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# How to Choose the Right Manifold for Your Project – Brass vs. Copper



WE MAKE RADIANT SIMPLE

# WHAT WE DO

Infloor Heating Systems is a pioneer in the radiant heating industry going back to 1984. Based in Buena Vista, CO, we take great pride in offering premium, innovative radiant heating systems, solutions, and designs that help people live more comfortably and healthy, while saving energy and money.

We specialize in:

- Hydronic Heating Systems
- Electric Cable Heating Systems
- Snowmelt Systems
- Solar Thermal Systems
- Original Designs



# WHY INFLOOR IS YOUR PREFERRED PROVIDER

We know radiant! Infloor Heating Systems is your one-stop-shop for all things radiant. We offer only the best radiant heating systems, solutions, and designs, with the **know-how** and **tools** to get the job done right.

- Over 30 years of industry experience
- Cutting-edge, innovative systems
- Premium parts that last
- Major components include warranties
- Original detailed designs
- Material lists and proper calculations
- Stand-out service and support





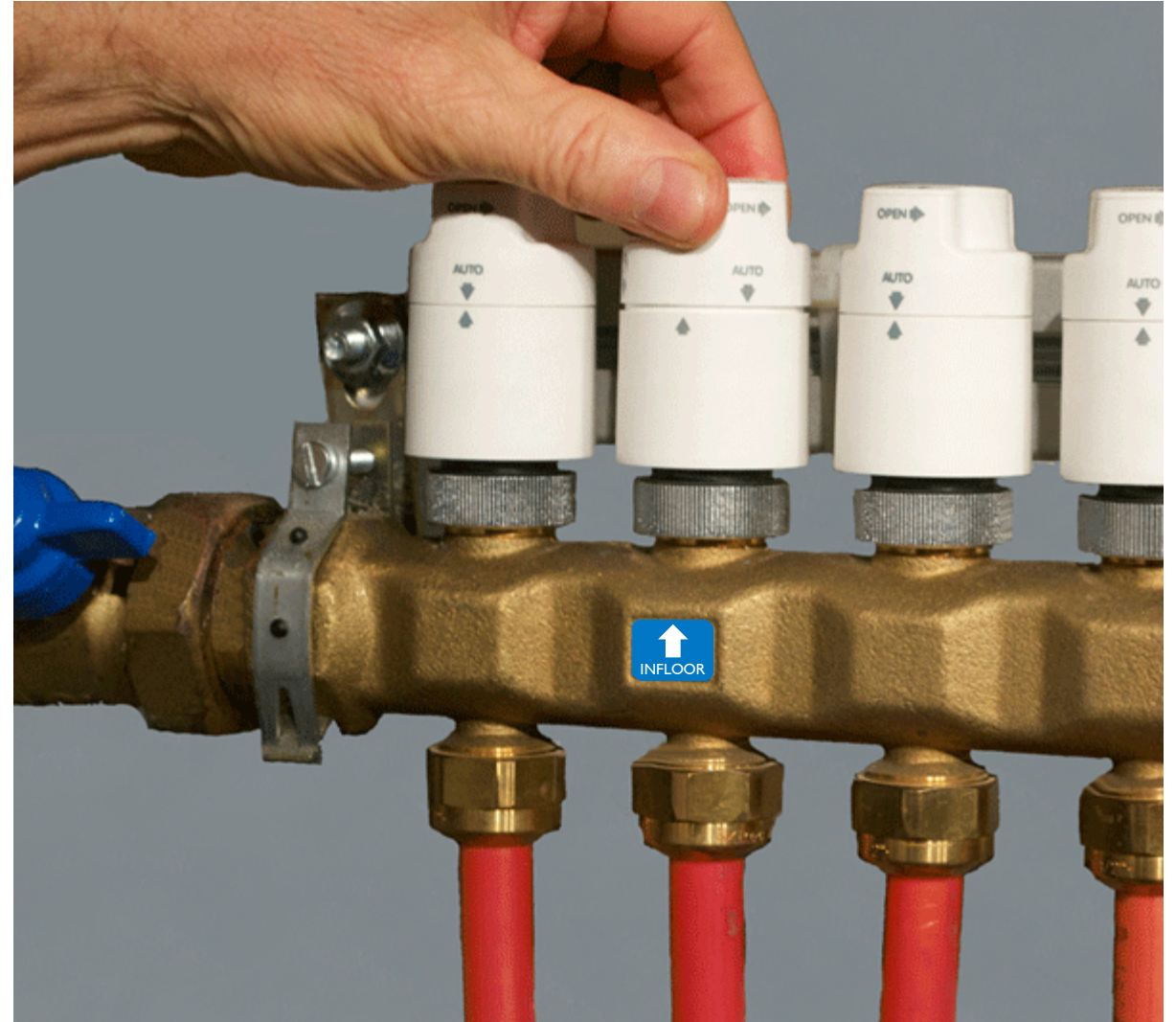
# BRASS VS. COPPER MANIFOLDS – WHICH IS RIGHT FOR YOUR PROJECT

