



A WATTS Brand

S59-3045 (HL45) Thermostatic High-Low Valves

- Lead-Free Brass Design †
- Reliable Liquid-Filled Thermostat with 10 year warranty
- Integral Strainer Checkstops on Inlets
- Adjustable Set Point within Temperature Range
- Accurate Temperature Control to within $\pm 3^{\circ}$ F
- Positive Shutoff of Flow in the Event of Cold Supply Line Failure or Thermostat Failure
- Easy Installation and Serviceability
- Dirt and Lime Resistant
- Factory Assembled and Tested
- Universal Mounting Capability
- Dial Thermometer
- Cabinet Features:
 - 18 Gauge Body & Door
 - Left-Hand Hinge
 - Cylinder Lock
 - Inlet/Outlet Knock-Out Holes for Mounting Flexibility
 - Stainless Steel or Baked White Enamel Finishes
 - Surface-Mounted or Recessed Style with Flange

Valve Specifications

Maximum Operating Pressure

125 PSI (860 kPa)

Maximum Inlet Temperature

180° F (82° C)

Temperature Range

Std.	90° F (32° C) to 120° F (49° C)	110° F (43° C)
High	110° F (43° C) to 140° F (60° C)	130° F (54° C)

Set Point

Flow Capacities – GPM

Model	Min. Flow*	Pressure Drop – PSI						
		5	10	15	20	30	45	60
S59-3045	1.5	12.5	19.0	24.0	28.5	37.0	47.0	56.5

Flow Capacities – L/Min

Model	Min. Flow*	Pressure Drop – Bar						
		.5	1.0	1.5	2.0	2.5	3.0	4.0
S59-3045	5.5	58.0	89.0	115.0	137.0	157.0	175.0	209.0

*Recirculation system only (See diagram on Page 2). When properly installed near the hot water source with a continuously operating recirculation pump, the valve will maintain set temperature with a .5 GPM (2.0 L/Min) draw from the plumbing system.

Product Compliance



Listed by IAPMO R&T to

- ASSE 1017, CSA B125.3
- Uniform Plumbing Code (UPC),
- National Plumbing Code of Canada and
- International Plumbing Code (IPC)



Listed by ASSE International to

- ASSE 1017



Listed by NSF International to

- NSF/ANSI 372



Standard product selections contained within this document are third party CERTIFIED to NSF/ANSI 372 meeting the Lead-Free content requirement. Any product configured with custom options will be COMPLIANT with NSF/ANSI 372 meeting the Lead-Free content requirement.

S59-3045 (HL45) Thermostatic High-Low Valves



Lead Free †

HL45 (Part No. S59-3045)

Valve Model

Model	Description
☐ S59-3045	High-Low Thermostatic Mixing Valve

Configurable Valve Model (select one)

Model	Description
☐ HL45	HL45 Thermostatic Mixing Valve with Options
☐ CAB-HL45	HL45 Thermostatic Mixing Valve Cabinet Only

Optional Valve Selections

Finish	
☐ R	Rough Brass (standard)
☐ C	Chrome Plated
Thermostat	
☐ S	Standard Range Thermostat
☐ H	High Range Thermostat
Bracket	
☐ B	Wall Mounting Bracket
☐ O	None
Piped Assembly	
☐ P	Piped Assembly with Inlet and Outlet Shutoff
☐ N	Piped Assembly with Outlet Shutoff
☐ O	None

Optional Cabinet Selections

Cabinets (includes bracket)	
☐ SS	Surface Mount Stainless Steel
☐ RS	Recessed Stainless Steel
☐ SE	Surface Mount White Enamel
☐ RE	Recessed White Enamel
☐ O	None
Window	
☐ W	Plexi-Glass Window in Door
☐ O	None

