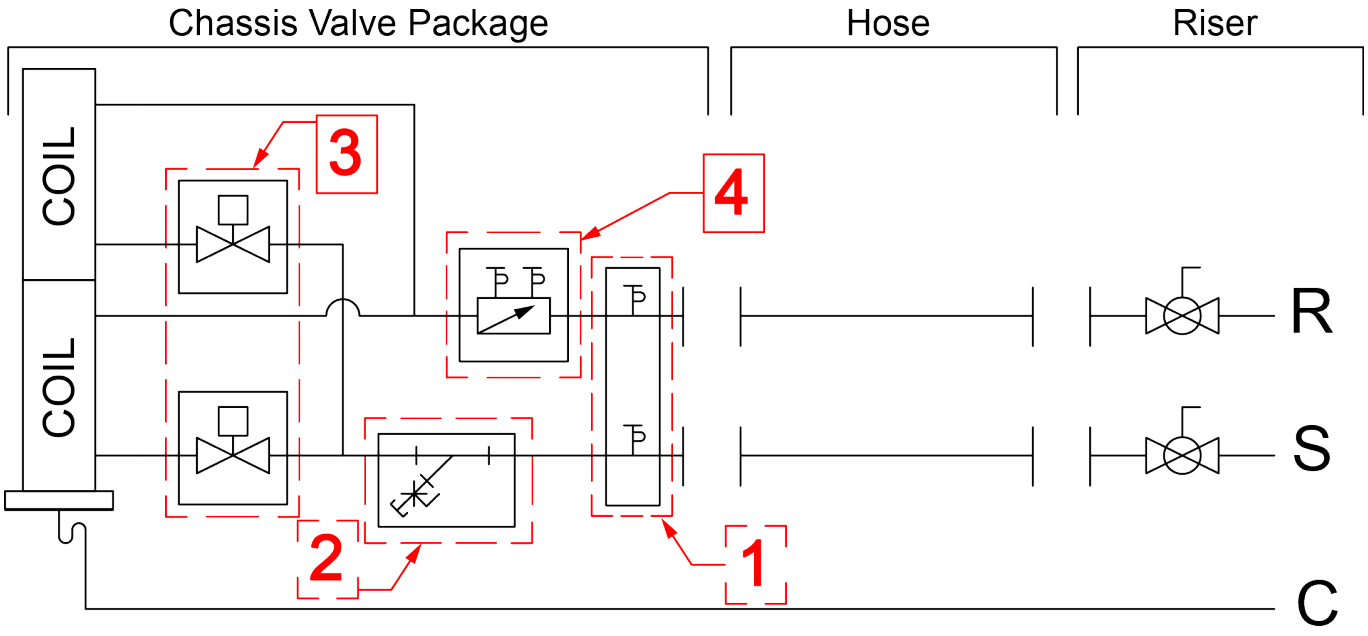
A vertical stack heat pump valve package consists of three parts: the chassis valve package, a hose kit, and riser with shut-off valves. All valves are factory installed on the refrigerant chassis. The hose kit connects the chassis to the risers. The riser shut-off valves are attached to the riser and allow the water flow to be shut off for service or removal of the refrigerant chassis.



Position	Option	ISC Option Digit	Description
1	Water-side Access Ports	X	None
		A	Pressure / Temperature Port (Supply)
		B	Pressure / Temperature Port (Return)
		C	Pressure / Temperature Port (Supply & Return)
2	Strainer	X	None
		2	Y-strainer
		3	Y-strainer with blowdown
3	Control Valve	X	None
		J	3-way valve, on/off, 30 psi diff (Whisperpack Only)
		K	3-way valve, on/off, 60 psi diff (Whisperpack Only)
		2	Two 2-way valve, on/off, 30 psi diff (Qty 2 valves for Whisperpack)
		3	Two 2-way valve, on/off, 60 psi diff (Qty 2 valves for Whisperpack)
		4	Two 2-way valve, on/off, 125 psi diff (Qty 2 valves for Whisperpack)
4	Flow Control	X	X - None
		C	C - Automatic Flow Valve - Griswold K with PT Ports
		D	D - Automatic Flow Valve - Hays
		E	E - Automatic Flow Valve - Hays with PT Ports
		H	H - Manual Flow Control Valve
		Q	Q - Pressure Independent Control Valve

Position 1 – Water-side Access Ports

ISC Option Digits - A, B, & C

P/T Port - An accessible port where pressure and temperature can be measured. Accepts standard 1/8” gauge adapter or thermometer stem.

Position 2 - Strainer

ISC Option Digit - 2
Strainer - The Y-type strainer body is constructed of brass with a 20 mesh 304 stainless steel screen. Used for removal of small particles from the water supply pipe during normal system operation. The strainer helps protect the coil and minimizes the chance of control valves clogging. Screens should be regularly removed and cleaned as part of a routine maintenance schedule.

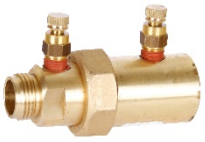
ISC Option Digit – 3
Blowdown Valve for Y-Strainer - A valve installed on the strainer blowdown leg to allow flushing the strainer screen without removing the plug in the blowdown leg.

Position 3 – Control Valve

ISC Option Digits - J & K
3-Way On/Off Control Valve - These valves are normally closed to the coil as standard and will isolate the coil during a loss of power. Normally open configurations are simply achieved by turning the valve around. Upon response to a signal from the controller, the valve will be either fully open allowing full flow to the coil or fully closed to the coil diverting full flow to the bypass line. All three-way valve configurations include a balance fitting in the bypass line to allow proper flow balancing.

ISC Option Digits – 2, 3, & 4
2-Way On/Off Control Valve - 2-way valves are used for a variety of pumping applications when more than one unit is installed on a common loop. These valves are also used to shut off flow when the unit is not operating. The valves are piped for parallel flow and on a call for cooling or heating the respective valve opens providing full water flow prior to compressor operation. A 24-volt control wire harness is included with the factory provided control valve option. Options are available for 30 psi, 60 psi, and 125 psi close off pressure for various applications.

Position 4 – Flow Control



ISC Option Digits - C, D, & E
Automatic Flow Control - An automatic flow control device includes a ball valve cast in the valve body and is located on the return water pipe. The flow control valve consists of a stainless steel/brass flow cartridge and a contoured orifice plate. As the pressure drop increases, the flow cartridge will move into the contoured orifice plate to decrease the flow. This flexing action provides a constant flow, independent of pressure (2-80 psi), makes it difficult to clog and resistant to cavitation damage. This valve sets flow through the coil without any action required by a system balancer. Flow control devices available with and without pressure temperature ports.

ISC Option Digit - H
Manual Flow Control - A manual flow control valve, acts as both a flow setting device and a stop valve, taking the place of a ball valve. This valve allows water flow through the unit and can be set quickly and accurately.