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## V1 IN-LINE RELIEF VALVE

Reference # - TD008

Rev. - A

Date - 0309

### 1.0 RECEIVING INSTRUCTIONS

Important! Make sure to inspect all of the components for shipping damage. If damage is found, notify carrier at once. Shipping damage will not be covered by warranty. The carrier is responsible for all loss associated to shipping damage

### 2.0 SAFETY

Make sure to read the instructions, warnings and precautions carefully. Follow any recommended safety precautions to avoid personal injury or damage to the unit. Simplex cannot be responsible for any damage or injury from unsafe use, lack of maintenance or incorrect operation. In the event any questions or concerns arise, contact SIMPLEX or a local Distributor for clarification.

**WARNING:** Wear proper personal protective gear when operating hydraulic equipment.

**WARNING:** The system operating pressure must not exceed the pressure rating of the lowest rated component in the system.

**CAUTION:** Keep hydraulic equipment away from flames and heat. Excessive heat will soften seals, resulting in fluid leaks. Heat also weakens hose materials. For optimum performance do not expose equipment to temperatures of 650 C (1700 F) or higher.

### 3.0 SPECIFICATIONS

Pressure Relief Valve V1: Limits pressure developed by the pump in hydraulic circuit, thus limiting the force imposed on other components. Valve opens whenever preset pressure is reached.

Features:

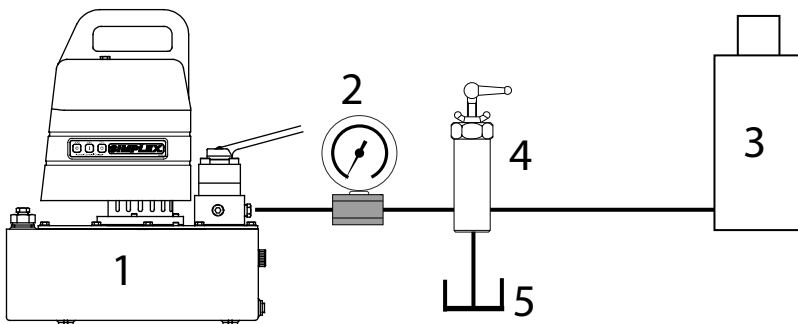
- 3 ft. return line hose kit
- 3% repeatability
- 800 - 10,000 psi adjustment range

- Note -

SIMPLEX has taken every care in preparing this Operational Manual that is intended as a technical guideline only. SIMPLEX accepts no liability in relation to any use or reliance made of any information in this Operational Manual. All information, illustrations and specifications in this Operational Manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice. Equipment operators and installers shall be responsible for ensuring that a safe working environment and safe systems of work are in place before operating the equipment.

4.0 OPERATIONS

Configurations showing the V1 Relief Valve with single-acting cylinders.



- 1. Pump
- 2. Gauge and Adapter
- 3. Cylinder
- 4. V1 Valve
- 5. Tank Line to Reservoir

System pressure is applied to the tool **3**. The hydraulic pressure on piston will act against the compression spring **B** and lift the cone off of the seat, allowing oil to flow through orifice **A** to tank. The oil passes through the orifice until the oil pressure is equal to the compressive force of the spring. At that time, the cone will move upon the seat. This process is then repeated over and over again. Just enough oil from the system is allowed to pass through the orifice, automatically maintaining the system pressure as set by the valve.

- To increase setting, turn the handle clockwise.
- The handle may be removed to prevent tampering with the valve's settings
- The V1 is not a load-holding valve.

