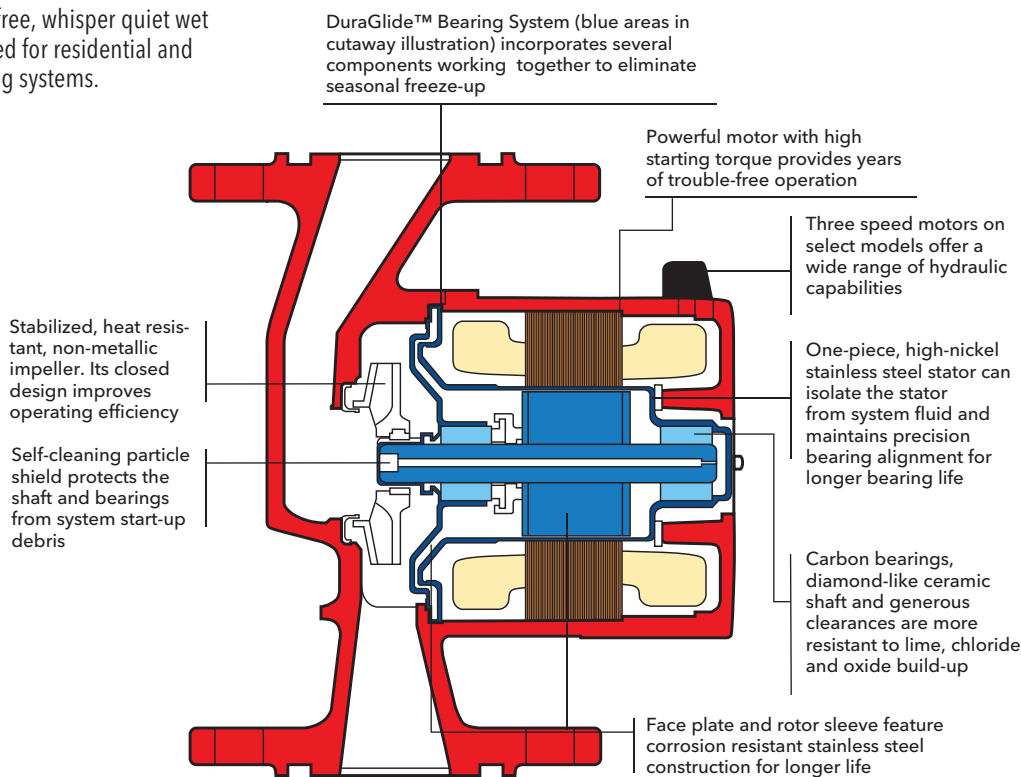
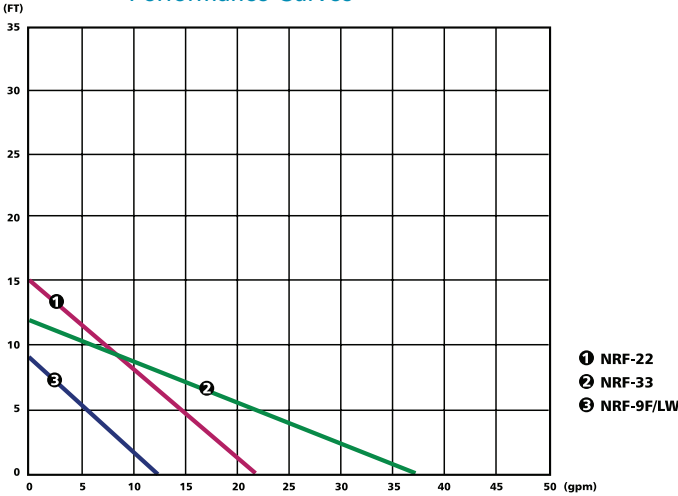