We offer **Brass** and **Copper** manifolds for hydronic radiant heating systems.

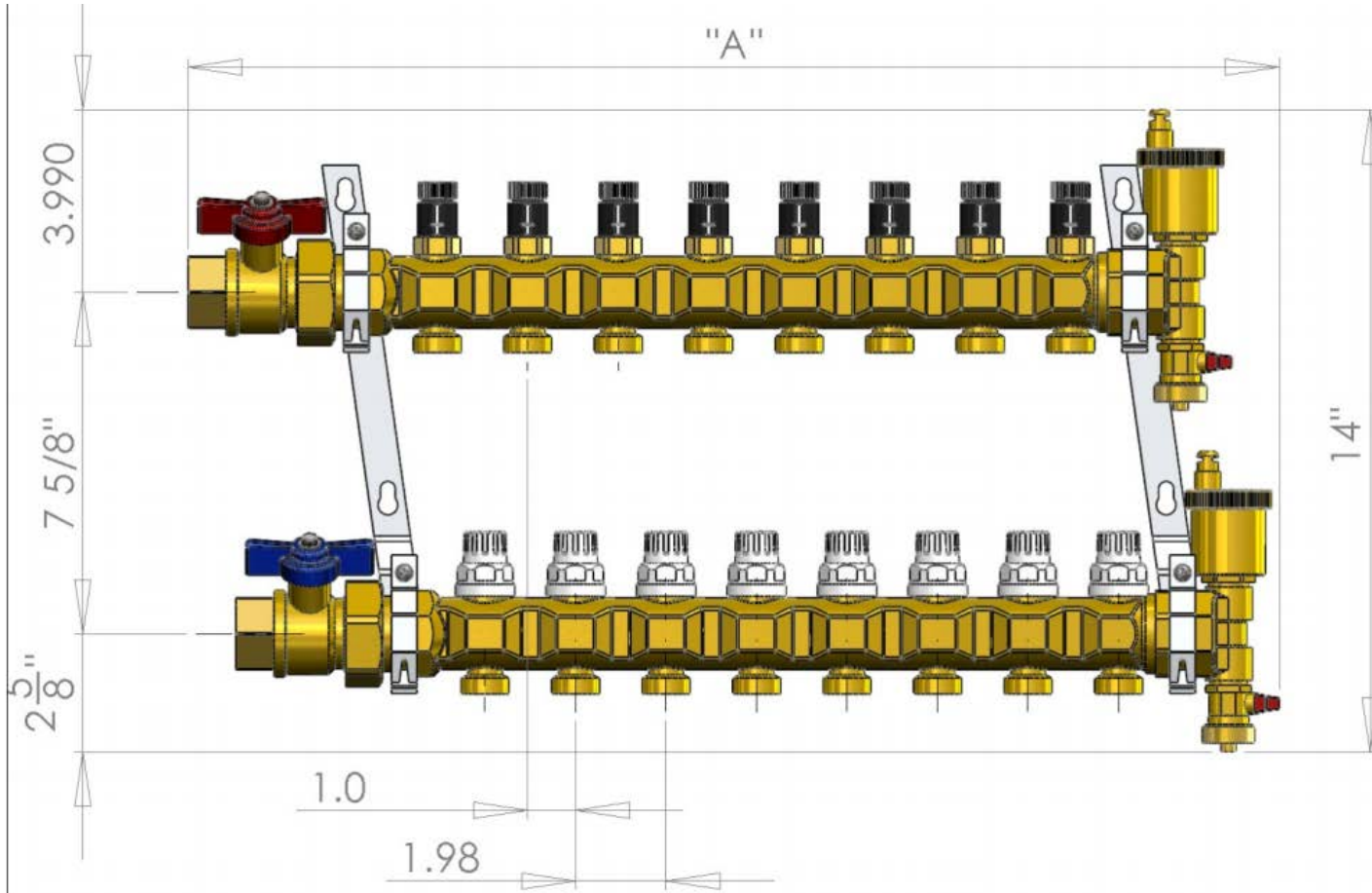
So which one is the **best choice** for your project?