† Wetted surface contains less than .25% lead

Engineer's Approval _____

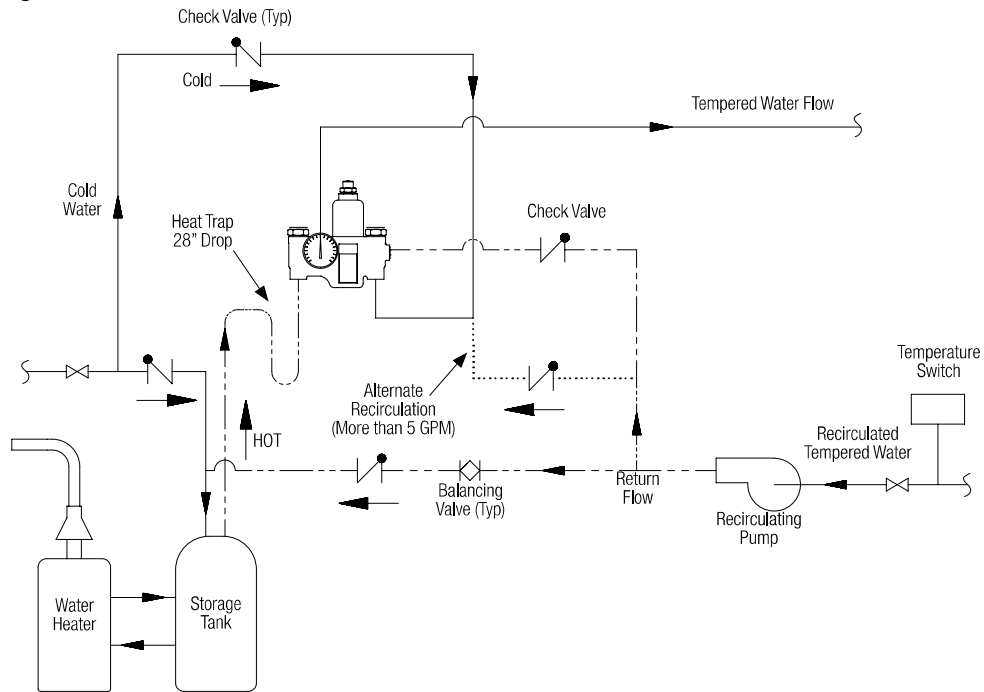


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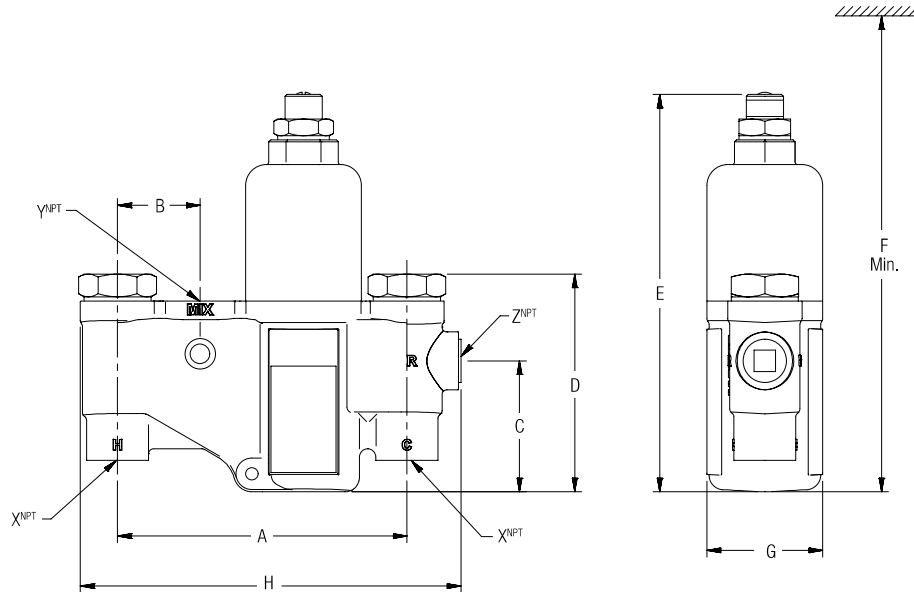
(mm)

Recirculation Diagram



Dimensions

Model	A	B	C	D	E	F	G	H	X ^{NPT}	Y ^{NPT}	Z ^{NPT}
S59-3045	7" (178)	2" (51)	3-1/8" (79)	5-1/4" (133)	9-5/8" (244)	14" (356)	2-3/4" (70)	9-3/16" (230)	3/4"	1"	3/4"





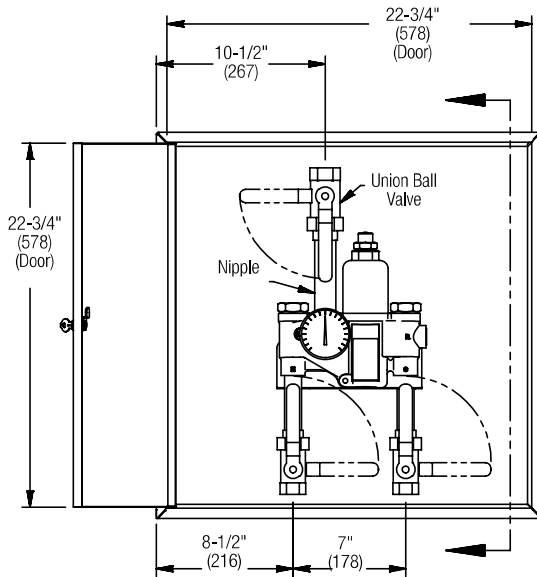
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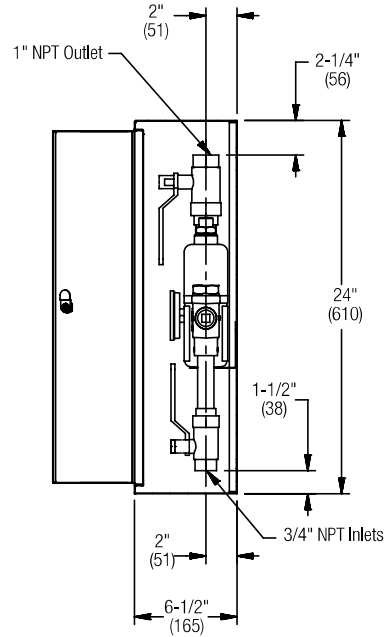
Dimensions — HL45 Surface-Mounted Cabinet