CIRCULATORS Bell & Gossett Cast Iron Wet Rotor Circulators / NRF

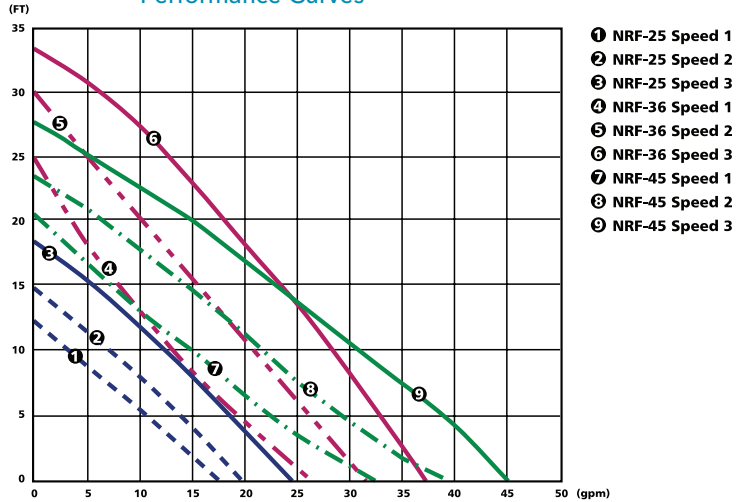
Reliable, maintenance-free, whisper quiet wet rotor circulators designed for residential and light commercial heating systems.



Single Speed NRF Circulator Performance Curves



Three-Speed NRF Circulator Performance Curves



Single Speed NRF Circulators



NRF-9



NRF-22



NRF-33

CIRCULATORS Bell & Gossett Cast Iron Wet Rotor Circulators / NRF

Description

A residential or light commercial, maintenance free, axial flanged, in-line, cast iron, wet rotor circulation pump for hydronic heating systems. UL and cUL Listed.

Operating Data

Maximum working pressure 150 PSI (10 bar)

Maximum operating temperature

NRF-22 & NRF-9F/LW 240°F (115°C)

NRF-33, NRF-36 & NRF-45 225°F (107°C)

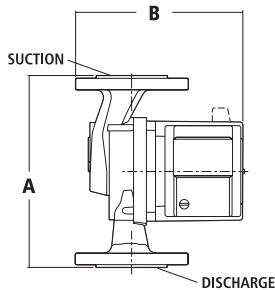
Specifications

Model Number	Single Speed	Three Speed	Part Number	Flange Sizes Inches - NPT	Dimensions Inches (mm)			Standard 60 Cycle Motor Characteristics*					Shipping Weight lbs. (Kg)
					A	B	C	Watts	ø	Volts	F.L. Amps	RPM	
NRF-9F/LW	●		103267	3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	6 3/16 (157)	5 1/8 (130)	41	1	115	0.40	2800	9.3 (4.2)
NRF-22	●		103251		6 3/8 (162)	6 3/16 (157)	5 1/8 (130)	92			0.80	2940	9.3 (4.2)
NRF-25		●	103417		6 3/8 (162)	6 3/16 (157)	5 1/8 (130)	125			1.20	2950	10.4 (4.7)
NRF-33	●		103350		6 3/8 (162)	5 9/16 (141)	4 7/8 (124)	125			1.10	2950	10.4 (4.7)
NRF-36		●	103400		6 3/8 (162)	6 7/8 (175)	5 3/4 (146)	270			2.30	3300	13.1 (6.0)
NRF-45		●	103404	1, 1 1/4, 1 1/2	8 1/2 (216)	7 3/8 (187)	5 3/4 (146)	270			2.30	3300	14.5 (6.6)

NRF-9F/LW, NRF-22, NRF-25 and NRF-33 are impedance protected.

NRF-36 and NRF-45 are thermally protected.

Dimensions are approximate and subject to change. Contact factory for certified dimensions.



Our Pump Controllers



NRF-VS Pump Control is a versatile variable speed control for use in hydronic heating and cooling applications. Water temperature is controlled by regulating the speed of the pump which injects water from a different temperature water loop into a controlled loop.

The ZoneTrol II AZ-1A is a single zone pump relay that turns the pump and boiler on when the thermostat calls for heat. The AZ-1A is ideal when adding a zone to an existing system and can be daisy-chained together to control multiple zones.

