

The following is not intended to replace attending technical training programs or reading of installation instructions. It should be viewed as a general discussion about the product, its application, limitations and key factors to remember before purchase.

PURPOSE and CAPABILITIES: The Tannin/Hardness ion exchange equipment is designed to remove (exchange) water hardness ions (calcium & magnesium) and organic tannins from water supplies using a combination of specialized resins as catalyts using salt (sodium) as the regenerant. Water passes downwardly through the mineral bed where the ion exchange takes place. These systems can easily remove hardness and tannins when they occur in water (depending on the cubic foot capacity). They cannot remove iron, manganese, sulphur and other water constituents. Attempting to do so may run you into problems of bed fouling and hardness/tannin breakthrough. Always check with CSI before attempting anything other than standard applications!

HARDNESS TABLE	
Soft	0 - 3.5 gpg
Moderately Hard	3.5 - 7.0 gpg
Hard	7.0 - 10.5 gpg
Very Hard	10.5 + gpg

Note: "gpg" means grains per gallon.

WATER TESTING: Always test the raw water supply for at least the following: 1) Hardness; 2) Iron; 3) Manganese; 4) pH; 5) Tannins; 6) Hydrogen Sulfide (if rotten egg odor is present); 7) Chlorine (if on treated water supply). Consult specification sheet to check for limitations.

RAW WATER LIMITATIONS	
Free Chlorine	0.1 ppm
Turbidity	5 units
Iron	0.50 ppm
Manganese	0.50 ppm
Hydrogen Sulfide	0.1 ppm

Note: "ppm" means parts per million - "gpg" means grains per gallon.

NOTE: For Limitations, Installation, Programming and Maintenance, refer to the Softener Technical Information Guide as Tannin/Hardness units have the same requirements.