We will explore both of these quality products today, making your future decisions on this topic much easier.

We make radiant simple... so let's go!



# WHAT IS A MANIFOLD



Manifolds play an important role in hydronic radiant heating systems.

The manifold is the hub of the heating system and distributes supply water from the heat source to distribution lines that circulate hot water throughout the system.

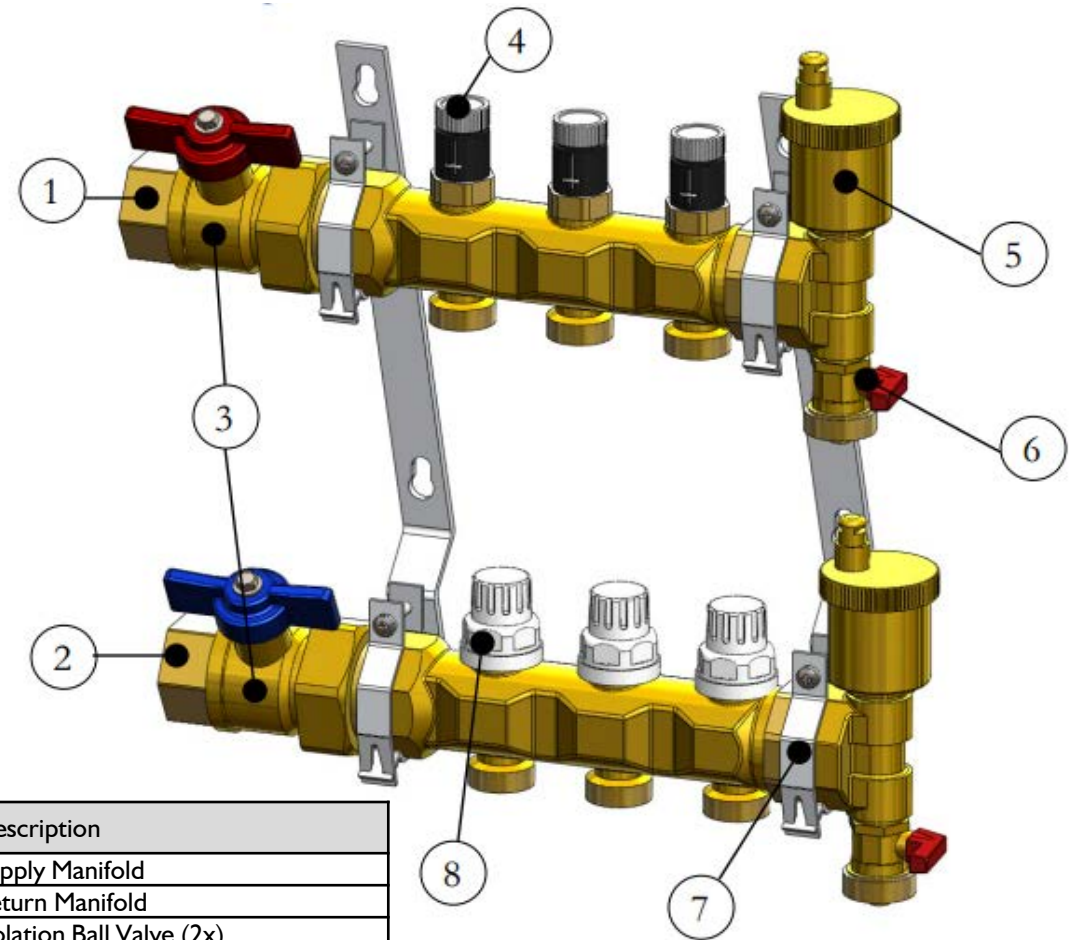
They can be used in hydronic radiant heating or snowmelt applications.

