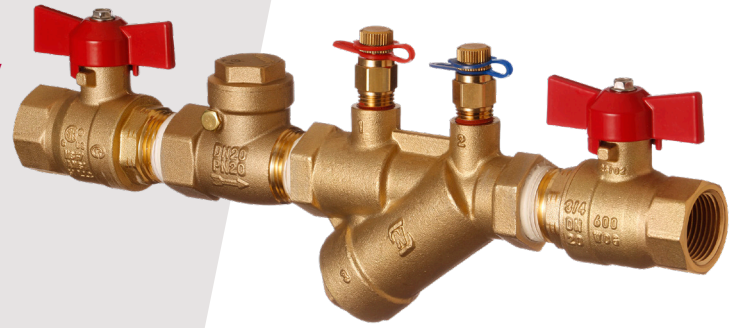


CCK-A10

Domestic Hot Water Recirculation Assembly

NuTech's Domestic Hot Water Recirculation Assembly consists of a Low-Lead AL Automatic Flow Control Valve with dual PL Low-Lead Pressure/Temperature Ports, a Low-Lead Check Valve and two Low-Lead Ball Valves--all which conform to NSF / ANSI 372. The removable flow cartridge is factory set to automatically limit the GPM to within $\pm 5\%$ of the specified flow.



PRODUCT INFORMATION

	PART	MATERIALS	SPECIFICATIONS
MODEL AL AUTOMATIC BALANCING VALVE	Body, Cap, Pressure / Temperature Port	Naval Brass, C46500 Low-Lead*	Function: Automatic Balancing Valve
	End Connections	FNPT Inlet and Outlet	Sizes: 0.50" - 1.25"
	Cartridge	0.50" - 1.25" Ultrason Composite	Ratings: Pressures to 400 PSIG (2758 kPa) Temperature to 250°F (120°C)
	Seals	EPDM O'ring	Pressure Range: 2-32 PSID
			Accuracy: $\pm 5\%$ of Flow Rate
		GPM Flow Rate: See Chart on Back	
BALL VALVES	Body	Naval Brass, C46500 Low-Lead*	Function: Positive Shut-off; Blow-out Proof Stem
	End Connections	MNPT x FNPT	Sizes: 0.50" - 1.25"
	Seals	EPDM O'ring Teflon Packing and Seat	Ratings: Pressure to 600 PSIG (4140 kPa) WOG Temperature to 250°F (120°C)
CHECK VALVE	Body	Naval Brass, C46500 Low-Lead*	Function: Swing Type Check Valve
	End Connections	0.50" - 0.75" MNPT x FNPT 1.25" FNPT x FNPT with Nipple	Sizes: 0.50" - 1.25"
	Seals	Metal to Metal, Low-Lead Brass	Ratings: Pressure to 290 PSIG (2000 kPa) WOG Temperature to 250°F (120°C)

*Conforms to NSF / ANSI 372. Maximum Lead Content of .25% by weight.

OPERATION

Automatic balancing of recirculation loops in domestic hot water systems to speed hot water delivery, reduce water waste and save pumping energy. NuTech's CCK-A10 Assembly provides a Low Lead Automatic Balancing Valve, Low Lead Ball Valve for positive shutoff, as well as Low Lead Swing Type Check Valve eliminating the need for separate service valves.

NuTech Automatic Balancing Valves incorporate a removable flow cartridge that is factory set to limit the GPM to within $\pm 5\%$ of the specified flow. The flow can be verified by measuring the differential pressure (D.P.) across the valve using the Low Lead PT Ports provided. If it measures between 2-32 PSID, the flow is within the specified flow range.

INSTALLATION

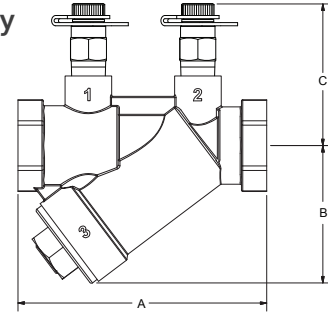
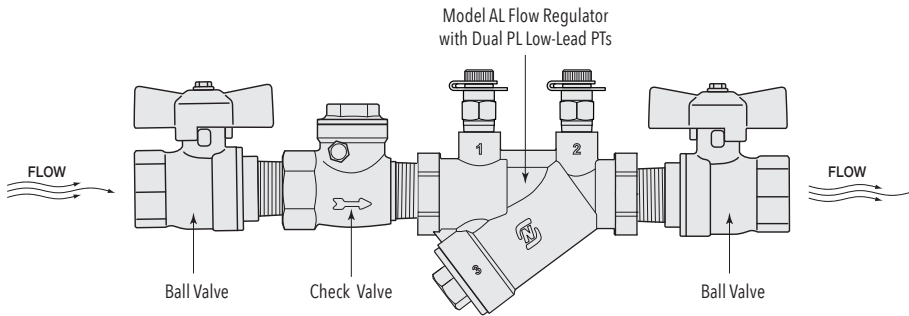
There are no minimum straight-piping requirements for the inlet or the outlet. Valves may be installed in horizontal or vertical lines. The flow arrow on the check valve body must be pointed in the direction of flow. Avoid placing the valve close to a pump discharge. Allow 10 feet before the valve if possible.

