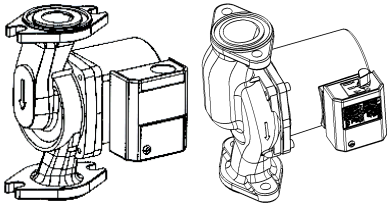


<b>JOB:</b>	<b>REPRESENTATIVE:</b>	
<b>UNIT TAG:</b>	<b>ORDER NO.:</b>	<b>DATE:</b>
<b>ENGINEER:</b>	<b>SUBMITTED BY:</b>	<b>DATE:</b>
<b>CONTRACTOR:</b>	<b>APPROVED BY:</b>	<b>DATE:</b>



# NRF - System Lubricated Iron Body Circulators

**DESCRIPTION**

A flanged in-line system lubricated circulating pump designed specifically for quiet operation in a closed hydronic heating system.

**CONSTRUCTION MATERIALS**

Pump Body: Cast Iron  
Impeller: Noryl  
Shaft: Ceramic  
Bearings: Carbon

**OPERATING DATA**

Maximum Working Pressure: 150 psi (10.3Bar)  
Minimum Operating Temperature: 40°F (5°C)  
Maximum Operating Temperature  
NRF-22 & NRF-9F/LW: 240°F (115°C)  
NRF-25, NRF-33, NRF-36 & NRF-45: 225°F (107°C)

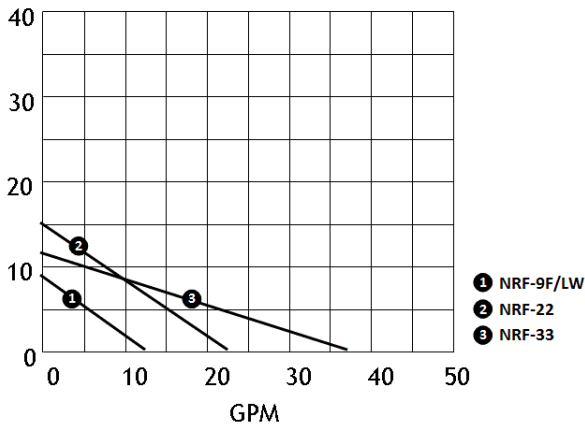
**SCHEDULE**

MODEL NUMBER	PART NUMBER	STANDARD 60 CYCLE SINGLE PHASE MOTOR CHARACTERISTICS				TAGGING INFORMATION	QUANTITY
		WATTS	VOLTAGE	F.L. AMPS	RPM		
NRF-9F/LW	103267	41	115	.40	2800		
NRF-22	103251	92	115	.80	2940		
NRF-25*	103417	125	115	1.1	2950		
NRF-33	103350	125	115	1.1	2950		
NRF-36*	103400	270	115	2.1	3300		
NRF-45*	103404	270	115	2.1	3300		

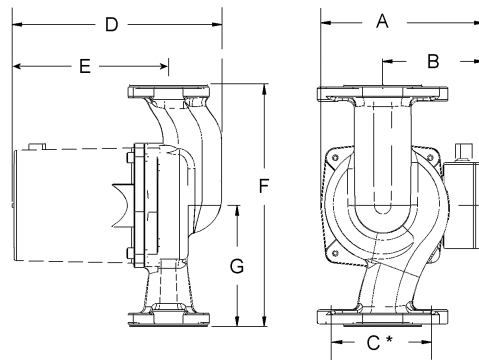
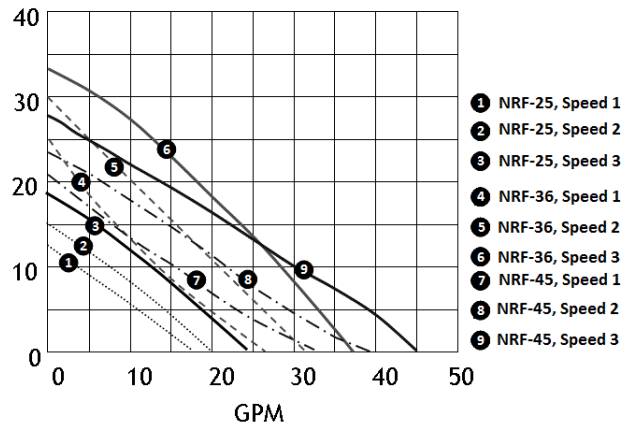
\* Three-speed pump

**PUMP PERFORMANCE CURVE**

(FT) SINGLE SPEED PUMPS



(FT) 3 - SPEED PUMPS



\* C is center-to-center dimension of bolt holes. Flange orientation varies.

**TYPICAL SPECIFICATIONS**

- The pumps shall be of the horizontal, system lubricated type specifically designed and guaranteed for quiet operation.
- Pumps to be suitable for \_\_\_\_\_°F (\_\_\_\_°C) [Select one: 240°F (115°C) for NRF-22 and NRF-9F/LW; 225°F (107°C) for NRF-25, NRF-33, NRF-36 and NRF-45] operation at 150 psig (10.3 Bar) working pressure.
- The pumps shall have a ceramic shaft supported by carbon bearings. Bearings are to be lubricated by the circulating fluid.
- Motor stator to be isolated from circulating fluid through use of stainless steel can. Rotor to be sheathed in stainless steel.
- Motors shall be non-overloading at any point on the pump curve. (Select one: NRF-9F/LW, NRF-22, NRF-25, NRF-33) motors to have built-in impedance protection. (Select one: NRF-36, NRF-45) motors to have built-in thermal protection.
- [Select one: NRF-25, NRF-36 or NRF-45] is available with 3-speed, thermally protected motor covering a wide range of hydraulic capabilities.
- The pump manufacturer shall be ISO-9001 certified.

Pumps to have a capacity of \_\_\_\_\_ GPM at \_\_\_\_\_ foot head when powered by 115 volt, 60 cycle, single phase electrical supply. All pumps are to be Bell and Gossett Model NRF-\_\_\_\_\_.

MODEL	PART NUMBER	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in (mm)	G in (mm)	Weight (lb)
NRF-9F/LW	103267	5-1/8 (130)	3-3/16 (81)	3-3/16 (81)	6-3/16 (157)	4-5/16 (110)	6-3/8 (162)	3-3/16 (81)	9.3
NRF-22	103251	5-1/8 (130)	3-3/16 (81)	3-3/16 (81)	6-3/16 (157)	4-5/16 (110)	6-3/8 (162)	3-3/16 (81)	9.3
NRF-25*	103417	5-1/8 (130)	3-3/16 (81)	3-3/16 (81)	6-3/16 (157)	4-7/8 (124)	6-3/8 (162)	3-7/8 (98)	10.4
NRF-33	103350	5-1/8 (130)	3-3/16 (81)	3-3/16 (81)	6-3/16 (157)	3-11/16 (94)	6-3/8 (162)	3-3/16 (81)	10.4
NRF-36	103400	5-3/4 (146)	3-9/16 (91)	3-3/16 (81)	6-7/8 (175)	5-3/8 (137)	6-3/8 (162)	3-3/16 (81)	13.1
NRF-45*	103404	5-3/4 (146)	3-9/16 (91)	3-7/16 (87)	7-3/8 (187)	5-1/2 (140)	8-1/2 (216)	4-1/4 (108)	14.5

Dimensions are subject to change. Not to be used for construction purposes unless certified.

Companion Flanges Available in Sizes: 3/4", 1", 1-1/4" and 1-1/2"

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