

MAGNETS SIMPLIFY SETUP AND IMPROVE PRODUCTIVITY IN PRECAST CONCRETE PLANTS

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Magnets in precast concrete plants are most commonly used to position side rails and blockouts, but that's only the beginning of where they can be used. Below are several examples of ways to use magnets in your operation to help simplify setup and improve productivity. These examples were observed at various pre-casting plants around the country and are by no means an exhaustive list. Once you begin using magnets in your plant, you'll start to generate even more ideas on how to use them.

1. When strand patterns change, simple refrigerator-door magnets can be used to block holes where no strand is required. This saves setup time and makes sure that the crew is setting up the bed correctly.
2. When using wood bulkheads, nail or screw a steel plate to the bulkhead where the lifting device needs to be placed. Attach the lifting device to a magnetic recessed former. Use the steel plate to hold in place. It's a simple and quick method for attaching lifting devices to wood.
3. Magnets can be used to hold steel or wood headers in place. Attach magnets to any steel surface—top, bottom and sides—to hold headers or blockouts firmly in place.
4. The fastest way to position weld plates is with magnets. The magnet holds the weld plate even with the top of the form. It's also easy to reposition the weld plate if final adjustments need to be made to the setup.
5. Magnets are often used to hold side rails in place, but normally aren't used to hold a rail over eight or ten inches high. That's because magnets work well in adhesion (hold-down force) but don't hold as well under shear force (pushing against the sides). One way to use magnets with taller sideforms is to brace the sideform to prevent it from moving laterally. Weld a steel brace or tab to the edge of the form. Cut a spacer bar that fits between the brace and the sideform. Spacers can be cut from wood or any other stable material. This method makes it easy to adjust the sideforms for different product widths. It also helps protect the form by eliminating the need to drill holes to adjust sideforms.
6. Magnetic steel chamfer is a handy product. Because the chamfer is magnetic, it fits tightly against the bottom and side of a steel form. Caulking is usually not necessary to produce a nice, crisp edge, saving an extra step in setup.
7. Magnets take a lot of abuse when used in precasting operations. For best results, make sure that dirt and debris are cleaned from your magnets before you use them. To help keep magnets clean, cover them. Build a three-sided wood cover that can slide over the magnets once they are in place to protect them from concrete spills and dirt. When not in use, magnets can be stored in their wood covers.



Refrigerator magnet



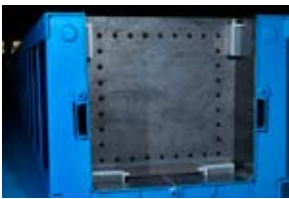
Lifting device



Lifting device



Lifting device



Steel header



Steel header



Wood header



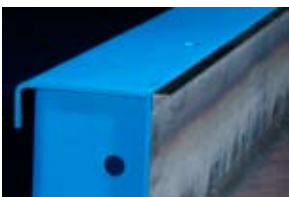
Weld plate



Side form with wood insert



Side form with insert



Magnetic steel chamfer



Wood cover