

F 3 – F 15 B100 ON-OFF OIL 0.5 – 5.75 GPH

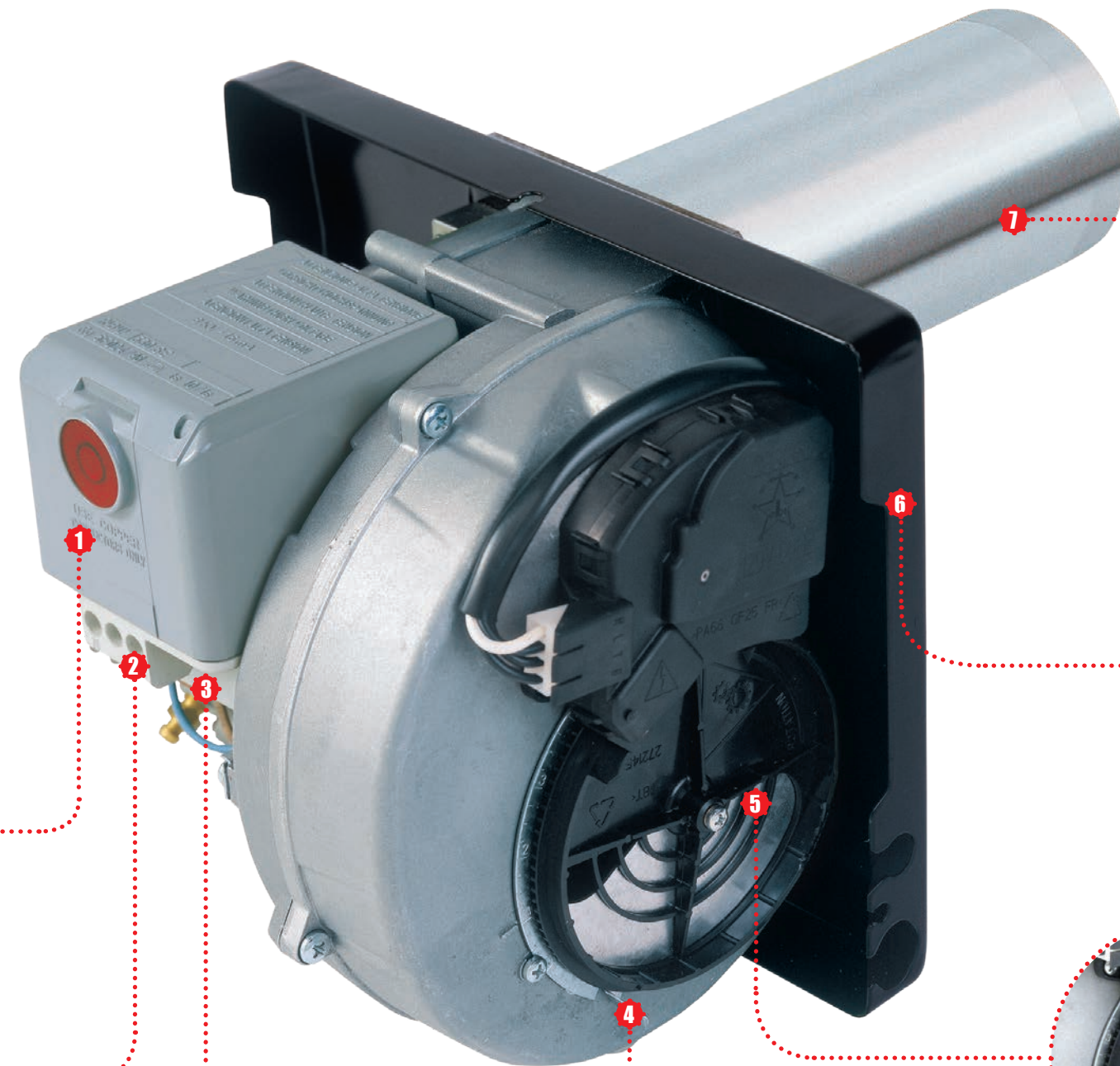
F 20 B100 ON-OFF OIL 3.5 – 6.4 GPH (with LOW-FIRE START)

Overview

The target of carbon reduction can be achieved using renewable sources and biofuels are a good solution for decarbonizing systems that are filled with liquid fuels. To be on the side of this important challenge, the RIELLO 40-Series of oil-fired burners, quality engineered to our proven world-class reliability, are **now compatible with B100 Biofuel**. Easy to install and service, and backed by coast-to-coast support, Riello 40-Series oil-fired burners are available in seven models with firing rates from 0.5 to 6.4 gph to handle a complete range of residential and light-commercial/ industrial applications. Riello 40-Series oil-fired burners are based on a simplified, integrated design that is engineered to deliver reliable, low-maintenance, fuel-efficient heat. All 40-Series burners are thoroughly quality tested to ensure the highest performance in residential and light-commercial/industrial applications such as steam boilers, heat exchangers and furnaces.

