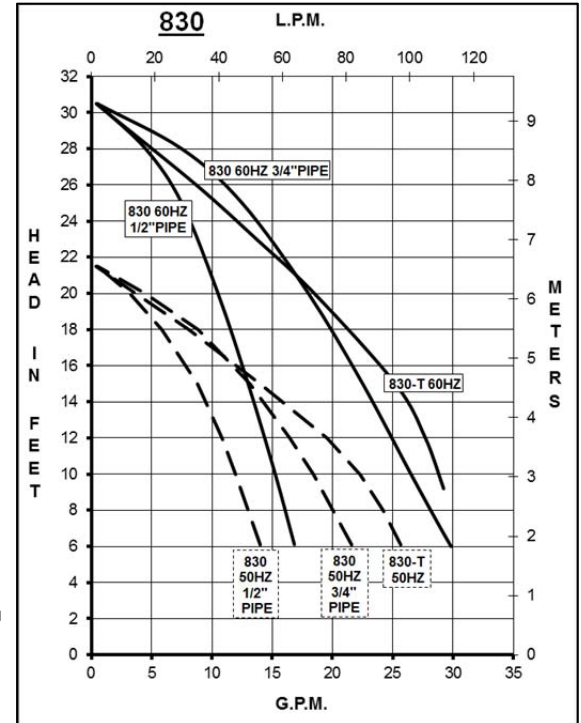
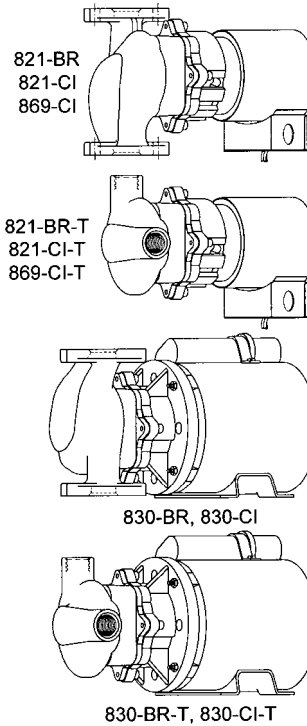
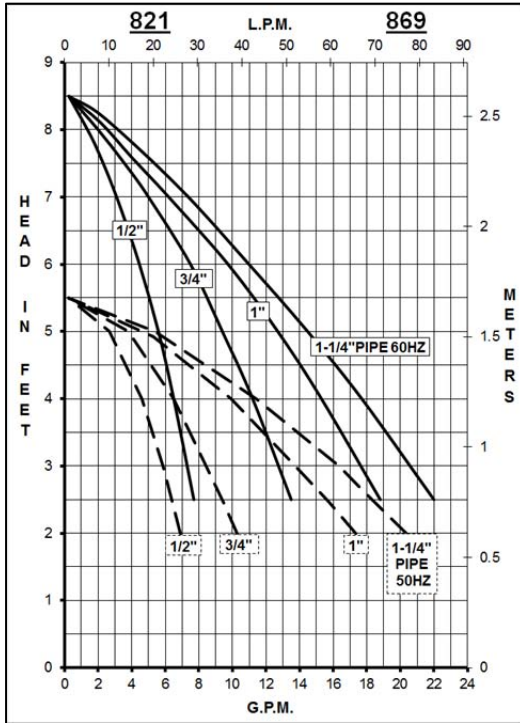




# MARCH PUMPS

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## 821 & 830 HOT WATER PUMPS 869 HOT OIL PUMPS



### ABBREVIATIONS:

BR = Bronze, CI = Cast Iron, T = Threaded

**DESCRIPTION:** The March 821 & 830 Series hot water booster and 869 Series hot oil circulator are centrifugal magnetic drive pumps that are built to handle liquid transfer in heating and cooling operations. Contact the factory for application assistance.

