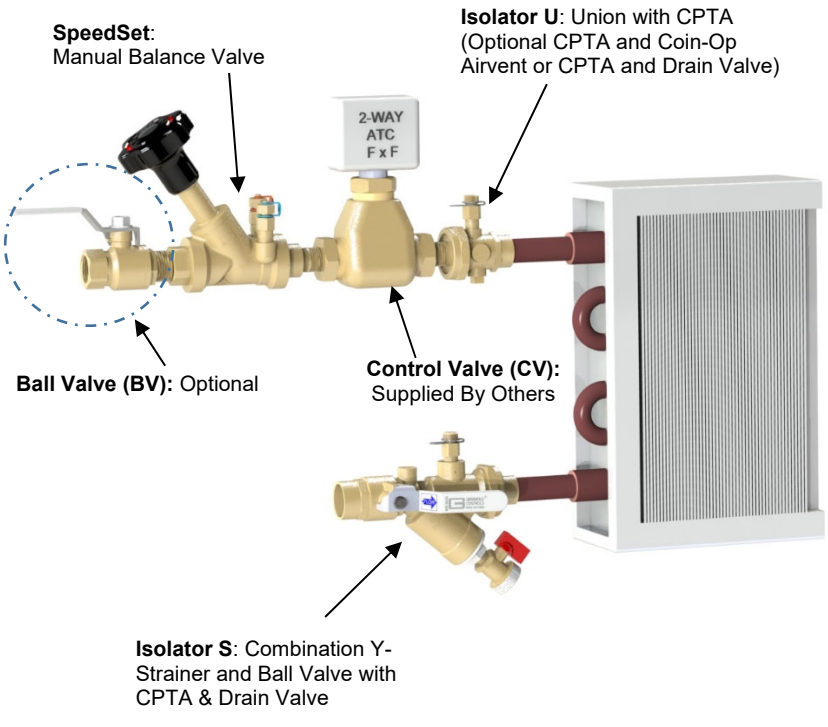


**END CONNECTIONS:**
❑ FNPT ❑ SWT[1]
❑ FNPT (Line) & SWT (Coil)

**LINE & COIL SIZE:**
❑ 1/2"
❑ 3/4" L
❑ 1"
❑ 1-1/4"
❑ 1-1/2"
❑ 2"

**BALL & STEM:**
❑ Nickel-plated brass ball & brass stem
❑ Stainless Steel ball & stem (Isolator S only)

**HOSE OPTIONS (FNPT COIL)**
**Swivel Type:**
❑ MNPT ❑ SWT
**Length:**
❑ 12" ❑ 18" ❑ 24" ❑ 36"

**CONTROL VALVE (CV):**
❑ Customer Supplied and Installed CV
❑ Customer Supplied CV-Installed By Griswold Controls

## *SPECIFICATIONS*

**Ball Valve (Optional):** Forged brass ball valve with nickel plated full port ball with Teflon seals and Teflon packing. Valve is fully assembled. PSI/Temperature Rating: 300 PSI / 250F.

**SpeedSet™:** Forged DZR Brass (CW602N) manual balance valve with orifice plate and 30% Glass Filled PA-66 handwheel with four full turns and built-in memory stop[2]. Valve has FNPT connections. Valve body has two ports with Pressure/Temperature Test Valves. Valve is fully assembled. PSI/Temperature Rating: 362 PSI / 248°F.

**Isolator S:** Ball valve and integrated strainer. Valve housing is forged brass with field repairable dual Teflon and EPDM o-ring seal stem. Strainer is 20 mesh stainless steel and can be removed from housing without disturbing pipe connections for inspection or replacement. Valve includes one fixed (FNPT or SWT) connection and one union (FNPT or SWT) connection. Union end includes union nut and EPDM o-ring. Body has one port with combination Pressure/Temperature Test Valves & Manual Air Vent (**CPTA**). Assembly includes drain valve with 3/4" hose connection with cap. Valve is fully assembled. PSI/Temperature Rating: 400 PSI / 250°F.

**Union:** Forged brass (ASTM B283) union. Union includes one fixed end (FNPT or SWT) connection and one union (MNPT) connection. Union end includes union nut and EPDM o-ring. Union body has one port with combination Pressure/Temperature Test Valves and manual air vent (**CPTA**). PSI/Temperature Rating: 400 PSI / 250°F.