Main features

- Compatible with No. 1, No. 2 traditional liquid fuels, B20 biodiesel blend and any other biodiesel blend up to B100 (100% Biodiesel)
- Factory pre-wired for easy installation; only three adjustments required
- Interrupted ignition minimizes component failure and saves power
- Low-voltage electronics for greater reliability
- Self-centering drawer assembly provides for precise air/fuel mixture



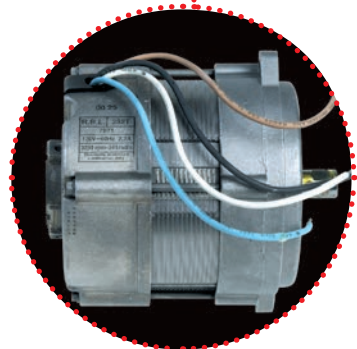
1 – INTEGRATED PRIMARY CONTROL

Proven in millions of applications, the 40-Series electronic control box combines interrupted ignition, 5-second safety shutoff and a 10-second prepurge cycle controlling the solenoid valve for smoke-free starts. Optional digital, selectable post-purge and 24V. Thermostat output.



2 – NEW DIRECT-DRIVE B100 FUEL PUMP, UL LISTED

The 40 series pump counts millions of units installed globally and is now UL LISTED for up to 100% biodiesel (B100) as well as for traditional liquid heating fuels.



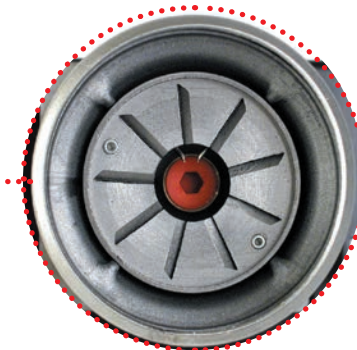
3 – PERMANENT SPLIT CAPACITOR (PSC) MOTOR

A high-speed, permanent split capacitor (PSC) motor, with an exclusive low voltage tap for the primary control and automatic reset on thermal overload, provides for low power consumption and long-life.



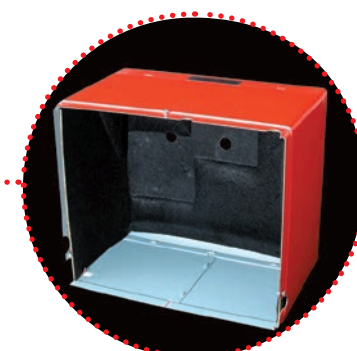
4 – ENERGY-SAVING FAN

The 40-Series incorporates a balanced, high-efficiency fan designed to provide quiet operation for the life of the burner.



7 – UNIQUE COMBUSTION HEAD

A pioneer in flame retention head design, Riello has engineered the 40-Series high-static-pressure combustion head with the ideal flame geometry, to burn clean.



6 – ACOUSTICALLY INSULATED

Sound deadening acoustic insulation within the 40-Series' heavy-gauge metal cover provides for quiet operation, even at full output.



5 – AIR INTAKE CONTROL

40-series oil burners have an optional electronic air shutter that automatically closes the air intake when the burner is not operating to virtually eliminate heat loss through the burner, enhancing burner efficiency. The F-20 comes with a hydraulically operated air gate to facilitate low-fire start.



BF3 – BF5 B100

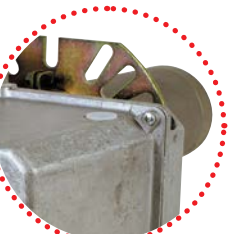
ON-OFF BALANCED FLUE • 0.5 – 1.65 GPH

Riello 40-Series balanced-flue oil burners are specifically designed for applications such as boilers, furnaces and water heaters that require direct connection to outside air for combustion.



AIR-INTAKE PORT

The 40-Series balanced-flue burner's airtight design incorporates a rubber-sealed, cast-aluminum cover with a large-diameter intake port for drawing air directly from an external source.



EASY AIR ADJUSTMENT

A removable plug allows for easy adjustment of the combustion air without removing the heavy-gauge sealed cover, for precise setup and easy maintenance.

CUSTOM SOLUTIONS

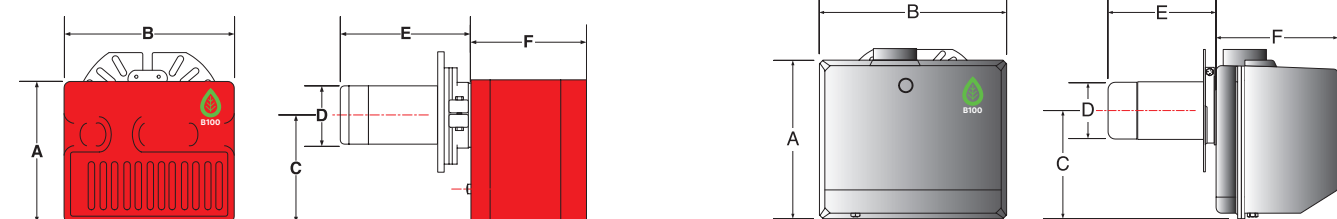
At Riello, we partner with our customers to offer a broad range of custom solutions.



