

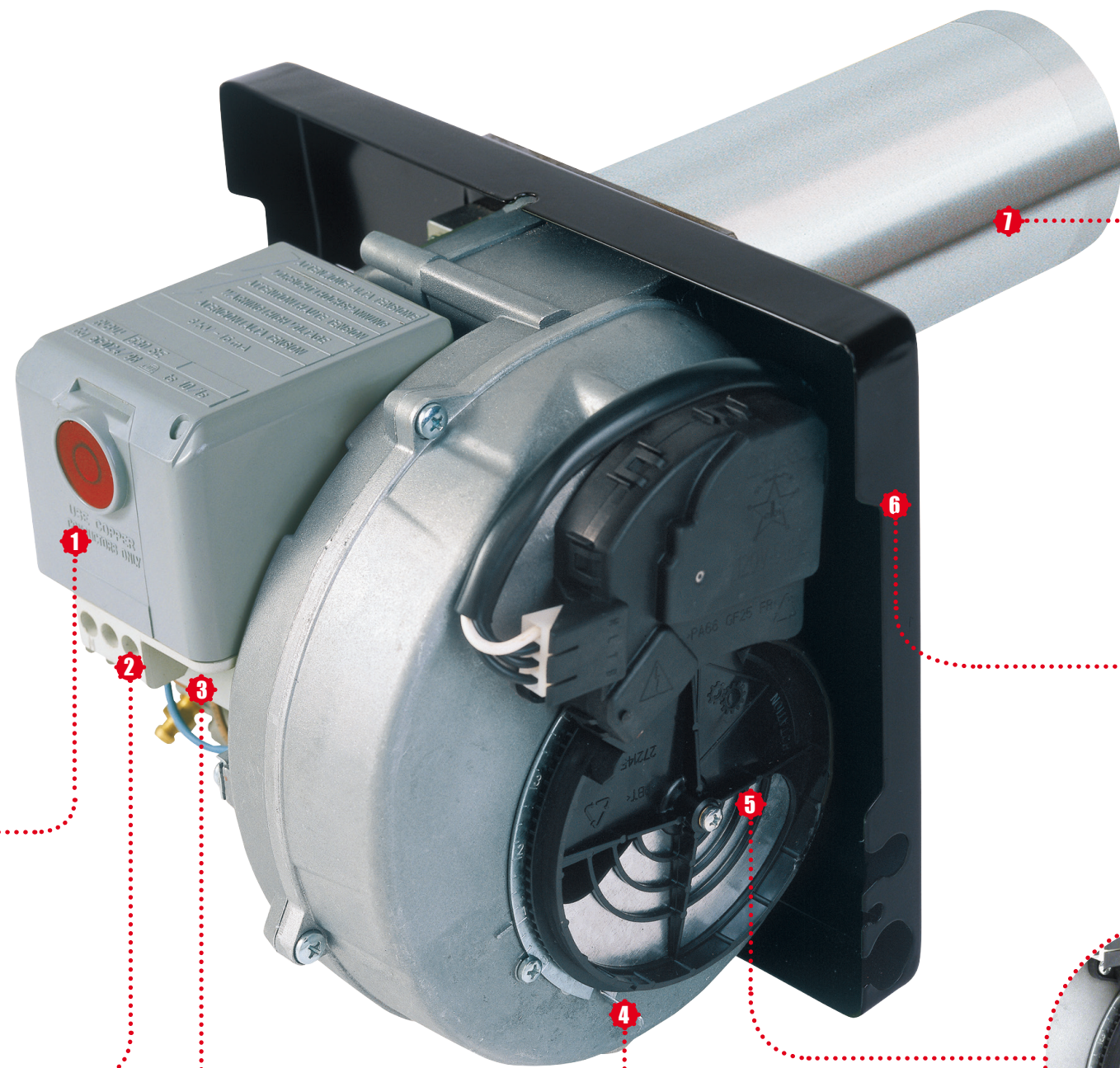
**F 3 - F 15 ON-OFF OIL 0.5 - 5.75 GPH**  
**F 20 ON-OFF OIL 3.5 - 6.4 GPH (with LOW-FIRE START)**

**Overview**

Quality engineered to our proven world-class reliability, Riello 40-Series oil-fired burners are now compatible with B20 fuels. 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.

