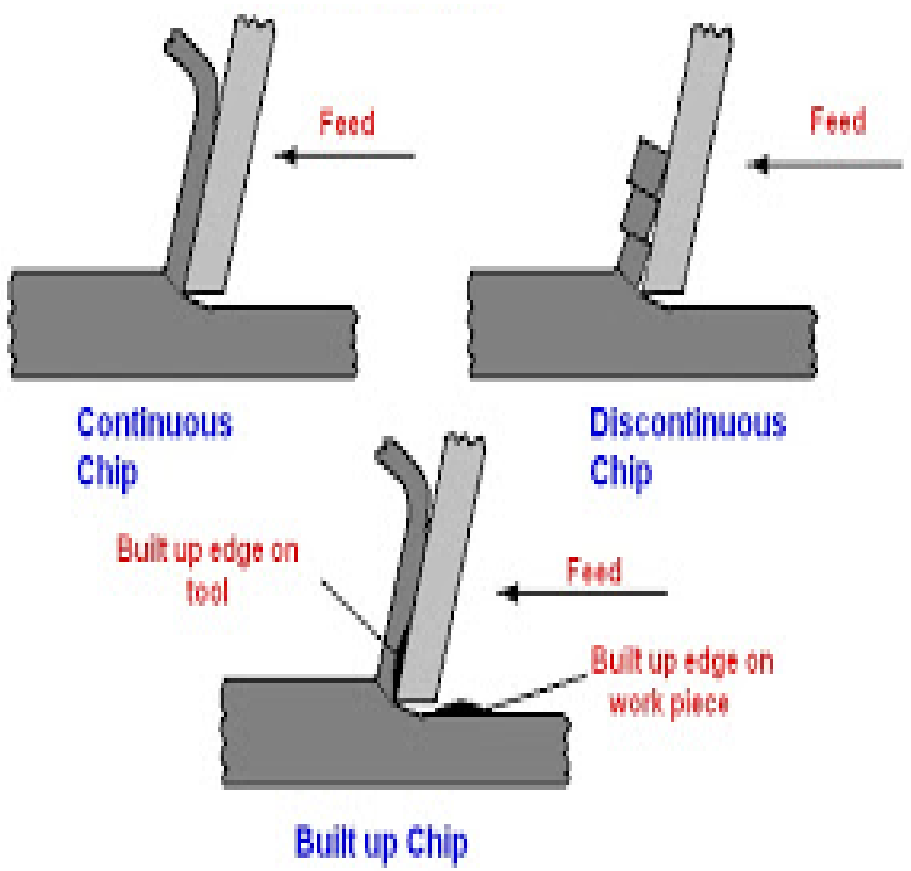
TYPES OF CHIP

a) Continuous Chip

b) Built-Up Edge Chip

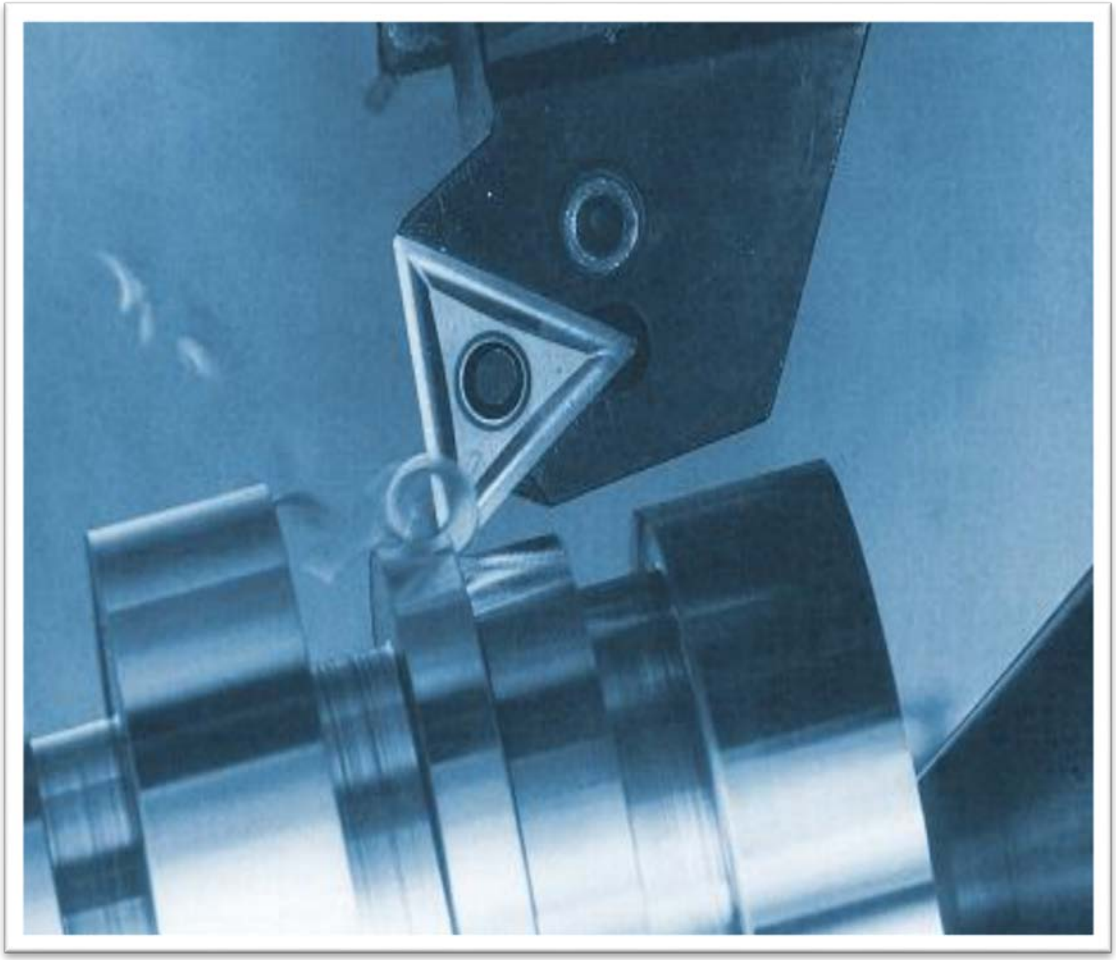
c) Serrated Chip

d) Discontinuous Chip



Introduction

this project will study the different