

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 coil piping packages at all locations as specified in the construction documents.

Coil Pak – Automatic Flow Control:

1. Coil Paks shall be designed for a minimum 600 PSIG WOG working pressure for sizes ½” through 2½” and up to 325 degrees F.
2. Each Coil Pak is to include an UltraMatic™ combination automatic flow control valve, isolation valve, and union with (2) pressure & temperature test plugs; UltraY™ combination y-strainer, isolation valve, blow down / drain valve, and union with (1) pressure and temperature test plug; UltraU™ accessory port union with (1) manual air vent and (1) pressure and temperature test plug.
3. Each Coil Pak shall be “Bagged & Tagged” for easy identification and storage.
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.

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 ±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, SW, PRESS or PUSH connections; like Nexus UltraMatic™ (Model UM.) Optional solid stainless-steel ball and stainless steel valve stem shall be available.

Y Strainers:

Y type strainers ½" through 2½" shall be a combination Y Strainer and Ball Valve with integrated Union. Valves shall be a forged DZR brass construction for sizes ½" through 1½" and cast DZR brass for sizes 2" – 2½" with the following features; like Nexus UltraY™ (Model UY).

1. A minimum of 600 PSI WOG, 325 degrees F.
2. Interchangeable union end with FKM o-ring seal.
3. Multiple ¼" tapped ports for test plugs, vents or other accessories.
4. Blowout proof stem with dual FKM o-rings.
5. Hard chrome plated ball with Teflon™ seats.
6. A 304 stainless steel filter screen accessible without affecting the valve piping.
7. A port in the filter cap for a blow down/drain valve.
8. Valves shall be available with NPT, SWT, PRESS or PUSH connections.
9. Optional solid stainless steel ball and stainless steel valve stem shall be available.
10. Valve shall carry a 5-year product warranty.

Unions:

Unions ½" through 2" shall be a combination ported type. Unions shall be a forged DZR brass construction with the following features; like Nexus UltraU™ (Model UU).

1. A minimum of 600 PSI WOG, 325 degrees F.
2. Interchangeable union end with Viton o-ring seal.
3. Multiple ¼" tapped ports for test plugs, vents or other accessories.
4. Union shall carry a 5-year product warranty.

Optional Stainless Steed Braided Hoses:



SPECIFICATION
COIL PAK- AFCV

Contactors at his option may use stainless steel flexible hose assemblies. Hose materials shall be stainless steel braiding over a Kevlar reinforced EPDM rubber tube with the following features; like Nexus UltraFlex™ (Model UFHF, UFHM, UFH).

1. Ferrules shall be stainless steel for sizes ½" – 2".
2. Hoses ½" – 1" shall be double swivel design.
3. End fittings for sizes ½" – 2 shall be brass NPSM swivel with seal or MNPT.
4. Temperature rating for ½" – 2" hoses shall be 5 – 248 degrees F.
5. Working pressure shall be 400 PSI for ½" – 1" and 300 PSI for 1¼" – 2".
6. Hoses shall meet or exceed ASTM E 84-00 fire rating. (NFPA 255, ANSI/UL 723 & UBC 8-1)
7. Size 2½" stainless steel braiding over stainless fire rated tube shall be available.
8. Hoses shall carry a 5-year product warranty.

Approved Manufacturers:

1. Nexus Valve, Inc.