



## **Overview**

The RS/M series of burners covers a firing range from 198 to 8673 MBtu/hr, and they have been designed for use in hot water boilers or superheaters, hot air or steam generators, diathermic oil boilers.

Operation can be "two stage progressive" or, alternatively, "modulating" when a PID logic regulator and respective probes are installed.

RS/M series burners guarantees high efficiency levels in all the various applications, thus reducing fuel consumption and running costs.

Optimization of sound emissions is guaranteed by the use of fans with forward inclined blades and sound deadening material incorporated in the air suction circuit. The exclusive design ensures reduced dimensions, simple use and maintenance. A wide range of accessories guarantees elevated working flexibility.

# **Product Range**

GAS MODELS	MBtu/hr
RS 28/M	198 - 1.232
RS 38/M	266 - 1.665
RS 50/M	321 - 2.2201
RS 70/M	512 - 3.084
RS 100/M	570 - 405
RS 130/M	607 - 5.545
RS 190/M	1.781 - 8.673

# **Technical Data**

MODEL		RS 28/M	RS 38/M	RS 50/M	RS 38/M	RS 50/M					
Fuel			Nat	ural Gas or Propa	ne*						
Modes of operation			Low-H	igh-Low or Modu	ulating						
Firing Rate	MBtu/hr	198-1.232	266-1.665	321-2.201	266-1.665	321-2.201					
Primary Control				RFG0							
Ignition transformer		120	V-1.6A/1x7kV-23	mA	120V-1.7A/1	x8kV-20mA					
Power Supply	V/Ph/Hz	120/	1/60	120/230/1/60	208-230/46	50/575/3/60					
(+/- 10%)	Rpm	3400									
	HP	0.!	50	0.75	0.	75					
Motor	V	12	0	120/230	208-230	/460/575					
	А	5.	2	9.8/4.9	3.2 - 1.6 - 1.3						
Capacitor	μF	4	5	20							
Power consumption	W max	60	00	750	75	50					
Electrical protection leve	I			NEMA 1							
Noise levels	dBA	68	70	72	70	72					
CO Emissione	ppm@3%0 <sub>2</sub>			less than 32							
N0x Emission	ppm@3%0 <sub>2</sub>			less than 65							
Approvals		UL - ULC									
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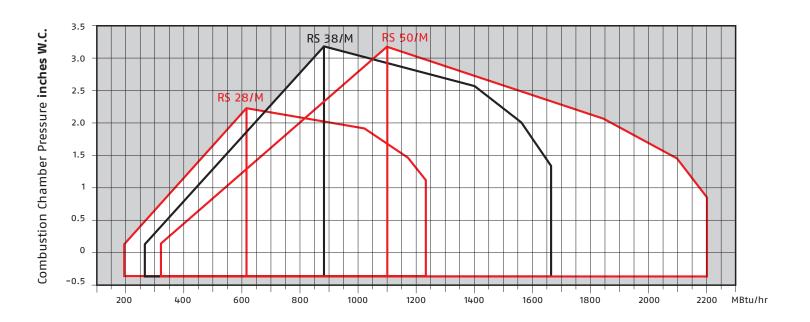
<sup>\*</sup> For Propane, add the LPG conversion kit

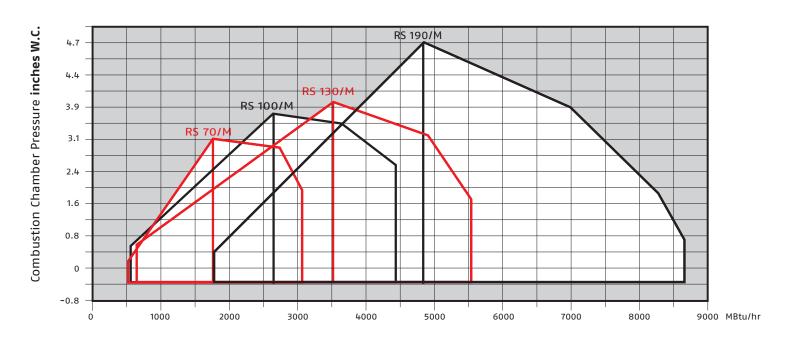
MODEL		RS 70/M	RS 100/M	RS 70/M	RS 100/M	RS 130/M	RS 190/M
Fuel				Natural Gas	or Propane*		
Modes of operation				Low-High-Lov	v or Modulatin	g	
Firing Rate	MBtu/hr	512-3.084	570-4.405	512-3.084	570-4.405	607-5.545	1.781-8.673
Primary Control				RI	G0		
Ignition transformer				120V-1.6A /	1x8kV-20mA		
Power Supply (+/- 10%)	V/Ph/Hz	230/	1/60		208-230/46	0/575/3/60	
	rpm			3!	500		
Motor	HP	1.5	2.4	1.5	3	3	7.5
-	V	208 - 220		208-230/460/575			
	Α	7	11.5	4/2/1.6	7.8/3.7/3.0	7.8/3.7/3.0	17.8/8.9/7.1
Capacitor	μF	50	70		_	-	
Full load current	Α	13.3	17.8	10.3/8.3/7.9	14.1/10.2/9.4	14.1/10.2/9.4	18.6/9.3/7.4
Short circuit current	Α	110	145	85/70/65	115/85/80	115/85/80	160/105/95
Power Consumption	W max	1540	2530	1350	2600	2600	6300
Electrical protection level				NE	MA 1		
Noise levels	dbA	75	77	75	77	78.5	83.1
CO Emission	ppm@3%0 <sub>2</sub>			less t	han 32		
NOx Emission	ppm@3%0 <sub>2</sub>	_		less t	han 65	·	
Approvals			·	UL ·	- ULC		