Each manifold has a variety of adapters, end caps, and fitting assemblies that can be purchased to customize the manifold for a host of applications.

# BRASS VS. COPPER MANIFOLDS – WHAT’S THE DIFFERENCE

## Brass Manifold

- Made of brass
- Comes fully assembled – in the USA
- Lots of design flexibility
- The return manifold is offset forward about 1” to allow the tubes to pass without interference from the supply manifold
- Includes automatic air vent and purge valve on both the supply and return manifold to make sure all air is purged from the system
- All seals are made from EPDM rubber to insure the longevity of the seal
- Designed to be nearly silent when shutting flow off with a telestat



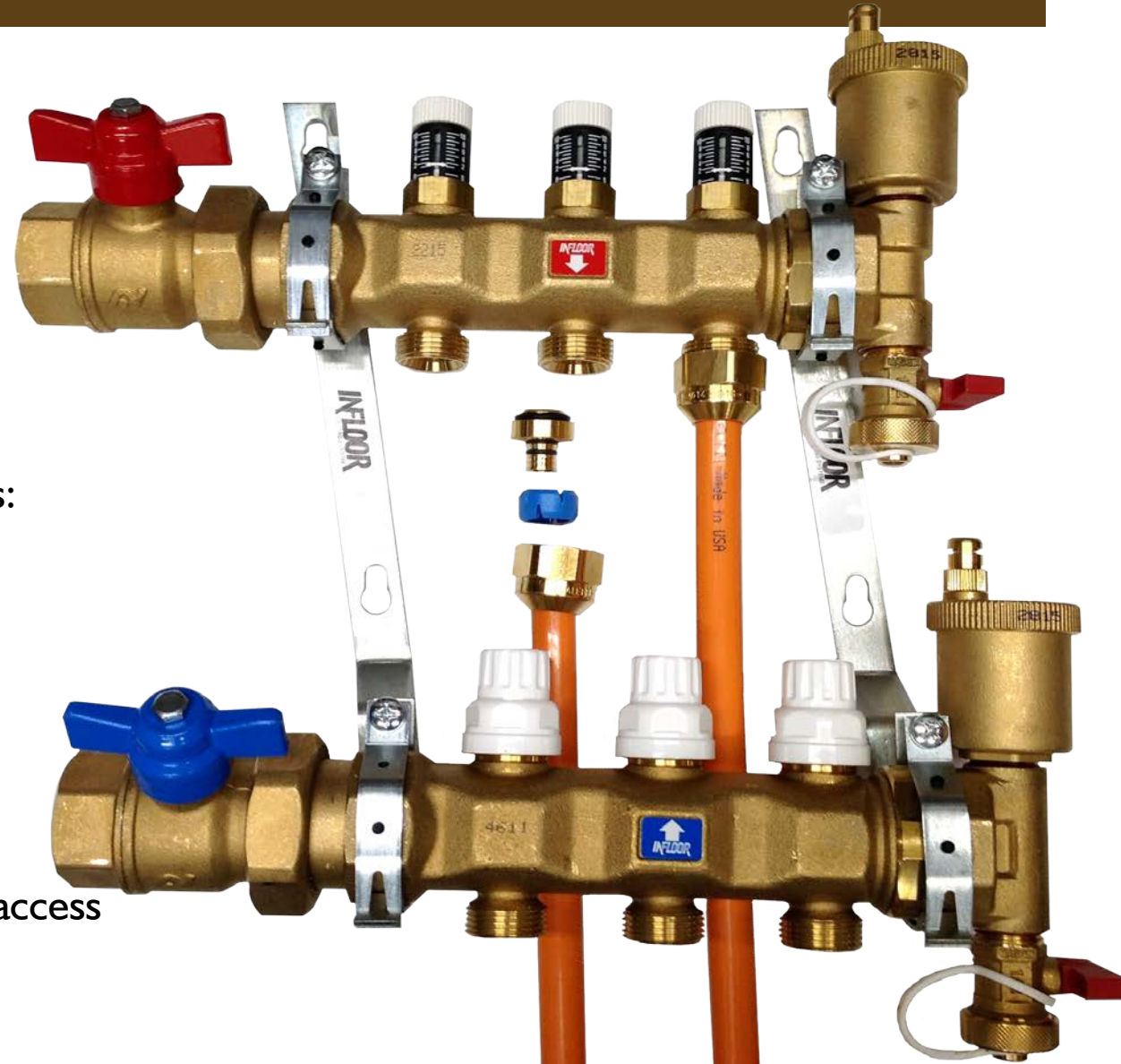
Number	Description
1	Supply Manifold
2	Return Manifold
3	Isolation Ball Valve (2x)
4	Micrometric Balancing Valves
5	Automatic Air Vent (2x)
6	Purge Valve (2x)
7	Mounting Bracket (2x)
8	Shut Off Valves



