IX Series

A new class of advanced metering pumps! The IX Series are digitally controlled direct-drive diaphragm pumps. Years of experience in high-end motor technology result in an extremely accurate and energy efficient metering pump while maintaining a high resolution. The IX Series meet today’s demand for automated chemical delivery in industries from water treatment to chemical process with output capacities up to 80 GPH (300 l/h) and a maximum pressure of 247 PSI (17 bar). High preci’s control offers a solution for a variety of dosing applications.

High Turndown Ratio

Exact motor control adjusts the discharge and suction speeds individually to meet a full and accurate turndown ratio of 100:1 (300 l/h to 3 l/h).

High Accuracy

Combined with precise motor control, an efficient valve design maintains accurate flow rates to allow a high-compression, mechanically-driven diaphragm pump to achieve a high accuracy of ±1%.

Energy Savings

Reduction gears and internal spring reduce power consumption by up to 70% compared to conventional mechanical metering diaphragm pumps.

High Compression Head Design

A fixed stroke length maintains high compression in each stroke resulting in fast priming and no-air lock at any flow rate. Controlling the flow rate by adjusting the discharge speed only and maintaining the suction speed ensures a constant injection rate at any flow, reducing pressure spikes and load in the pump and discharge lines.

LK/LKN Series

The LK Series metering pumps are motor-driven, mechanically-actuated diaphragm metering pumps achieving outputs up to 855 GPH (3240 l/h) and maximum pressures of 225 PSI (1.5 MPa). The LK Series is ideal for simple chemical feed applications in a wide range of fields, including pulp and paper, chemical process, mining, wastewater treatment and agriculture.

Performance

The LK series has a discharge accuracy (repeatability) that is within ±2% FS. Reliability has been enhanced with the improvement in the linearity of the stroke and the discharge ratio of each stroke.

Drive

The drive of the LK Series is a dual-cam drive with oversized bearings and a built-in worm gear type speed reducer. This compact and rugged design, provides maximum wear resistance in continuous operation over long periods of time.

Motors

The LK Series pumps are available with a variety of Nema 42C face motors. The LK-A, LK-B, and LK-C Series pumps are designed to be fit with IEC general-purpose, vertically mounted TEFC outdoor-use motors, providing different voltage and enclosure options, including VFD-ready and explosion-proof designs.

IX Series Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>EZ Series</th>
<th>EKN Series</th>
<th>EHE Series</th>
<th>EJ Series</th>
<th>LR Series</th>
<th>IX Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Module</td>
<td>M Module</td>
<td>M Module</td>
<td>E Module</td>
<td>R Module</td>
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<td>Maximum Output</td>
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<td>Maximum Pressure</td>
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<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note 1: Standard turndown ratio of the LK is 10:1. With the addition of the DC motor option or VFD, the turndown capability increases to 100:1 (300 l/h to 3 l/h). Note 2: Pumps (should always be shielded from direct exposure to the elements)
Advanced Electronic Pump Technology

E Series pumps operate up to 360 strokes-per-minute. Most competitive products operate at 190 (20.4:1) and, resulting in slugging feed, accelerated diaphragm wear and poor feed control.

Dual Bearing Support
All E Series pumps feature dual bearing support. The armature and shaft are supported with a bearing on each end, which ensures proper axial movement, enabling E Series pumps to operate up to 360 SPM, while extending the life of the diaphragm.

Superior Check Valve Performance
Dual Check Valve Assemblies in both suction and discharge fittings feature precision ball guides and tapered seats. Precise machining and mating of parts limit valve ball travel, ensuring that balls fully seat and seal with every stroke. This superior check valve design and performance guarantees fast priming.

High Compression Ratio
The compression ratio of a metering pump is important because it affects the pump’s ability to prime and vent. The compression ratio is critical when you reduce the dead volume of the pump during operation. All E Series pumps feature a very high compression ratio that ensures proper feed, especially with off-gassing products. (e.g. Sodium Hypochlorite)

The EJ Series provide precise chemical injection at an economical price. Universal voltage capability enables operation from 100 - 240VAC in virtually any country. The EJ Series are compact, simple to operate and have outputs up to 3.2 GPH (12.0 LPH) and a maximum pressure of 175 PSI (1.2 MPa).

