Document: CPM07011401-6

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

**Coil Pak – Manual 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 UltraXB Orturi™ combination manual 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.

**Manual Flow Control Valves – Fixed Orifice:**

1. Manual Flow Control devices shall be a fixed orifice venturi or modified venturi balancing type accurate to at least ±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. Valve shall carry a 5-year product warranty.

**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. Interchangable 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 staineless steel ball and stainless steel valve stem shall be availble.
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. Interchangable 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 warrany.

**Optional Stainless Steed Braided Hoses:**

Contactor 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.