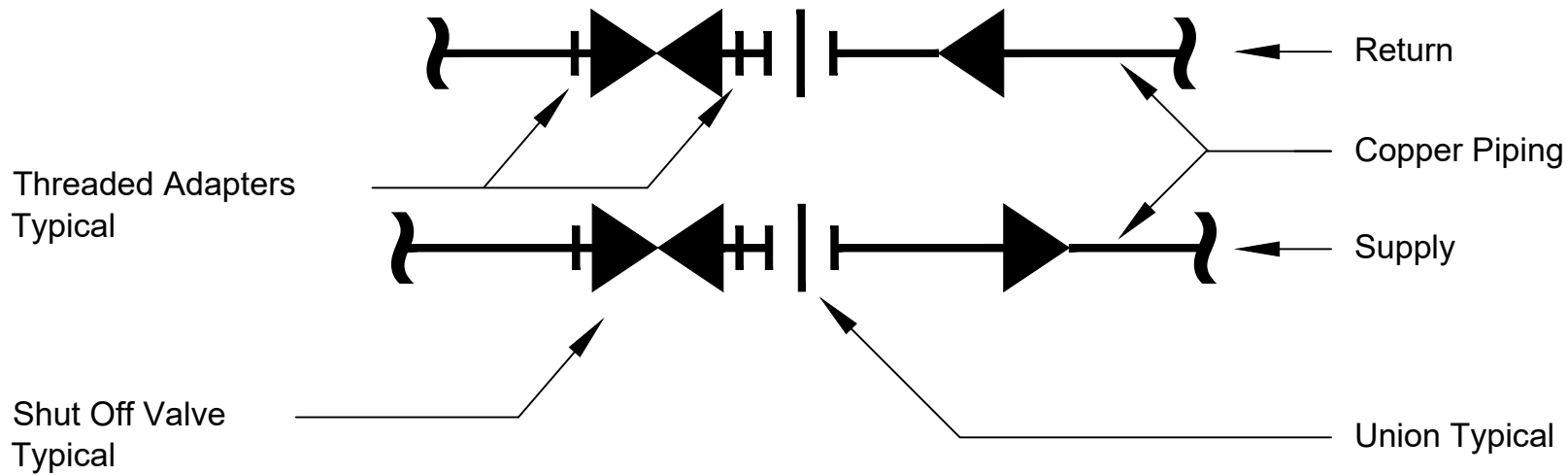


## Typical Hydronic Pipe Riser Valve & Fitting Locations

No Scale

Contractor Note: Reverse Return Piping Systems are Typical for Chilled Water, Process Cooling Water, Heating Water, and Energy Recovery Piping Systems.



## Typical Ball Valve Installation - Copper Piping

No Scale

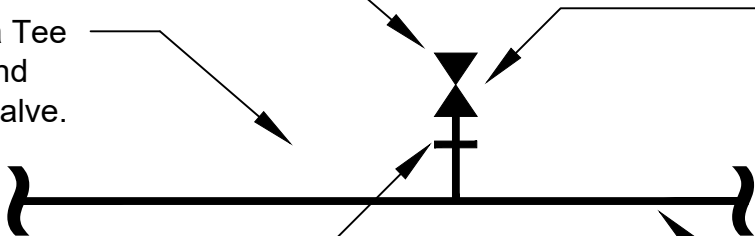
### Contractor Note:

This Detail is Typical for all Ball Valves 1/4 inch through 2 1/2 inch installed in copper piping systems and at all HVAC Coils, Equipment, etc.

Speciality Taps for Pressure Gages, Thermometers, DP Sensors, etc.

In Copper Pipe use a Tee with 1/2 inch outlet and reducer for 1/4 inch valve.

In Steel Pipe use a 1/2 inch nipple, reducer and dielectric connector for 1/4 inch valve.

