



SAFETY, ENERGY EFFICIENCY & CONSISTENCY

PRODUCT DESCRIPTION

The SMARTFLOW™ pump series has been developed to meet the efficiency requirements of modern Battery Vehicles while simultaneously improving the safety & consistency of loading operations.

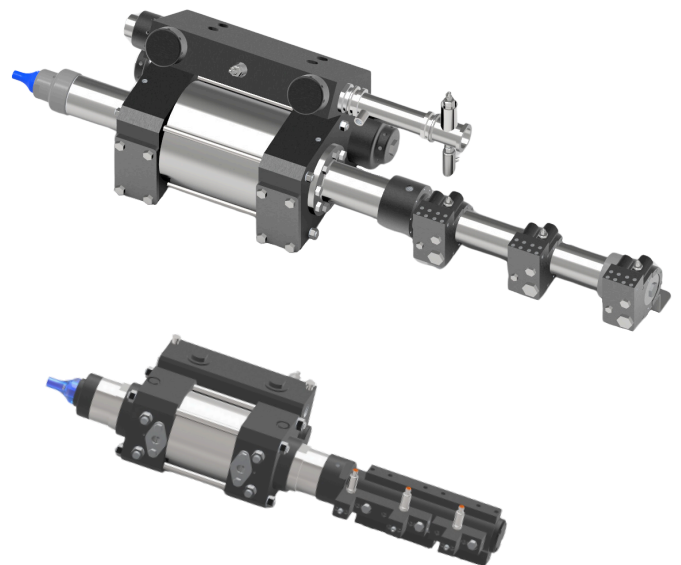
The low friction design of the pumps reduces energy losses by up to 80% compared to progressive cavity systems. This significantly reducing heat build up in the pump & the associated energy costs.

The high energy conversion ratio achieved by the SMARTFLOW™ pump reduces the volume & pressure of oil required by each pump & opens the door to previously inaccessible mining environment where energy availability has been out of the standard operating range.

SMARTFLOW™ pumps offer significant benefits to:

- High pressure long hole production loading operations
- Multi-line delivery systems on pump trucks, improving loading rates & operating efficiency on the block
- Shaft sinking operations where multiple delivery lines are required for high speed loading
- Mining operations limited to compressed air as a source of power for pumping systems

Selectable pre-set mixing ratios can be defined for the delivery of emulsion & three additive systems, allowing predictable product quality & density adjustment through the selection of the desired product density.



SMARTFLOW™ Model	Delivery Line OD	Max Flow (kg/min)	Design Pressure (Bar)
SF12	1 inch	70.0	25
SF15	1 inch	70.0	60
SF31	3 inch	300.0	10

DESIGN FEATURES

- SMARTFLOW™ pump technology improves the safety of loading operations by significantly reducing friction and heat build up in product pumps
- Low energy requirements allow for multi-line & high pressure operating environments
- Parallel delivery of emulsion & 3 additive lines from a single pump for selectable product density
- Consistent delivery independent of pump wear with age
- Compatible with the iMining BLASTTRACK™ control system to allow remote oversight of pump operation

BENEFITS

- Increased safety in explosives loading operations
- Increased machine availability through multi-line systems
- Significant reduction in energy / diesel costs due to low hydraulic requirements for operation
- Reduced loading system complexity & capital requirements for fleet expansion
- Pre-set mixing configurations for consistent product performance
- 'Plug & play' design allowing for easy exchange for system maintenance