# **MIGHTY MITE**

## **Transfer Pump**



Power Packed in a Small Footprint











Molten Metal Equipment Innovations



### Description

MMEI introduces its smallest transfer pump ever, the MIGHTY MITE. Although small in size, the MIGHTY MITE shares the same proven technologies developed for our larger pumps. The MIGHTY MITE is engineered for those applications where space is at a premium but the productivity of a transfer pump is needed. Its small size allows it to be inserted in small furnace wells where other pumps won't fit. It is also engineered for those applications where controlled low flow rates are required.

Although small in size, the MIGHTY MITE can deliver surprisingly high metal flow rates and lift capabilities. It can be used in both aluminum and zinc applications to transfer metal reliably and safely. The MIGHTY MITE is offered with an air motor or with electric motor complete with electric controls.

The MIGHTY MITE features a robust shaft and 3 posts, engineered for maximum strength and each protected with a RHINO sleeve to ensure superior service life. The rotor features our advanced dual-flow design, developed to maximize the flow of the pump. Our shaft coupling is engineered to allow fast, easy shaft changes while providing secure, precision turning of the shaft and rotor. And our unique riser design is not a structural member of the pump and can be easily replaced. Changing the riser is now a simple operation. It can even be changed while the pump is still hot, thus reducing downtime!

All of MMEI's pumps are designed to be assembled in less than an hour. All of our pumps are self-aligning and do not require an alignment fixture for assembly or repairs, allowing them to be rebuilt faster and easier.

Power-packed design, rugged construction, and longer service life make the MIGHTY MITE Transfer Pump the perfect choice for transferring metal where space is at a premium. Please contact us for more info.

**Flow Diagram** 

#### 3.0 fotal Head Developed (Ft.) 2.5 2.0 1.5 1000 RPM 1.0 800 RPM 600 RPM 0.5 400 RPM 0 100 200 400 500 600 700 300 Flow Rate (Lbs./Min)

#### **Product HighLights**

- Great for safely and reliably transferring molten aluminum or zinc - even in harsh environments
- Good flow rates and lift generated by large 3" rotor
  - Provides reliable flow rates
  - Operates at lower shaft speeds (RPM's)
  - Less breakage, longer service life
- Maximize your productivity with faster metal transfers
- Safe and easy to operate reduce accidents
- Unique riser with simple bolt-on clamp can be changed quickly and easily even while pump is still hot!
- Pump assembles in less than one hour!
- No alignment fixture required, simplifies assembly and repair.
- Larger, more robust parts improve reliability for less downtime and more uptime!
- Full RHINO sleeve protection on shaft, posts and riser for extended service life.
- Thru-drilled post holes for fast, easy replacement of posts.
- Non-volute pump chamber reduces rotor breakage
- Refractory lined pipe available to complete your transfer pump - straights and elbows custom fit to your needs.



We also offer a complete range of refractory lined piping for use with the MIGHTY MITE Transfer Pump. We use large 2.5" diameter steel pipe with a 1.5" ID Liner to maximize flow while providing superior service life. We offer straights in any length up to 48" sections as well as elbows in nearly any angle required. As a result, we can provide you with piping to match your application requirements. Contact us for more information.



External blower supplies cooling air through shroud to cool motor and coupling from exterior. Prevents dirt from getting into motor while eliminating need for filtered air.

Posts attached at motor mount with thru-bolt and compression post clamp, eliminates cement for easier assembly and replacement.

Large diameter posts protected with a RHINO sleeve for superior service life.

Posts cemented into throughholes in base for secure fit with easier assembly and replacement.

Non-volute pumping chamber provides superior flow rates while eliminating internal pinch points which can prematurely damage a rotor. Electrically driven for maximum performance and reliability. Uses a premium, energy efficient, extra tuff, severe duty motor. Engineered to provide long service life even in harsh environments.

Shaft coupling allows fast, easy replacement of the shaft while providing accurate, secure spinning of the shaft.

Riser connects at top with simple bolt-on clamp, allowing it to be replaced even while the pump is hot!

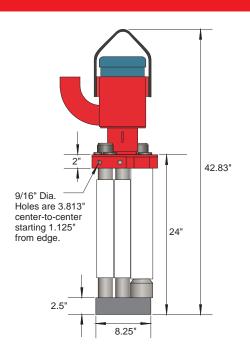
Shaft is protected with a full RHINO sleeve, offering maximum protection. Large diameter offers superior strength and life.

Riser is a non structural component and is seated on a button located on the base, allowing it to be quickly and easily replaced without recementing.

Features a 3" diameter dualflow rotor for excellent metal flow and lift in a small pump.

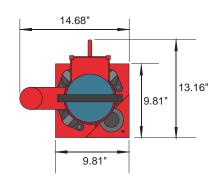


#### **Overall Pump Dimensions**

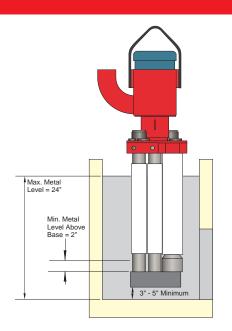


Pump dimensions are for a standard length pump. Add 6" to dimensions noted with (\*) for 6" longer than standard pumps or subtract 6" for pumps 6" shorter than standard.

#### **Motor Mount Dimensions**



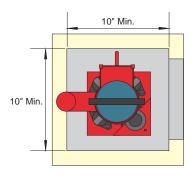
#### **Recommended Pump Placement**



The maximum metal depth is for a standard length pump. Add 6" to depth for 6" longer than standard pumps or subtract 6" for pumps 6" shorter.

#### **Pump Base & Well Dimensions**

MMEI recommends a minimum 10" x 10"" pump well for the MIGHTY MITE Transfer Pump. Please contact us for more information if your application requirements differ.



#### Who to Contact for More Information



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