

# **LITEStream**

Precision dispensing while lowering material consumption

# PRECISION DISPENSING EQUIPMENT



# LITESTREAM DISPENSING SOLUTION

LITEStream

The KREMLIN REXSON LITEStream dispense system is used to accurately control the application of sealant & adhesives materials in production dispensing applications. The LITEStream controller is designed is designed to control material flow and pressure to obtain a repeatable, quality process. It can be used for extruding, spraying, streaming and coating applications.

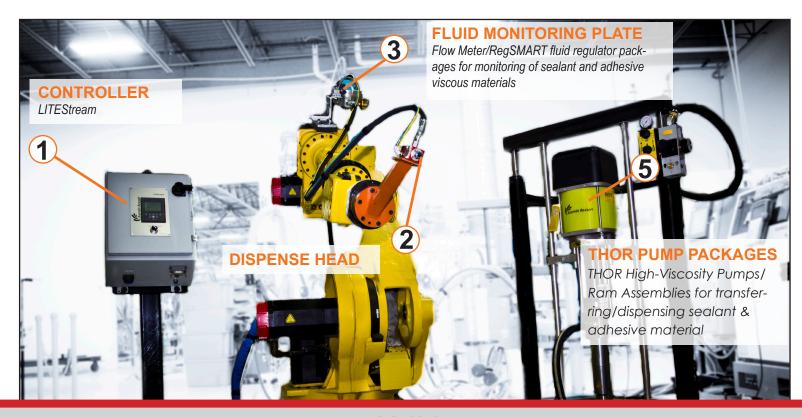
The dispense package is offered in two configurations. A **Shot Meter** dispense head for very precise applications under 70cc, and a Regulated/Flow Meter dispense head for high-volume applications over 70cc. Both

> dispenser packages can be attached to robotic automation or a fixed pedestal and can be run with automatic or manual equipment.

The controller has the flexibility to control various materials and viscosities by varying the material temperature through an external Temperature Conditioning Unit (TCU). The reference temperature is set in the LITEStream controller and sent to the TCU through built in parallel/Discrete or DeviceNet I/O protocols.

KREMLIN REXSON LITEStream System Packages are also designed to support pneumatic dispensing configurations, which works with almost any application for dispensing. The LITEStream systems are easy to order and configure. Simply choose the controller with a communication package (Discrete or Device Net), the dispense head (flow meter or shot meter) and your corresponding dress-out packages.

Our unique packages are designed for easy step-by-step ordering and configuration at any facility. The kits will arrive individually packaged with instructions for set-up and installation. There are primary kits that are required for all systems, as well as an abundance of accessories and optional kits that are available.





#### STREAMING -

Material is applied to the surface by a thin jet that makes the process less sensitive to inconsistencies in the work piece



#### **EXTRUSION** -

Material is applied directly on the surface where bead shape is critical to its performance



#### **PROCESSES**

METERED EJECTION -System injects precise and repeatable material volumes at pressure



# SPRAYING -

Airless application of materials in a wide pattern of consistent thickness



STRING DISPERSION -Provides a wide application pattern without atomizing the material

# **CONTROLLER MONITORING OPTIONS**

# **SHOT METER PACKAGE - 1K**



The LITEStream shot meter package is ideal for single-component applications where the overall volume of each dispense is less than 70 cc's. With this configuration, material is pre-filled and the material chamber is pressurized with a metering rod. Dispensing is constantly controlled and monitored by a pressure transducer that verifies material flow and continuously makes adjustments to maintain a **consistent** and **uninterrupted** flow rate during application.

#### 1K High-LITEs:

- Ability to process low volumes, shot sizes and flow rates
- Excellent response for stop and start beads
- Less destructive to glass, bead and filled materials
- Accuracy within 2%
- Positive displacement

### FLOW METER PACKAGE - 1R

The LITEStream flow meter package is ideal for single-component applications where the overall volume of each dispense exceeds 70 cc's. Material is constantly controlled and monitored by a mastic regulator that **verifies** flow and **continuously makes control adjustments** to maintain a consistent and uninterrupted flow rate during application.

