

## CNM SPECIMEN CHARPY



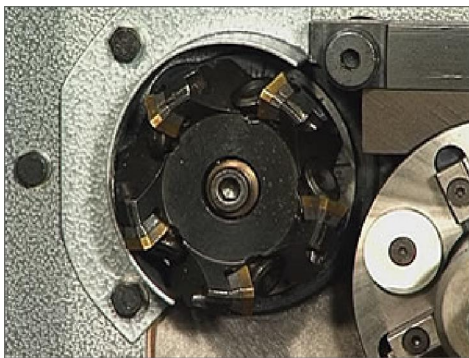
The Blacks CNM range of machines have been specially designed to allow laboratories and test houses to produce their own standard and sub-size Charpy / Izod test pieces ready for cutting the appropriate notch.

Two variations of the Charpy Specimen Milling Machine (CNM) are available to cover a wide range of materials.



### *Work Holding Fixture:*

- ✓ The circular fixture allows up to four specimens to be machined during the same operation.
- ✓ Various clamps, anvils and clamping screws are available to suit the type of rough cut blanks being used.
- ✓ One circular fixture is included with each machine. For maximum machine production a 2nd fixture (optional extra) is recommended, so

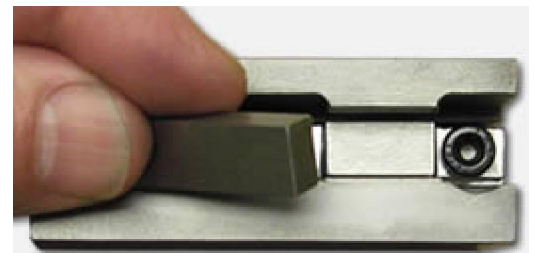


### Cutter:

The cutter is fitted with five ISO carbide inserts, which are easily replaceable.

A micro adjuster allows for accurate control of specimen size and allows for compensation of cutter tip wear.

Sub size fixture



## MOTORIZED CHARPY

### CSM-1 FIXED SPEED CHARPY SPECIMEN MILLING MACHINE

The Fixed Speed Machine is recommended for customers who are producing specimens in carbon steels, easily machined low alloy steels, non-ferrous and plastic materials. This machine has a fixed cutter speed of 1.98 m/sec and a variable feed rate for the samples of 2.5-9.0 mm/sec.

For customers producing specimens in a wider range of materials, see the CSM-1V with variable cutter speed



A D.C. thyristor drive control provides the variation in speed of the rotary fixture, for both the Fixed and Variable Machines. The fixture speed sets the feed rate which the samples are machined.

An A.C. thyristor drive control provides the variation in the cutter speed, on the Variable Machine only.

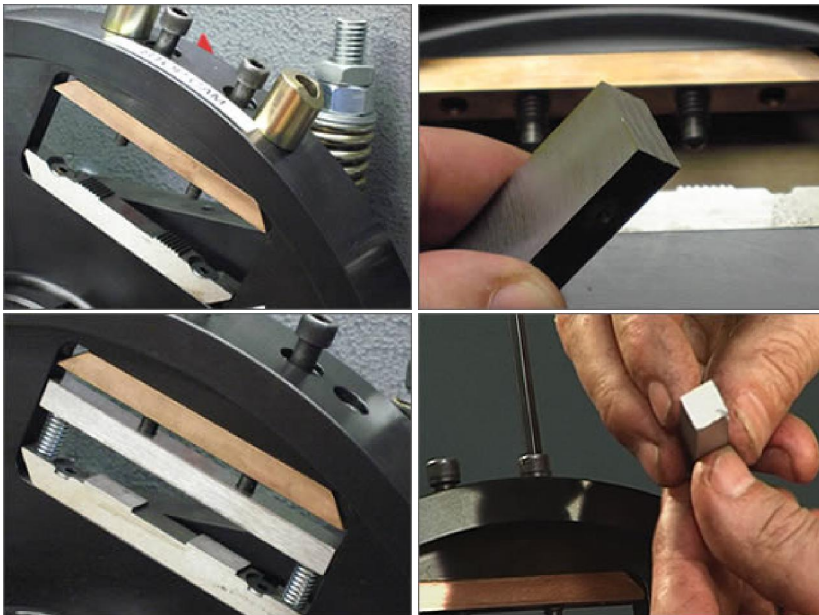


### CSM-1V: VARIABLE SPEED SPECIMEN MILLING MACHINE

The Variable Speed Machine is recommended for customers who are producing specimens in carbon steels, more difficult to machine alloy steels, stainless steels, non-ferrous and plastic materials.

This machine has a variable cutter speed of 1.0-2.5 m/sec and a variable feed rate for the samples of 2.2-9.0 mm/sec.

The varying of the cutter speed for differing materials improves the cutter tip life.



#### Fixture:

The rotating work holding fixture is fitted with clamps, anvils and clamping screws to suit the type of blank being used, i.e. rough sawn square/ rectangular, round or tubular section and the size of specimen to be produced, i.e. 10mm square or sub-size