Three-Speed NRF Circulators



NRF-25



NRF-36



NRF-45



CIRCULATORS Lead-Free Wet Rotor Circulators for Potable Water / NBF & SSF

Description

A residential or light commercial, maintenance-free, in-line, lead-free† bronze, wet rotor circulator for potable water systems and other applications. Flanged, union or sweat models available. UL, cUL and CSA listed

Operating Data

Maximum working pressure 50 PSI (10 bar)
Maximum operating temperature
NBF-25, NBF-33, NBF-36, NBF-45 225°F (107°C)
All Others 230°F (110°C)
Shaft Ceramic
Bearings Double-Sintered Carbon

Materials of Construction

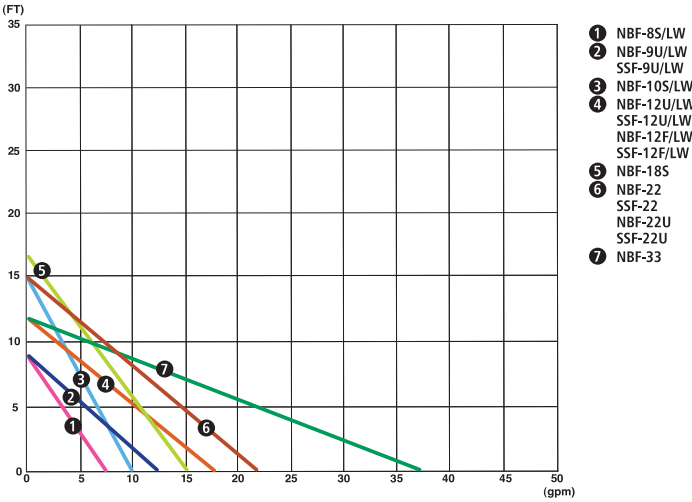
Pump Body NBF 100% Lead-Free† Bronze
SSF Stainless Steel
Impeller Noryl
Shaft Ceramic
Bearings Double-Sintered Carbon

Warranty

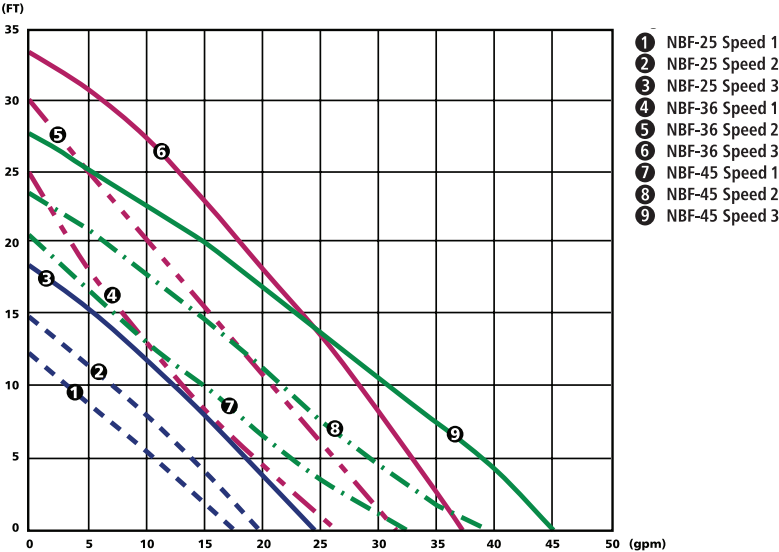
Bell & Gossett offers a warranty of three years from date of manufacture or 18 months from date of installation (which ever comes first) against failure as a result of defects in materials and workmanship.



