Specification Language: 105STS 210-2S400 Softener

Control Valve

1. The mineral tank will have one (1) 50 mm (2“), Canature WaterGroup 105 series, top mounted, plastic PPO (Noryl) body, motor driven control valve and will be of the piston/seal/spacer type.

2. The valve will have an electronic controller with a 4 line display.

3. The control valve will perform backwash, brine draw, slow rinse, rapid rinse and brine tank refill as required.

4. The control valve will have an integrated turbine meter.

5. The valve will be pending NSF/ANSI 44 certification for Materials and Structural Integrity Requirements.

6. The control valve will be designed to work at a pressure from 137 – 862 kPa gauge (20 – 125 psig) and from temperatures of 1 °C (34 °F) to 43 °C (110 °F).

7. The control valve and electronics will have a warranty of five (5) years.

Media

1. The Ion exchange resin has a total capacity of 1.9 eq/L in the sodium form.

2. The mineral tank will have 200 L ($7ft^3$) of ion exchange media.

3. The ion exchange resin will be WQA certified to NSF/ANSI 44 standards for material requirements only and be compliant with US FDA Code of Federal Regulations, Section, 21 Paragraph 173.25

4. The ion exchange resin will be Aquafine AQ100-Na.

Mineral Tank

1. The mineral tank will be 533mm (21”) in diameter and 1575mm (62”) in height.

2. The mineral tank will be NSF/ANSI 44 Certified for Materials and Structural Integrity.

3. The liner material will be made of polyethylene and the outer winding will be made of a high-performance fibreglass and epoxy resin.

4. The maximum operating pressure will be 1034 kPa gauge (150 psig) with an operating temperature range of 1 °C – 49 °C (34 °F – 120 °F) with a maximum vacuum of 127 mm Hg (2.46 psi).

5. The system will contain one (1) mineral tank.

6. The mineral tank will have a warranty of five (5) years.

Brine Tank

1. The softener unit will have one (1) brine tank with a diameter of 740mm (29”) and a height of 1275mm (50”).

2. The brine tank includes a salt plate, removable salt lid, brine well, safety float and brine well cap.

3. The brine well will extend above the shoulders of the tank and through the lid enabling salt to be heaped past the shoulders of the tank.

4. The thickness of the brine tank walls will be 6.4 mm (0.25”).

5. The brine tank and brine tank accessories will have a warranty of one (1) year

Controller Programming

1. The homepage will display the flow rate, date, remaining capacity and total capacity

2. The valve will have four (4) buttons for programming purposes.

    I. Menu,
    II. Set/Regen,
    III. Up/+
    IV. Down/- buttons

System Set Up and Operation

1. The system is set up as meter delayed regeneration and will have its regeneration initiated via a totalized hardness calculation.

2. The maximum recommended operating pressure will be 139 - 689 kPa gauge (20 - 100 psig)

3. The timer will have a transformer that will be connected to a 110V AC 50/60Hz (+/- 20%) input and will output 24V AC.

4. The softener will have a continuous flow rate pressure drop of 103 kPa (15 psi) at a flow rate of 2.84lps (45 USGPM) and 172 kPa (25 psi) drop at peak flow rates of 3.72lps (59 USGPM)

System Part Number

The water softener will be a **105STS 210-2S400** as manufactured by Canature WaterGroup.