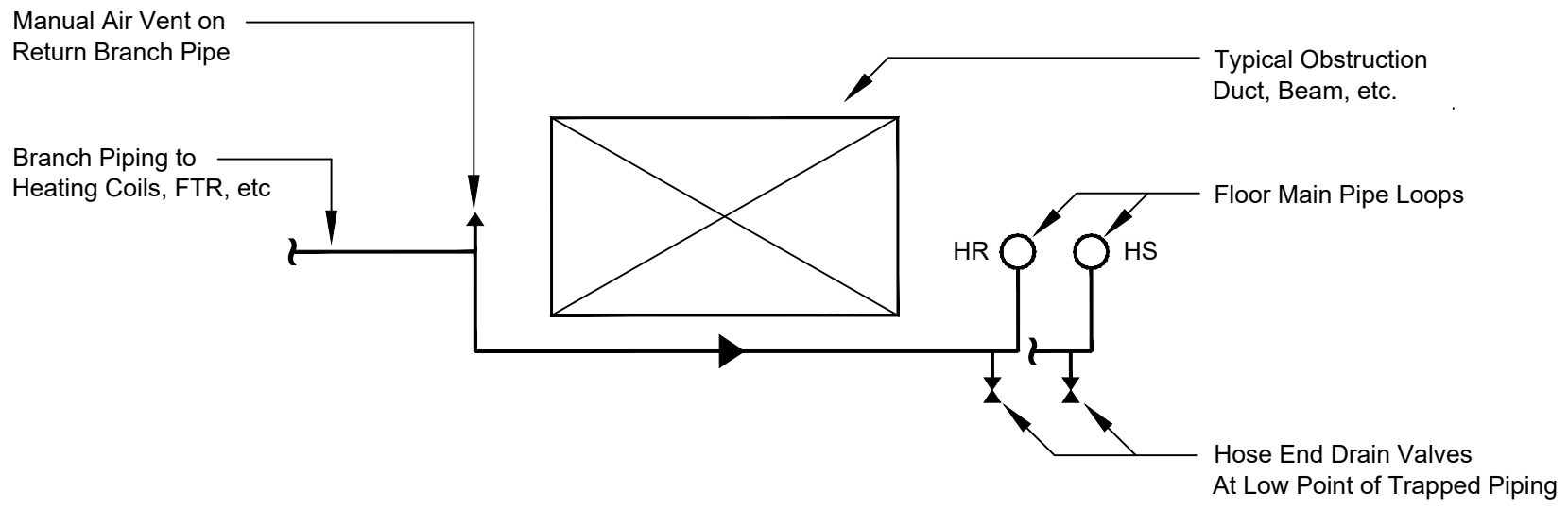


Where Speciality Taps are required provide a 1/4 inch Ball Valve at each Tap location

System Piping Steel and/or Copper Pipe. See Plans & other Details for Locations

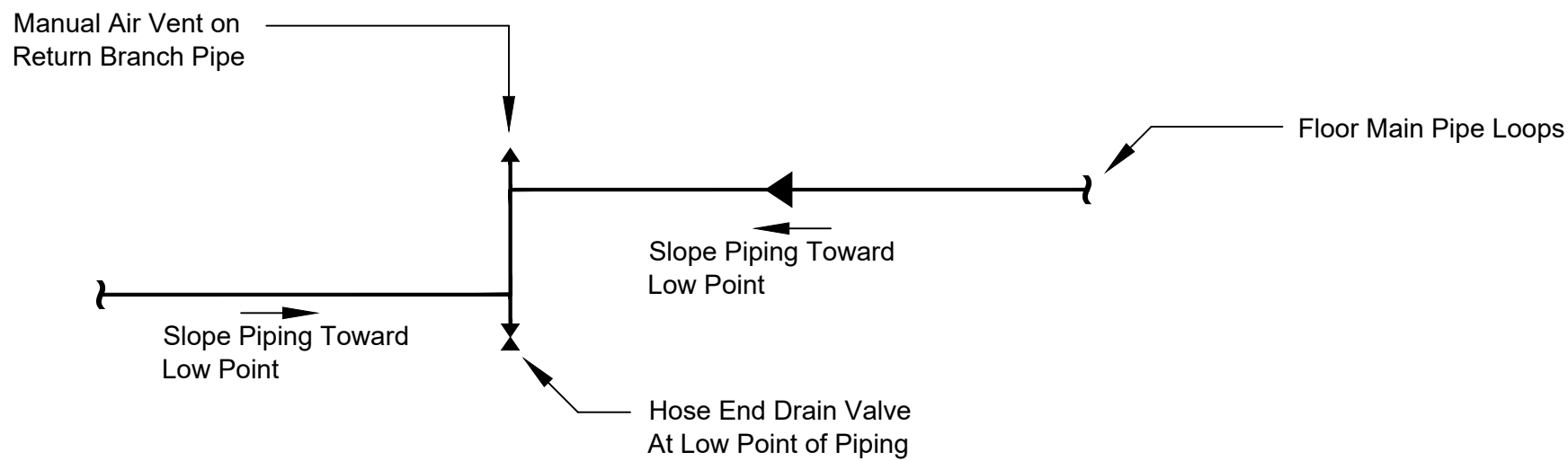
Typical Pipe Speciality Tap Installation