Single Speed-NBF/SSF 60 HZ Performance Curve



Three Speed-NBF 60 HZ Performance Curve

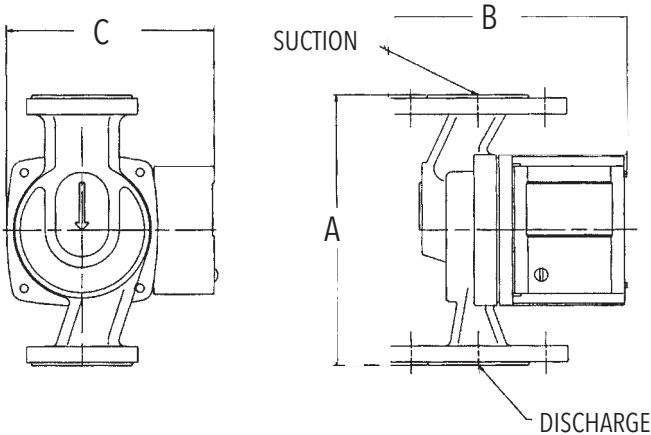


Cross Reference

BELL & GOSSETT	GRUNDOS‡	TACO♦
NBF-8S/LW	UM 15-10B5	003B
NBF-9U/LW	UP 15-18SU	006B
NBF-10S/LW	UP 15-18B5	006B
NBF-12U/LW	UP 15-42SU	005B
NBF-12F/LW	UP 15-42SF	005B
NBF-18S	UP 15-42B5	-
NBF-22U	UP 25-64SU	007B
NBF-22	UP 25-64SF	007B
SSF-22	UP25-64SF	007B
NBF-25	UPS15-58	00R-MS
NBF-33	-	0010B
NBF-36	UP26-96BF	0011B
	UP26-99BF	0013B
	UP26-64SF	0014B
NBF-45	UP43-75BF	-

‡ Grundfos is a registered trademark of Grundfos Pumps Corp.

♦ Taco is a registered trademark of Taco, Inc.



CIRCULATORS Lead-Free Wet Rotor Circulators for Potable Water / NBF & SSF – continued

Specifications

Model Number	Part Number	Connections	Dimensions Inches (mm)			Standard 60 Cycle Motor Characteristics*					Shipping Weight lbs. (Kg)	
			A	B	C	Watts	Ø	Volts	F.L. Amps	RPM		
NBF-8S/LW	103257(LF)	1/2" Sweat	5 (127)	5 7/32 (132)	4 7/8 (124)	39	1	115	0.39	2800	9.0 (4.1)	
NBF-9U/LW	103258(LF)	Union**	6 1/8 (156)	5 1/16 (129)	4 7/8 (124)	41			0.40		9.3 (4.2)	
NBF-10S/LW	103259(LF)	1/2" Sweat	5 (127)	5 7/32 (132)	4 7/8 (124)	55			0.46		9.0 (4.1)	
NBF-12F/LW	103260(LF)	Flange 3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	5 9/16 (141)	4 7/8 (124)	55			0.48		9.5 (4.3)	
NBF-12U/LW	103261(LF)	Union**	6 1/8 (156)	5 1/16 (129)	4 7/8 (124)	55			0.48		9.3 (4.2)	
NBF-18S	103316(LF)	1/2" Sweat	5 (127)	5 7/32 (132)	4 7/8 (124)	90			0.74	3000	9.0 (4.1)	
NBF-22	103252(LF)	Flange 3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	5 9/16 (141)	4 7/8 (124)	92			0.80	2940	9.5 (4.3)	
NBF-22U	103255(LF)	Union**	6 1/8 (156)	5 1/16 (129)	4 7/8 (124)	92			0.80		9.3 (4.2)	
NBF-25	103418(LF)	Flange 3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	6 3/16 (157)	5 1/8 (130)	125			1.10	2950	10.4 (4.7)	
NBF-33	103351(LF)	Flange 3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	6 3/16 (157)	5 1/8 (130)	125			1.10		10.4 (4.7)	
NBF-36	103401(LF)	Flange 3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	6 7/8 (175)	5 3/4 (146)	270			2.30	3300	13.1 (6.0)	
NBF-45	103405(LF)	Flange 1, 1 1/4, 1 1/2	8 1/2 (216)	7 3/8 (187)	5 3/4 (147)	270					14.5 (6.6)	
SSF-9U/LW	103360LF	Union**	6 1/8 (156)	5 1/16 (129)	4 7/8 (124)	41			0.40	2800	9.3 (4.2)	
SSF-12F/LW	103358LF	Flange 3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	5 9/16 (141)	4 7/8 (124)	55			0.48		9.5 (4.3)	
SSF-12U/LW	103361LF	Union**	6 1/8 (156)	5 1/16 (129)	4 7/8 (124)	55					9.3 (4.2)	
SSF-22	103357LF	Flange 3/4, 1, 1 1/4, 1 1/2	6 3/8 (162)	5 9/16 (141)	4 7/8 (124)	92			0.80	2940	9.5 (4.3)	
SSF-22U	103362LF	Union**	6 1/8 (156)	5 1/16 (129)	4 7/8 (124)	92					9.3 (4.2)	

