



Frequently Asked Questions (FAQs)

Aren't SPS systems more expensive?

- No. You may have more material cost, but far less labor cost. A single relief valve pump and single direction PTO are significantly less expensive than a dual relief valve pump and reversible PTO. These savings alone pay for the SPS system
- Since all SPS parts are interchangeable repairs are faster and less expensive
- Because the pump operates in one direction at all times and is never reversed, it lasts far longer and with less maintenance

Why do I need an SPS system? My hydraulic system provides relief valve protection in both directions of flow

- Hydraulic cooler and Prince Valve relief valves are not "full by-pass" relief valves. It takes a pressure spike of 2000 psi hydraulic pressure before these relief valves open. Often a slug of liquid hitting a closed valve can still blow a hose or fitting, which leads to spills and injuries
- SPS systems enable the pump's full by-pass relief valve to operate in both directions and be starting in Neutral and slowly increasing the flow rate the hoses fill from the bottom vs. creating a high velocity slug of liquid. This makes it almost impossible to blow a hose.

What if I don't have enough bare frame rail to mount an SPS system?

- Truck mounted SPS systems take ~24 inches of bare frame rail. Often some equipment can be moved to open up enough room – air tanks, tool boxes, steps, etc.
- Worst case, if there is not room due to lift axel, exhaust system or other obstructions, a 4-Way valve can be used to enable the pump to be mounted under the truck. This does requires custom fab work, but still delivers the safety of an SPS system.

Who is HDI? Are their products reliable?

- Heavy Duty Innovations designs and has patented the Safety Pumping Systems product line
- Safety Pumping Systems are manufactured by PT Coupling Company in ISO 9001 manufacturing facilities
- All SPS cast components are made in PT Coupling's Enid, OK foundry
- All SPS components are proudly Made-in-USA

Do I have to use Roper or Blackmer pumps with SPS pump system kits?

- SPS pump system kits are designed to work with equivalent pumps from other manufacturers. Ranger, BearCat and others offer pumps that have the same form



factor as the Roper 3648 family of pumps and can be used with SPS gear pump system kits. Likewise, IDEX makes a pump with the same footprint and form factor as the Blackmer TDX3E pump which works with the SPS vane system kit.

What if my SPS pump system is not able to clear the hoses or is difficult to prime?

- The adjustment of the 4-Way Valve is critical to pump system operation. If a system is not able to prime or clear the hoses or retain at the end of a job this is a strong indication that the 4-Way Valve is not adjusted properly. Visit this link to view the instructions for adjusting the SPS 4-Way Valve, <http://www.heavydutyinnovations.com/wp-content/uploads/2014/12/Instruction-Manual-4-Way-Valve-Adjustment.pdf>

What if my pump system takes too long to load or unload?

- The SPS pump system kit is part of a complex system consisting of the pump, the pump system kit, the truck's engine and transmission, the Power-Take-Off (PTO) and, in cases of hydraulically driven systems, a hydraulic pump and motor. All of these components must be specified, installed and properly adjusted in order to deliver optimum system performance. The SPS System impacts the flow of product when the pump system handle is between full unload or full off load. When in full unload or full off load the SPS system has no effect on product flow. Most often, poor system performance is due to the pump not being driven at the optimum RPM, see link to read White Paper regarding solving pump system performance issues, <http://www.heavydutyinnovations.com/wp-content/uploads/2014/07/White-Paper-Solving-Long-Unloading-Time-Issues.pdf>