

## CLARKE'S PRESSURE LIMITING DRIVERS LIMITS SYSTEM PRESSURE



## RELIABLE CONTROL OF DISCHARGE AND SUCTION PRESSURE

Clarke's PLD for Discharge Pressure Limiting Control (PLD-D) and PLD for Suction Pressure Limiting Control (PLD-S) engines actively limits system pressure through RPM control.



# THE BETTER OPTION TO PREVENT OVER-PRESSURIZATION

Clarke's PLD-D systems reduce engine speed to limit maximum pump discharge pressure.

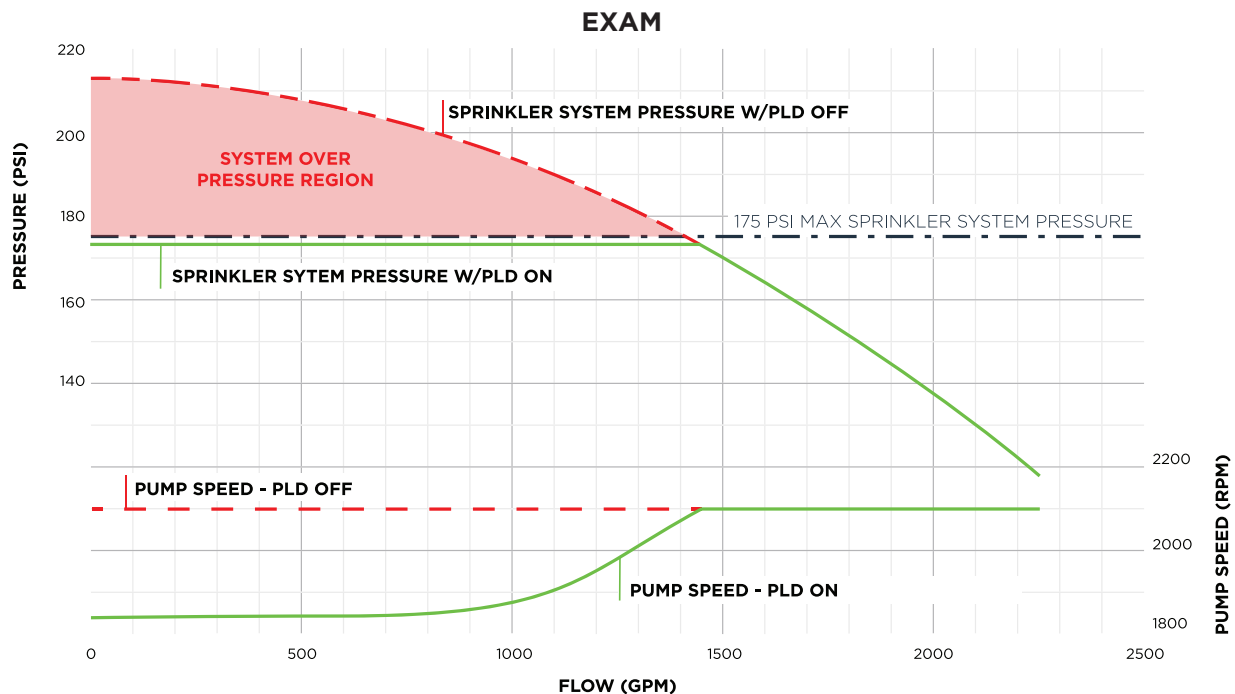
## KEY FEATURES

- Limits discharge pressure without additional devices in the main supply line
- Factory set between 100-350 psi (model dependent)
- Maintains compliance with NFPA20 by not dumping water out of the main relief valve to maintain system pressure

## WHY IT MATTERS

- Allows for a portion of the building to use smaller pipe sizes, saving material and labor costs
- Prevents under-pressurization damage to pipes, valves, and sprinkler components
- Can reduce the number of pressure control valves on high rise buildings
- Potentially allows a lower hp engine by selecting a pump with a steep shut off curve

**System Performance with a Pressure Limiting Driver (PLD-D) for discharge pressure limiting control using a horizontal split case fire pump rated at 175psi system pressure.**



# SAFEGUARD THE SUCTION SIDE OF YOUR FIRE PUMP SYSTEM

Clarke's PLD-S sets a suction pressure minimum threshold, controlled through engine speed, to protect minimum municipality pressure levels.