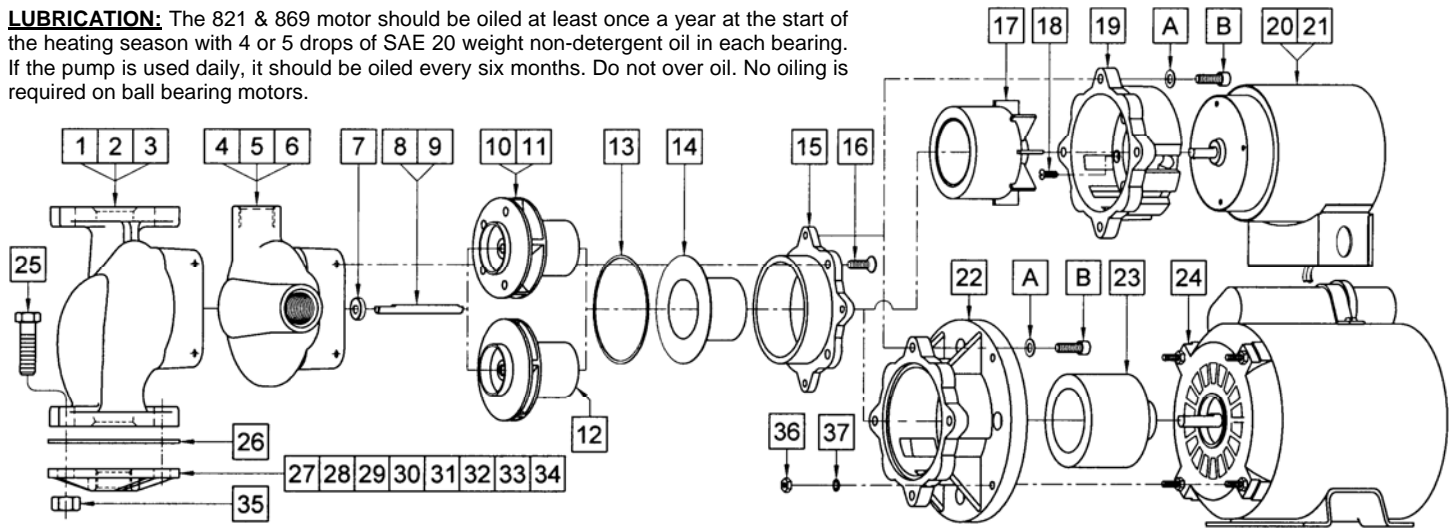
**OPERATION:** These pumps are not self-priming, lack a suction lift, and thus require a flooded suction. These pumps cannot be run dry.

**INSTALLATIONS:** The 821, 830, & 869 Series pumps should be installed with the pump housing arrow pointing in the direction of flow within the system. If the arrow indicating flow is not in the direction required, remove the housing screws (Item B) holding the housing to the motor bracket and rotate the housing assembly as required. Replace the screws and tighten. The pump is composed of a wet end assembly which can be separated by unscrewing the screws (Item B). The pump will then separate into 2 parts. The liquid will be contained within the wet end assembly unless the screws (Item 16) on the rear housing are loosened.

**NOTES:** All specifications & data are based on pumping water & are intended as a guideline only. Specifications may vary with different motors.