MAINTENANCE

There is no periodic maintenance required on the CCK-A10 Domestic Water Recirculation Assembly. The controlled flow rate can be changed in the field without having to remove the valves from the line.

Isolate the system, relieve pressure and drain water. Carefully remove the cap and pull out the cartridge with your fingers. When refitting, make sure the O-ring on the cartridge and cap are in place.

CCK-A10 0.50" - 1.25" Domestic Hot Water Recirculation Assembly



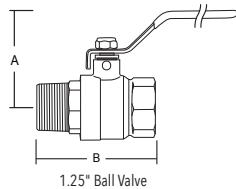
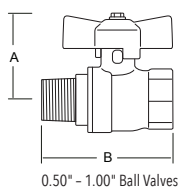
Model AL illustration and Nominal Dimensions shown with "PL" Low-Lead Pressure / Temperature Test Ports

MODEL AL NOMINAL DIMENSIONS, WEIGHTS & FLOWS

MODEL / BODY SIZE	SIZE			A	B	C	WEIGHT		GPM SETTINGS 2-32 PSID
	in	mm					lbs	kg	
AL2-050F	0.50	15	in	3.70	2.15	2.19	1.15	0.52	0.35, 0.50, 0.66, 0.75, 0.88, 1.00, 1.10, 1.30, 1.50, 1.75, 2.00, 2.20, 2.50, 2.65, 3.00, 3.50, 4.00, 4.50, 5.00
			mm	94.10	54.60	55.60			
AL2-075F	0.75	20	in	3.84	2.15	2.19	1.17	0.53	0.35, 0.50, 0.66, 0.75, 0.88, 1.00, 1.10, 1.30, 1.50, 1.75, 2.00, 2.20, 2.50, 2.65, 3.00, 3.50, 4.00, 4.50, 5.00, 6.00, 7.00, 8.00, 9.00, 10.00, (12.00 available for AL2-100F only)
			mm	97.50	54.60	55.60			
AL2-100F	1.00	25	in	4.23	2.15	2.19	1.32	0.60	5.00, 6.00, 7.00, 8.00, 9.00, 10.00, 11.00, 12.00, 13.00, 14.00, 15.00, 16.00, 17.00, 18.00, 19.00, 20.00, 21.00
			mm	107.40	54.60	55.60			
AL3-125F	1.25	32	in	5.31	3.00	2.44	2.82	1.28	5.00, 6.00, 7.00, 8.00, 9.00, 10.00, 11.00, 12.00, 13.00, 14.00, 15.00, 16.00, 17.00, 18.00, 19.00, 20.00, 21.00
			mm	135.00	76.35	62.03			

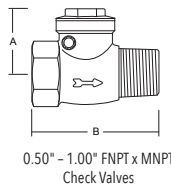
Nominal Dimensions & Weights shown above are not to be used for construction purposes unless first certified by the Factory.

LOW-LEAD BALL VALVES

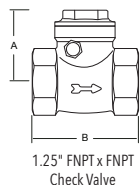


PART NUMBER	MNPT x FNPT CONNECTION	A - HEIGHT		B - LENGTH		WEIGHT	
		in	mm	in	mm	lbs	kg
500183	0.50"	1.78	45.2	2.78	70.5	0.475	0.21
500184	0.75"	1.99	50.5	3.08	78.2	0.705	0.32
500185	1.00"	2.14	54.4	3.59	91.2	1.155	0.52
500205	1.25"	2.61	66.4	4.06	103	2.160	0.98

LOW-LEAD CHECK VALVE



PART NUMBER	FNPT x MNPT CONNECTION	A - HEIGHT		B - LENGTH		WEIGHT	
		in	mm	in	mm	lbs	kg
500193	0.50"	1.34	34	2.64	67	0.430	0.19
500194	0.75"	1.52	38.5	2.76	70	0.545	0.24
500195	1.00"	1.75	44.5	3.46	88	0.975	0.44



PART NUMBER	FNPT x FNPT CONNECTION	A - HEIGHT		B - LENGTH		WEIGHT	
		in	mm	in	mm	lbs	kg
500203	1.25"	1.97	50	2.66	67	1.50	0.68