What is it?
A Combination Valve is a compact assembly consisting of two spring-loaded diaphragm valves, which are connected by a T-fitting. The pump discharge is connected to the T-fitting between the two valves.

What does it do?
The Combination Valve provides for adjustable back pressure and pressure relief in the event that the discharge piping, downstream from the pump, becomes blocked.

The Back Pressure Valve component ensures proper seating and dosing of a metering pump’s check valves, while the Pressure Relief Valve component protects metering pumps from damage caused by blockage in the discharge lines or accidental valve closure.

Why do you need it?
To ensure that check valves seat properly for accurate metering of chemical, all metering pump applications benefit from constant back pressure and pressure relief capabilities.

What happens without it?
Inaccurate metering can occur without some type of pressure pushing the check valve balls closed on the seat. For higher viscosity fluids, check valves can “float” in the pumped chemical. Pressure Relief Valves will ensure adequate relief should a Back Pressure Valve be mistakenly closed downstream.

Where does it go?
For best performance, a Combination Back Pressure and Pressure Relief Valve should be mounted as close to the pump as possible.

What pumps benefit the most?
Regardless of pump model or manufacturer, all pumps will benefit from the use of a Combination Back Pressure and Pressure Relief Valve.