



SPECIFICATION AUTOMATIC FLOW CONTROL VALVE

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Effective Date: October 7, 2022

Instructions:

Insert these specifications in section 23 21 13 – Hydronic Piping where applicable. Additionally, request a CAD detail from your Nexus Valve representative for your automatic flow control valve piping detail.

General:

Contractor shall provide and install automatic flow control valves at all locations as specified in the construction documents.

Automatic Flow Control Valves:

1. The flow cartridge's non-clogging single orifice design shall include no metal-to-metal contact, no segmented ports, no rolling diaphragm, and incorporate a tapered profile flow nozzle and metering disk controlled by a pressure compensating spring.
2. The flow cartridge shall be a single assembly, constructed with stainless steel moving parts and be accessible without removing the valve from the piping. Flow cartridges constructed with composite or rubber materials are not acceptable.
3. The flow cartridge shall be factory flow tested and calibrated to maintain accuracy of $\pm 5\%$; the accuracy shall be maintained over a standard operating range of 2 – 45 PSID. Cartridges that prevent flow above the maximum operating range are not acceptable.
4. The flow cartridge shall be clearly inscribed with the designed manufactured flow rate. Cartridges that are not marked with the manufacture designed flow rate or use a coding system are not acceptable.
5. Manufacturer shall provide a full 100% cartridge exchange for up to one (1) year from date of delivery at no charge. Exchange shall be provided for flow rate changes within same valve body.
6. The flow cartridge and valve shall carry a 5-year product warranty.
7. Valves 1½" and smaller shall be a forged DZR brass y-pattern body and valves 2" – 2½" shall be a cast DZR brass y-pattern body with integrated ball valve, (2) pressure/temperature test ports, a tag indicating the model, flow rate and PSID range, blowout proof stem with dual FKM o-ring seals, interchangeable union end with FKM o-ring seal, hard chrome plated solid ball with Teflon™ seats, and rated at 600 PSI WOG, 325 degrees F. Valves shall be available with NPT, SWT, PRESS or PUSH connections; like Nexus UltraMatic™ (Model UM.) Optional solid stainless steel ball and stainless steel valve stem shall be available.





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8. Valves 2½" and larger shall be a wafer style cast iron body with pressure and temperature test plugs across the flow cartridge; a tag indicating the model, flow rate and operating control range; able to incorporate a drain and or vent as required and rated at 400 PSI, 350 degrees F.; like Nexus UltraMatic™ (Model UMW.) To minimize field labor, valve may include Flange x Groove adapters or Flange x Threaded adapters, butterfly valves and other accessories pre-assembled; like Nexus UltraMatic™ (Model UMG, UMGB, UMWB, UMT, UMTB.)
9. Optional extended pressure and temperature test plugs, manual air vents and handles shall be available. Extended handles shall not break the vapor barrier when operated.
10. Contractor should, to reduce field connections and leak points, provide pre-assembled kit including isolation valves, strainers, unions and other required accessories. See Coil Pak™ or Hose Pak™ specification for requirements in section_____.
11. Approved Manufacturers:
Nexus Valve, Inc.