SPECIFICATIONS		821-BR	821-CI	821-BR-T	821-CI-T	830-BR	830-CI	830-BR-T	830-CI-T	869-CI	869-CI-T	
Max Flow	50Hz	lpm	75.7		45.4		52.9		94.6	75.7	45.4	
	60Hz	gpm	22		14		15		29	22	14	
Max Head	50Hz	m	1.6		1.6		6.5		6.5	1.6		
	60Hz	ft (psi)	8.5 (3.7)		8.5 (3.7)		30.5 (13.2)		30.5 (13.2)	8.5 (3.7)		
	Inlet	Flange			3/4" FPT		Flange		3/4" FPT	Flange	3/4" FPT	
	Outlet	Flange			3/4" FPT		Flange		3/4" FPT	Flange	3/4" FPT	
Max Internal Pressure		psi	150		150		150		150	150	150	
		bar	10		10		10		10	10	10	
Max Liquid Temperature		°F	250		250		250		250	350	350	
		°C	121		121		121		121	176	176	
Packed Weight	kg/lbs	6.5/14.5	6.3/14	5.4/12	5.2/11.5	10/21.5	9.5/21	8.5/19	8/18.5	6.3/14	5.2/11.5	
50Hz	115V	Motor Type	Air Cooled 1 Phase		Air Cooled 1 Phase		Air Cooled 1 Phase		Air Cooled 1 Phase		Air Cooled 1 Phase	
		Watts - Amps	108 - 1.8		102 - 1.8		266 - 2.9		274 - 2.9		108 - 1.8	
	Kw - Rpm	0.037 - 1350		0.037 - 1350		0.149 - 2850		0.149 - 2850		0.037 - 1350		
	60Hz	115V	Watts - Amps	113 - 1.6		101 - 1.6		376 - 2.7		395 - 2.7		113 - 1.6
		Hp - Rpm	1/20 - 1600		1/20 - 1600		1/5 - 3450		1/5 - 3450		1/20 - 1600	
		Electrical Connection	Conduit Box		Conduit Box		Junction Box		Junction Box		Conduit Box	
50Hz	230V	Motor Type	Air Cooled 1 Phase		Air Cooled 1 Phase		Air Cooled 1 Phase		Air Cooled 1 Phase		Air Cooled 1 Phase	
		Watts - Amps	108 - 0.9		102 - 0.9		266 - 1.4		274 - 1.4		108 - 0.9	
	Kw - Rpm	0.037 - 1350		0.037 - 1350		0.149 - 2850		0.149 - 2850		0.037 - 1350		
	60Hz	230V	Watts - Amps	113 - 0.8		101 - 0.8		376 - 1.4		395 - 1.4		113 - 0.8
		Hp - Rpm	1/20 - 1600		1/20 - 1600		1/5 - 3450		1/5 - 3450		1/20 - 1600	
		Electrical Connection	Conduit Box		Conduit Box		Junction Box		Junction Box		Conduit Box	
Overall Pump Dimensions in Inches / cm	Height		6.31 / 16.0		6.19 / 15.7		6.93 / 17.6		6.93 / 17.6	6.31 / 16.0	6.19 / 15.7	
	Width		4.87 / 12.3		5.37 / 13.6		5.81 / 14.7		5.84 / 14.8	4.87 / 12.3	5.37 / 13.6	
	Length		9.68 / 24.5		9.28 / 23.5		12.25 / 31.1		11.84 / 30.0	9.68 / 24.5	9.28 / 23.5	

**LUBRICATION:** The 821 & 869 motor should be oiled at least once a year at the start of the heating season with 4 or 5 drops of SAE 20 weight non-detergent oil in each bearing. If the pump is used daily, it should be oiled every six months. Do not over oil. No oiling is required on ball bearing motors.



