AGILIS
FULLY INTEGRATED
SYSTEM FOR
LONGWALL COAL
MINING

SOLUTION OUTLINE

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Revision: 1
Agilis is the world's only fully integrated system designed to increase the productivity of coal mining. Using the latest industry leading technology, Agilis achieves unrivalled performance capability and efficiency that delivers enhanced value and profit at the lowest installed cost.

**CAPABILITIES**

- **Increased productivity** through maximised uptime and improved performance
- **Enhanced energy efficiency and cost savings** through variable speed, demand-based control and the use of enhanced motor technology.
- **Extended product life and reliability** through the benefits of parallel pumping
- **Improved maintenance** through connected performance management
- **Digital mining** through connectivity to Scada monitoring

**VALUE**

<table>
<thead>
<tr>
<th>Capability</th>
<th>Mine Owner</th>
<th>Mine Manager</th>
<th>Mine Operator</th>
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<tbody>
<tr>
<td>Lowest first install cost</td>
<td>✔</td>
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<tr>
<td>Extended system life</td>
<td>✔</td>
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<td>Lowest operating costs</td>
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<td>Increased productivity up to 5% through greater efficiency and availability of the longwall system</td>
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<td>Minimum 25% space saving; compact, integrated solution providing single source accountability</td>
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<td>Quick and easy commissioning through plug and play technology</td>
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<td>Enhanced productivity due to instantaneous responsiveness to demands</td>
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<tr>
<td>Maximum energy efficiency and redundancy through demand based control</td>
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<td>Real time performance through Scada connectivity</td>
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<tr>
<td>Increased reliability, availability, uptime and efficiency</td>
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<td>Improved redundancy of controls and pumps</td>
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<td>Improved environment and safety through reduced noise and vibration</td>
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LOWEST INSTALLED COST
SIGNIFICANT SAVINGS COMPARED TO INDUSTRY STANDARD SOLUTIONS

- Smaller footprint
- Reduced overall weight
- Fewer connecting components
- Reduced labour cost

LOWEST OPERATING COST
SIGNIFICANT SAVINGS COMPARED TO INDUSTRY STANDARD SOLUTIONS

- Lowest maintenance costs of any pumping configuration
- Extended high-efficiency performance
- Fully connected for Scada monitoring
- Maximum uptime

HIGHEST CAPABILITY
SIGNIFICANT SAVINGS COMPARED TO INDUSTRY STANDARD SOLUTIONS

- Maximum reliability
- Maximum flexibility
- Managed redundancy without duty/standby

FACE OF COAL MINING

Changing the face of coal mining...
**Instantaneous Response Time**

The Agilis fully integrated system enables instantaneous action allowing coal face productivity to increase by up to 5%.

When you consider a typical coal face extracts 8 million ton of coal per year, Agilis could deliver an additional $5.6m a year revenue (USD).

**Proactive Intelligent Control**

The addition of ODIN Adaptive Intelligent Technology enables Agilis to anticipate movement of roof supports and be ready in advance, preventing pressure drops occurring and providing instantaneous response which enhances productivity, availability, and up time.

**Boosted Labour Efficiency**

Intelligent controls virtually eradicate system lags and delays to allow for optimised speed of continual shearing.

**Increased Availability Through Enhanced Reliability**

Core components of Agilis are specifically designed as ‘plug and play’ for quick and easy replacement to maximise uptime.
The true power of parallel pumping

The traditional approach to control used in longwall systems involves staging of pumps based on pressure lag.

With our vast industry experience, we know the majority of longwall systems perform well below peak productivity most of the time.

Agilis technology removes the hydraulic lag by using intelligent controls and synchronised pumping to increase coal face productivity and energy efficiency.

The Agilis fully integrated system operates simultaneously with the shearer and roof support system using the minimum energy required to deliver optimum flow for the current system demand.
Full Capability Back-up

Agilis has full mechanical and control capability back-up built-in. By having all the pumps working simultaneously at lower speeds, in the unlikely event of a failure, the other pumps simply step up to deliver the load required and eliminates the need for dormant stations.

Whilst the simplicity of plug and play control modules ensures quick and easy replacement, ensuring system uptime is maximised.

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**REDUCED COSTS AND IMPACT ON THE ENVIRONMENT:**

- Reduced water consumption as external cooling is not required
- Reduced energy cost and consumption at all load conditions
- Reduced CO₂ emissions
- Reduced emulsion waste due to minimised pressure spike effects on hydraulic components
LONGWALL SYSTEM WIDE MAINTENANCE RECONFIGURED

EXTENDED PRODUCT LIFE AND MAINTENANCE INTERVALS

- Increased efficiency and availability uptime means panels are cut quicker so maintenance intervals can be extended.
- Synchronised pumping and ODIN adaptive intelligent technology reduces pressure surges and wear of key components, extending system longevity.
- Increased up time with simple plug and play repairs and full control system redundancy.
- Continuous system activity performance monitoring for proactive maintenance.

FIRST COST SAVINGS

- Reduces train size by up to 25%
- Quick and easy commissioning and compatibility testing with plug and play components reduces onsite assembly requirements and the risk of connection issues, as well as time and labour costs.
- Eliminates cost for a duty stand by pump station.
AGILIS and ODIN have global patent approvals.

For more information, contact your RMI representative or visit us at: www.rmipsl.com