The EJ Series operate at 360 strokes-per-minute, providing high-resolution chemical feed with excellent turndown capability. Standard external control and a variety of liquid end options along with its compact, robust design make the EJ Series a very economical solution for any chemical feed application.

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External Control
The EJ Series have both digital input and Stop/Start inputs built into the pump, enabling the flexibility of either proportional or On-Off control in a simple package.

IP65 Protection
A robust housing protects the pump from normal wear. Designing the digital display and keypad control within the drive housing creates a highly water resistant design.

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EWN Series

Compact, powerful, and packed with a variety of innovative design features, EWN is the flagship of the E Series metering pumps. With output capacities up to 6.7 GPH (25.4 LPH) and a maximum pressure of 150 PSI (10 bar). The EWN Series provide precise chemical injection at an economical price. Universal voltage capability enables operation from 100 - 240VAC in virtually any country. The EWN Series are compact, simple to operate and have outputs up to 6.7 GPH (25.4 LPH) and a maximum pressure of 150 PSI (10 bar).

EZ Series

EZ Series with digital speed control offers precise chemical injection at a low cost. EZ has output capacities up to 6.3 GPH (23.8 LPH) and a maximum pressure of 150 PSI (10 bar). The compact size and simple control make it ideal for EWN, water treatment, car wash and a variety of other applications.

Value
Effective, reliable performance is achieved through sophisticated engineering. EZ Series features an advanced microprocessor control with a turndown ratio of 3500:1, making an exceptional value. EZ is simple to operate with three pushbutton keys. The 3501 turndown ratio provides unmatched versatility and results in high-resolution chemical feed and elimination of slug feed effects.

Compact Modular Design
The liquid end, drive, and electronics are modular, enabling economical repair or replacement of parts. The control module can easily be mounted in a remote location with the optional remote control cable assembly.

EHE Series

EHE is the workhorse of the E Series metering pumps. Superior mechanical design and quality of manufacturing merge to create a pump greater than the sum of its parts. EHE pumps have outputs up to 20 GPH (76 LPH) and a maximum pressure of 150 PSI (10 bar). Combining the EHE performance with a turndown ratio of 1800:1 yields one of the most variable pumps on the market today.

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EWN Series

Compact, powerful, and packed with a variety of innovative design features, EWN is the flagship of the E Series metering pumps. With output capacities up to 6.7 GPH (25.4 LPH) and a maximum pressure of 150 PSI (20 bar), there’s an EWN model to enhance any chemical feed application.

IP65 Construction
The rugged Polyurethane Ether (PPE) enclosure is equipped with a durable clear cover to protect the membrane and control of the pump, which are mounted opposite the liquid end. The display utilizes a high temperature LCD that provides extra protection from heat and sunlight.

A variety of liquid end combinations are available to ensure a perfect match for your specific application.

Control Features
All EWN series pumps come equipped with analog pulse, stop & pre-stop inputs in addition to stop & pulse output control. The EWN series also features:

- Fixed Accuracy – Powered by the E Series 360 Stroke-Per-Minute technology, the EWN has an incredible adjustment range of 1800:1 ensuring precise feed control for any application.
- Analog Input Control - Fixed of scalable 0-20mA input pump.
- PTU Input Control - Pulse input with multiply and device capability.
- Quick-Prime – External 90V input at 2 hours down and pump runs at 150% of speed to prime quickly without affecting application settings.
- Keypad Lock-Out – Keypad functions can be locked out (programmable code) providing feed control features, EWN is the flagship of the E Series metering pumps. With output capacities up to 6.7 GPH (25.4 LPH) and a maximum pressure of 150 PSI (10 bar).

Flow Rate Display - After calibration, the EWN can display the flow rate for very low and high setting, enabling EWN-Y is equipped to accept both the EFS magnetic flow sensor and PosiFlow feed verification sensor. Using communication from the sensors, the EWN-Y is equipped to accept both the EFS magnetic flow sensor and PosiFlow feed verification sensor. Using communication from the sensors, the EWN-Y is equipped to accept both the EFS magnetic flow sensor and PosiFlow feed verification sensor.

