



SPECIFICATION
MANUAL FLOW CONTROL VALVE – FIXED ORFICE

Document: MFCV07011401-6
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 manual flow control valve piping detail.

General:

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

Manual Flow Control Valves – Fixed Orifice:

1. Manual Flow Control devices shall be a fixed orifice venturi, modified venturi, or pitot balancing type accurate to at least $\pm 3\%$.
2. MFCV 2½" and smaller shall be modified venturi style, forged DZR brass body and with integrated ball valve, (2) pressure/temperature test ports, additional port for air vent or drain valve, a tag indicating the model and Cv, memory stop with graduated scale, blowout proof stem with dual FKM o-ring seals, interchangeable union end with FKM o-ring seal, hard chrome plated 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 UltraXB Orturi™ (Model XB). Optional solid stainless steel ball and stainless steel valve stem shall be available.
3. Valves 2½" and larger shall be venturi or pitot balancing type accurate to at least $\pm 3\%$.
 - A. Venturi balancing type shall be a flanged carbon steel ST37 body (per ASME B16.5, Class 150 Flanges); butterfly valve with infinite position memory stop and 316 stainless steel disc. Valve shall have (2) ¼" NPT ports and be rated for at 230 PSI, 250 degrees F.; like Nexus Venturi (Model NVFB.) To minimize field labor, valve may include Flange x Groove adapters or Flanged x Threaded adapters, and other accessories pre-assembled; like Nexus Venturi (Model NVGB, NVTB.)
 - B. Pitot tube balancing type shall be a flanged cast iron body (per ASTM A126, Class B Flanges) metering station with stainless steel pitot tube; a tag indicating the model and Cv; butterfly valve with infinite position memory stop and 316 stainless steel disc. Valve shall have at minimum, (2) ¼" NPT ports, (1) ½" NPT port and (1) additional ¾" NPT port. Valve shall be rated for at 175 PSI, 275 degrees F.; like Nexus Nextrol™ (Model NXFB.) To minimize field labor, valve may include Flange x Groove adapters or Flanged x Threaded adapters, and other accessories pre-assembled; like Nexus Nextrol™ (Model NXGB, NXTB.)



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4. 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.
5. 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_____.
6. Valve shall carry a 5-year product warranty.
7. Approved Manufacturers:
 - a. Nexus Valve, Inc.

