

Application Bulletin

PD Metering Systems for Fuel Browsers in Mining Operations



INTRODUCTION

Fueling the Backbone of Mining

In mining, where every minute counts and operations never stop, reliable fuel delivery is mission critical. Fuel browsers bridge the gap between fuel stations and remote mining sites, powering massive equipment like dump trucks and excavators. Navigating harsh, off-road terrain, these browsers demand rugged, high-precision metering systems to ensure fast, accurate, and uninterrupted fueling.

Market Needs and Application Challenges

Mining operations present a unique set of challenges for fuel delivery systems:

Harsh Terrain: Off-road conditions lead to constant vibrations and shocks, leading to frequent breakdowns and the need for repeated recalibration.

Remote Locations: Limited access to service and support necessitates highly reliable equipment with minimal maintenance needs.

Regulatory Compliance: Accurate fuel measurement is essential for inventory control, billing, and compliance with environmental and safety regulations.

High Fuel dispensing: Large mining vehicles require rapid refueling to minimize downtime.

Operational Efficiency: Manual logging and inaccurate dispensing can lead to fuel losses, disputes, and inefficiencies.



How Do Liquid Controls metering system and Corken PTO pump Tackle These Challenges?

Liquid Controls metering solution:

Liquid Controls Positive Displacement flow meters are engineered to meet and exceed the rigorous demands of mining fuel delivery. With decades of proven performance and innovation, LC has built a trusted legacy in the mining industry—recognized globally for delivering precision, durability, and compliance in the harshest environments.

Robust Construction: Built with precision-machined components and rugged materials to withstand extreme vibrations, temperature fluctuations, and dust-laden environments.

High Accuracy: Liquid Controls positive displacement (PD) flowmeters provide the industry's most time-proven record of superior accuracy, performance, and long-term durability.

There is no metal-to-metal contact within the metering element...and no contact means no wear...no wear means no increase in clearances...no increase in clearances means no increase in slippage... and no increase in slippage means no deterioration in accuracy.

High Flow Rates: Liquid Controls PD meter are designed to dispense at high speed, reducing vehicle refueling time and increasing operational throughput.

Low Maintenance: With no metal-to-metal contact inside the measuring chamber, wear is minimized, extending service life and reducing downtime.

Digital Integration: Compatible with electronic registers and data logging systems for automated tracking, reporting, and integration with fleet management software.

Global Compliance: Certified to meet international standards including OIML, NTEP, ATEX & PESO, ensuring regulatory compliance across regions.

Corken Pumps Legacy in PTO Pumps:

The Corken PTO pump is the heart of your mobile fueling system-drawing power directly from the vehicle to drive efficient fuel transfer. It works seamlessly with the Liquid Controls PD metering system to ensure accurate, consistent dispensing in the toughest mining conditions. Built rugged for reliability, it keeps your fuel browser ready for action-anytime, anywhere. Together, they deliver precision, performance, and peace of mind in every drop.

Our pumps ensure efficient energy conversion, self-adjusting capabilities, quiet operation, and superior suction characteristics. These features make them ideal for modern fuel delivery services, addressing common challenges.



- **Improve Pump Longevity by 2X times:** Self-adjusting vane design and robust seals
- **Improved Safety:** Variable flow capacity and T-Type mesh strainer protects components.
- **Reduced Downtime:** Easy maintenance
- **Cost Savings:** Less maintenance & Eliminate additional power sources,
- **Prompt Local Support:** Quick, efficient service at your doorstep

Features & Benefits to the Customer

1. Reduce billing errors, thanks to high-performance PD meters
2. Excellent precision and repeatability of measurement
3. Quick installation, commissioning and integration
4. Reduced maintenance efforts
5. Low recalibration costs
6. Quick return on investment



Conclusion:

A Trusted Partner in Mining Fuel Logistics

Backed by decades of field-proven performance, Liquid Controls PD meters are the trusted choice for mining fuel browsers across the globe. Their unmatched reliability, precision, and ruggedness ensure that mining operations stay fueled, efficient, and compliant—no matter how remote or demanding the environment.

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