Pressure Relief Devices

“The pressure exerted by a liquid on a surface is proportional to the area of the surface.”

Pressure Relief Devices provide safety to personnel and equipment and assist with the efficient delivery of discharge flows. They protect against buildup by diverting excess water flow from the discharge side of the pump back to the intake side of the pump.

There are two operating characteristics that affect the efficiency of pressure relief devices.

1. Because excess pressure is diverted to the intake side of the pump, high intake pressures can counteract the operation of the relief valve.

2. Pressure relief devices decrease pressure by diverting excess water flow back to the intake. They ARE NOT designed to increase pressure!! Consequently, when discharge pressure is reduced, the engine speed must be increased to maintain desired discharge pressures.

Practice!!!

What type of pressure relief device is found on your apparatus?

Do you understand the mechanics of the device?

How and when should the device be set?