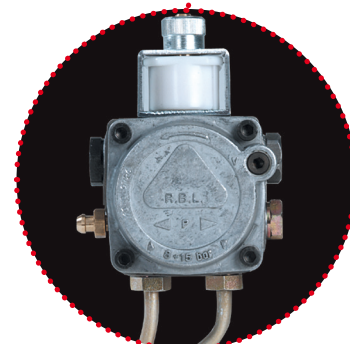
**Main features**

- Compatible with B20 light oils – between 6% and 20% in biodiesel content
- 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



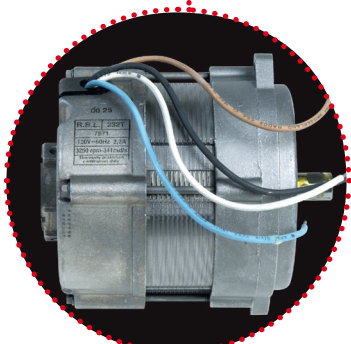
**1 - INTEGRATED PRIMARY CONTROL**

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. Digital, selectable post-purge and a 24-volt.



**2 - DIRECT-DRIVE FUEL PUMP**

Compared to the standard oil version, the fuel pump has a safety shut-off system that prevents leakages in case of clogged hydraulic system. The o-rings and the seals are suitable for B20 fuel application.



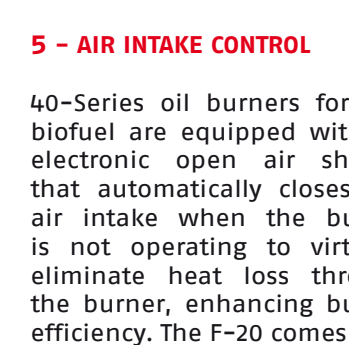
**3 - PERMANENT SPLIT CAPACITOR (PSC) MOTOR**

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, long-life and maintenance-free operation.



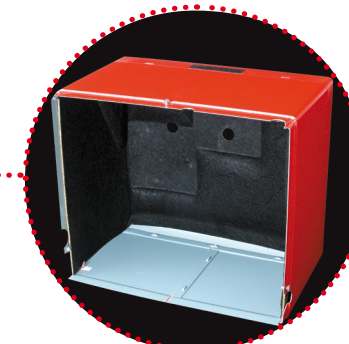
**4 - ENERGY-SAVING FAN**

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



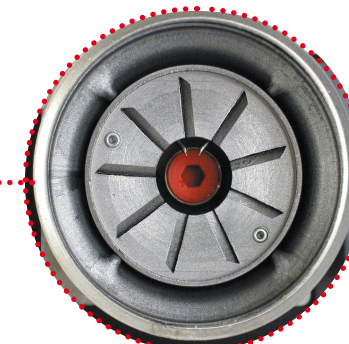
**5 - AIR INTAKE CONTROL**

40-Series oil burners for B20 biofuel are equipped with an electronic open 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.



**6 - ACOUSTICALLY INSULATED**

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



**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 ultra-clean.



**BF3 - BF5 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. Built to the same quality standards as all our 40-Series oil burners, the 40-Series balanced-flue burner's airtight construction makes it the quietest residential burner on the market.