## 1R High-LITEs:

- · Continuous flow with unlimited volume
- Automatic, real-time material viscosity adjustment

#### FLOW METER - 1R DISPENSE HEAD

The Flow Meter Dispense Head is designed to dispense single part component materials that have a volume from 5 to 9999cc.

The Dispense Head uses a proportional material regulator to control the material flow. Thereby, the pump pressure will determine the maximum flow of the system. A servo air regulator controls the flow command to the material regulator by adjusting air pressure. This varies the opening orifice size of the material regulator. The dispensing is constantly monitored by a flow meter that makes controller adjustment to maintain a consistent flow rate during dispensing.

In addition to Flow control, temperature conditioning of the material may be required to achieve the proper level of application performance. Temperature conditioning is used to stabilize or control materials viscosity, create a phase change, increase adhesiveness, or optimize total application parameters.

The material is "Streamed" or Extruded onto the workpiece using a small orifice or a nozzle









# LITESTREAM CONTROLLER

The LiteStream Dispense System consists of series of subsystems. These subsystems work together to produce a specific level of flow control.

- 1. Fluid Delivery Subsystem
- 2. Dispense Head
  - Shot Meter or Flow Meter
- 3. Controls Subsystem
- 4. Temperature Conditioning
  - Optional

Each system includes a robot or pedestal mounted pneumatic dispense head. The output material flow can be adjusted by changing the control air pressure. These changes can be achieved by varying the strength of the electronic flow rate signal from 0 to 10vdc.

Material flow is controlled by a closed loop system using a linear transducer, Flow monitor and Pressure transducer for feedback. A servo valve controls the material flow. The servo signals are used in-conjunction with the feedback signals to allow quick and accurate flow rates.

The controller has easy to use navigation system that allows quick setup and has easy to use Alarm and Log (volume) reporting.

Some materials dramatically change viscosities with small temperature changes can be controlled using the temperature conditioning option. A water based conditioning subsystem is used to optimize material viscosity to improve dispense quality.



LITESTREAM CONTROLLER			
Description	Part Number		
LITEStream Discrete	668-041-000		
LITEStream DeviceNet	668-041-001		

# DISPENSE HEAD OPTIONS



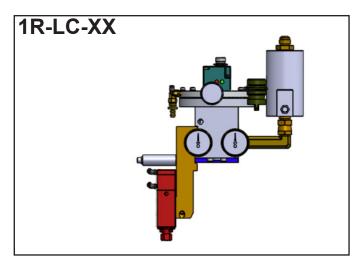
#### SHOT METER PACKAGE-1K

The LITEStream shot meter package is ideal for single-component applications in which the overall volume of each dispense is less than 70 cc. With this configuration, material is pre-filled and the material chamber is pressurized with a metering rod. Dispensing is constantly controlled and monitored by a pressure transducer that verifies material flow and continuously makes adjustments to maintain a consistent and uninterrupted flow rate during application.

- Ability to process low volumes, shot sizes and flow rates
- Excellent response for stop and start beads
- Less destructive to glass, bead and filled materials
- Accuracy within 2%
- Positive displacement

1K SHOT METER	
Description	Part Number
1R-1K-00	668-041-500

# **REGULATED FLOW METER PACKAGE 1R**

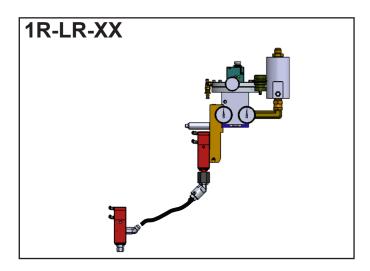


#### CLOSE COUPLED

- Heat Option
- Integrated pressure relief valve
- Left/Right Hand available
- No. 12 JIC Material IN
- Same TCP as original JDS 1R Dispense Head
- Same Mounting as original JDS 1R Dispense Head

CLOSED COUPLED	
Description	Part Number
1R-LC-06	668-041-210
1R-LC-08	668-041-220
1R-LC-12	668-041-230

XX= Ball and Seat size option (06mm, 08mm, 12mm)

