## CHAPTER 10 PRESSURE CONTROLS



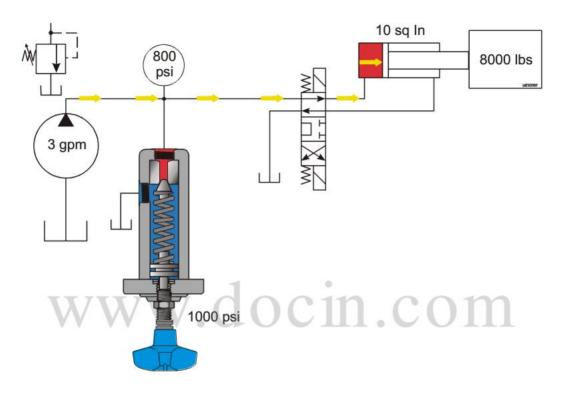


Figure 10-1 Direct acting relief valve

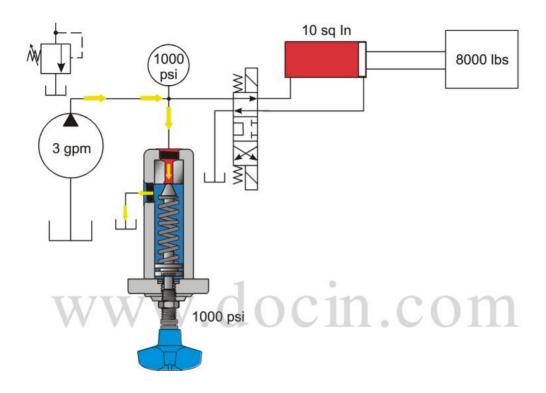


Figure 10-2 Valve opens when preset pressure is reached

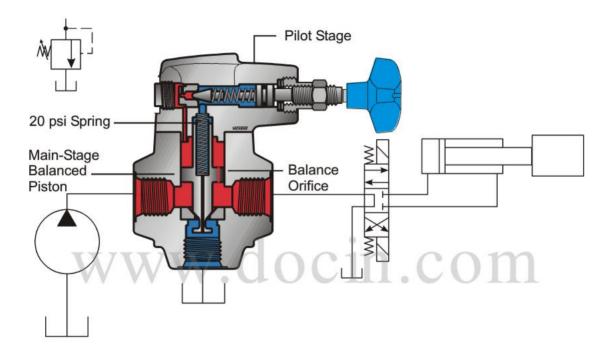


Figure 10-3 A Balanced piston, pilot operated relief valve

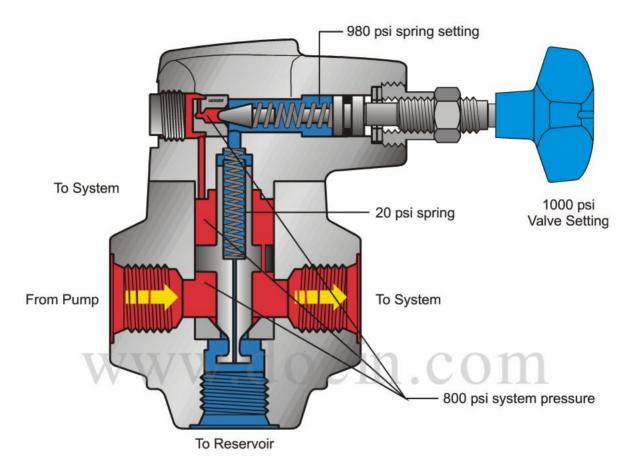


Figure 10-4 Pressure is balanced across the piston

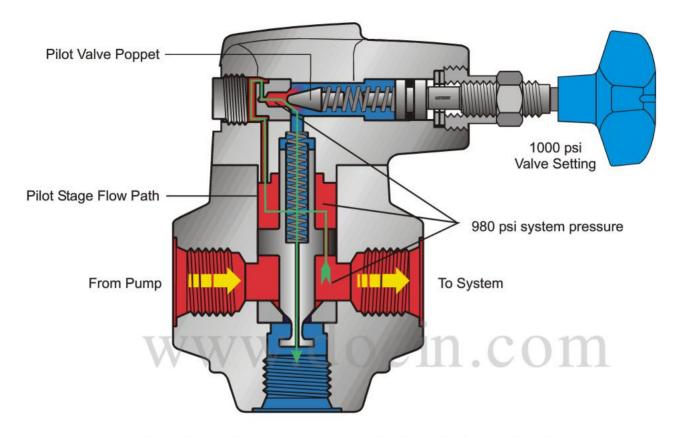