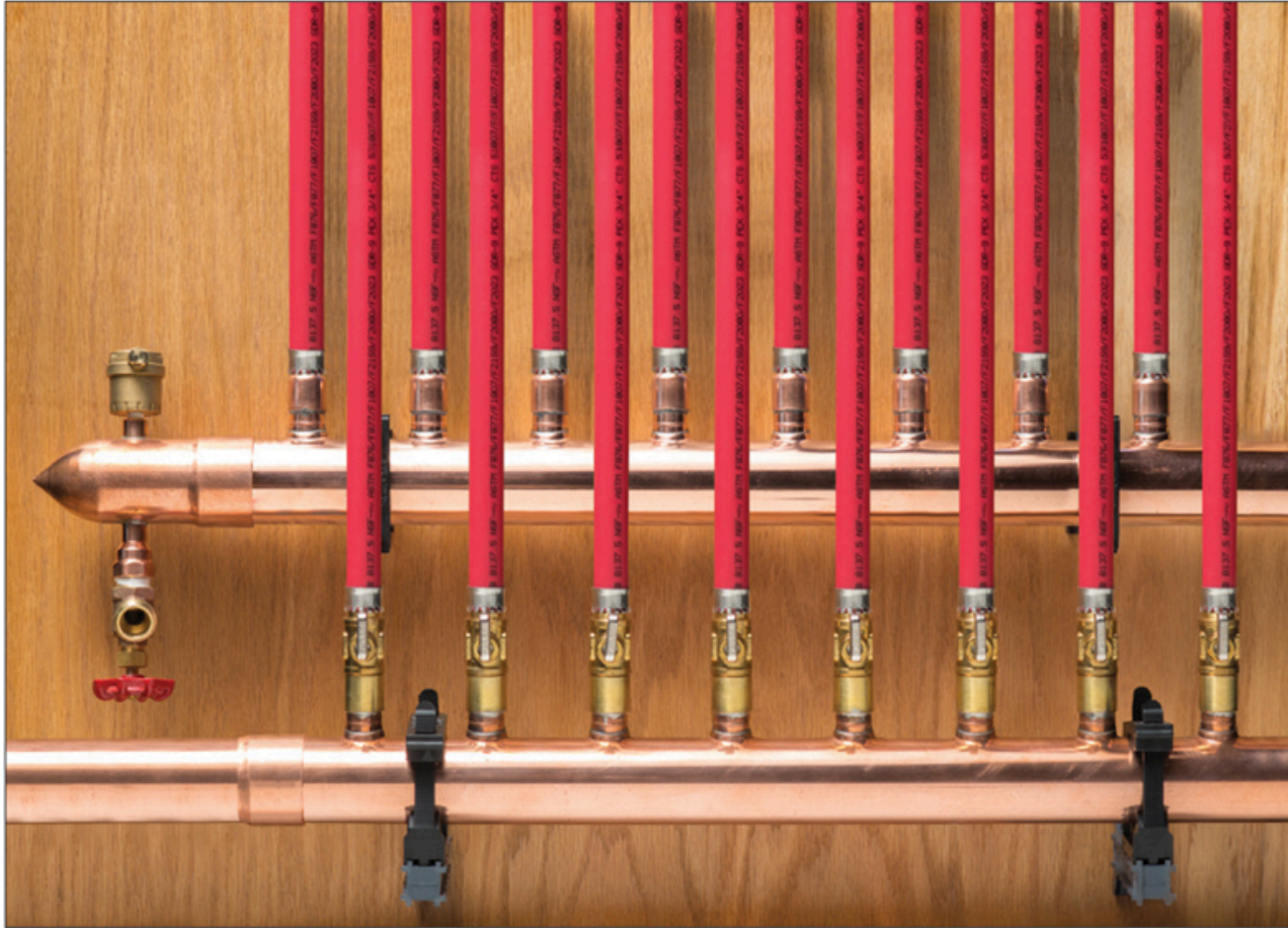
# BRASS MANIFOLD ADVANTAGES

## Brass Manifold

- This is our preferred manifold
- More control of flow rate to individual loops
- Our design system LoopCAD identified where to place micrometric balancing valves – matched to the design to ensure best flow rates
- One manifold can control multiple zones
- With the appropriate fittings, it can adapt to any tubing sizes: 3/8" – 1/2" – 5/8" – 3/4"
- Can used with PERT, BPEX, PEX, PEX-AL-PEX tubing
- Can easily add flow indicators
- Includes isolation valves
- Color coded for supply (red) and return (blue)
- They are reversible – piping can come in from left or right
- Manifold Cabinet option provides clean installations & easy access



