

# 40-Series Gas Burners

Maximum Performance. Minimum Maintenance.

Gas

Oil



Quality engineered to Riello's world-class standard, 40-Series gas burners are built for maximum uptime. Riello 40-Series high-efficiency burners not only deliver low energy consumption and quiet, worry-free performance, they're the most reliable combustion technology on the market.

And Riello 40-Series gas burners offer a host of advanced features – such as durable, lightweight, compact construction; an integrated electronic control box with interrupted ignition; and an automatic air shutter that eliminates heat loss and enhances efficiency.

Easy to install and service, and backed by coast-to-coast support, Riello 40-Series gas burners are available with firing rates from 38 to 900 MBtuh to handle a complete range of residential and light-commercial/industrial applications.



# 40-Series G120-G750

On-Off • 38 - 750 MBtuh

# 40-Series G900

2-Stage • 250 - 900 MBtuh

Riello 40-Series single- and two-stage gas burners are based on a simplified, integrated design that is engineered to deliver reliable, low-maintenance, fuel-efficient heat.

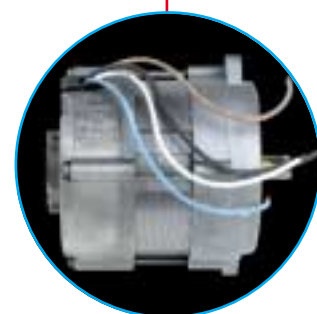
All 40-Series burners are thoroughly quality tested to ensure the highest performance in residential and light-commercial/industrial applications such as steam boilers, heat exchangers and furnaces.

- Durable, lightweight, compact construction for long life and maintenance-free operation
- Interrupted ignition minimizes component failure, saves power
- Low-voltage electronics for greater reliability
- Self-centering drawer assembly provides for precise air/fuel mixture
- Factory pre-wired for flame sensing measurements (microamp signal)
- Optional Siemens primary controls



## 1 Integrated Primary Control

The 40-Series' electronic control box combines interrupted ignition, a 5-second safety shutoff and a 30-second prepurge cycle.



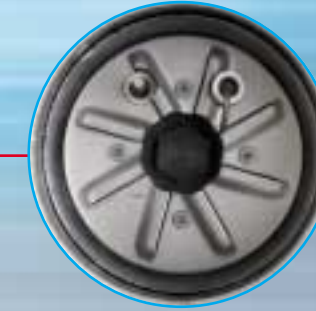
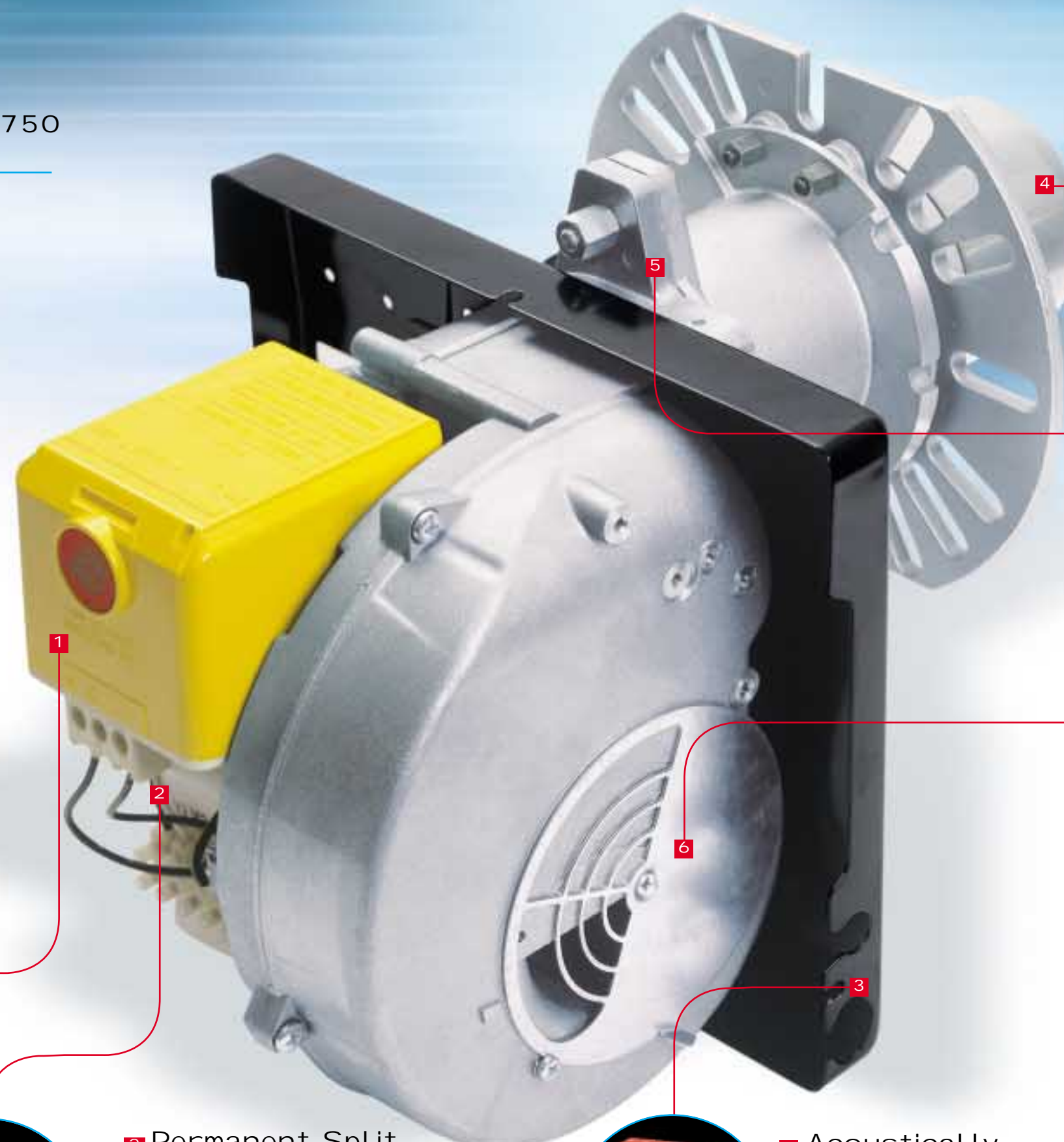
## 2 Permanent Split Capacitor (PSC) Motor