## KEY FEATURES

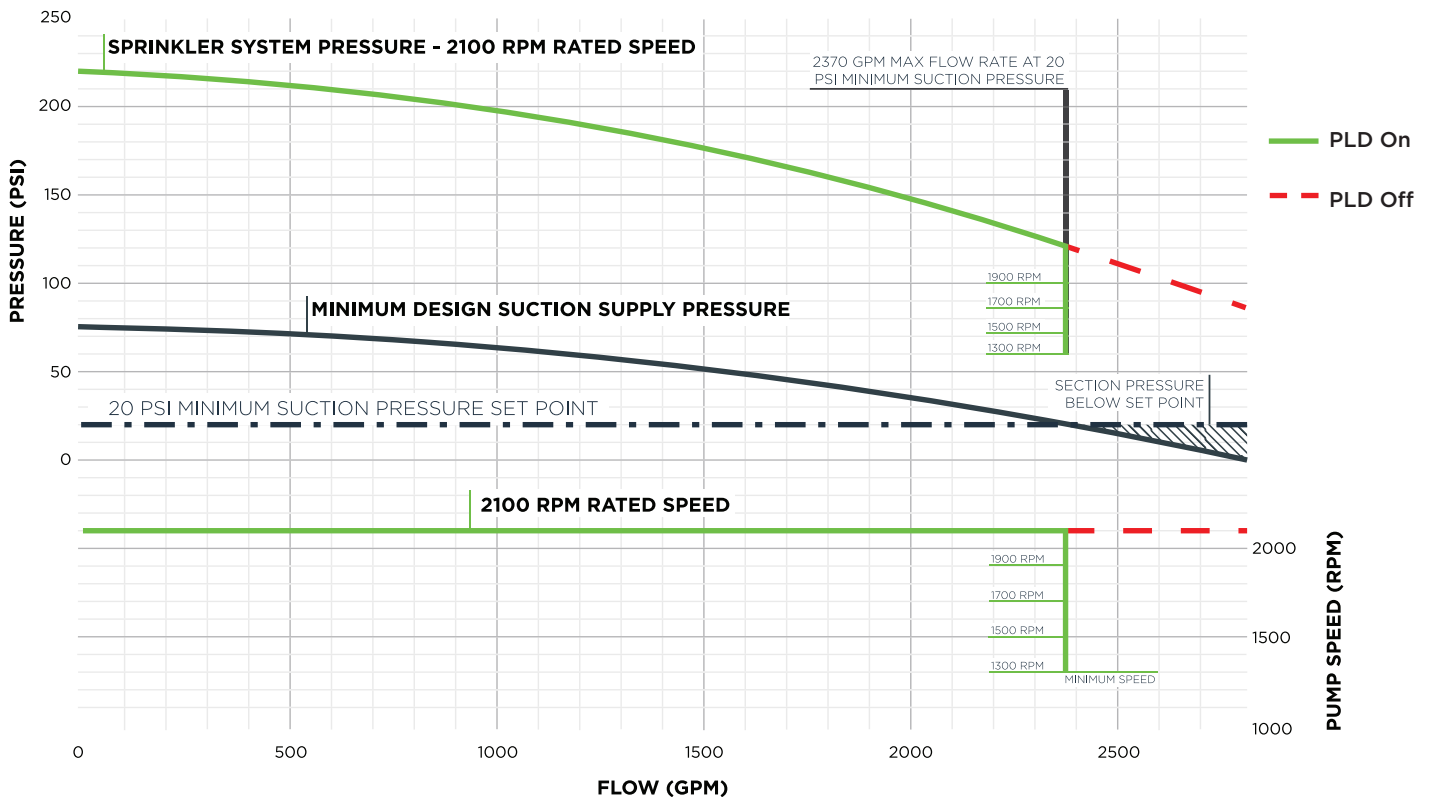
- Prevents dropping below the minimum pressure without any device in the suction supply line
- Factory set between 5-30 psi (8-30 for select models)
- Signals controller if pressure cannot be maintained

## WHY IT MATTERS

- Eliminates need for suction control valves
- Protects against collapsed supply lines
- Eliminates the need for using a break tank
- Supports regulatory compliance across jurisdictions

### System Performance with a Pressure Limiting Driver (PLD-S) for limiting suction pressure.

#### EXAMPLE



# TOTAL SYSTEM BALANCE WITH PLD-DS

Clarke's combined PLD-DS solution provides both discharge and suction pressure control.

