

High Pressure Guidance

Pressures greater than 145 psi:

Can not use 160 psi PVC pipe.

Pressures greater than 150 psi:

Normal water meter in pumphouses and vaults are only rated for 150 psi. Use Brooks meter up to pressures of 230 psi.

Pressure greater than 173 psi:

Inlet pressure may cause cavitation through individual prv, if the prv outlet pressure is set at 50

Any inlet pressures greater than 173 psi require the outlet pressures to be set to 70 psi, to avoid cavitation.

Use only two outlet settings for individual prvs, either 50 or 70, to keep the confusion low.

Pressures greater than 180 psi:

Cannot use 200 psi PVC pipe.

Pressures greater than 200 psi:

All water line gate valves are rated at least 200 psi. This applies to all valves purchased by NECA. If Mueller happened to be low bidder then the "normal instock" NECA valves are rated to 250 psi. So, in some cases, instock valves are okay, and in some cases they are not.

Pressures greater than 200 requires high pressure water service line detail because of use of C900 pipe and limitation of standard meter yoke.

If high pressure service line is going to be longer than 200 feet, it may make sense to install C900 4-inch to within 200 feet of home, unless water residence times are likely to be more than 5 days.,.,., then may be best to reduce pressure and install 200 psi 2-inch beyond an individual prv near the begining of the line.

Majority of standard fittings are not rated for pressures above 200 psi.

Pressures greater than 211 psi:

Can not use C900 CL150 PVC pipe.

If C900 CL200 is used, but system working pressures are say less than 250, 250 psi gate valves are okay as long as drawings clearly state the limiting pressures are the gate valves.

Pressures greater than 230 psi:

This is the maximum pressure rating of the Brooks water meter. Some other water meter must be used.

Pressures greater than 233 psi:

Any inlet pressures greater than 233 psi require 2 prvs in series to reduce the pressure at the home to 70 psi, or less. This will avoid cavitation through the prv.

Pressures greater than 250 psi:

Definitely requires high pressure (non-stock) gate valves.

Pressures greater than 277 psi:

Can no longer use C900 CL200 PVC pipe.

Misc: All above guidance is based upon a water temperature of 68 degrees or less. Higher temperature water may require above pressure ratings to be decreased.