Figure 10-5 Pilot stage pressure setting is reached, and pilot valve opens

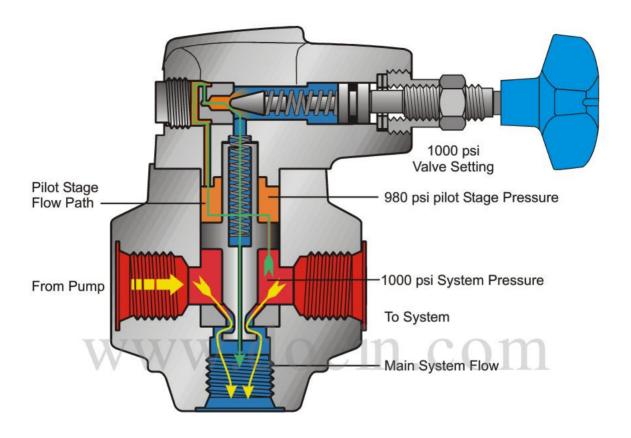


Figure 10-6 Pressure unbalance across piston allows flow to the reservoir

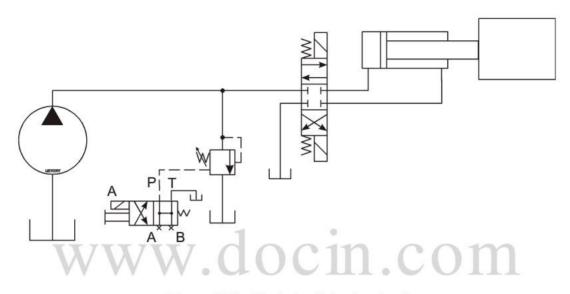


Figure 10-7 Vented relief valve circuit

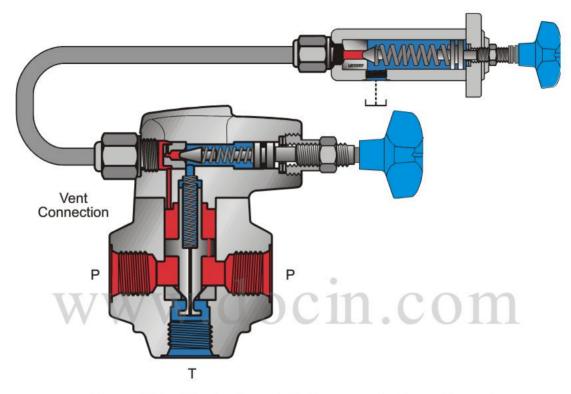


Figure 10-8 Direct acting relief valve connected to venting port

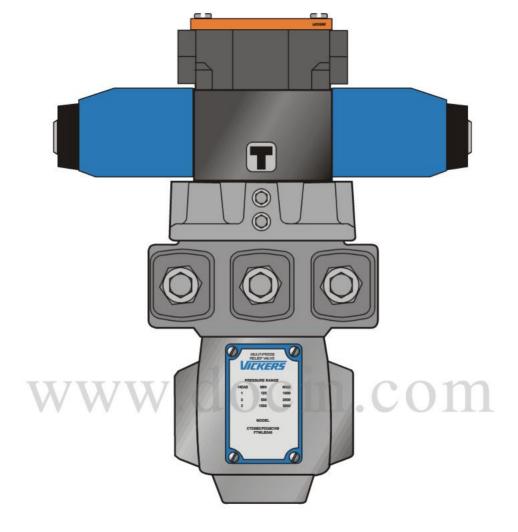