situations and the development of the Chip Breakers.



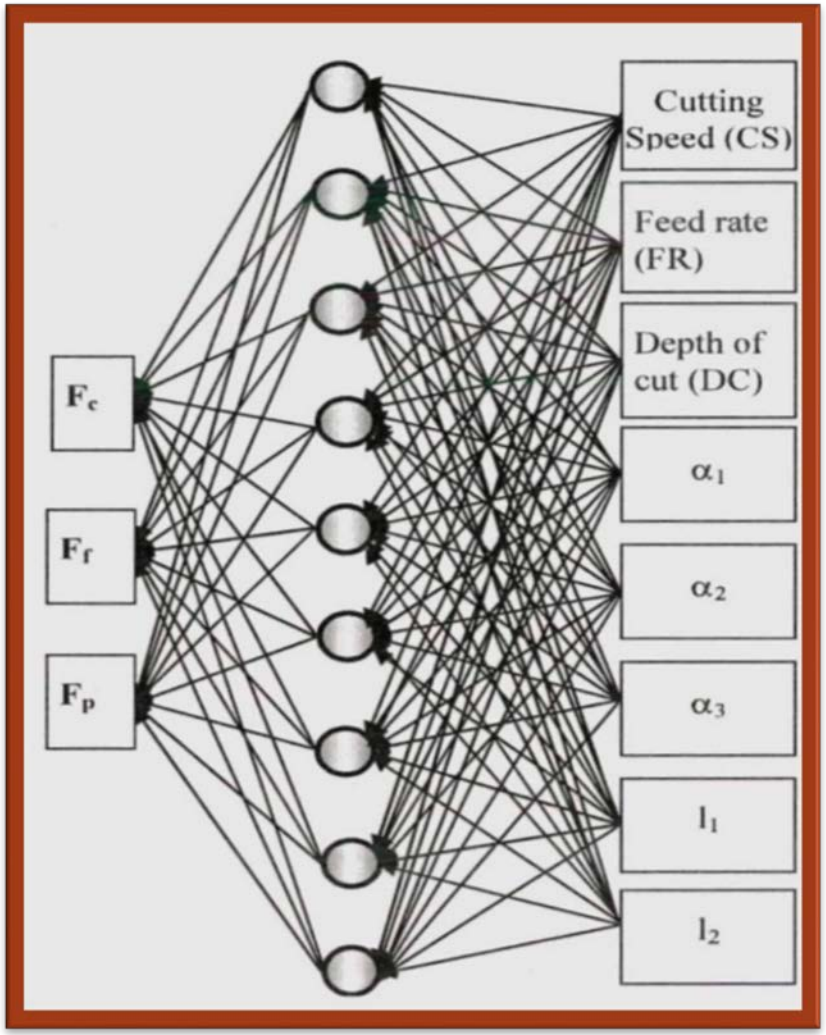
STUDY OF CHIP BREAKER

- Chip breaker : prevent the chip from tangle around the cutting tool by converts the long pieces into small pieces.

