



CATRA V-100 Commercial Knife Sharpener

for **MOST HANDHELD KNIVES**

Designed and manufactured by
Cutlery & Allied Trades Research Association

For Variable Sharpening Angles and Hollow Grinding



- Produces the sharpest knives, proved by extensive tests.
- Less than 10 seconds per knife.
- Without skill or lengthy training.
- Adjustable edge angles give the ability to hollow grind and single or double bevel sharpen on the same machine.
- With safety and comfort.
- Does not need water, as special CBN abrasive gives the coolest grind to improve edge life by up to 100% over conventional sharpening media.
- Small and compact.
- Low consumable cost, as grinding wheels can be recoated, low maintenance.
- Stainless Steel Covers and water-resistant electrical equipment.
- Sharpening angles of between 0° and 70° are available.
- Operates from 230V or 110V electrical supply, or a generator or 12V inverter.
- Available with range of abrasive grit sizes, for different knife uses.
- Ideal for knife manufacturers, large food processors, resharpening services.



Its principle of operation utilizes the Spiral Interlock Grinding Wheel system, used extensively throughout the world for knife manufacture and resharpening. By coupling this system with the high-tech abrasive Cubic Boron Nitride (CBN) it provides a sharpening machine with many advantages.

By selection of a particular sharpening angle, typically 30°, the user will consistently produce high levels of sharpness, as the edge angle is controlled by level of interlocking of the spiral wheels. Once this sharpening geometry has been set all operators of the machine will achieve the same high levels of sharpness, irrespective of skill. By resetting the sharpening geometry so that the wheels do not interlock hollow grinding can be achieved to give a desired edge thickness prior to sharpening.

When the wheels are worn, they can be returned to CATRA for recoating with abrasive, thereby keeping consumable costs low. The life of the abrasive coating on the wheels depends on the use and type of knives sharpened but in general terms the following can be expected.

New unsharpened knives (depends on size)	12,000 to 30,000
Thin knives sharpened in a food factory system	> 30,000
Occasionally hollow ground and sharpened in a food factory system	18,000
Casual resharpening of badly worn knives in mobile sharpening service	7,000
Hollow grinding only	4,000

Different grades of abrasive are available which allow knives to be sharpened for different applications.

CBN 76 - Very smooth	Fish and meat filleting
CBN 107 - Smooth	General fish and meat processing
CBN 126 - Medium	Vegetable and general kitchen use
CBN 151 - Coarse	High-speed sharpening and non-food industrial use

Extensive sharpness testing on the ISO sharpness tester reveals that levels of sharpness produced on the CATRA machines are the highest consistently produced by any system. The edge life for given knife blade steel are also amongst the best achieved for re-sharpen-able commercial use knives, this is achieved by the very low temperature sharpening system not overheating the cutting edge and causing softening of the ultimate tip of the edge, which occurs when conventional abrasives are used with powered sharpeners.

For the majority of uses we recommend a sharpened angle of 30°, which gives a good sharpness coupled with excellent life, however decreasing to 20° improves the sharpness, but increases the risk of damage to the edge and therefore premature loss of sharpness.



Although the CBN abrasive is very fast and efficient, the knives do not become overheated during sharpening and so the use of a coolant is not required. This makes the machine pleasant to use and eliminates the use of a water bath, which quickly becomes a bacteriological hazard.

The machine has stainless steel covers and has water resistant electric motor and switches, making it suitable for use in food processing environments.

Available with fast or slow running motor. The fast motor allows the professional sharpener to operate under optimum conditions, the slow motor ensures the casual user does not become overzealous giving more control to the process.

The v-100 is easily moveable and is ideal for in-house or mobile applications. When fitted into a service van the equipment runs from either a petrol generator or a 12V inverter connected to the vehicle battery.

Sharpened Angle	Adjustable from 0° to 70°
Grinding Wheel Diameter	100mm
Motor	230V or 110V, 375W. 1375 to 2850rpm. Fan-cooled, IP 54 rated.
Noise Level	< 86 dBA
Size	500mm x 300mm x 400mm
Weight	42kg