- Additional EWN Exclusive Features
- Programmable Alarms - A programmable 0-20 mA output proportional to pump flow.
- Programmable Alarms - Two output alarms can be set for a variety of conditions.

- Programmable Alarms - Two output alarms can be set for a variety of conditions.
Advanced Electric Pump Technology

EJ Series:
- Can be set for a variety of conditions.
- Measures or verifies flow and can self-adjust communication from the sensors, the EWN-Y can accept both the EFS magnetic flow sensor and the EFS ultrasonic flow sensor, providing flow rate display, totalization and data logging.
- After calibration, the EWN can display the flow rate for easy reading and analog output proportional to pump flow.
- EWN’s compact size and simple control make it ideal for OEM, water treatment, car wash and a variety of other applications.

EZ Series:
- EZ Series with digital speed control offers precise chemical injection at a low cost. EZ has output capacities up to 6.3 GPH (23.8 L) and a maximum pressure of 150 PSI (10 bar). The compact size and simple control make it ideal for OEM, water treatment, car wash and a variety of other applications.

EHE Series:
- EHE pumps meet the demands of applications requiring accuracy over a wide output range. The 1800:1 turndown ratio provides the ability to accurately control a high capacity pump to very low outputs, without compromising accuracy. This enables oversized pumps to be installed in applications where output requirements fluctuate, or to accommodate future system growth.

Control:
- Microprocessor-based circuitry provides operator adjustment of pump speed and external input settings via 4-button keypad. EHE comes with digital and analog external mode control. The external digital input mode feature allows flexibility and divide circuit mode is often used in flow proportional systems, such as with a flow meter contactor. The external analog input mode is a programmable 4-20mA input that provides scalable speed adjustment based on any analog signal.

Compact Modular Design:
- The liquid end, drive, and electronics are modular, enabling economical repair or replacement of parts. The control module can easily be mounted in a remote location or in a control cabinet.

Value:
- Effective, reliable performance is achieved through sophisticated engineering. EZ Series features an advanced microprocessor control with a turndown ratio of 350:1, making an exceptional value. EZ is simple to operate with three pushbutton keys. The 350:1 turndown ratio provides unmatched versatility and results in high-resolution chemical feed and elimination of slug feed effects.

EWN Series:
- Meta-dripcheck prevents chemical injection at a low cost. EWN has output capacities up to 6.3 GPH (23.8 L) and a maximum pressure of 150 PSI (10 bar). The compact size and simple control make it ideal for OEM, water treatment, car wash and a variety of other applications.

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EHE Series:
- EHE is the workhorse of the E Series metering pumps. Superior mechanical design and quality of manufacturing merge to create a pump greater than the sum of its parts. EHE pumps have outputs up to 20 GPH (76 L) and a maximum pressure of 150 PSI (10 bar).

Combining the EHE performance with a turndown ratio of 1800:1 yields one of the most versatile pumps on the market today. EHE Series is ideal for chemical feed applications in a wide range of fields, including drinking water, agriculture, and municipal/industrial wastewater.

Versatility:
- EWN pump meets the demands of applications requiring accuracy over a wide output range. The 1800:1 turndown ratio provides the ability to accurately control a high capacity pump to very low outputs, without compromising accuracy. This enables oversized pumps to be installed in applications where output requirements fluctuate, or to accommodate future system growth.

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Compact Modular Design:
- The liquid end, drive, and electronics are modular, enabling economical repair or replacement of parts. The control module can easily be mounted in a remote location with the optional remote control cable assembly.

Advanced Electric Pump Technology

EJ Series:
- The EJ Series provide precise chemical injection at an economical price. Universal voltage capability enables operation from 100 - 240VAC in virtually any country.

EZ Series:
- EZ Series with digital speed control offers precise chemical injection at a low cost. EZ has output capacities up to 6.3 GPH (23.8 L) and a maximum pressure of 150 PSI (10 bar). The compact size and simple control make it ideal for OEM, water treatment, car wash and a variety of other applications.

