**Type 530 AquaTapTM Recirculating Laboratory Faucet**

**PART 2 - PRODUCTS – MATERIALS**

**2.03 RECIRCULATING LABORATORY FAUCET**

1. Recirculating Laboratory Faucet: Shall be constructed of polyvinylidene fluoride and designed to provide a constant fluid flow to the point of use to eliminate dead legs. Faucet shall be Type 530 “AquaTap” as manufactured by GF Piping Systems LLC, Irvine CA.
2. Faucet to be manufactured with needle type flow control for precise metering.
3. Faucet to be manufactured for deck or wall mounting options.
4. Recirculating laboratory faucet shall be installed in conjunction with an inline flow diverter (IFD) manufactured of SYGEF® PVDF, PROGEF® Standard PP, PROGEF® Natural PP, or PPro-Seal Natural PP by GF Piping Systems LLC. The inline flow diverter shall be designed to provide high flow from the distribution main through the faucet for constant water movement. An orifice installed within the inline flow diverter is used to create a differential pressure imbalance which forces water through the faucet with minimal pressure loss. The inline flow diverter(s) shall be installed in the distribution main where shown on the drawings and may serve up to three faucets. The diverters shall be manufactured and catalogued for BCF® (Bead and Crevice Free), IR® (Infrared) or sanitary clamp joining methods.
5. Faucet shall have a pressure rating of 100 psi.
6. Recirculating laboratory faucet(s) shall be connected to the inline flow diverter using smooth bore 5/8” PFA or PE tubing for design flexibility and simplified piping installations. Tubing shall be connected to faucet(s) and inline flow diverter connection points using easy flare style connection method. Installer shall use GF Piping Systems LLC isolation ball valves installed inline (tubing) where shown on the drawings to facilitate segregation of faucet from the pure water system if required for maintenance or other purposes. Only catalogued AquaTap adaptors, accessories and tools shall be used by the installer.
7. Ball Valves for isolation of faucet: Ball valves shall be full port, true union end constructed of polyvinylidene fluoride or polypropylene with EPDM or FKM seals, Type 546 SYGEF® Standard PVDF or PROGEF® Standard PP as manufactured by GF Piping Systems LLC. Ball valves shall be rated for 232 psi (SYGEF PVDF) or 150 psi (PROGEF PP) when measured at 68°F (20° C) temperature.
8. AquaTap Recirculating Laboratory Faucet, Inline Flow Diverter and all required accessories shall be installed according to current installation instructions as delivered in print or documented online at [www.gfpiping.com](http://www.gfpiping.com/).

**PART 3 - Execution**

* 1. **Testing**

The system shall be tested in accordance with the manufacturers’ recommendations

Following is a general test procedure for Georg Fischer plastic piping. It applies to most applications. Certain applications may require additional consideration. For further questions regarding your application, please contact your local GF representative

1. All piping systems should be pressure tested prior to being placed into operational service.
2. All pressure tests should be conducted in accordance with the appropriate building, plumbing, mechanical and safety codes for the area where the piping is being installed.
3. When testing plastic piping systems, all tests should be conducted hydrostatically and should not exceed the pressure rating of the lowest rated component in the piping system (often a valve). Test the system at 150% of the designed operational pressure, i.e.: If the system is designed to operate at 80 psi, then the test will be conducted at 120 psi.
4. When hydrostatic pressure is introduced to the system, it should be done gradually through a low point in the piping system with care taken to eliminate any entrapped air by bleeding at high points within the system. This should be done in four stages, waiting ten minutes at each stage (adding ¼ the total desired pressure at each stage).
5. Allow one hour for system to stabilize after reaching desired pressure. After the hour, in case of pressure drop, increase pressure back to desired amount and hold for 30 minutes. If pressure drops by more than 6%, check system for leaks.

Note: If ambient temperature changes by more than 10°F during the test, a retest may be necessary.