A high-speed, maintenance-free, 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.



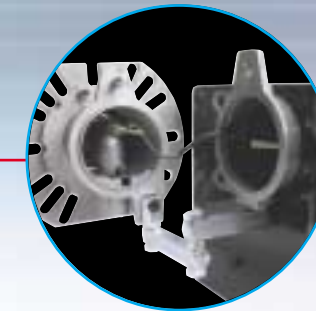
## 3 Acoustically Insulated

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



## 4 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. A removable endcone provides for easy servicing.

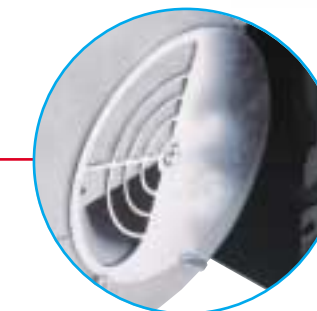


## 5 Swingaway Chassis For Easy Servicing\*

Riello 40-Series gas burners feature a swingaway chassis allowing quick and easy access to the combustion head for burner setup, maintenance and service.

\* Not available on the G120.

## Air Intake Control



## 6 Manual Air Gate\*

40-Series gas burners come standard with a manually adjustable air gate that provides for quick one-time setup and easy adjustment of the combustion air during subsequent maintenance.

\* Not available on the G900



## Electric Air Shutter\*\*

An optional, heat-saving electric air shutter is available that automatically closes the air intake when the burner is not operating to virtually eliminate heat loss through the burner, enhancing burner efficiency.

\*\* Available on the G120, G200 and G400.



## Servo Controlled Air Intake

The 2-stage G900 comes standard with an electronic air damper that automatically adjusts the air intake volume by means of a servomotor and multi-stage cam assembly.



## Custom Solutions

At Riello, we offer a broad range of custom solutions to meet the specific requirements of your application - including 120V or 24V gas valves from Honeywell, Dungs and Kromschroder. We'll even finish our covers in the color of your choice.

# Specifications

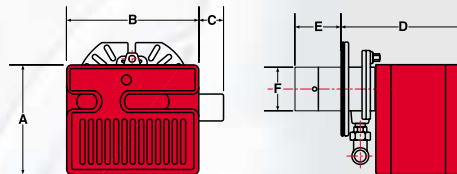
## 40-Series Gas Forced-Draft Burners

Model	On-Off								2-Stage	
	G120		G200		G400		G750		G900	
Fuel Type	Natural	Propane	Natural	Propane	Natural	Propane	Natural	Propane	Natural	Propane
Firing Rate Btuh x 1,000	38 - 120		70 - 200		170 - 400		250 - 750		250-490 <sup>(1)</sup> 360-900 <sup>(2)</sup>	
Manifold Gas Pressure "w.c. min.-max.	.52-2.05	.51-1.87	.7-1.84	.9-2.96	.9-1.8	1.04-3.04	1.4-2.1	1.0-3.0	.55-1.1 <sup>(1)</sup> 2.3-3.3 <sup>(2)</sup>	1.7-3.4 <sup>(1)</sup> 2.6-6.0 <sup>(2)</sup>
Burner Supply Pressure "w.c. min.-max.	4-10	8-13	4-10	8-13	4-10	8-13	7-14	8-13	7-14	8-13
Motor Ratings	120v 60Hz 2.2 amp 3250 rpm						120v 60Hz 4.3 amp 3250 rpm			