* Impedance protected

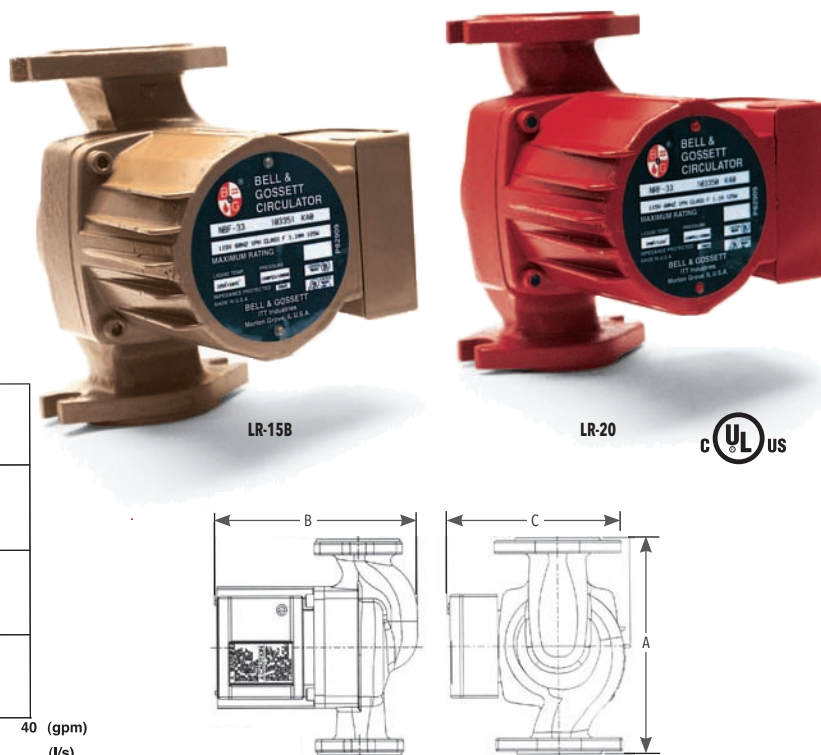
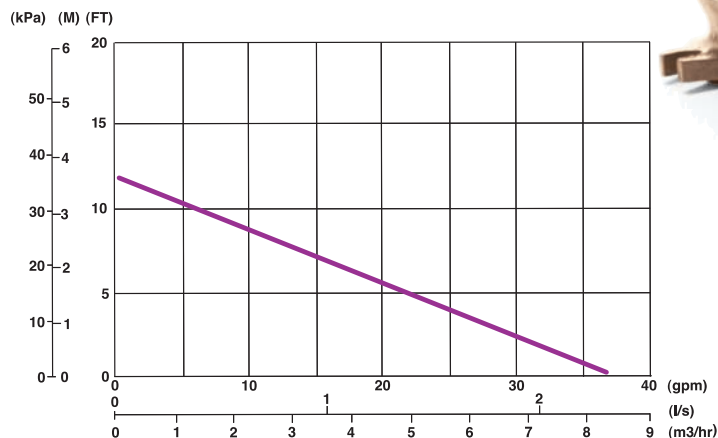
** Union Connections are available in 3/4" NPT, 1/2" sweat & 3/4" sweat.

CIRCULATORS Series LR™ Maintenance-Free Circulators

Operating Data

Maximum working pressure 150 PSI (10 bar)

Maximum operating temperature 225°F (107°C)



Specifications

Model Number	Part Number	Pump Body Material	Flange Sizes Inches-NPT	Dimensions Inches (mm)			Standard 60Hz Motor Characteristics*					Approx. Shpg. Wt. lbs (Kg)
				A	B	C	Watts	Ø	Volts	F.L. Amps	RPM	
LR-20WVR	106507	Cast Iron	3/4, 1, 1-1/4, 1-1/2	6-3/8 (162)	6 (152)	5-3/8 (137)	125	1	115	1.10	2950	10.4 (4.7)
LR-15BWR	106514LF	Bronze	3/4, 1, 1-1/4, 1-1/2									