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Compact Modular Design:
- The liquid end, drive, and electronics are modular, enabling economical repair or replacement of parts. The control module can easily be mounted in a remote location with the optional remote control cable assembly.

EWN Series:
- Compact, powerful, and packed with a variety of innovative design features.
- EWN is the flagship of the E Series metering pumps.
- With output capacities of up to 6.3 GPH (23.8 L) and a maximum pressure of 150 PSI (10 bar), an EWN’s enhanced performance model can achieve chemical feed applications.

IP65 Construction:
- The rugged Polyurethane Ether (PIE) enclosure is equipped with a durable clear cover to protect the membrane seals from physical damage.
- The display utilizes a high temperature LCD that provides extra protection from heat and sunlight.

Compact Modular Design:
- The liquid end, drive, and electronics are modular, enabling economical repair or replacement of parts. The control module can easily be mounted in a remote location or in a control cabinet.

Value:
- Effective, reliable performance is achieved through sophisticated engineering. EZ Series features an advanced microprocessor control with a turndown ratio of 350:1, making an exceptional value. EZ is simple to operate with three pushbutton keys. The 350:1 turndown ratio provides unmatched versatility and results in high-resolution chemical feed and elimination of slug feed effects.

Compact Modular Design:
- The liquid end, drive, and electronics are modular, enabling economical repair or replacement of parts. The control module can easily be mounted in a remote location with the optional remote control cable assembly.
Advanced Electronic Pump Technology

EJ Series

The EJ Series provide precise chemical injection at an economical price. Universal voltage capability enables operation from 100 - 240V AC in virtually any country. The EJ Series are compact, simple to operate and have outputs up to 3.2 GPH (12 l/h) and a maximum pressure of 175 PSI (1.2 MPa).

Utility

- EJ Series operate at 360 strokes-per-minute, providing high-resolution chemical feed with excellent turndown capability. Standard external control and a variety of liquid-end options along with its compact, robust design make the EJ Series a very economical solution for any chemical feed application.

External Control

The EJ Series have both digital input and stop/start inputs built into the pump, enabling the flexibility of either proportional or On/Off control in a simple package.

IP56 Protection

A robust housing protects the pump from normal wear. A robust housing protects the pump from normal wear. Designing the digital display and keypad control within the drive housing creates a highly water resistant design.

EWN Series

Compact, powerful, and packed with a variety of innovative design features, EWN is the flagship of the E Series metering pumps. With output capacities up to 6.3 GPH (23.8 l/h) and a maximum pressure of 290 PSI (20 bar), there’s an EWN model to enhance any chemical feed application.

Control Features

All EWN series pumps come equipped with analog pulse, stop & pre-stop inputs in addition to stop & pulse output control. The EWN series also features:

- Fixed Accuracy - Powered by the E Series 360 Stroke-per-minute technology, the EWN has an incredible adjustment range of 1800:1 ensuring precise feed control for any application.
- Analog Input Control - Fixed or scalable 0-20mA input pumping.
- Pulse Input Control - Pulse input with multiply and divide capability.
- Quick-Prime - External AIC input, push 2 keys down and pump runs at 180% of speed to prime quick without affecting application settings.
- Keypad Lock-Out - Keypad functions can be locked out providing feed security and integrity from unwanted adjustments.
- Easy Down-Stream Calibration - In calibration mode the user only needs to start and stop the pump to calibrate the flow rate.
- Flow Rate Display - After calibration, the EWN can display the flow rate for easy reading and adjusting (L/min, GPH, l/h).
- Additional EWN Exclusive Features
  - Feed Verification - The EWN is equipped to accept both the EFS magnetic flow sensor and handheld digital flow verification sensor. Using the handheld sensor enables the user to measure or verify flow and can self-adjust speed to ensure proper feed for the application.
  - Totalization and Data Logging - Accurately flow as well as other pump operation parameters are logged in the pump memory.
  - Analog Output - A programmable 0-20mA output proportional to pump flow.
  - Programmable Alarms - Two output alarms can be set for a variety of conditions.

