

# ZA Alloys Expand Permanent Mold Markets

Batesville Products, Inc., Lawrenceburg, Indiana is a unique foundry. They are specialists in permanent mold casting. What makes them unique is that they cast only zinc alloys and they have been doing it for the past 38 years. Their facilities presently include a complete in-house capability for the design and production of permanent molds and casting, machining, plating, finishing and assembly of castings.

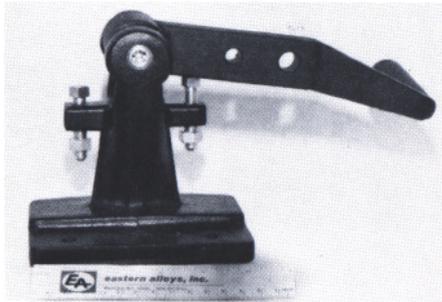
Justin Weber, President of Batesville Products, speaks with pride about his zinc foundry. "We started casting zinc for decorative products requiring good finish and platability. Our 'Perma-Z Cast' process

"Both ZA zinc alloys are invaluable to us," says Weber, "they give us high strengths (40,000-50,000 psi range) and good wear resistance that we cannot get with our conventional alloy. We're now going after engineered castings that would normally go to sand cast iron or bronze. Our advantage, of course, is permanent mold casting. We provide a superior finish and better casting tolerances which can eliminate machining operations or reduce finishing costs. And we can chrome plate both alloys in-house."

An example is Batesville's bus door operator. The initial design was tested in cast

the part is trimmed and machined to our customer's specifications."

Batesville Products, Inc. has grown by providing customers with a quality product, ready to use from one source at the lowest possible price. The ZA alloys are helping Batesville continue to grow by expanding their markets into new product areas without having to change their normal production methods. That's one of the reasons why other foundries are using ZA zinc and more casting buyers are specifying ZA alloys. In fact, in most of the conversions from cast iron, malleable iron, bronze and aluminum the same tooling was used (sand



*Perm mold ZA-12 bus door operator outperforms cast iron at lower cost. Components are cast, machined, finished and assembled by Batesville.*



*Dentist chair support arm perm mold cast in ZA-12 for strength and good finish.*

(Batesville's trade name for their zinc permanent mold method) fills a market need where zinc die casting is not feasible. Either because casting sections are too heavy for die castings or when low quantity requirements cannot justify the higher cost of die cast tooling."

One persistent problem was that Batesville could not effectively compete where high strengths were a critical requirement. Their conventional zinc alloy (slush metal) had limited strength and could only be employed for non-critical applications. That problem was solved when Eastern Alloys introduced Batesville to ZA-12 and ZA-8, two new high strength zinc foundry alloys.

iron but Batesville switched the bus manufacturer to permanent mold ZA-12. ZA-12 was tested and proved to be stronger than iron, finish was superior and the cost was less than in iron. Batesville casts, machines, finishes and assembles the entire unit.

The second illustration is a horizontal arm for a dental chair. The hollow arm supports the dentist's instrument tray. "For it," says Weber, "we used a semi-permanent mold which incorporates a shell core. We had a straightening die built, but found the ZA-12 zinc casting came out of the mold distortion-free and, therefore, no secondary straightening was needed. After casting,

or permanent mold). The foundry simply switched to zinc. That's a cost saving to the customer and a convenience for the foundry.

ZA alloys offer a unique combination of good castability, high strengths and excellent bearing performance at low material cost. Can the ZA alloys help you? Give us a chance to review your product requirements. We'll advise you where and how ZA can be employed for maximum cost savings without sacrificing product quality. All it takes is a call or letter to: Derek Cocks-Eastern Alloys, Inc., Maybrook, NY 12543-845-427-2151.



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**eastern alloys, inc.**

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