



Revolutions per minute (Rotary)

Countersink	Diameter	Hard Material c. 450 Brinell	
		RPM (No Load)	
Ultra Countersink	32mm	80 - 140	
Ultra Multisink	40mm	80 - 140	
Ultra Multisink	55mm	60 - 100	

Machining of Wear Plates such as HARDOX - CREUSABRO - ABRO - RAEX - STRENX - BISALLOY

BEST PRACTICE ADVICE

GUIDELINE PARAMETERS ONLY - Actual parameters may vary depending on operating conditions

1. For best results the countersink should be piloted where possible - see Multisink pilots on page 79
2. Do not allow the countersink to vibrate over swarf while cutting as this will cause chatter, ultimately causing the cutting edge to chip & blunt
3. Regular application of lubricant and removal of swarf from the cutting face is essential
4. A hand brush works is helpful to keep excess swarf away from the cut
5. The extreme hardness and resistance of wear plate makes machining it extremely challenging: Gd results are dependent on the right setup - including high torque/slow speed, geared Magnet Drills, such as the Versadrive V125T, and correct lubrication
6. Using an incorrect or poorly maintained Magnet Drill with unstable drilling operation, poor magnet hold, excessive pressure or inadequate lubrication is likely to result in rapid tool failure
7. Even with high tech tooling, successfully machining Wear plates is challenging with little or no margin for error. It not only requires the correct setup but also experienced operators with the time necessary to proceed with caution.
8. Feed should be applied constantly, do not allow the drill to dwell as the material will work harden. (if a rest or repositioning of hands is required, then retract the cutting tool slightly off the material first)
9. Constant coolant is advisable to carry away any heat generated by cutting, as heat build up can cause work hardening. IF a flood cooling system is used for countersinking, consider there will be excess coolant spillage
10. When cutting, any rubbing of the cutting tool must be avoided as it will increase the surface hardness, as wear plate material is designed to 'work-harden' to combat wear and abrasion
11. When using a 2-Geared Speed or 4-Geared Speed drilling machine, the lower gear speeds provide the most torque- When using the electronic variable speed and torque controls, maximum torque and power is available when both torque and speed are adjusted to their maximum setting
12. Machines fitted with torque control will try to maintain the selected speed and slow slightly, when under load



Cordless coolant pump
See page 65

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