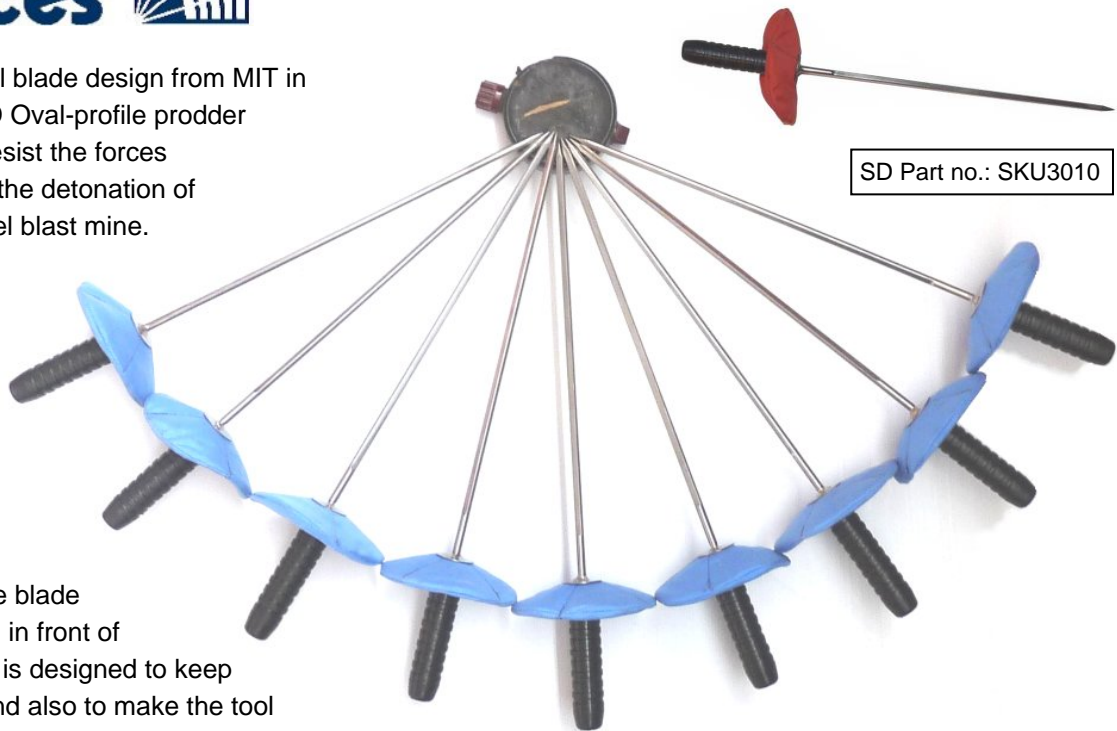


Using the SD Oval-profile prodder

Using an original blade design from MIT in the USA, the SD Oval-profile prodder is designed to resist the forces associated with the detonation of an anti-personnel blast mine.



The length of the blade (nominally 40cm in front of the hand guard) is designed to keep the hand safe and also to make the tool easiest to use at a low angle to the ground.

Tests have shown that the handle, handguard and blade will not separate in a blast. This does not mean that the tool will not be damaged in a blast. It is intended to bend but not to break or separate into component parts. A picture of three **SD Oval profile prodders** after blast testing with real mines is shown alongside.



In most ground, it is not possible to push a thin prodder more than a few centimetres into the ground without using excessive force. Excessive force risks detonating any concealed mine. The Oval-profile is designed for easy penetration. After pushing the prodder into the ground, the deminer should rotate the prodder blade to make a round-hole. The oval shaft of the tool will then only touch the hole on two sides. This reduces the ground friction and should mean that the deminer can prod more deeply with no more pressure.



When the prodder will not penetrate far enough, or the deminer is tempted to use both hands, the deminer should use the **SD Pick-prod** or **SD Two-handed excavator** to break the ground surface.

CAUTION!

Using two hands, with one hand on the blade, puts the hand on the blade dangerously close to any explosion.



SD blast-resistant hand-tools for Humanitarian Demining are made using design rules developed during research funded by US Army CECOM NVESD by Andy Smith. See the design rules at <http://www.nolandmines.com/hand-tooledesigncriteria.htm>