IP65 Construction

The rugged Polyethylene Ether (PPE) enclosure is equipped with a durable clear cover to protect the membrane switch and control of the pump, which are mounted opposite the liquid end. The display utilizes a high temperature LCD that provides extra protection from heat and sunlight. A variety of liquid end combinations are available to ensure a perfect match for your specific application.

EHE Series

EHE is the workhorse of the E Series metering pumps. Superior mechanical design and quality of manufacturing merge to create a pump greater than the sum of its parts. EHE pumps have output up to 20 GPH (76 l/h) and a maximum pressure of 150 PSI (10 bar). Combining the EHE performance with a turndown ratio of 1800:1 yields one of the most variable pumps on the market today.

EHE Series is ideal for chemical feed applications in a wide range of fields, including drinking water, agriculture, and municipal/industrial wastewater.

Versatile

EHE pump meets the demands of applications requiring accuracy over a wide output range. The 1800:1 turndown ratio provides the ability to accurately control a high capacity pump to very low capacities, without compromising accuracy. This enables oversized pumps to be installed in applications where output requirements fluctuate, or to accommodate future system growth.

Control

Microprocessor-based circuitry provides operator adjustment of pump speed and external input settings via 4-button keypad. EHE comes with digital and analog external mode control. The external digital input mode feature allows flexibility and divide circuitry that is often used in flow proportional systems, such as with a flow meter contactor. The external analog input mode is a programmable 4-20mA input that provides scalable speed adjustment based on any analog signal.

EZ Series

EZ Series with digital speed control offers precise chemical injection at a low cost. EZ has output capacities up to 6.3 GPH (23.8 l/h) and a maximum pressure of 150 PSI (10 bar). The compact size and simple control make it ideal for OEM, treatment, car wash and a variety of other applications.

Value

Effective, reliable performance is achieved through sophisticated engineering. EZ Series features an advanced microprocessor control with a turndown ratio of 360:1, making it an exceptional value. EZ is simple to operate with three pushbutton keys. The 360:1 turndown ratio provides unmatched versatility and results in high-resolution chemical feed and elimination of slug-feed effects.

Compact Modular Design

The liquid end, drive, and electronics are modular, enabling economical replacement of parts. The control module can easily be mounted in a remote location with the optional remote control cable assembly.

Outstanding performance

In the calibration

In the calibration

Outstanding performance

In the calibration

Outstanding performance

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In the calibration
**IX Series**

A new class of advanced metering pumps! The IX Series are digitally controlled direct-drive diaphragm pumps. Years of experience in high-end motor technology result in an extremely accurate and energy efficient metering pump while maintaining a high resolution. The IX Series meet today’s demand for automated chemical delivery in industries from water treatment to chemical process with output capacities up to 856 GPH (3240 l/h) and a maximum pressure of 247 PSI (17 bar). High pressure control offers a solution for a variety of dosing applications.

### High Turndown Ratio

Exact motor control adjusts the discharge and suction speeds individually to meet a full and accurate turndown ratio of 1000:1 (300 l/h to 7.5 ml/h).

### High Accuracy

Combined with precise motor control, an efficient valve design maintains accurate flow rates to allow a low-cost, mechanically-driven diaphragm pump to achieve a high accuracy of ±1%.

### Energy Savings

Reduced gears and return spring reduce power consumption by up to 70% compared to conventional mechanical diaphragm metering pumps.

### High Compression Head Design

A fixed stroke length maintains high compression in each stroke resulting in fast priming and no air lock at any flow rate. Controlling the flow rate by adjusting the discharge speed only and maintaining the suction speed ensures a constant injection rate at any flow, reducing pressure spikes and load in the pump and discharge lines.

### LK/LKKN Series

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### Motors

The LK Series pumps are available with a variety of Nema 42C face motors. The LK-A, LK-B, and LK-C Series pumps are designed to be fit with IEC general-purpose, vertically mounted TEFC outdoor-use motors, providing different voltage and enclosure options, including VFD-ready and explosion-proof designs.