No Scale



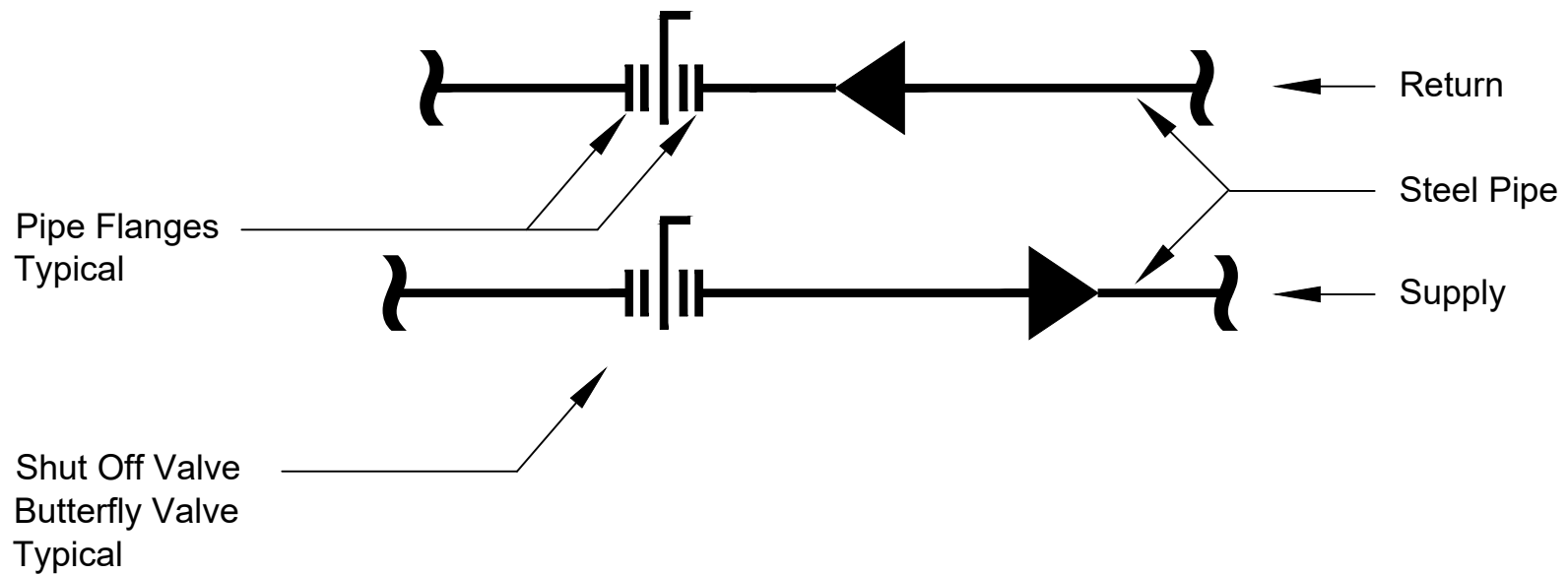
Typical Trapped Pipe Installation

No Scale



Typical Horizontal Piping Elevation Change & Low Point Drain

No Scale



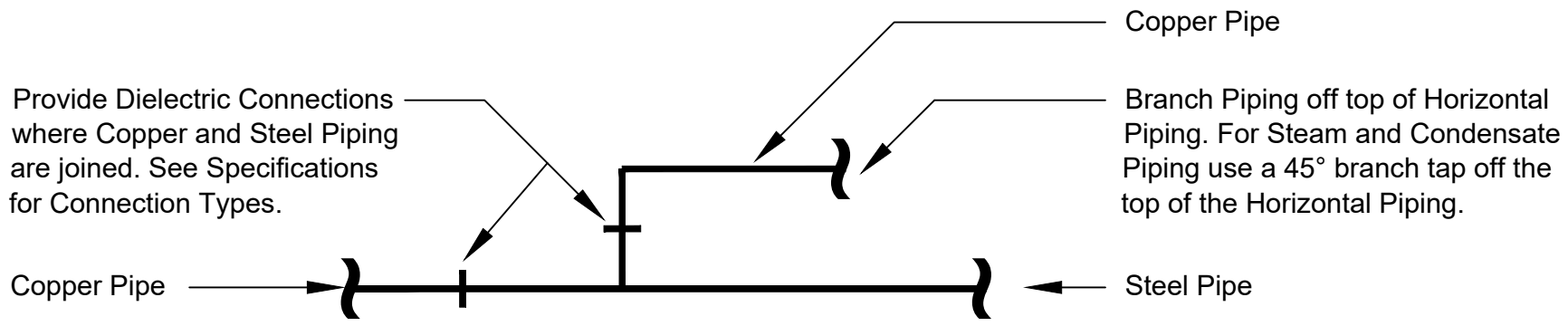
## Typical Butterfly Valve Installation - Steel Piping