# BRASS VS. COPPER MANIFOLDS – WHAT'S THE DIFFERENCE

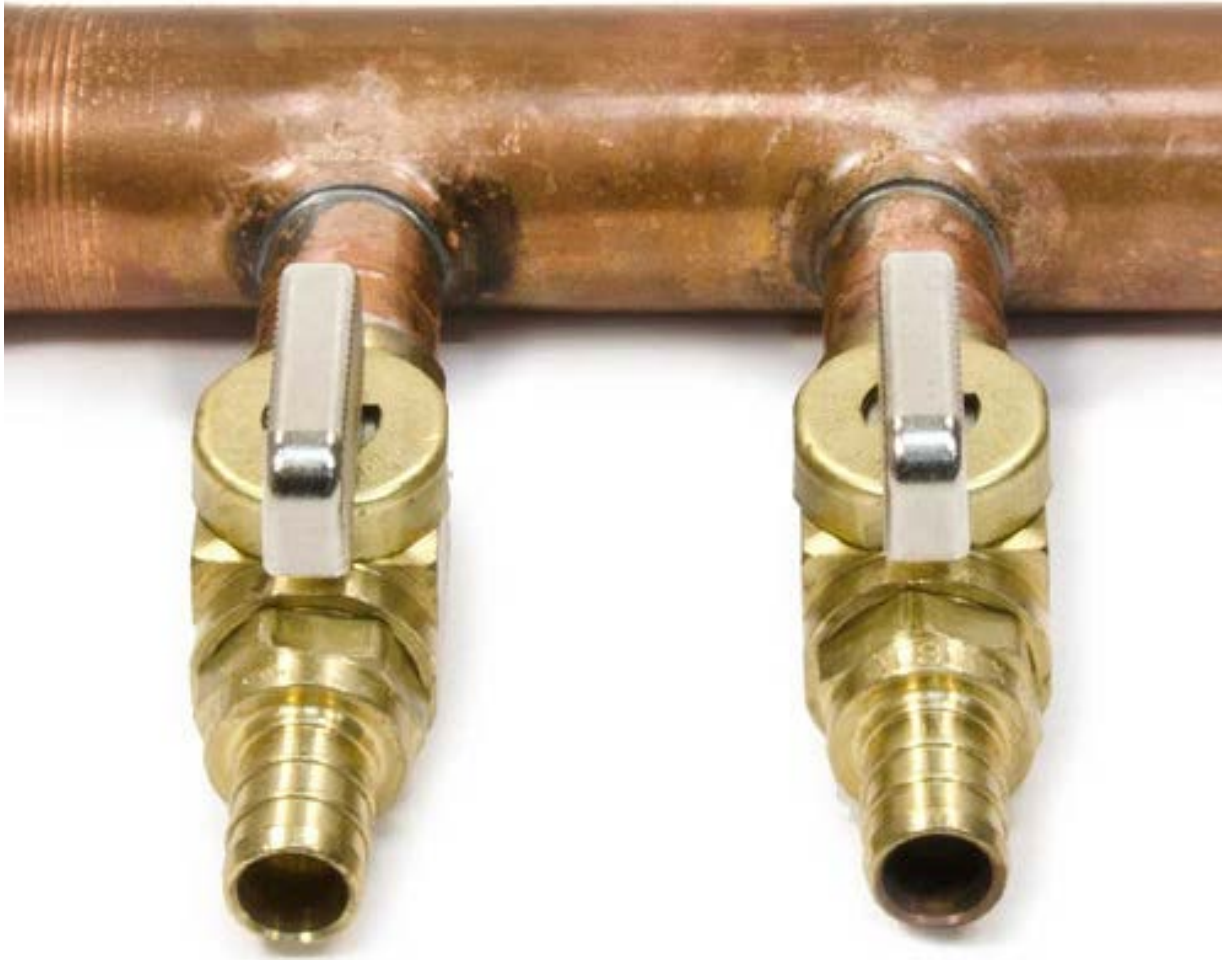


## Cooper Manifold

- Made of cooper, which is antimicrobial, dezincification resistant, and stress corrosion cracking resistant
- Copper is inherently lead-free and is a cost-saving material
- Excellent value while maintain the ability to adjust flow through individual loops
- Various sizes and options, including purge end pieces
- Mounting bracket options include 1", 1 1/4", 1 1/2", and 2"
- Most economical industry option
- More labor required to install

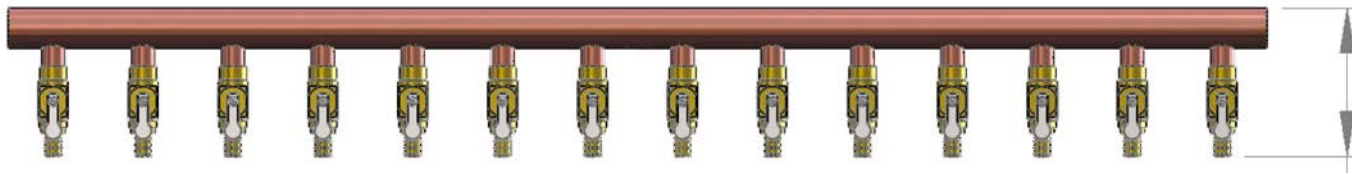


# COOPER MANIFOLD ADVANTAGES



## Cooper Manifold

- Cooper manifold sizes:
  - 1" main with 3/8" drops with or without valves
  - 1" main with 1/2" drops with or without valves
  - 1 1/4" main with 3/4" drops with or without valves
- All configurations come with 14 ports
- Designed to be cut in the field to size
- Can order them pre-cut – custom sizes
- Valves come with the crimp fitting already installed
- Works well with single zone applications
- Works with PERT and BPEX tubing
- Smaller in size accommodating smaller spaces



# THE DECISION PROCESS – WHAT IS RIGHT FOR YOUR PROJECT

## STEP 1 – Budget Matters

- What is the project budget?
- What is the overall scope of work for the project (logistics)?

