

# AF/AFG OIL AND BIOFUEL BURNER

## PRODUCT SHEET

### Description

The Beckett models AF & AFG burner are designed to meet the increased demands of modern equipment and changing fuels to meet both performance and carbon reduction challenges. Beckett burners utilize the most technologically advanced components available today, are UL Listed and Compliant with renewable fuels to 100% biodiesel (B100) and 100% renewable diesel (R100).

The AF and AFG burners have been supplied on original equipment boilers, furnaces, and water heaters for many years. As technology improved, so have our burners and components. If a burner is more than 10 years old, a new AF/AFG chassis is a simple way to upgrade the system. Installation by your service company is uncomplicated and a new burner comes with a 5-year factory warranty.

Beckett, the trusted name in oil heat since 1937.



### Advanced Components



#### Beckett GeniSys Burner Control

- Last 50 cycles and last 15 faults history
- C-terminal for compatibility with smart thermostats
- Auto-configures valve-on delay timing for a solenoid valve upon detection
- Enhanced diagnostics and programming through:



#### CleanCut Pump

- Integrated solenoid valve.
- Higher capacity design delivers up to 3 GPH at 100-200psi on the AFG burner.
- The CleanCut has fewer moving parts and reduces motor load.



#### Beckett Igniter

- Electrodes last approx. 50% longer.
- Higher output voltage for reliable ignition.
- Approximately 75% lower input amps.



#### PSC Motor

- Lower amp draw & cooler operation.
- Delivers more power with the PSC design (permanent split capacitor).
- Proven durability after 20+ years of high reliability in the field.
- Ball bearings for longer life.

# Beckett®

# AF/AFG OIL AND BIOFUEL BURNER

## Technical Specifications

### Capacity

- 0.40 - 3.00 GPH
- 56,000 - 420,000 btu / hr input

### Fuel Unit

- Beckett CleanCut® - Single or Two-stage

### Motor

- 1/7 HP 3450 rpm PSC type

### Igniter

- Beckett PowerLight® Solid state
- Rated for continuous duty

### Electrical Characteristics

- Power Supply: 120 VAC, 60 Hz, single phase
- Operating Load: 5.8 Amps maximum @ 120 VAV
- 240 VAC - Available (Contact factory)

### Control

- Beckett GeniSys® Model 7565 myTechnician™ app for programming and diagnostics

### Dimensions (Standard)

- Height: 11-1/2"
- Width: 12-7/8"
- Depth: 6-9/16"

### Dimensions (with Cover)

- Height: 12-1/2"
- Width: 15"
- Depth: 9-1/4"

## Fuel Compatibility

### Fuel Type

Heating Oil - No. 1 & No. 2  
 Biodiesel Blends up to B20 with Heating Oil  
 Biodiesel Blends B20+ up to B100 with Heating Oil  
 Renewable Diesel blends up to R100 with Heating Oil  
 Heating Oil Types 0, 1, 2

### Specification

Per ASTM D396  
 Per ASTM D396  
 B100 Per ASTM D6751  
 Per ASTM D396  
 Per CAN/CGSB-3.2

## AF/AFG Available Models

Part Number	Primary Control	Fuel Unit	Bio Fuel Compatibility
BR100 - AFG	GeniSys 7565 w/ programmable pre & post purge	PF20323 - Single Stage	Up to B100/R100
BR200 - AF	GeniSys 7565 w/ programmable pre & post purge	PF20323 - Single Stage	Up to B100/R100
B2005 - AFG	GeniSys 7565 w/ programmable pre & post purge	PF20422 - 2 - Stage	Up to B20

## AF/AFG Accessories

Part Number	Description
5432	Adjustable Flange and Gasket
5850	Split Flange and Gasket
5685	Pedestal mounting kit
5606	Pedestal mounting kit - Extended
5207301U	Burner Cover Kit with split mounting plate
5207304U	Burner Cover Kit with air inlet fitting
CAK-AU	Air Boot Kit
CAK-APU	Air Boot Kit with Air Proving - Must use with 7565 GeniSys Control
51621	Start Helper - Smoother light-off for cold fuel conditions

## AF/AFG Standard Air Tube Combinations

Firing Rate Range - GPH	Burner Head	Usable Length - Tube									
		4-1/2"	5"	5-3/8"	6-5/8"	7"	7-1/4"	9"	10-1/2"	13"	16"
Less Head	-	AF44	-	AF53	AF65	-	AF72	AF90	AF104	AF130	AF160
0.40 - 0.75	F0	AF44XR	-	AF53XR	AF65XR	-	AF72XR	AF90XR	AF104XR	AF130XR	AF160XR
0.75 - 1.25	F3	AF44XN	-	AF53XN	AF65XN	-	AF72XN	AF90XN	AF104XN	AF130XN	AF160XN
0.85 - 1.35	F4	AF44WH	-	AF53WH	AF65WH	-	AF72WH	AF90WH	AF104WH	AF130WH	AF160WH
0.85 - 1.65	F6	AF44YB	-	AF53YB	AF65YB	-	AF72YB	AF90YB	AF104YB	AF130YB	AF160YB
1.10 - 2.00	F12	AF44XO	-	AF53XO	AF65XO	-	AF72XO	AF90XO	AF104XO	AF130XO	AF160XO
1.65 - 2.50	F22	AF44XP	-	AF53XP	AF65XP	-	AF72XP	AF90XP	AF104XP	AF130XP	AF160XP
2.50 - 3.00	F31	AF44XS	-	AF53XS	AF65XS	-	AF72XS	AF90XS	AF104XS	AF130XS	AF160XS
<b>AFG Burner Only</b>											
0.40 - 1.00	L2	-	AFG50MBSS	-	-	AFG70MBSS	-	AFG90MBSS	-	-	-
0.50 - 1.10	L1	-	AFG50MPSS	-	-	AFG70MPSS	-	AFG90MPSS	-	-	-
0.75 - 2.75	V1	-	AFG50MDSS	-	-	AFG70MDSS	-	AFG90MDSS	-	-	-

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