



Böhler W360 Isobloc – The Premium H13 Hot Work Tool Steel of Tomorrow

By: Dr. FT Lee, PhD, B.Appl.Sci., MBA

The time has come for every Tool Maker and Tool User to discover the superior metallurgical advantages of Böhler W360 for their Hot Work, Plastics, HPS and Cold Work applications. W360 is engineered to world class specifications and is specifically designed for maximum engineering endurance for high hardness and thermal stability of High Speed Steel, and for excellent toughness of Hot Work Tool Steel. It is generally used for extrusion/forging tooling, dies & punches, high speed presses, core pins, and inserts.

W360 is an electro slag remelted (ESR) high Mo-Cr-V Tool Steel grade that has a high level of cleanliness and a consistent chemical composition. Combined with Böhler cross-rolling technology, this processing technique has resulted in an isotropic microstructure that ensures minimal dimensional change during heat treatment, along with uniform mechanical properties throughout the ingot, regardless of the longitudinal and transverse directions at low and high temperatures. The uniform and homogeneous microstructure which is composed of relatively small and evenly distributed alloy carbides and low micro-segregation ensures consistent results in heat treatment and production. These distinctive material properties also result in an increased resistance to heat-checking and thermal shock, good thermal conductivity and high resistance to fatigue and catastrophic failure. Because of its hot yield strength and high temper resistance in excess of 900°F, W360 can be appropriate for applications requiring PVD/FNC coatings.

Whether you are looking for the best Tool Steel with tighter dimensional control, longer die life or reducing your running costs, W360 is the answer -- you will receive real value and performance with no surprises. The benefit to you is longer tool life, resulting in low tooling costs per part produced and, therefore, cost savings during further processing. Supported by case studies, our customers have reported satisfying performance with W360:

- 60-70% improvement in production for hot pressing brass, using press arbor.
- 30 times increase in tool life employed in the punching of vehicle wheel cooling holes for DP600 material as compared to alloy 8% Cr-steel (58-60 HRC).
- 3 times increase in stick pieces as compared to AISI H11 with one reworking for hot forging of Nimonic 80A.
- 10 times longer tool life for injection moulding with polyamide-30% fiberglass compared to Type 420 SS (55 HRC).
- 2 times longer tool life in aluminium extrusion compared to AISI H13 (52-54HRC).

In summary, choose Böhler W360 so you can be confident that your next quality tooling will produce quality parts. For specific tooling applications, our qualified technical representatives will work together with you to meet your exact requirements. Please call us at 905-812-9440/ 800-665-8335 or visit our website at www.bucanada.ca