**REPAIR PARTS LIST**

ITEM	DESCRIPTION	MATERIAL	SIZE (Inches)	QTY	PART #	821 Models				830 Models				869 Models	
						BR	CI	BR-T	CI-T	BR	CI	BR-T	CI-T	CI	CI-T
1	Pump Housing	Bronze	Flanged	1	0821-0064-0000	S				S					
2	Pump Housing	Cast Iron	Flanged	1	0821-0025-0000		S				S				
3	Pump Housing	Cast Iron	Flanged	1	0869-0031-0000										S
4	Pump Housing	Bronze	3/4 Threaded	1	0821-0075-0000			S				S			
5	Pump Housing	Cast Iron	3/4 Threaded	1	0821-0080-0000				S				S		
6	Pump Housing	Cast Iron	3/4 Threaded	1	0869-0032-0000										S
7	Thrust Washer	Ceramic		1	0821-0079-1000	S	S	S	S	S	S	S	S	S	S
8	Shaft	Stainless		1	0821-0036-1000	S	S	S	S	S	S	S	S		
9	Shaft	Ceramic		1	0869-0015-1000										S
10	Impeller w/Carbon Bushing	Ryton	2.875 Dia	1	0821-0023-0200	S	S	S	S						
11	Impeller w/Carbon Bushing	Nylon	2.875 Dia	1	0869-0003-0200										S
12	Impeller	Ryton/Teflon/Carbon	2.812 Dia	1	0175-0073-0200					S	S	S	S		
13-1	Gasket	Nitrile/Fibre	2.968 ID x 0.031 Thk	1	0804-0050-1000	S	S	S	S						S
13-2	Gasket	Nitrile/Fibre	2.843 ID x 0.047 Thk	1	1043-0002-1000					S	S	S	S		
14	Rear Housing	Stainless		1	0821-0035-0100	S	S	S	S	S	S	S	S	S	S
15	Housing Connecting Ring	Aluminum		1	0821-0044-0000	S	S	S	S	S	S	S	S	S	S
16	Screw, Flat Head	Steel	1/4-20 x 3/4 Lg	4	1043-0009-1000	S	S	S	S	S	S	S	S	S	S
17	Drive Magnet			1	0821-0086-0100	S	S	S	S						S
18	Screw Flat Head	Stainless	#8-32 x 1/2 Lg	4	0210-0028-1000	S	S	S	S						S
19	Motor Bracket	Plastic		1	0821-0104-1000	S	S	S	S						S
A	Washer	Stainless	1/2 O.D.	4	0155-0021-1000	S	S	S	S	S	S	S	S	S	S
B	Screw, Socket Head	Steel	1/4-20 x 3/4 Lg	4	0804-0052-1000	S	S	S	S	S	S	S	S	S	S
20	Motor, 115V, 50/60Hz			1	0821-0084-1000	S	S	S	S						S
21	Motor, 230V, 50/60Hz			1	0821-0088-1000	S	S	S	S						S
22	Motor Bracket	Plastic		1	0175-0027-1000					S	S	S	S		
23	Drive Magnet			1	0151-0061-0200					S	S	S	S		
24	Motor, 115V/230V,50/60Hz			1	0175-0087-1000					S	S	S	S		
25	Screw, Hex Head	Steel	7/16-14 x 1-1/2 Lg	4	0804-0054-1000	O	O	O	O	O	O	O	O	O	O
26	Gasket, Flange	EPDM		1	0821-0105-1000	O	O	O	O	O	O	O	O	O	O
27	Flange	Bronze	3/4	2	0821-0069-0000	O	O	O	O	O	O	O	O	O	O
28	Flange	Steel	3/4	2	0804-0047-0000	O	O	O	O	O	O	O	O	O	O
29	Flange	Bronze	1	2	0821-0065-0000	O	O	O	O	O	O	O	O	O	O
30	Flange	Steel	1	2	0821-0045-0000	O	O	O	O	O	O	O	O	O	O
31	Flange	Bronze	1-1/4	2	0821-0072-0000	O	O	O	O	O	O	O	O	O	O
32	Flange	Steel	1-1/4	2	0821-0048-0000	O	O	O	O	O	O	O	O	O	O
33	Flange	Bronze	1-1/2	2	0821-0066-0000	O	O	O	O	O	O	O	O	O	O
34	Flange	Cast Iron	1-1/2	2	0821-0049-0000	O	O	O	O	O	O	O	O	O	O
35	Hex Nut	Steel	7/16-14	4	0804-0055-1000	O	O	O	O	O	O	O	O	O	O
36	Hex Nut	Brass (Nickel Plated)	#8-32	4	0410-0039-1000					S	S	S	S		
37	Lock Washer	Stainless	#8	4	0620-0010-1000					S	S	S	S		

NOTE: Contact Factory for other materials and/or parts not listed.

Legend: S = Standard, O = Optional

**GENERAL SAFETY INFORMATION:** Follow all local safety codes & the Occupational Safety and Health Act (OSHA). Make certain that the power source conforms to the requirements of your equipment. Always disconnect power source before performing any work on or near the electric motor. Caution must be exercised to relieve any pressure in the system & in draining hot liquid from the pump or the system. March cannot recommend the 821 or 830 Series out of bronze where the liquid is used for human consumption per California Law due to the presence of lead. 821 pumps are recognized under the component program of Underwriters Laboratories Inc. File E80954. UL Recognition on 821 pumps, file E80954, is for water only.

**DISASSEMBLY AND REASSEMBLY:** The motor can be removed from the wet end assembly without draining the liquid from the system. To do so remove four screws (Item B) and slide the motor assembly away. If parts inside the wet end assembly must be removed, isolate the pump or drain the system. When the system is drained and cool, remove the four screws (Item 16) from the rear of the housing. The rear housing can now be removed. Remaining pump parts can be removed. Replace any worn or damaged parts. Replace the gasket anytime the rear housing is removed.

**LIMITED WARRANTY:** March pumps are guaranteed only against defects in workmanship or materials for a period of one year from date of manufacture pumping water. For the complete warranty and to register online go to [www.marchpump.com/warranty-registration](http://www.marchpump.com/warranty-registration)