**Drain Valve:** Rated 275 PSI / 250°F. Brass housing, Nickel plated ball. 3/4" NPSH hose connection.

**Pressure/Temperature Test Valve:** Rated 1000 PSI / 350°F.Brass Housing, Nordel Seal.

**Combination Pressure/Test Valve & Manual Air Vent (CPTA):** Pressure/Temperature Test Valve works in conjunction with valve body feature to function as Manual Air Vent. Requires both components to operate as manual air vent.

## *NOTES*

[1] Sweat Adapter used on SpeedSet.or on optional Ball Valve on return side
[2] S3 Allen Key or T15 Torx Bit tool required to set memory stop.





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## MODEL NUMBER SELECTION

| Size | Model Number-FNPT | Model Number-SWT | Model Number-(Line: FNPT; Coil: SWT) | Model Number-Optional BV FNPT | Model Number-Optional BV SWT | Model Number-Optional BV (Line: FNPT; Coil: SWT) | Add ATC Size to Model Number[3] |
|---|---|---|---|---|---|---|---|
| 1/2" | CPP2SEE | CPP2SLL | CPP2SEL | CVP2SEE | CVP2SLL | CVP2SEL | 1/2"=H |
| 3/4" L | CPP2SFF | CPP2SMM | CPP2SFM | CVP2SFF | CVP2SMM | CVP2SFM | 1/2"=H, 3/4"=I |
| 1" | CPP2SHH | CPP2SNN | CPP2SHN | CVP2SHH | CVP2SNN | CVP2SHN | 1/2"=H, 3/4"=I, 1"=J |
| 1-1/4" | CPP2SJJ | CPP2SKK | CPP2SJK | CVP2SJJ | CVP2SKK | CVP2SJK | 3/4"=I, 1"=J, 1-1/4"=S |
| 1-1/2" | CPP2SKK | CPP2SWW | CPP2SKW | CVP2SKK | CVP2SWW | CVP2SKW | 1"=J, 1-1/4"=S, 1-1/2"=T |
| 2" | CPP2SRR | CPP2SYY | CPP2SRY | CVP2SRR | CVP2SYY | CVP2SRY | 1-1/2"=T, 2"=U |

**NOTES:**

1. Standard CPPs include nickel-plated brass ball and brass stem in Isolator S. For optional stainless steel ball and stem change "CPP" to "CPS" or "CVP" to "CVS" in model number.

## FLOW RATES

| SIZE | FLOW GPM[4] @4 FT/SEC | Cv[5] | | | | | | | ORIFICE Vf[6] | GPM RANGE FOR 1"–100" W.C. ΔP | GPM RANGE FOR 1"–300" W.C. ΔP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4[7] | | | |
| 1/2" | 3.8 | 0.34 | 0.53 | 0.73 | 0.98 | 1.47 | 1.9 | 2.16 | .483 | 0.48 – 4.9 | 0.48 – 8.4 |
| 3/4" | 6.7 | 0.46 | 0.68 | 0.92 | 1.72 | 2.44 | 3.24 | 3.63 | 1.010 | 1.0 – 10.1 | 1.0 – 17.5 |
| 1" | 10.8 | 1.06 | 1.55 | 2.05 | 2.65 | 3.95 | 5.57 | 6.46 | 1.867 | 1.9 – 18.7 | 1.9 – 32.5 |
| 1-1/4" | 18.7 | 0.83 | 1.35 | 4.07 | 7.62 | 10.18 | 11.68 | 12.48 | 3.668 | 3.7 – 36.5 | 3.7 – 63.5 |
| 1-1/2" | 25.4 | 1.48 | 2.54 | 5.78 | 11.43 | 16.76 | 19.42 | 20.92 | 5.733 | 5.7 – 57.5 | 5.7 – 99.4 |
| 2" | 41.9 | 2.25 | 6.42 | 13.87 | 21.39 | 27.17 | 30.75 | 33.64 | 9.489 | 9.5 – 95.0 | 9.5 – 164.5 |

## NOTES

[3] SpeedSet includes bushing(s) and nipple when ATC is downsized.
[4] The generally accepted upper limit as recommended by ASHRAE to prevent pipe noise is 4 ft/sec.
[5] Cv is the GPM of water at 1 PSID drop through the valve at the specific setting. Cv's are used to calculate the permanent pressure drop across valve for pump sizing. PSID=$(Flow/Cv)^2$.
[6] Vf is used to set valve or for flow measurement. INCHES $H_2O=(Flow/Vf)^2$
[7] Setting 4 is a full open valve




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