



ROTOR MB760 HELICAL PUMP  
MP MINING SLURRY PUMP SERIES  
Heavy-Duty Slurry Pump for Abrasive Applications

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PRODUCT OVERVIEW

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The Rotor MB760 is part of Altec Pumps & Valves Engineering's MP Mining Pump Series, combining 70 years of innovation in pump manufacturing and design. These pumps are specifically engineered for coarse abrasive slurry applications, featuring our highly regarded patented Cycloseal® technology.

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KEY FEATURES & BENEFITS

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✓ Handles coarse abrasives with extended service life		
✓ Patented Cycloseal® technology - operates without flush water		
✓ High operating pressures for demanding applications		
✓ Oversize shafts for increased durability		
✓ Thick volutes for abrasion resistance		
✓ CD4MCA impellers for superior wear life		
✓ Unique pushed-out rectangular design		
✓ Designed for sand, gravel, coal, manure, and mine dewatering		

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TECHNICAL SPECIFICATIONS

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Parameter	Value / Range
Pump Type	Heavy-duty slurry pump
Series	MP Mining Pump Series
Technology	Patented Cycloseal®
Applications	Coarse abrasive slurries
Shaft Design	Oversize for durability
Volute Design	Thick walled for abrasion resistance
Impeller Material	CD4MCA (high-chrome alloy)
Flush Water Requirement	None - operates with Cycloseal®
Operating Pressure	High pressure capability
Design Heritage	70 years of innovation

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## THE CYCLOSEAL® ADVANTAGE

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PATENTED CYCLOSEAL® TECHNOLOGY
Altec Pumps & Valves Engineering's patented Cycloseal® technology allows our slurry pumps to operate WITHOUT FLUSH WATER. This innovative design:
<ul style="list-style-type: none"> <li>✓ Eliminates the need for external seal water</li> <li>✓ Reduces operating costs significantly</li> <li>✓ Prevents dilution of slurry</li> <li>✓ Extends seal and bearing life</li> <li>✓ Environmentally friendly - no water waste</li> <li>✓ Ideal for water-scarce locations</li> </ul>

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## APPLICATIONS

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## PRIMARY APPLICATIONS

- Sand and gravel slurries
- Coal handling and processing
- Manure slurry management
- Mine dewatering
- Mineral processing
- Aggregate washing
- Dredging operations
- Industrial waste slurries

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## DESIGN FEATURES

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### OVERSIZE SHAFTS

- Increased diameter for higher strength
- Reduced deflection under load
- Extended bearing life
- Handles heavy slurry loads

### THICK VOLUTES

- Heavy wall thickness for abrasion resistance
- Extended wear life in coarse applications
- Replaceable wear liners available
- Designed for harsh conditions

### CD4MCA IMPELLERS

- High-chrome white iron alloy
- Exceptional abrasion resistance
- Optimized hydraulic design
- Available in multiple configurations

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<p>UNIQUE PUSHED-OUT RECTANGULAR DESIGN</p> <ul style="list-style-type: none"> <li>• Enhanced solids handling capability</li> <li>• Improved flow characteristics</li> <li>• Reduced turbulence and wear</li> <li>• Better efficiency with high-density slurries</li> </ul>
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PERFORMANCE CHARACTERISTICS

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PARAMETER	TYPICAL RANGE
Flow Rate	Application dependent
Total Head	High pressure capability
Solids Size	Coarse abrasive handling
Solids Concentration	High density slurries
Operating Temperature	Standard industrial range

Note: Contact factory for specific performance curves.

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MATERIALS OF CONSTRUCTION

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Component	Material
Impeller	CD4MCA (High-chrome alloy)
Volute	Thick walled cast iron / high-chrome
Shaft	Oversize alloy steel
Casing	Heavy duty cast iron

Wear Plates	Abrasion-resistant materials
Cycloseal® Components	Patented engineered design

INDUSTRIES SERVED

- Mining and Mineral Processing
- Aggregate and Construction Materials
- Agriculture (Manure Management)
- Coal Preparation Plants
- Dredging Operations
- Industrial Waste Treatment
- Quarry Operations
- Heavy Civil Construction

COMPETITIVE ADVANTAGES

VS STANDARD SLURRY PUMPS			
Feature	Rotor MB760	Standard Slurry Pump	
Flush Water	NOT required	Usually required	
Shaft Size	Oversize	Standard	
Volute Thickness	Heavy duty	Standard	
Impeller Material	CD4MCA	Standard alloys	
Design Life	Extended	Standard	
Solids Handling	Coarse abrasives	Limited	
Operating Cost	Lower	Higher	

DIMENSIONS (Approximate)

Dimension	Size
Overall Length	[Insert dimension]
Overall Width	[Insert dimension]
Overall Height	[Insert dimension]
Suction Size	[Insert size]
Discharge Size	[Insert size]
Weight	[Insert weight]

## OPTIONAL CONFIGURATIONS

- High-chrome wear liners
- Various impeller trims
- Different drive arrangements
- Special shaft seals
- Wear monitoring ports
- Flush water option (if desired)
- Custom inlet/outlet configurations
- Explosion-proof motor options

## QUALITY ASSURANCE

Each Rotor MB760 pump undergoes:

- Hydrostatic pressure testing
- Performance verification
- Material certification traceability
- Dimensional inspection
- Cycloseal® system validation
- Run-in testing

## CERTIFICATIONS & STANDARDS

- ISO 9001:2015 certified manufacturing

- 70 years of pump engineering innovation
  - Patented Cycloseal® technology
  - Designed to API/NEMA standards where applicable
  - CSA certified options available
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## ENGINEERING HERITAGE

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The MP Mining Pump Series combines 70 years of innovation in pump manufacturing and design. Altec Pumps & Valves Engineering has continuously refined and improved slurry pump technology to meet the demanding needs of mining and industrial applications worldwide.

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