(mm)

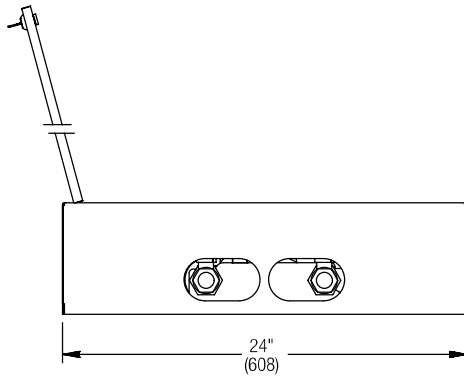
Front View



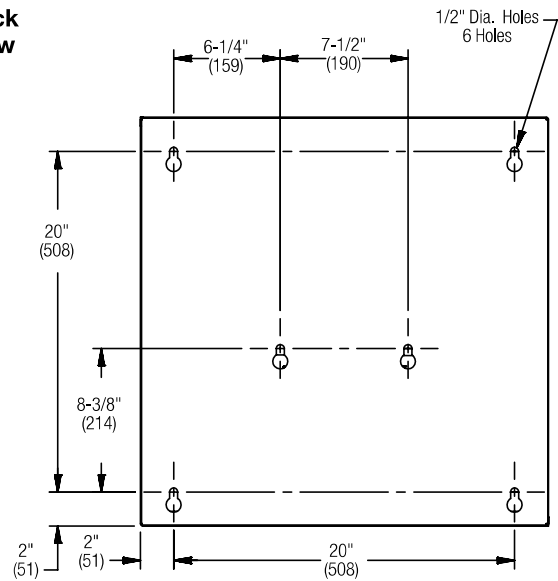
Side View



Bottom View



Back View





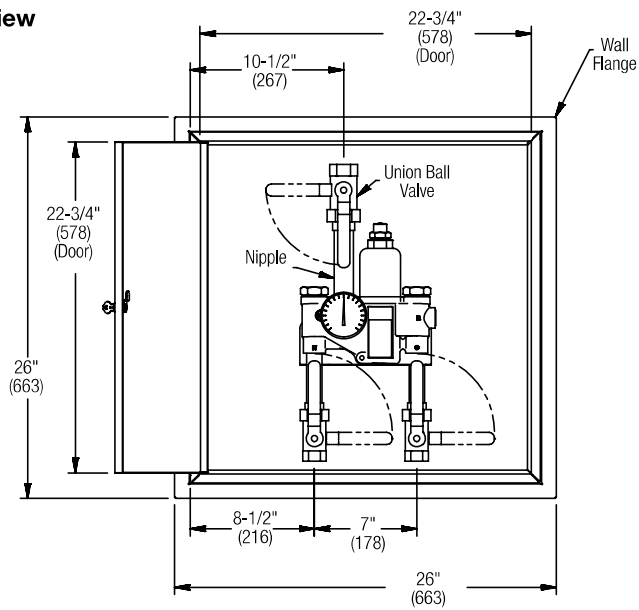
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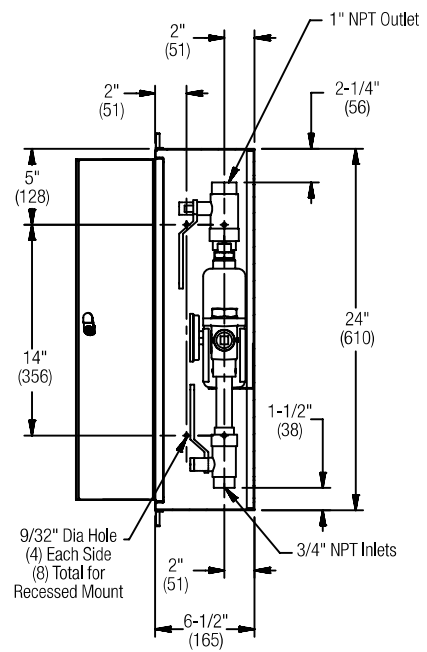
Dimensions — HL45 Recessed Cabinet

(mm)

Front View



Side View



Bottom View