- Studies : There was a lot of research for developing and the improvement for

ANNs METHOD

Artificial Neural Networks are used to determine The strength of machinery and surface roughness , Also it used to determine the components of the cutting force for chip breaker.



WHY WE SHOULD USE ANNs

* it's mathematical method used in many application such as engineering , medicine, economics , and math. ANNs used for solving complex problems to make it simple and clear.

* ANNs do a processing that connect and parallel with fault tolerance, and by that they can learn from the mistakes in experience

ANNs METHOD

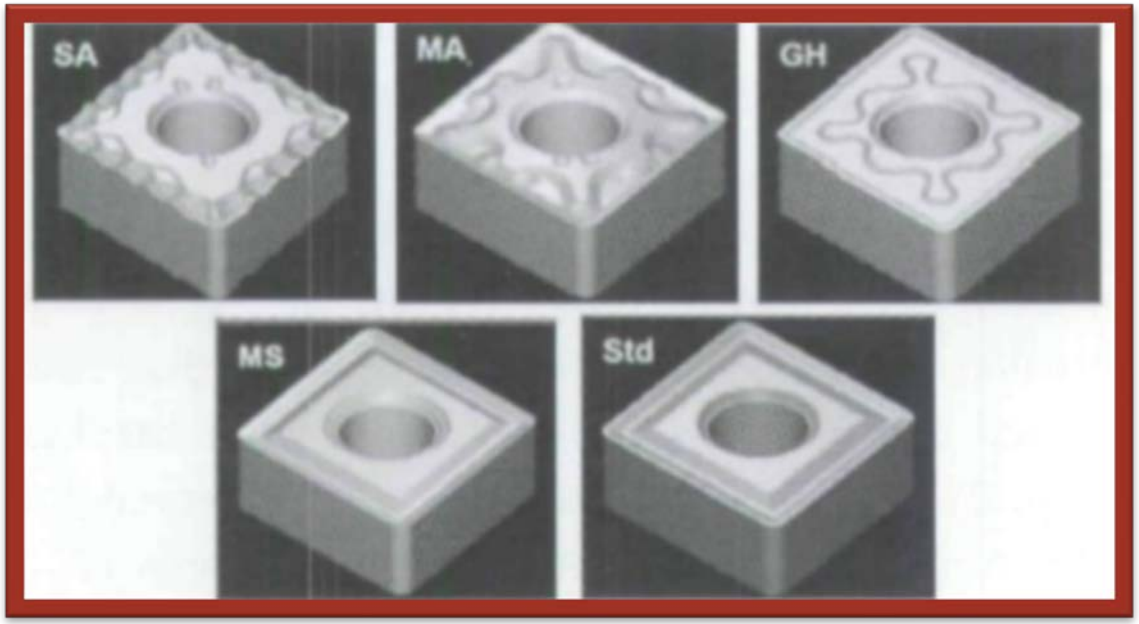
* the Evaluation for the performance of cutting tools it can be done by Artificial Neural Networks and the variables that must be known are :

- cutting speed
- depth of cut
- feed rate

that will effect the results.

STUDY OF THE CHIP BREAKER TYPES

* There are many types of chip breaker :MS , MS U, MA , SA , GH , STD, STD U . or (MS, GH, etc.)



DIFFERENT BETWEEN COATED AND UNCOATED TOOL

* there is a difference if we used a coated tool or uncoated tool.

the uncoated tool is faster in cutting than the coated tool on carbide.

* If we coated the tool life is increased.

* If the speed of the tool cutting increased, the force will decrees.

CONCLUSTION

* Increasing cutting speed was generally found to decrease the main cutting force (Fc) for all the chip breaker.

* The Angle , Speed Of Cutting ..etc. All of that is important to control the chip

* The most complex type of chip breaker must use high cutting force, but the parts that not complex the cutting force will be low

ANY QUESTIONS ?

THANKS FOR LISTENING.

BEST WISHES.