



**IMPORTANT**

1. Always include complete heater model and serial number so that any specification change can be considered for parts shipment. It can save time and expense.
2. Specifications are subject to change without notice.
3. We reserve the right to substitute functional replacements.
4. Order either by Kit or Component Part No.

**Replacement Parts**

Applies to:

**RDF Series Direct-Fired Makeup Air Heater**



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See your Factory Distributor for Forms listed below

**Additional Forms**

Subject.....	Form
Installation, Model RDF .....	I-RDF
Operation/Maintenance/Service, Model RDF .....	O-ADF/DV/RDF
Installation, Roof Curb Installation Instructions .....	I-OPT-C
Parts, Gas Conversion .....	CP-GC
Parts, Serial No., Gas Valves and Maxitrol Gas Controls.....	P-VALVES
Instruction, Conversion to Hot Surface Ignition .....	CP-RDF-IGN

**Blower and Motor Mounting (cont'd)** - See illustrations on page 19.

CODE	Description	1-20	1-40	1-50	1-65	2-80	2-120	3-180	3-260	
180	Blower with shaft and bearings	P/N	1357	1360	86983	86984	89658	89345	91067	91069
		Size	10"	12"	15"	18"	18"	20"	22"	30"
		Mfg #	A10-10AC	A12-12AC	A15-15A	A18-18A	022920-03	027550-02 A20-20K	020350-01 A22-22K	029353-02 A30-22K
		Class				Class 1	Class 1	Class 1	Class 1	
		Shaft				1"	1-7/16"	1-7/16"	1-7/16"	1-11/16"
		P/N	—	—	—	—	89658	—	91068	91070
		Size					18"		22"	30"
		Mfg #					0217142-15 A18-18A		029353-01 A22-22K	029353-03 A30-22K
		Class					Class 2		Class 2	Class 2
Shaft					1-7/16"		2-3/16"	2-11/16"		
180A	Blower Shaft	Class 1 Blowers	11302 3/4x22	11303 1x22	100747 1x23	100748 1x28.8	100748 2x28.8	100746 1.44x37.25	100751 1.44x45.73	100754 1.69x46.25
		Class 2 Blowers	—	—	—	—	100749 1.44x38.5"	—	100752 2.19x45.75"	101705 2.69x46.25"
180B	Blower Bearings	Class 1 Blowers	7310	10437			106942	106942	106942	100755
				Ball Bearings (2)			1.44"	1.44"	1.69"	
						Pillowblock (2)				
		Class 2 Blowers	—	—	—	—	106942 1.44"	—	100753 2.19"	101710 2.69"
					Pillowblock (2)		Pillowblock (2)			
181	External Shaft Support Bearing Plate - for units with dampers (Options AQ3, AQ4 and/or AR19, AR20, AR22, AR23)	111389					126588**	126588**	—	
182	Bearing BF-1127-502-A - for units	111390								
183	Blower Motor Mounting Plate with dampers, Options AQ3, AQ4, and/or AR19, AR20, AR22, AR23)	12578			94371					
184	Motor Mounting Plate Left Support	87015			94369					
185	Motor Mounting Plate Right Support	87016			94369					
186	Blower Support (Horizontal Discharge)	207840			(2)207461			(3)207462		
*Effective 8/90, RDF 2-80 models are no longer manufactured with a Class 1 blower. P/N 92343 is no longer available. Replace with Class 2 blower, P/N 89658 and Q1-1-7/16" Bushing, P/N 16177.										
** Order P/N 126588 when heater has Option AR23, outside and return dampers controlled by a remote pressure sensor.										

**Drives**

**Replacement Drive Components are Listed in Tables on pages 23-31. Tables are by RDF Size, Type of Motor, Motor HP, and RPM (Option AM, see chart top of page 23),**

- CODE 200 - Motor Sheave
- CODE 201 - Blower Sheave
- CODE 202 - Belt
- CODE 203 - Bushing

**NOTE: Read each drive table carefully. They are not all in the same format.**

**Belt Tension** - Check belt tension. Proper belt tension is important to the long life of the belt and motor. A loose belt will cause wear and slippage. Too much tension will cause excessive motor and blower bearing wear. If adjustment is required, adjust belt tension by means of the adjusting screw on the motor base until the belt can be depressed 1/2" to 3/4". Tighten the lock nut on the adjusting screw. Be sure the belt is aligned in the pulleys.

**Blower Speed Adjustment** - Units are set at the factory for the RPM required to meet the CFM and external static pressure specified on the order. If the estimated external static is incorrect, or changes are made to the duct system, the blower RPM may have to be changed. Motors are equipped with adjustable pitch pulleys which permit adjustment of blower speed.

To make adjustments on **all RDF-1 units and on RDF-2 and RDF-3 units with less than 7-1/2 HP motor** (units with a Browning motor sheave Model VP), follow these instructions:

- 1) Loosen belt tension and remove belt.
- 2) Loosen the set screw on the side of the pulley away from the motor.
- 3) Turn adjustable half of the pulley inward to increase blower speed or outward to decrease speed. One turn of the pulley will change speed 8 to 10%.
- 4) After setting the pulley, tighten the set screw on the flat portion of the pulley shaft.
- 5) Replace belts and adjust belt tension.
- 6) Always check motor amps with an amp meter after RPM adjustment. The maximum motor amp rating on the nameplate must not be exceeded.

In **RDF-2 and RDF-3 models with 7-1/2 HP and larger motors** (units with adjustable Browning motor sheave Model MV), follow these instructions for adjusting RPM:

- 1) **Slack off all belt tension by moving the motor toward driven shaft until the belts are free of grooves. For easiest adjustment, remove the belts from the grooves.**