No Scale

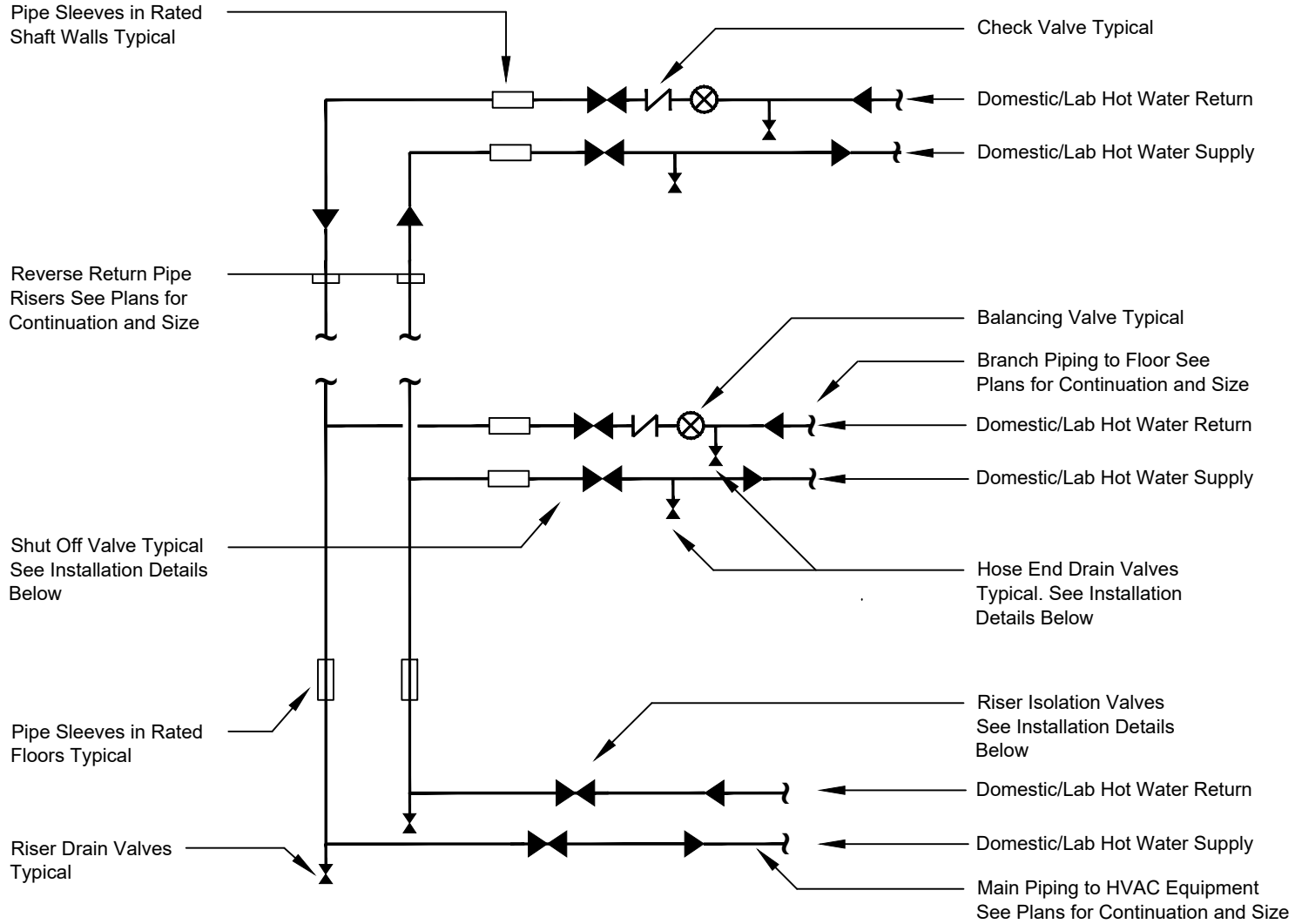
### Contractor Note:

For Butterfly Valves Installed in Copper Pipe Provide Pipe Flanges with Die Electric Flange Kits at each Valve location.

This Detail is Typical for all Butterfly Valves 2 1/2 inch and Larger installed in steel piping