## STEP 2 – Mind Your Calculations

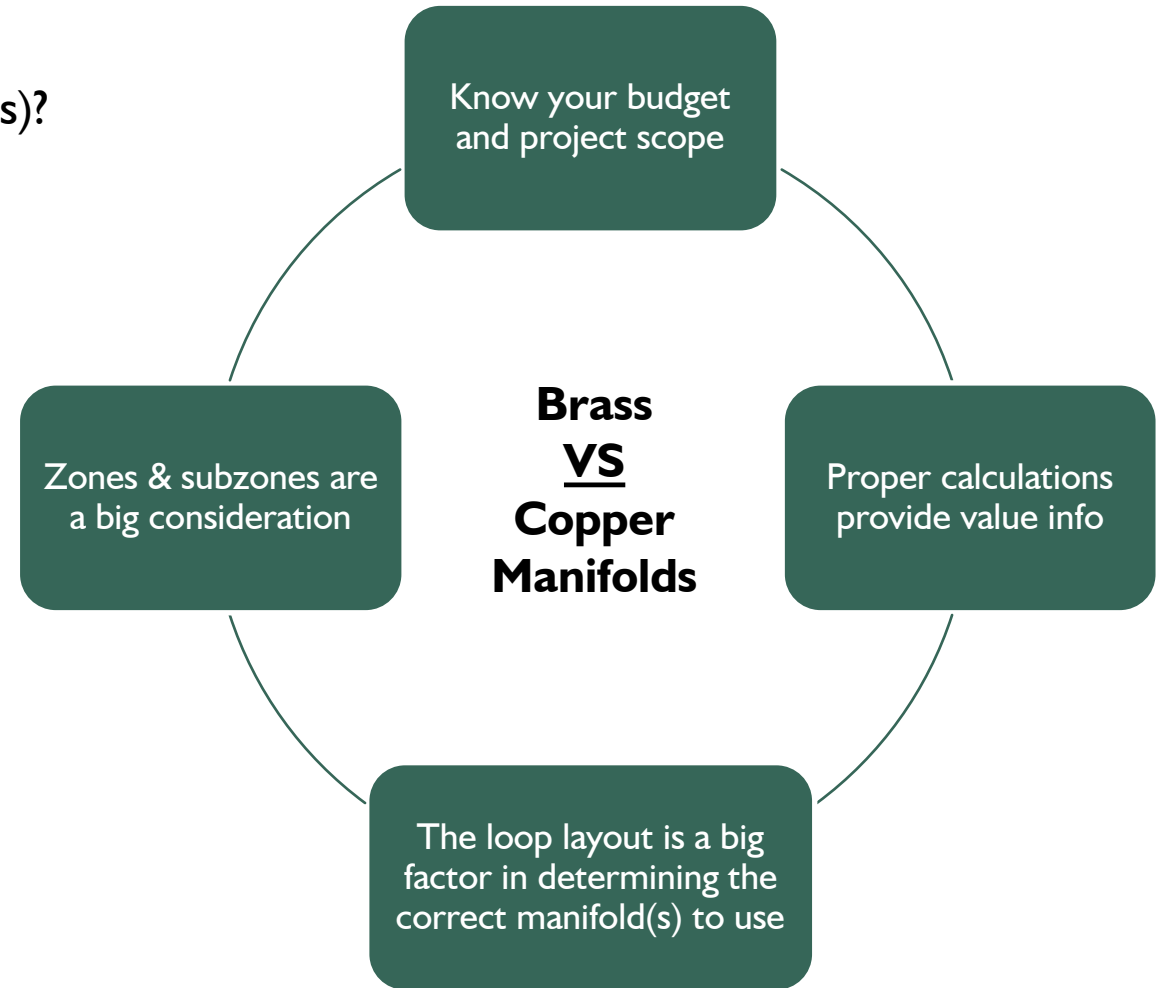
- Which design method are you using?
- Will the system use water or propylene glycol?
- What is the head pressure, flow rate, and heat loss?
- How long is each loop?

## STEP 3 – Understand the Loop Layout

- Are there subzones at the manifold?
- How long are the loop lengths?
- What size is the tubing?
- How many loops are there?

## STEP 4 – Know Your Zones

- How many zones are there?
- Are there subzones at the manifold?



# THE DECISION PROCESS – DESIGN MATTERS!

**The most important aspects in determining which manifold is right for your project are:**

- Project budget
- Understanding the customer and what they want
- Knowing the specific design needs of the project
- Having a proper design plan and calculations
- Number of loop lengths
- Number of zones and subzones
- Installation requirements
- Labor times and costs



**\*Did You Know?** *Brass and copper manifolds can be used together in the same project to reduce labor and costs.*





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