

Learning Zone

THE WHEEL BLAST MACHINE PROBLEM SOLVER SERIES

MagnaValves Crucial to New Blast Cleaning Process for Foundries

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—Steve Carpenter
Grand Northern Products

The MagnaValve® has been selected as the media valve of choice by the designer of a new blast cleaning process that is beneficial to foundries that produce hydraulic/pneumatic manifolds, valve/fitting bodies and transmission components.

Steven Carpenter, an engineer with extensive experience in the foundry industry, has patented a process that puts turbulence to work cleaning difficult-to-reach passages and highly-cored and deep components. In simple terms, the process uses two (2) or more opposing blast nozzles to impart reflective random energy to the blasting media at a chosen area. The process is ideal for working internal features and is capable of aggressively removing internal burrs, burned on/in sand, and leftover mold and core materials. With a conventional lance, much energy is lost because the abrasive is forced to turn an abrupt corner at the nozzle tip which decelerates the material. However, two opposing nozzles create a mushroom effect and gives the added benefit of a 360° pattern, if desired.

The process has been incorporated into a reciprocating blast system call Recipro-Blast™ by Hammond Roto-Finish. "Hammond Roto-Finish chose the MagnaValve for the Recipro-Blast machines because it provides instant feedback and makes it easy to control media flow," said Mr. Carpenter. "Foundry maintenance crews love the MagnaValve because it's maintenance-free," he added.

About the MagnaValve

MagnaValves use a strong permanent magnet and electro-magnet design to regulate the flow of steel shot in blast cleaning or shot peening machines. When no power is applied to the MagnaValve, the permanent magnet stops all flow. With power applied, the magnetic field is neutralized and shot is allowed to flow through the valve.

Benefits of the MagnaValve

- Low maintenance—no moving parts
- Cost savings from the efficient use of media and lower media disposal fees
- Optimizes the load on large horsepower motors, reducing energy consumption
- Many control options available to suit most applications
- No risk of machine malfunction due to running out of shot during procedure
- Confidence that product was blast cleaned properly
- Compliance to specifications is readily attainable
- Requires less operator time
- Available in 24 Vdc and 110 Vac models
- Works with most steel media sizes
- Environmentally responsible – conserves energy and media (less media in landfills)
- Over 36 years of proven performance in the field
- Trusted by OEMs and end-users worldwide
- Available for wheel and air blast machines



Electronics Inc. Shot Peening Control

The MagnaValve is manufactured by Electronics Inc. For more information on our complete line of MagnaValves, contact us by phone, mail or email:

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The Recipro-Blast machine



MagnaValves control blast media in Recipro-Blast