systems and at all HVAC Coils, Equipment, etc.



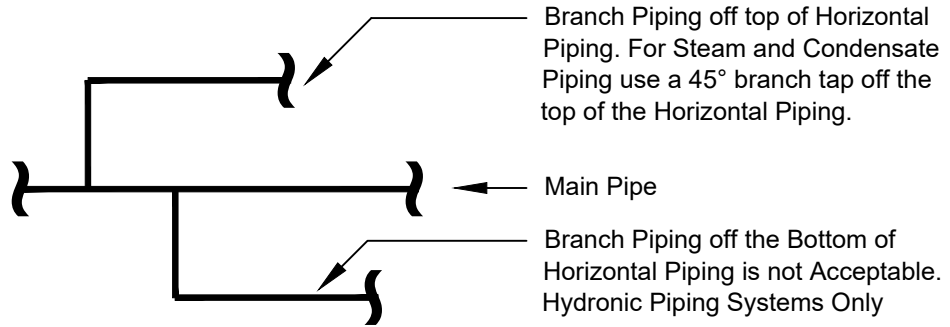
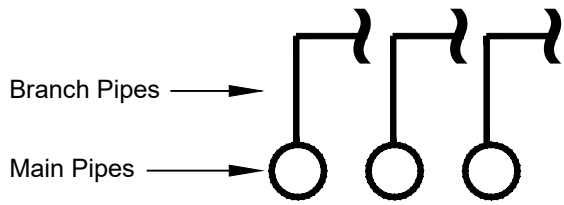
Typical Dielectric Union Installation  
No Scale



Typical Domestic/Lab Pipe Riser Valve & Fitting Locations

No Scale





Typical Branch Pipe Connection

No Scale