Figure 10-9 Tri-pressure relief valve



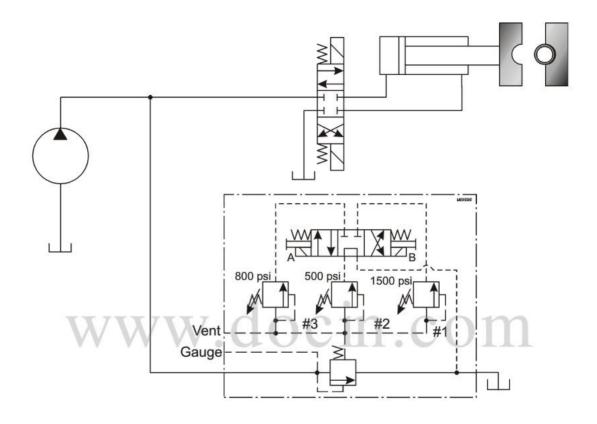


Figure 10-10 Tri-pressure relief circuit

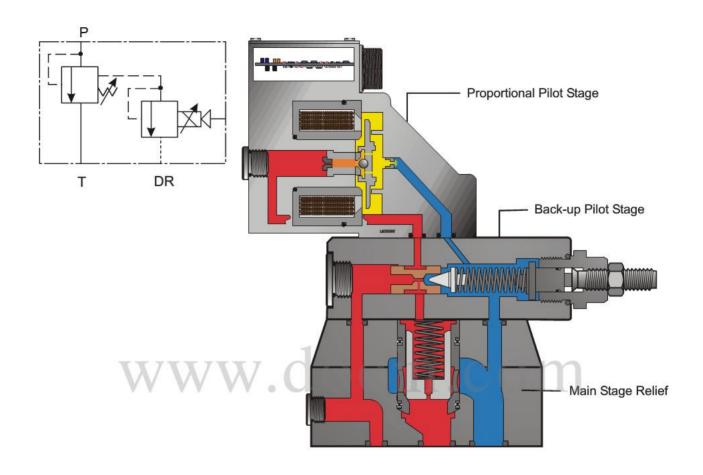


Figure 10-11 Proportional pressure relief valve

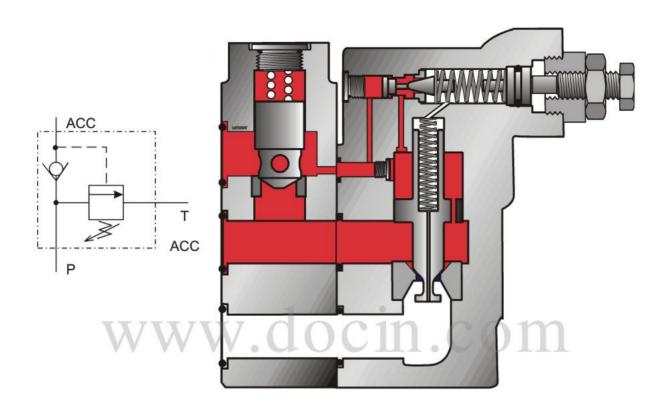


Figure 10-12 Unloading relief valve

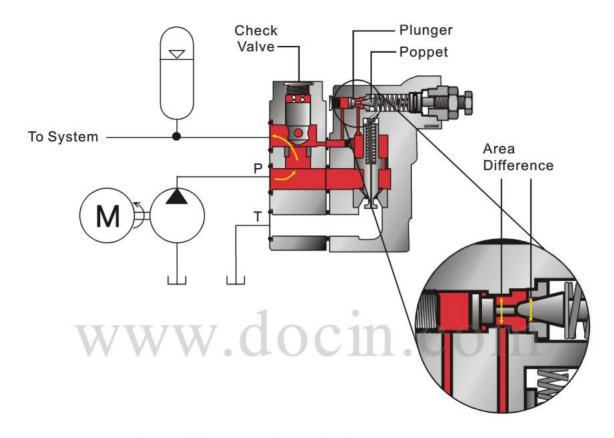


Figure 10-13 Area differential between plunger and poppet

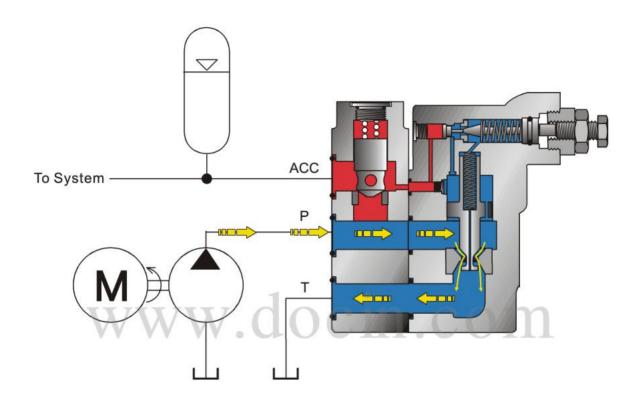


