



Czech-made Narex Chisels

Narex has been making high-grade blades for the woodworking industry in Czechoslovakia since 1919. The company has gone through nationalisation under a communist government in 1948 (where it was amalgamated with a range of other companies) only to be privatised after the Velvet Revolution in 1989 (when the pendulum of history swung against the Iron Curtain).

Not only has Czechoslovakia divided back into the Czech and Slovakian Repub-

lics, Narex has also broken away from the larger corporate structure that it found itself in and now has gone back to its roots as a specialist toolmaking company.

Today Narex exports their premium tools to more than 45 different countries. Timbecon now imports the keenly priced Narex range of chisels into Australia.

DEDICATED TO EXCELLENCE

One look at the Narex range of chisels and the first thing you notice is that they

are robustly built, anticipating a long and hard life (especially the mortise chisels).

Chisels designed to be tapped home with a mallet all have ferrules locked onto the oversized hornbeam handles. The Cabinet Firmer and Butt chisels have ferrule-free rounded handles that have been designed to nest comfortably in your hand while you guide them home.

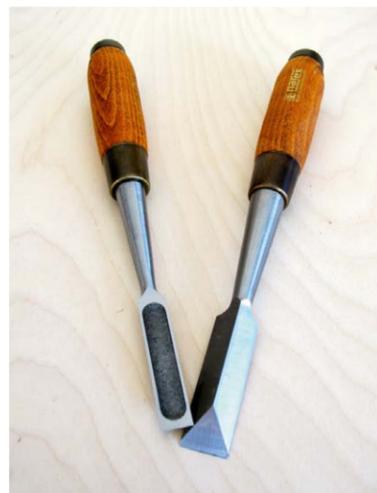
When Narex was founded in 1919 the guiding principle for the company was to use the best materials, designs and construction techniques to craft premium tools. That mantra has seen the development of not only original-looking tools but also a streamlined manufacturing process and a novel heat treatment system that hardens the chrome-manganese steel without the need for tempering.

ISOTHERMAL HARDENING

Narex has developed chrome-manganese tool steel that, when quenched in a bath of molten salt at 200°C, transforms the austenite formed at 900°C into fine-grained bainite. Soaking the chisels in molten salt allows most of the grain structure to be transformed into layers of ferrite and cementite. This final structure is similar to tempered martensite, however it is achieved without needing to go through a tempering stage. After a period of time soaking in the molten salt the chisels are then cooled to room temperature under a water shower.



▲ The novel storage block for a workshop set of 6, 12, 16, 20 & 26mm bevelled edge chisels.



▲ The Narex cabinet dovetail chisels are made with a Japanese-style cove for easy honing.



▲ The full range of 15 bevel-edged cabinet chisels starts at 3mm wide and ends with the hefty 50mm-wide beast.



▲ The Narex mortise chisels have a strong following. The thick steel body allows little deflection when levering out waste.

Traditional quenching sets up stresses in tool steel that need to be released by careful tempering. Isothermal hardening cuts this stage out of the equation, saving both time and money in the manufacturing process.

Another innovation that Narex has introduced into their streamlined manufacturing procedure is to forge, grind and mill the chisel bodies first before they are hardened.

The downside of this process is that there are minor surface irregularities due to the normalising process. This microscopic variation only becomes apparent when you hone the blade. To get the most out of these premium quality chisels you should hone the back of the chisel before honing a micro-bevel on the cutting edge.

The bainite structure is more consistent just under the surface of the tool. A couple of minutes honing will reveal this amazingly hard and tough structure that holds an edge incredibly well. Great value when you consider that a near equivalent premium chisel from the US will cost more than twice as much.

Make sure you drop into the Timbecon stand at the next Working With Wood Show. Once you have handled these chisels you will begin to understand why they are becoming so popular throughout the woodworking world. Available online from timbecon.com.au. 



▲ The cabinet butt chisels fit neatly in your hand and have a rounded handle for comfortable paring.



▲ Machined from mortise chisel stock, the corner chisel is just the right tool to clean out a hinge mortise.

HONING TO PERFECTION

An interesting feature of isothermal hardening is that the whole chisel, from the cutting edge all the way to the end of the tang can be honed to form a razor edge.

CERAX WATERSTONE. One reason why the Narex tools are so keenly priced is that they arrive finely machined but not honed. You can use the tools straight out of the box, however you will be much better served if you hone them first.

I used a Suehiro #1000/#3000 combination waterstone (from Japanese Tools) to hone a razor edge on the four cabinet butt chisels just to see how keen the edge could be.

The #1000 grade face of the water-



▲ First step is to use the #1000 grit face of the stone to hone away the machine marks.

▲ Next step is to reverse the stone and hone a keen edge with the #3000 grit face.

▲ The Cr-Mn steel keeps a razor edge for a surprisingly long time.

stone soon had the fine machine marks left by the grinding process fade away to a polished surface. The #3000 grade face

of the waterstone produced a mirror finish as well as an edge so sharp you could shave with it.