*LK-A/B/C pumps are considered engineered product. Consult factory for delivery.*

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**Specifications**

<table>
<thead>
<tr>
<th>Feature</th>
<th>EZ Series</th>
<th>EHN Series</th>
<th>EWI Series</th>
<th>EZ Series</th>
<th>UK Series</th>
<th>IX Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Module</td>
<td>E Module</td>
<td>E Module</td>
<td>E Module</td>
<td>R Module</td>
<td>R Module</td>
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<tr>
<td>Maximum Output</td>
<td>6.3 GPH</td>
<td>150 GPH</td>
<td>150 GPH</td>
<td>12 GPH</td>
<td>150 GPH</td>
<td>72 GPH</td>
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<tr>
<td>Maximum Pressure</td>
<td>100 PSI</td>
<td>125 PSI</td>
<td>125 PSI</td>
<td>100 PSI</td>
<td>125 PSI</td>
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<tr>
<td>Stroke per Minute</td>
<td>200</td>
<td>600</td>
<td>600</td>
<td>200</td>
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<tr>
<td>Flow Rate Adjustments</td>
<td>Fixed</td>
<td>20-100%</td>
<td>100-100%</td>
<td>Fixed</td>
<td>10-100%</td>
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<td>IP Rating</td>
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<td>IP55</td>
<td>IP55</td>
<td>IP55</td>
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</tr>
</tbody>
</table>

**Note 1:** Standard turndown ratio of the LK is 10:1. With the addition of the DC motor option or VFD, the suction capability expands to include a 3,000:1 or even greater turndown ratio.

**Note 2:** Pumps (should always be shielded from direct exposure to the elements).

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**Safety Certifications**

The E Class metering pumps* are WQA tested and certified to NSF/ANSI/CAN Standard 61. For more information on our specific chemicals and certification parameters, please visit our website.

* Select sizes and liquid end options.

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**WARRANTY**

2 YEAR

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**IwakiAmerica.com**
IX Series

A new class of advanced metering pumps! The IX Series are digitally controlled direct-drive diaphragm pumps. Years of experience in high-end motor technology result in extremely accurate and energy-efficient metering pump while maintaining a high resolution. The IX Series meet today’s demand for automated chemical delivery in industries from water treatment to chemical process with output capacities up to 856 GPH (3240 l/h) and a maximum pressure of 247 PSI (17 bar). High precision control offers a solution for a variety of dosing applications.

High Turndown Ratio

Exact motor control adjusts the discharge and suction speeds individually to meet a full and accurate turndown ratio of 1000:1 (300 l/h to 0.3 ml/h).

High Accuracy

Combined with precise motor control, an efficient valve design maintains accurate flow rates to allow a low-cost, mechanically-driven diaphragm pump to achieve a high accuracy of ±1%.

Energy Savings

Reduced gears and return spring reduce power consumption by up to 70% compared to conventional mechanical diaphragm metering pumps.

High Compression Head Design

A fixed stroke length maintains high compression in each stroke resulting in fast priming and no air-lock at any flow rate. Controlling the flow rate by adjusting the discharge speed only and maintaining the suction speed ensures a constant injection rate at any flow, reducing pressure spikes and load in the pump and discharge lines.

LK/LKN Series

The LK Series metering pumps are motor-driven, mechanically-actuated diaphragm metering pumps achieving outputs up to 855 GPH (3240 l/h) and maximum pressures of 225 PSI (1.5 MPa). The LK Series is ideal for simple chemical feed applications in a wide range of fields, including pulp and paper, chemical process, mining, wastewater treatment and agriculture.

Performance

The LK Series has a discharge accuracy (repeatability) that is within ±2% FS. Reliability has been enhanced with the improvement in the linearity of the stroke and the discharge ratio of each stroke.

Drive

The drive of the LK Series is a dual-cam drive with oversized camshafts and a built-in worm gear type speed reducer. This compact and rugged design, provides maximum wear resistance in continuous operation over long periods of time.

Motors

The LK Series pumps are available with a variety of Nema 42C face motors. The LK-A, LK-B, and LK-C Series pumps are designed to be fit with IEC general-purpose, vertically mounted TEFC outdoor-use motors, providing different voltage and enclosure options, including VFD-ready and explosion-proof designs.

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