SPECIFICATIONS
RIELLO 40 SERIES BIOFUEL BLEND UP TO B100

Model	F3	F5	F10	F15	F20	BF3	BF5
GPH	0.50 - 0.95	0.75 - 1.65	1.45 - 2.95	2.55 - 5.75	3.50 - 6.40	0.50 - 0.95	0.75 - 1.65
Firing Rates Btu x 1000/h	70 - 133	105 - 231	203 - 413	357 - 805	490 - 896	70 - 133	105 - 231
kW/hr	20 - 39	30 - 67	59 - 121	104 - 236	143 - 263	20 - 39	30 - 67
Usable Heating Oil	ASTM D396 for #1 & #2 Heating Oil and B6-B20 biodiesel blends; ASTM D975 for Renewable diesel; ASTM D6751 for Biodiesel blends up to B100						
Motor Ratings	120v 60Hz 3250 rpm						
	2.2 amp		4.3 amp			2.2 amp	
Pump Pressure Range	120 - 200 psi						

DIMENSIONS



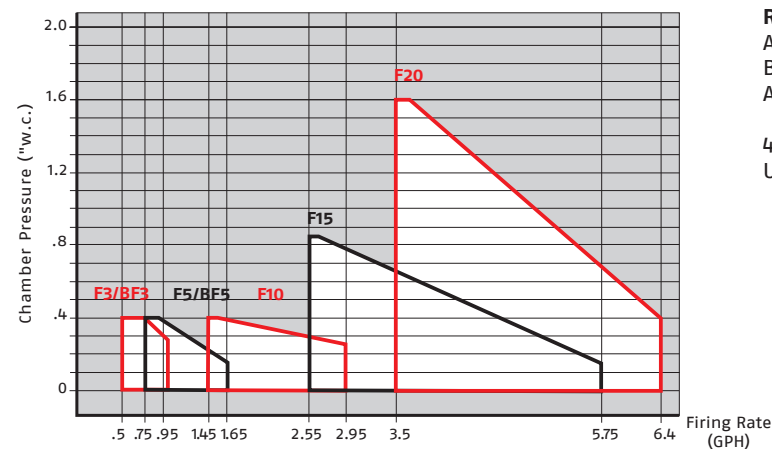
MODEL F3, F5, F10, F15 AND F20

MODEL BF3 AND BF5

Model	F3	F5	F10	F15	F20	BF3	BF5
A	8 1/2" (215 mm)	9 3/16" (233 mm)	10 5/16" (262 mm)	11 3/4" (298 mm)	11 3/4" (298 mm)	9 13/16" (249mm)	9 13/16" (249mm)
B	9 15/16" (252 mm)	10 11/16" (272 mm)	12" (305 mm)	13" (330 mm)	13 3/4" (350 mm)	11 1/4" (286mm)	11 1/2" (292mm)
C	6 1/2" (164 mm)	7 1/16" (180 mm)	8 1/16" (204 mm)	9 1/16" (230 mm)	9 1/16" (230 mm)	7 1/2" (193mm)	7 1/2" (193mm)
D	3 1/2" (89 mm)	3 1/2" (89 mm)	4 1/8" (105 mm)	4 11/16" (119mm)	4 11/16" (119 mm)	3 1/2" (89mm)	3 1/2" (89mm)
VSBT	5 1/2" (140 mm)	5 1/2" (140 mm)	N/A	N/A	N/A	5 1/2" (140mm)	5 1/2" (140mm)
E*	8" (203 mm)	8" (203 mm)	8" (203 mm)	7" (178 mm)	7" (178 mm)	8" (203mm)	8" (203mm)
LBT	12" (305 mm)	12" (305 mm)	12" (305 mm)	12" (305mm)	12" (305 mm)	12" (305mm)	12" (305mm)
OEM (Custom)	Other combustion head lengths available on request						
F	7 1/4" (184 mm)	7 13/16" (199 mm)	8 11/16" (221 mm)	10" (254 mm)	10" (254 mm)	6 7/8" (175mm)	7 1/16" (189 mm)

(* Usable tube length will be reduced by as much as 1 5/8" depending on flange selected.

FIRING RATES



Reference Conditions
Ambient temperature: 68°F (20°C)
Barometric pressure: 394" w.c.
Altitude: 329 ft. a.s.l.

40-Series oil burners are UL and CSA approved.

RIELLO

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RIELLO ENERGY FOR LIFE



[1]



[2]



[3]

[1] BURNERS PRODUCTION PLANT
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[2] HEADQUARTER BURNERS DIVISION
S. PIETRO, LEGNAGO (VERONA) - ITALY

[3] RIELLO CANADA INC., MISSISSAUGA,
ONTARIO - CANADA

RIELLO 40 B100

OIL AND BIOFUEL BURNERS



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