

ZAPP



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Tool Type: Powder Metal Compaction Punch

Work Material: Powder metal compressed to 7.15g/cm

Original Tooling Material: Vanadis® 4 Extra RC 60-62

Problem: Flaking and/or chipping occurred to the bevel of the tool after production of 50,000 to 75,000 parts. An attempt was made to lower the hardness of the Vanadis 4 material. When the hardness was lowered, the bevels began to mushroom. Due to the required high density of the parts, the tooling manager determined that a tool steel was needed with greater toughness and that they would need to maintain a minimum hardness of RC 61-62 in order to avoid both the chipping and the deformation of the tool.

Solution: Upgrade to Z-Wear PM® tool steel hardened to RC 61-63

Results: The extra toughness and high hardness of the Z-Wear PM® combined to provide the tooling manager with much better overall results. He was able to produce more than 160,000 parts before a redress was required. After 160,000 parts were produced, the tool was removed from service due to some flaking of the leading edge. The tool was redressed and put back into service.

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Z-Wear PM is a registered trademark of Zapp Tooling Alloys