



Thermostatic Water Valve for series 19HE

Smith
CAST IRON BOILERS

FEATURES

- Fixed temperature range
- Heavy duty
- Replaceable element (fixed, non-adjustable)
- No adjustments
- Tamper proof
- Operates in any mounted orientation
- Compact
- Low pressure drop
- No wiring or electricity required
- No external temperature control or return sensor required

Protection of cast iron boilers from thermal shock and low water return temperatures has not always been a top priority until most recently with the rise in energy cost where boilers are left idle for longer periods of time during the heating season. With large capacity heating systems being turned down for periods of time to conserve energy the larger temperature differential and time period for cold water return has been lengthened.

With the installation of a 3-way thermostatic water valve the boiler is better protected from thermal shock and condensing associated with continuous cold-water return temperature applications.

Smith Cast Iron Boilers is pleased to offer a FPE valve that utilizes the principal of expanding wax. In a semi-liquid state it undergoes large expansion rates within a small temperature range. The self-contained control activates a sleeve that directs flow. Valves are factory set with no further adjustments.



19HE BOILER FLOW RATE @ 20° DELTA T

Size	I=B=R Gross Output (MBH)	*Required Flow Rate	Pipe Size	Boiler Recirculation 3-Way	Valve Selection by Mestek	FPE Valve Cv Value	Approx. ΔP Ft H2O
19HE-3	308	30	2"	1.5" NPT	A1530	27.07	3
19HE-4	421	42	2"	1.5" NPT	A1530	27.07	6
19HE-5	587	58	2"	2.0" NPT	A2010	45.05	4
19HE-6	762	74	2.5"	2.0" NPT	A2010	45.05	6
19HE-7	924	90	2.5"	2.0" NPT	A2010	45.05	9
19HE-8	1087	106	2.5"	2.5" Flange	A2510	93.92	3
19HE-9	1262	123	3"	2.5" Flange	A2510	93.92	4
19HE-10	1424	139	3"	2.5" Flange	A2510	93.92	5
19HE-11	1587	155	3"	3.0" Flange	A3010	101.58	5
19HE-12	1750	171	3"	3.0" Flange	A3010	101.58	7

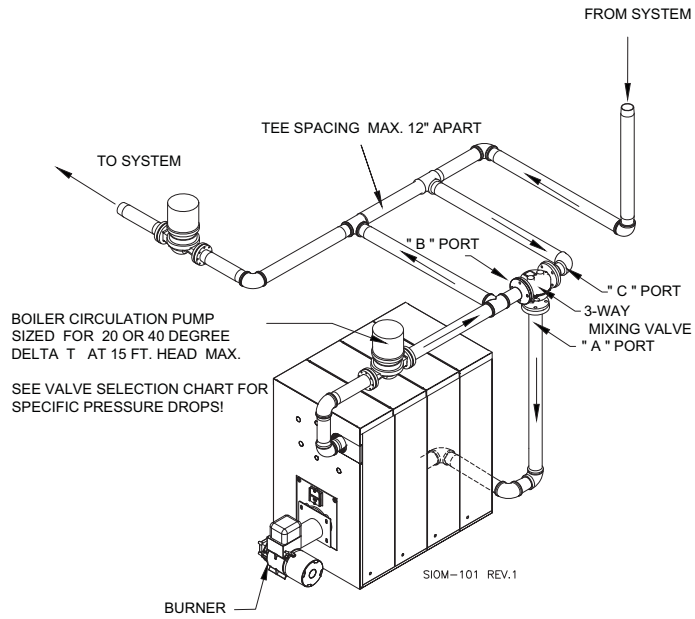
*Based on fluid power energy Thermostatic 3-way valve

19HE BOILER FLOW RATE @ 40° DELTA T

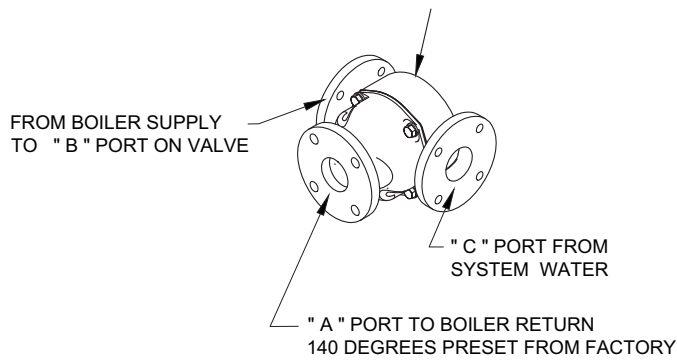
Size	I=B=R Gross Output (MBH)	*Required Flow Rate	Pipe Size	Boiler Recirculation 3-Way	Valve Selection by Mestek	FPE Valve Cv Value	Approx. ΔP Ft H2O
19HE-3	308	15	1.5"	.75" NPT	A1110	14.09	3
19HE-4	421	21	1.5"	.75" NPT	A1110	14.09	5
19HE-5	587	29	1.5"	1.0" NPT	A1010	18.95	5
19HE-6	762	37	1.5"	1.5" NPT	A1530	27.07	4
19HE-7	924	45	2"	1.5" NPT	A1530	27.07	6
19HE-8	1087	53	2"	1.5" NPT	A1530	27.07	9
19HE-9	1262	61	2"	2" NPT	A2010	45.05	4
19HE-10	1424	69	2"	2" NPT	A2010	45.05	5
19HE-11	1587	78	2.5"	2" NPT	A2010	45.05	7
19HE-12	1750	86	2.5"	2" NPT	A2010	45.05	8

*Based on fluid power energy Thermostatic 3-way valve

TYPICAL PIPING FLOW



FPE VALVE MODEL # A2510 2.5" FLANGED
(TYPICAL PORT ORIENTATION VERIFY FOR
EXACT VALVE MODEL)



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