PRODUCT DESCRIPTION

The iMining SMARTFLOW™ pump series has been designed to improve the safety, consistency and maintenance requirements of explosives loading operations in the mining industry. The SMARTFLOW™ pump makes use of selectable predetermined mixing ratios for the delivery of emulsion, sensitizer and hose lube while decreasing friction and energy losses in emulsion pump. This results in a reduction in heat build-up, improved efficiency and a decrease in product deterioration during pumping operations. These characteristics allow SMARTFLOW™ pumps to exhibit significant safety and operational advantages over existing pump technologies in the industry.

SMARTFLOW™ pumps are available in two sizes and can be used in underground and surface loading operations through retrofitting to existing equipment or on new iMining pumping systems. Pumps are available in two configurations:

S-series Configuration: Designed to deliver emulsion and chemical sensitizer directly into blastholes in surface and underground blasting operations. (Emulsion, sensitizer and lubrication are delivered in multiple isolated chambers within the pump, preventing any possible reaction prior to entering the loading hose.

T-series Configuration: For the transfer of emulsions between transfer vessels and the loading of microballoon sensitised emulsions into blastholes.

<table>
<thead>
<tr>
<th>SMARTFLOW™ S-Series</th>
<th>SF1 (1 inch)</th>
<th>SF2 (2 inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max flow rate (L/min)</td>
<td>40</td>
<td>150</td>
</tr>
<tr>
<td>Max pressure (Bar)</td>
<td>50</td>
<td>15</td>
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</tbody>
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DESIGN FEATURES

- SMARTFLOW™ pump technology improves the safety of pumping operations by significantly reducing friction in the pump
- Delivery of emulsion, sensitizer and hose lube from a single pump reducing the complexity and cost of pumping systems
- Predetermined ratios, delivery pressure and flow from the SMARTFLOW™ pump
- Compatible with BLASTTRACK™ controller to improve operational transparency loaded mass per hole, flow rates, product density, pumping pressure and temperature

BENEFITS

- Increased safety in explosives pumping operations
- Significant reduction in charging unit complexity and capital outlay
- Compatible with chemically sensitised and microballoon formulations
- Pre-set mixing configurations for consistent pump performance
- Simplified maintenance requirements