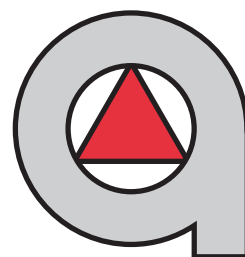


# Foot & Tube Gas Injection Pumps

**KING KONG**  
**WORKHORSE High Flow**  
**MINI High Flow**



**Go with the Flow!**



**Molten  
Metal  
Equipment  
Innovations**



### Description

MMEI Foot & Tube Gas Injection pumps offer an established method for injecting gas faster and more efficiently into your molten metal while enjoying all the benefits of a circulation pump. Proven performers in even the toughest applications, our pumps will increase your rate of melting while reducing the time required to treat your metal. The result will be more productivity from your furnace while lowering your operating costs.

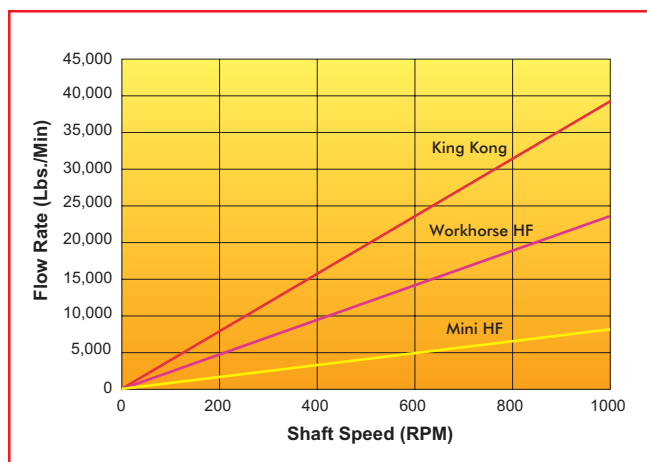
The Foot & Tube design injects gas at the outlet of the pump. The flow of metal shears the gas into many small bubbles, thereby improving the demagging efficiency and performance. As a result, you demag faster and with less gas. And because the gas is injected outside of the base, you won't get any damaging buildup of mag-chloride inside the pump.

The Foot & Tube pump is offered in three different sizes to meet your requirements. We offer the King Kong (the world's highest flow pump), the Workhorse HF and the Mini HF. All of our pumps are designed to generate the highest metal flow and gas injection rates possible.

All of MMEI's pumps are engineered and built tough to provide superior service life. Our pumps are designed to be easy to assemble and repair. In addition, our pumps are the only ones in the industry which are self-aligning. Thus, no alignment fixture is needed for assembly or repairs meaning faster and easier rebuilds.

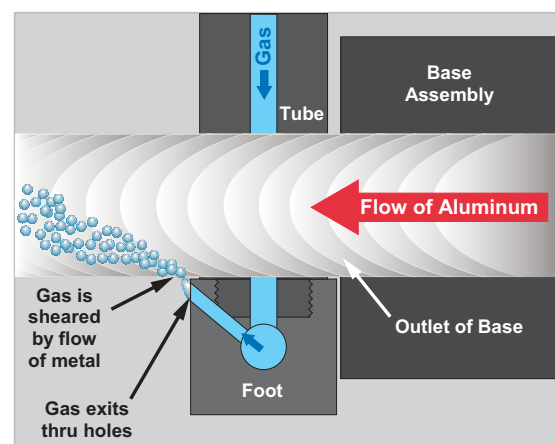
Rugged design, superior metal flow, and high efficiency gas injection make MMEI Foot & Tube Gas Injection Pumps the first choice for improving the productivity and efficiency of your operation. With our pumps, you'll see why we say "Go with the Flow!" Please contact us for more information.

### Flow Chart



### Product HighLights

- ◆ **Proven performers in even the toughest applications.**
- ◆ **Higher flow rate generated by a large, dual flow rotor.**
  - Achieve higher flow rates with lower RPM's.
  - Non-clogging design.
  - Less breakage, longer service life.
- ◆ **Maximize your productivity.**
  - Higher melt rates, lower energy consumption.
  - Lower melt losses, less dross.
  - Increased metal circulation, better mixing, eliminates hot spots for longer refractory life.
  - Fast & easy alloy homogenization of the melt.
- ◆ **Larger, more robust parts improves reliability for less downtime and more uptime!**
- ◆ **Full length ceramic sleeves protect shaft and posts from wear and oxidation for extended service life.**
- ◆ **Pumps assemble in less than one hour! No alignment fixture required, simplifies assembly and repair.**
- ◆ **Thru-drilled post holes for fast, easy replacement of posts.**
- ◆ **Open top pump inlet, no baffle plates to clean out.**
- ◆ **Foot & Tube design injects gas at outlet of pump. Flow of metal shears gas into small bubbles, improving the demagging performance.**



The above diagram shows how the Foot & Tube design injects gas into the flow of metal exiting the pump. The flow of metal shears off the gas into small bubbles, dispersing it into the melt. The result is more efficient demagging while eliminating mag-chloride buildup in the pump.



## Foot & Tube Gas Injection Pumps

### Features and Benefits

*All of our pumps share the same advanced design and construction features. The features and benefits of our Foot & Tube Gas Injection pumps are shown below for a King Kong and also apply to our Workhorse and Mini pumps.*

Electrically driven for maximum performance and reliability. Uses a premium, energy efficient, totally enclosed, extra tuff, severe duty motor. Engineered to provide long service life even in harsh environments.

Posts are attached at motor mount with thru bolt and compression post clamp, eliminates cement for easier assembly and replacement. There are 4 posts on a King Kong and 3 posts on the Workhorse and Mini.

Shaft is protected with a full length ceramic sleeve for maximum protection against wear and oxidation. Large diameter offers superior strength and life.

Features a large diameter rotor for maximum flow to move more metal at lower RPM's. Available with our 2000 Series Rotors for even higher flow and rock deflection capability.

Non-volute pumping chamber provides superior flow rates while eliminating internal pinch points which can prematurely damage a rotor.

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.

Shaft coupling (hidden from view) allows fast, easy replacement of the shaft while providing accurate, secure spinning of the shaft.

Gas injection clamp holds Foot & Tube securely while allowing replacements to be easily and precisely positioned.

Large diameter posts provide a stable structure and are protected with a ceramic sleeve for superior service life.

Posts are cemented into through-holes in the base for a secure fit with easier assembly and replacement.

Unique Foot & Tube gas injection method ensures gas is injected directly into the flow of the metal, offering faster, more efficient degassing. Also, eliminates mag-chloride build-up in the base.



### Pump Specifications

#### King Kong



#### Workhorse HF



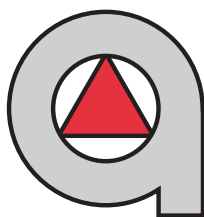
#### Mini HF



Pump Size	King Kong	Workhorse HF	Mini HF
Furnace Capacity (Lbs.)	100,000 to 300,000 lbs.	40,000 to 125,000 lbs.	10,000 to 50,000 lbs.
Recommended Well Size	48" x 48"	36" x 36"	24" x 24"
Approx. Weight	2000 lbs.	1000 lbs.	500 lbs.
Maximum Metal Depth*	48"	48"	42"
Minimum Metal Depth	14"	12"	8"
Rotor Diameter	12"	10"	7"
Electric Motor (HP)	25 HP	15 HP	5 HP

\*for 6" longer than standard pump

### Who to Contact for More Information



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