



## Directions for Use

### **Description of the product**

ZMI Core Shield is an aqueous solution of phosphoric acid with other proprietary materials in suspension. While phosphoric acid is a mild acid and this is a weak solution (less than 20%), care should be exercised when using this product. **Good ventilation** is important. And the user should wear an appropriate **(mist type) filter mask, eye protection (face shield) and rubber gloves**. The solution is an enhancement of a product used safely in another industry for over a century.

For small cores, it is possible to immerse the core in the solution, and submerge it for the 15-minute process time.

## Directions for Use

- **Use a rotating drum bore sander (40-100 grit) to scuff the surface**
- **Preheat the core to 180-200 °F on a stove or a hot plate. *Do not put the solution in the oven it will evaporate.***
- **Set up the stator in a well-ventilated area (paint booth or steam booth).**
- **Use a spray bottle or garden sprayer to keep the core continuously wetted for 15-20 minutes.**
- **Place the stator with the worst damages part of the bore down. Use a pan (plastic or stainless steel) of suitable size to catch the draining solution. The solution recovered can be saved and reused.**

- **Rinse the treated stator with cold water to flush off the white residue left by the zinc salts.**
- **Bake the stator to dry it, and repeat the core test to confirm the improvement.**

**Captured solution can be re-bottled and reused. Each time the solution is used it must be preheated and thoroughly mixed so that the solids which precipitate out of the cooled solution are re-dissolved.**

### **Safety Considerations**

The main ingredient, an aqueous solution of phosphoric acid is weaker than sulfuric acid and hydrochloric acids, but stronger than acetic acid. Although the phosphoric acid is diluted it should be handled with the precautions due an acid. Use a mist type respirator or filter mask, eye protection, and chemical gloves when handling this product.