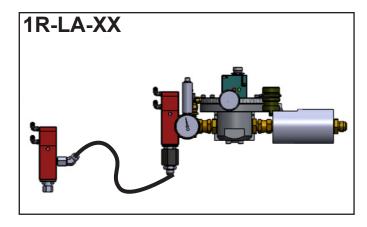


#### **REMOTE MOUNT**

- Heat Option
- Integrated pressure relief valve
- Left/Right Hand available
- Addition Dispense Valve Kit
- 5 & 10 ft hoses 1/2 or 3/8 No. 8 JIC
- No. 12 JIC Material IN
- Same TCP as original JDS 1R Dispense Head
- Same Mounting as original JDS 1R Dispense Head

REMOTE MOUNT	
Description	Part Number
1R-LR-06	668-041-310
1R-LR-08	668-041-320
1R-LR-12	668-041-330

XX= Ball and Seat size option (06mm, 08mm, 12mm)



#### **REMOTE MOUNT BASIC**

- Left/Right Hand available
- Addition Dispense Valve Kit
- 5 & 10 ft hoses 1/2 or 3/8 No. 8 JIC
- No. 12 JIC Material IN
- Same TCP as original JDS 1R Dispense Head
- Same Mounting as original JDS 1R Dispense Head

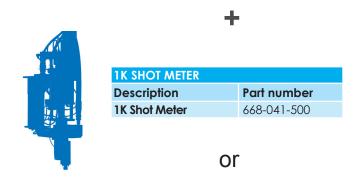
REMOTE MOUNT BASIC		
Description Part Number		
1R-LA-06	668-041-410	
1R-LA-08	668-041-420	
1R-LA-12	668-041-430	

→ XX= Ball and Seat size option (06mm, 08mm, 12mm)

# **DISPENSE PACKAGE SELECTION CHART**



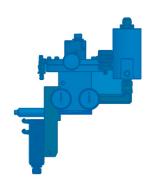
LITESTREAM CONTROLLER	
Description	Part number
LITEstream Discrete Controller	668-040-000
LITEStream DeviceNet	668-041-001

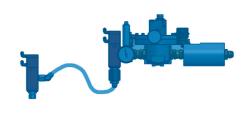


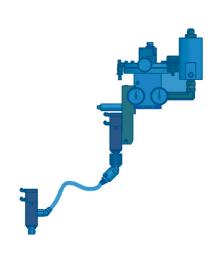
CLOSED COUPLED			
Description	Part Number		
1R-LC-06	668-041-210		
1R-LC-08	668-041-220		
1R-LC-12	668-041-230		

REMOTE MOUNT	
Description	Part Number
1R-LR-06	668-041-310
1R-LR-08	668-041-320
1R-LR-12	668-041-330

REMOTE MOUNT BASIC		
Description Part Number		
1R-LA-06	668-041-410	
1R-LA-08	668-041-420	
1R-LA-12	668-041-430	

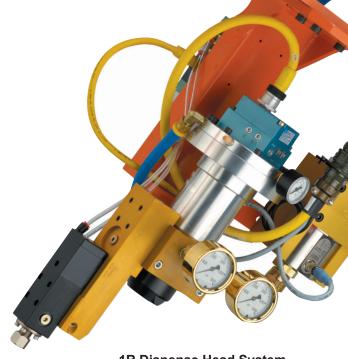






# **TECHNICAL SPECIFICATIONS**

FLUID DELIVERY SPECIFICATIONS			
Air supply pressure pump	1.37 - 6.2 pressure range (20 - 90 psi)		
Air supply material regulator pump	6.2 bar (90 psi)		
Minimum air filtration	5 micron - application dependent		
Material filtration - wall mounted	30 mesh / (500 micron) recommended		
Viscosity range	30 - 1,000,000 cps with 360-099 flow meter		



1R Dispense Head System

NOTES		





# **Experts in Finishing and Dispensing Solutions**

KREMLIN REXSON offers a wide range of pumps and equipment for the protection of materials and application of paints, sealants and adhesives in many different markets such as:

- Rolling equipment
- Plastic industries
- Wood (kitchens, bathrooms, furniture and joineries)
- Leather
- Renewable energies (windmills, solar)
- Aeronautics
- Construction equipment
- Packaging (drums and containers, etc...)
- Appliances
- Consumer goods
- Glass coating
- Cycles and motorcycles

www.exel-na.com

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