

# ARMSTRONG



## Hot Water Re-circulation Systems

FILE NO:	10.121
DATE:	Sept. 23, 2005
SUPERSEDES:	New
DATE:	New

## Problem

Heated water cools rapidly in domestic hot water distribution pipes, even when properly insulated. When hot water is desired, the common practice is to run cooled water down the drain until hot water reaches the tap. A typical family can annually waste up to 91 hours of their time and 12,000 gallons of treated water, while waiting for hot water at the tap.

## Solution

Armstrong Astro hot water re-circulation systems automatically circulate water through domestic hot water distribution pipes. This helps to ensure that everyone in the household has "instant" hot water at the tap when they need it, while also helping to conserve water and save water heating energy costs. Aquastat equipped models help save even more energy.

## Benefits

- ▶ **Comfort** - Stable hot water temperature at the tap
- ▶ **Convenience** - Instant hot water access when needed
- ▶ **Conservation** - Both treated water and energy resources
- ▶ **Cost** - Metered water and energy savings
- ▶ **Compliance** - Meets building code requirements (where applicable)

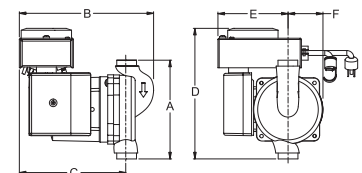
## ▶ Technical Data

Flow Range: 0 to 20 USgpm (0 to 1.26 L/s)  
 Head Range: 0 to 32 ft. (0 to 9.8 m)  
 Motor: 115 V, single phase, 60 Hz  
 Max. Fluid Temperature: 230°F (110°C)  
 Max. Working Pressure: 150 psi (1000 kPa)

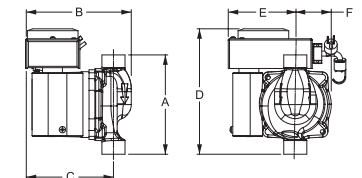
## ▶ Materials of Construction

Pump Body: Cast Bronze  
 Impeller: Polypropylene (Glass Filled)  
 Shaft: Stainless Steel  
 Bearings: Graphite  
 Gasket Material: EPDM

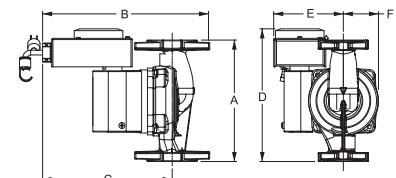
Model	Part No.	Connection	Size	Cord	Timer	Aquastat
Astro 20B050S-TA	110123-140	Sweat	1/2"	✓	✓	✓
Astro 20B075S-TA	110123-141	Sweat	3/4"	✓	✓	✓
Astro 25B050S-TA	110123-142	Sweat	1/2"	✓	✓	✓
Astro 25B075S-TA	110123-143	Sweat	3/4"	✓	✓	✓
Astro 20BU-TA	110123-144	NPSM Union	1 1/4"	✓	✓	✓
Astro 25BU-TA	110123-145	NPSM Union	1 1/4"	✓	✓	✓
Astro 20BF-TA	110123-146	2-bolt Flange		✓	✓	✓
Astro 30B-TA	110123-147	2-bolt Flange		✓	✓	✓
Astro 50B-TA	110123-148	2-bolt Flange		✓	✓	✓
Astro 70B-TA	110123-149	2-bolt Flange		✓	✓	✓
Astro 20B050S-T	110123-150	Sweat	1/2"	✓	✓	-
Astro 20B075S-T	110123-151	Sweat	3/4"	✓	✓	-
Astro 25B050S-T	110123-152	Sweat	1/2"	✓	✓	-
Astro 25B075S-T	110123-153	Sweat	3/4"	✓	✓	-
Astro 20BU-T	110123-154	NPSM Union	1 1/4"	✓	✓	-
Astro 25BU-T	110123-155	NPSM Union	1 1/4"	✓	✓	-
Astro 20BF-T	110123-156	2-bolt Flange		✓	✓	-
Astro 30B-T	110123-157	2-bolt Flange		✓	✓	-
Astro 50B-T	110123-158	2-bolt Flange		✓	✓	-
Astro 70B-T	110123-159	2-bolt Flange		✓	✓	-
Astro 20B050S-LC	110123-160	Sweat	1/2"	✓	-	-
Astro 20B075S-LC	110123-161	Sweat	3/4"	✓	-	-
Astro 25B050S-LC	110123-162	Sweat	1/2"	✓	-	-
Astro 25B075S-LC	110123-163	Sweat	3/4"	✓	-	-
Astro 20BU-LC	110123-164	NPSM Union	1 1/4"	✓	-	-
Astro 25BU-LC	110123-165	NPSM Union	1 1/4"	✓	-	-
Astro 20BF-LC	110123-166	2-bolt Flange		✓	-	-
Astro 30B-LC	110123-167	2-bolt Flange		✓	-	-
Astro 50B-LC	110123-168	2-bolt Flange		✓	-	-
Astro 70B-LC	110123-169	2-bolt Flange		✓	-	-



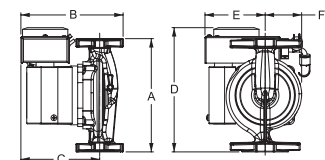
All Astro Sweat Models



All Astro Union Models



Astro 20/30/50 Flanged



Astro 70 Flanged

## ▶ Dimensions

Model	A	B	C	D	E	F
All Astro Sweat Models	5.0 (127)	6.5 (165)	5.6 (142)	7.1 (180)	4.3 (110)	1.8 (46)
All Astro Union Models	5.0 (127)	5.3 (134)	4.4 (112)	6.3 (160)	3.4 (86)	1.8 (46)
Astro 20/30/50 Flanged	6.4 (162)	8.7 (221)	6.8 (173)	7.0 (178)	3.7 (93)	1.8 (46)
Astro 70 Flanged	6.4 (162)	5.8 (146)	4.4 (112)	7.0 (178)	3.4 (86)	2.1 (52)

Note: All dimensions are in inches (mm)

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S. A. Armstrong Limited  
 23 Bertrand Avenue  
 Toronto, Ontario  
 Canada, M1L 2P3  
 T: (416) 755-2291  
 F (Main): (416) 759-9101

Armstrong Pumps Inc.  
 93 East Avenue  
 North Tonawanda, New York  
 U.S.A., 14120-6594  
 T: (716) 693-8813  
 F: (716) 693-8970

Armstrong Holden Brooke Pullen  
 Wenlock Way  
 Manchester  
 United Kingdom, M12 5JL  
 T: +44 (0) 1612 232223  
 F: +44 (0) 1612 209660

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