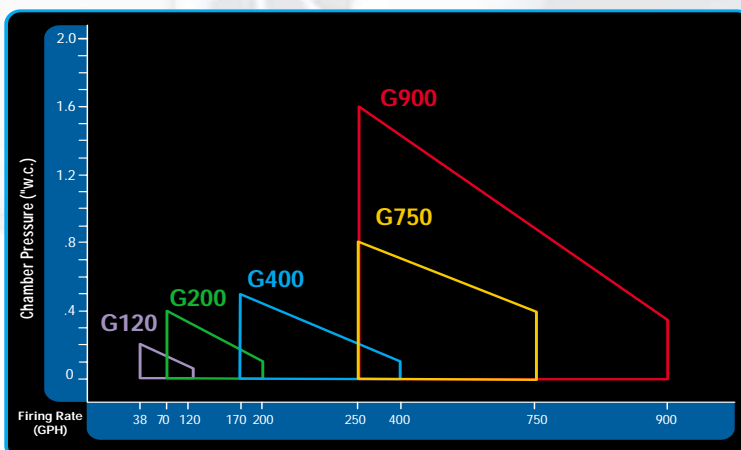
(1) Low Fire (2) High Fire

## Dimensions

Model	On-Off				2-Stage
	G120	G200	G400	G750	G900
A	8 <sup>1/2"</sup> (215mm)	9 <sup>3/16"</sup> (233mm)	10 <sup>5/16"</sup> (262mm)	11 <sup>3/4"</sup> (298mm)	11 <sup>3/4"</sup> (298mm)
B	9 <sup>15/16"</sup> (252mm)	10 <sup>11/16"</sup> (272mm)	12" (305mm)	13 <sup>3/4"</sup> (350mm)	13 <sup>3/4"</sup> (350mm)
C	1 <sup>3/8"</sup> (35mm)	1 <sup>3/8"</sup> (35mm)	1 <sup>3/8"</sup> (35mm)	N/A	3 <sup>3/4"</sup> (95mm)
D	9 <sup>1/16"</sup> (230mm)	11 <sup>5/8"</sup> (295mm)	13 <sup>11/16"</sup> (347mm)	15 <sup>5/16"</sup> (389mm)	15 <sup>5/16"</sup> (389mm)
SBT Fixed flange	3 <sup>3/8"</sup> (85mm)	3 <sup>3/8"</sup> (85mm)	3 <sup>3/4"</sup> (95mm)	4 <sup>1/8"</sup> (105mm)	4 <sup>1/8"</sup> (105mm)
LBT	10" (255mm)	10" (255mm)	10" (255mm)	10 <sup>5/8"</sup> (270mm)	10 <sup>5/8"</sup> (270mm)
F	3 <sup>9/16"</sup> (91mm)	3 <sup>9/16"</sup> (91mm)	4 <sup>1/8"</sup> (105mm)	4 <sup>15/16"</sup> (125mm)	4 <sup>15/16"</sup> (125mm)



## Firing Rates



40-Series gas burners are CSA, CGA and AGA approved.







## Riello Burners – a world of experience in every burner we sell

Across North America and the world over, Riello sets the standard in reliable, high-efficiency, low-maintenance burner technology. With burner capacities from 38 thousand to more than 70 million Btuh, Riello oil, gas, dual-fuel and Low NOx burners deliver unbeatable performance across the full range of residential and commercial heating applications, as well as in light-industrial processes.

Quality engineered for reliability, combined with fuel and power efficiency, Riello burners are environmentally friendly, and easy to install and service – all hallmarks of Riello's advanced burner technology.

With headquarters in Legnago, Italy, Riello has been manufacturing premium quality burners for over 80 years. Today, to meet its customers' needs, Riello employs more than 2,000 people across four continents, with a sales and support network that spans over 60 countries.

Throughout the United States and Canada, our staff and independent sales and support network are dedicated to providing applications engineering support, commissioning, hands-on training, ongoing technical assistance, and after-sales service.

Riello Burners – delivering reliable combustion solutions for our customers in North America and around the world.



### Reliable Combustion Solutions

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