## KEY FEATURES

- Limits discharge pressure without additional devices in the main supply line
- Prevents dropping below the minimum pressure without any device in the suction supply line
- Maintains compliance with NFPA20 by not dumping water out of the main relief valve to maintain system pressure

## WHY IT MATTERS

- Prevents under-pressurization damage to pipes, valves, and sprinkler components
- Allows for a portion of the building to use smaller pipe sizes, saving material and labor costs
- Eliminates need for suction control valves
- Protects against collapsed supply lines

### SUCTION PRESSURE LIMITING CONTROL SENSING LINE CONNECTION

The single suction pressure limiting control sensing line shall be connected between the os&y valve and the pump suction flange.

### -D -S AND -DS ENGINE MODELS

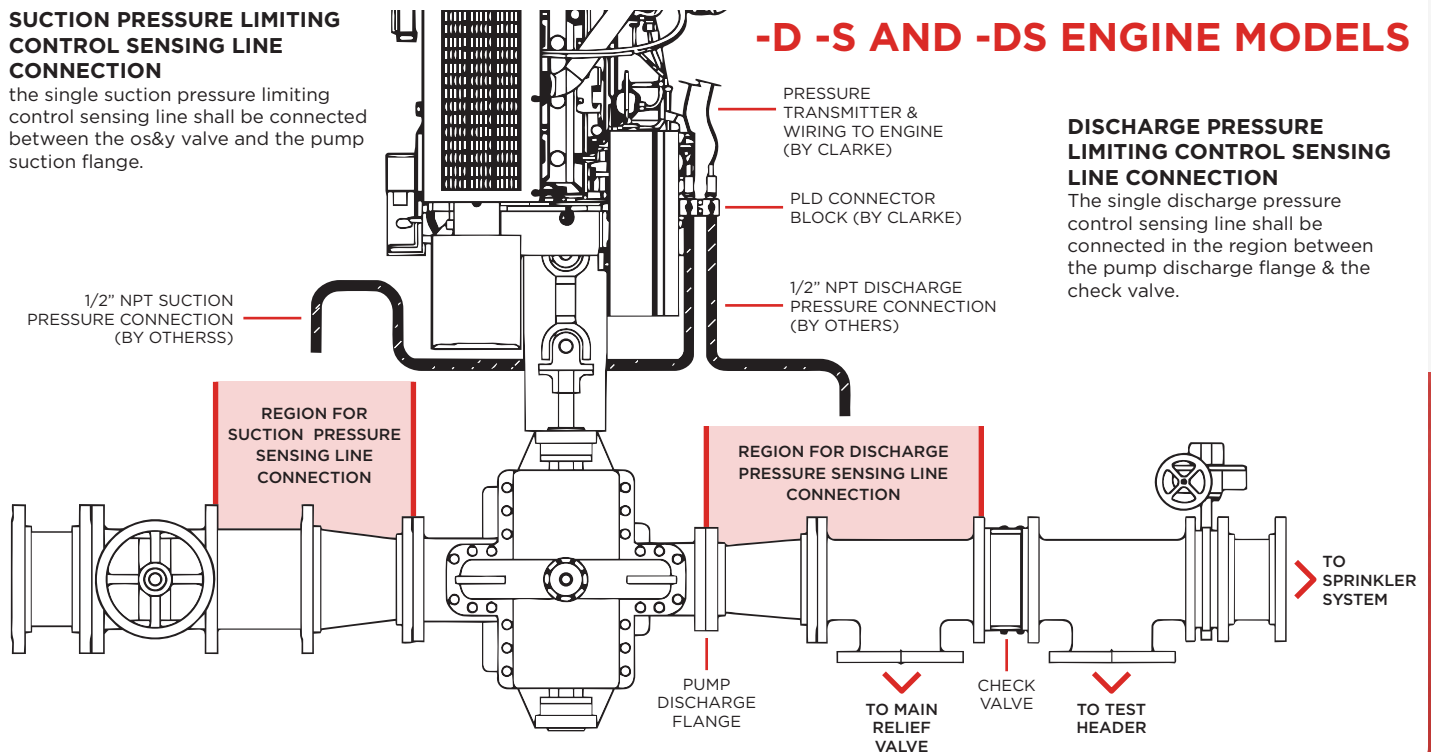
PRESSURE TRANSMITTER & WIRING TO ENGINE (BY CLARKE)

PLD CONNECTOR BLOCK (BY CLARKE)

1/2" NPT DISCHARGE PRESSURE CONNECTION (BY OTHERS)

### DISCHARGE PRESSURE LIMITING CONTROL SENSING LINE CONNECTION

The single discharge pressure control sensing line shall be connected in the region between the pump discharge flange & the check valve.



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