Figure 10-14 Unloading the charging circuit

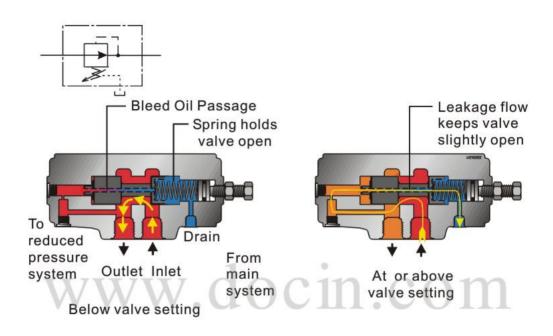


Figure 10-15 Direct acting pressure reducing valve



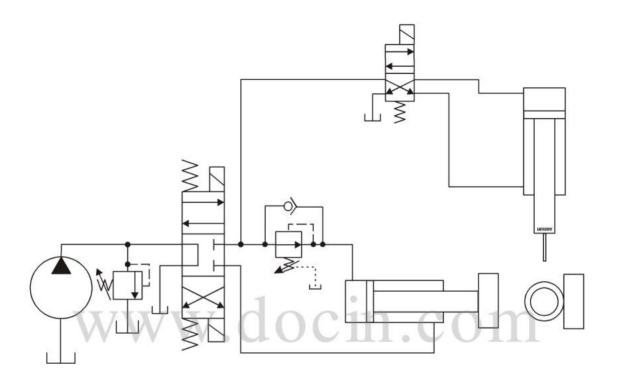


Figure 10-16 Direct acting pressure reducing circuit

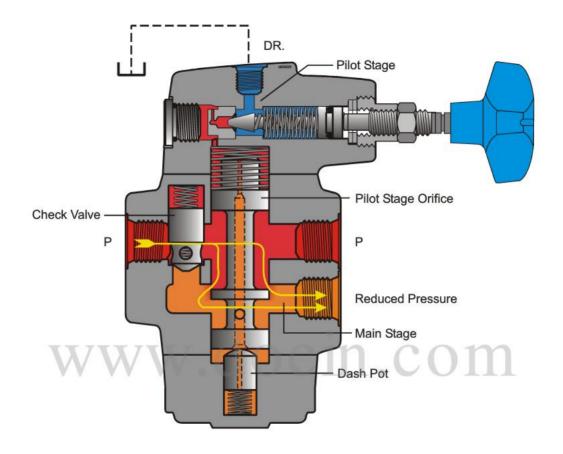


Figure 10-17 Pilot operated pressure reducing valve



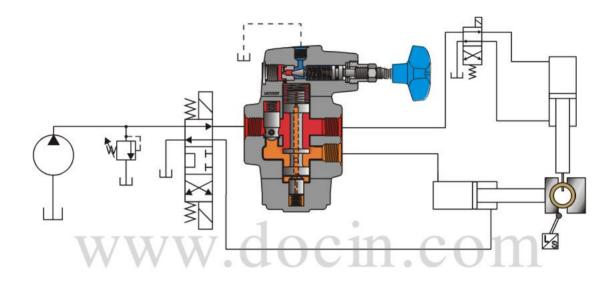


Figure 10-18 Pilot operated pressure reducing valve regulating in a clamp circuit