**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. We'll even finish our covers in the color of your choice.

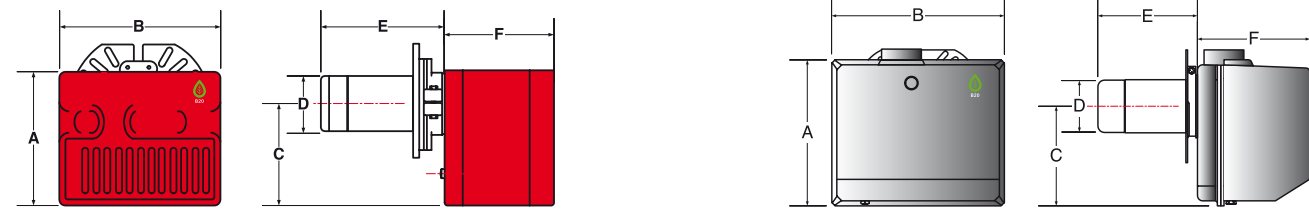


**SPECIFICATIONS**

**RIELLO 40 SERIES BIOFUEL BLEND UP TO B20**

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/hr	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	No heavier than Number 2 (Optional pump required for kerosene and biofuel blend B20)						
Motor Ratings	120v 60Hz 3250 rpm						
	2.2 amp		4.3 amp		2.2 amp		
Pump Pressure Range	120 - 200 psi						

**DIMENSIONS**



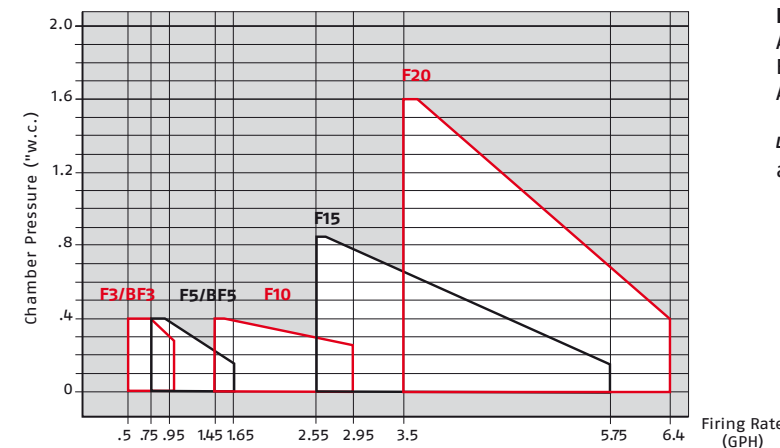
MODEL F3, F5, F10, F15 AND F20

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 1/4" (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" (350 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)
SBT	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 Burners a world of experience in every burner we sell.**



[ 1 ]



[ 2 ]

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

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

Across the world, Riello sets the standard in reliable and high efficiency burner technology.

With burner capacity from 70 thousand to 122 million Btu/hr, Riello gas, oil, dual fuel and Low Nox burners deliver unbeatable performance across the full range of residential and commercial heating applications, as well as in industrial processes.

With headquarter in Legnago, Italy, Riello has been manufacturing premium quality burners for over 90 year. The manufacturing plant is equipped with the most innovative systems of assembling lines and modern manufacturing cells for a quick and flexible response to the market.

Besides, the Riello Combustion Research Centre, located in Angiari, Italy, represents one of the most modern facility in Europe and one of the most advanced in the world for the development of the combustion technology.

Today, the company's presence on worldwide markets is distinguished by a well-constructed and efficient sales network, alongside many important Training Centres located in various countries to meet its customers' needs. Riello has 9 operational branches abroad (in Europe, America and Asia), with customers in over 60 countries.

VP0096NA00 10/2021

**RIELLO 40**

FOCUS ON

**NEW**



RIELLO 40 - Series Oil Burners



A Carrier Company

**RIELLO**  
 Energy For Life

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Head office  
 2165 Meadowpine Blvd  
 Mississauga, ON L5N 6H6  
 Canada

35 Pond Park Road  
 Hingham, MA 02043  
 U.S.A. 02043

Phone (905) 542-0303  
 Toll Free (800) 4-RIELLO  
 Fax (855) 878-6599