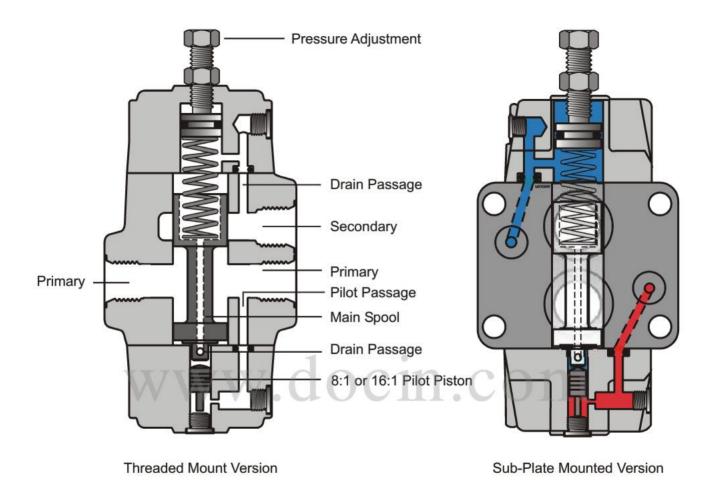


Figure 10-19 A typical direct acting, spool-type, pressure control valve

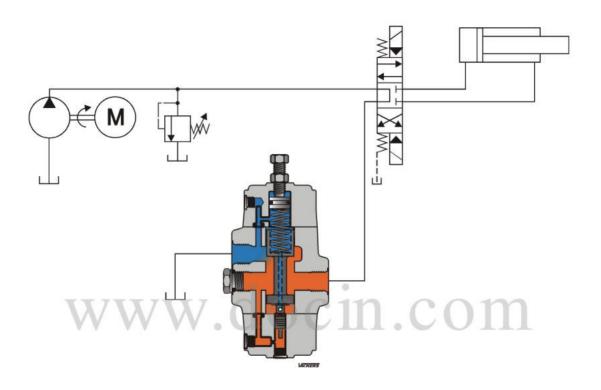


Figure 10-20 Back pressure valve

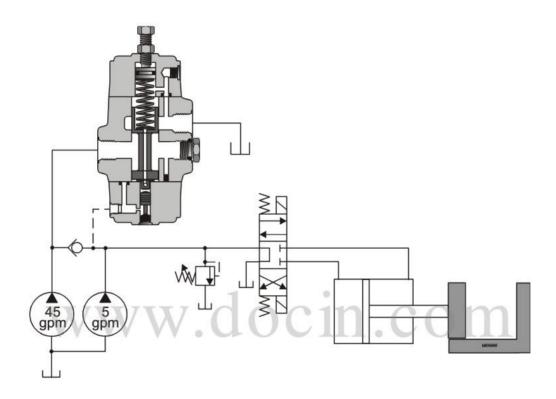


Figure 10-21 Unloading valve configuration

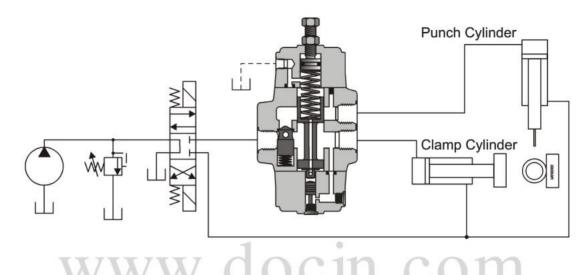


Figure 10-22 Sequence valve in a clamping circuit

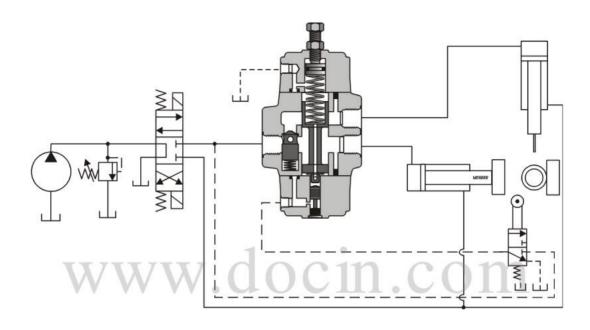


Figure 10-23 Remote controlled sequence valve application

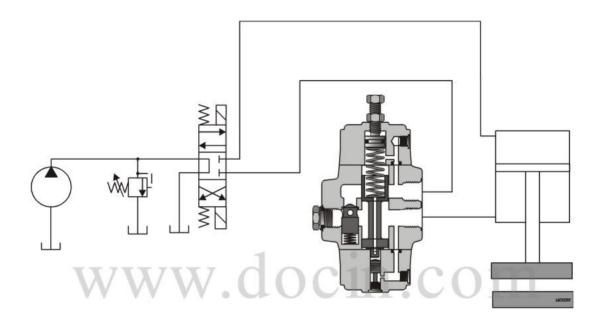


Figure 10-24 Counterbalance valve circuit

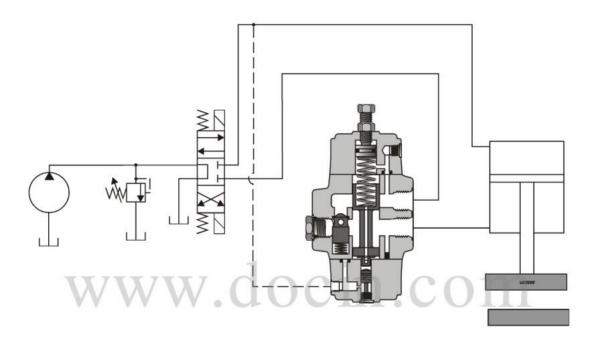


Figure 10-25 Remote piloted counterbalance valve circuit

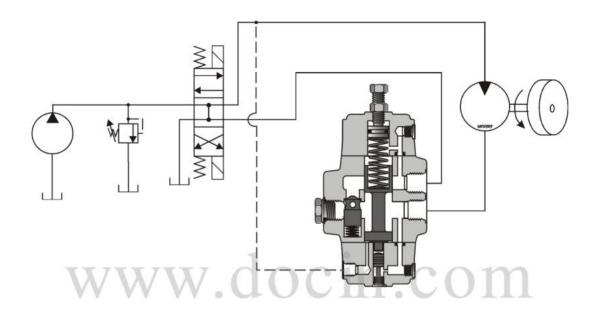


Figure 10-26 Brake valve configuration and circuit