 $<sup>\</sup>stackrel{*}{ ext{For Propane}}$ , add the LPG conversion kit

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# **Firing Rates**





The max. firing rates are based on:

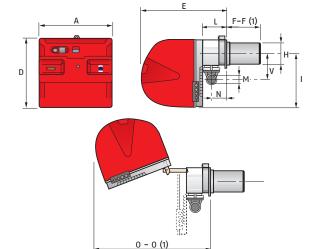
- zero furnace backpressure;
- ambient temperature of 68 °F;
- barometric pressure 394 inches w.c.;
- an elevation of 329 ft a.s.l.

For more details and final burner selection refer to applicable installation manual.

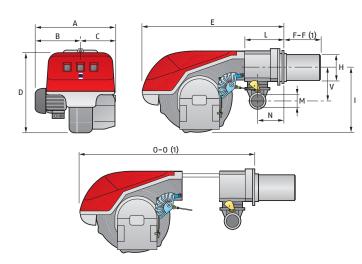
# **Overall dimensions (inch)**

#### **BURNER**

RS 28/M - 38/M - 50/M



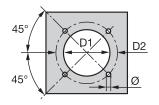
#### RS 70/M - 100/M - 130/M - 190/M



MODEL	Α	В	С	D	Е	F-F (1)	Н	1	L	М	N	0-0 (1)	V
► RS 28/M	18³/ <sub>4</sub> "	-	-	18 <sup>11</sup> / <sub>16</sub> "	22 <sup>13</sup> / <sub>16</sub> "	8 <sup>1</sup> / <sub>2</sub> "-13 <sup>13</sup> / <sub>16</sub> "	5 <sup>1</sup> / <sub>2</sub> "	13 <sup>7</sup> / <sub>8</sub> "	6 <sup>7</sup> / <sub>16</sub> "	11/2"	4 <sup>1</sup> / <sub>4</sub> "	31 <sup>7</sup> / <sub>8</sub> "	65/8"
► RS 38/M	18³/ູ"	-	-	18 <sup>11</sup> / <sub>16</sub> "	22 <sup>13</sup> / <sub>16</sub> "	8 <sup>1</sup> / <sub>2</sub> "-13 <sup>13</sup> / <sub>16</sub> "	5 <sup>1</sup> / <sub>2</sub> "	13 <sup>7</sup> / <sub>8</sub> "	6 <sup>7</sup> / <sub>16</sub> "	11/2"	4 <sup>1</sup> / <sub>4</sub> "	31 <sup>7</sup> / <sub>8</sub> "	6 <sup>5</sup> / <sub>8</sub> "
► RS 50/M	18³/ <u>,</u> "	-	-	18 <sup>11</sup> / <sub>16</sub> "	22 <sup>13</sup> / <sub>16</sub> "	8 <sup>1</sup> / <sub>2</sub> "-13 <sup>13</sup> / <sub>16</sub> "	5 <sup>1</sup> / <sub>2</sub> "	13 <sup>7</sup> / <sub>8</sub> "	6 <sup>7</sup> / <sub>16</sub> "	11/2"	41/4"	31 <sup>7</sup> / <sub>8</sub> "	6 <sup>5</sup> / <sub>8</sub> "
► RS 70/M	20 <sup>1</sup> / <sub>8</sub> "	-	-	21 <sup>7</sup> / <sub>8</sub> "	33 <sup>1</sup> / <sub>16</sub> "	9 <sup>7</sup> / <sub>8</sub> "-15 <sup>3</sup> / <sub>16</sub> "	71/16"	16 <sup>15</sup> / <sub>16</sub> "	8 <sup>7</sup> / <sub>16</sub> "	2"	5 <sup>5</sup> / <sub>16</sub> "	45 <sup>11</sup> / <sub>16</sub> "-51 <sup>1</sup> / <sub>16</sub> "	8 <sup>11</sup> / <sub>16</sub> "
► RS 100/M	20³/ <u>,</u> "	11 <sup>5</sup> / <sub>16</sub> "	8 <sup>1</sup> / <sub>2</sub> "	21 <sup>7</sup> / <sub>8</sub> "	33 <sup>1</sup> / <sub>16</sub> "	9 <sup>7</sup> / <sub>8</sub> "-15 <sup>3</sup> / <sub>16</sub> "	71/16"	16 <sup>15</sup> / <sub>16</sub> "	8 <sup>7</sup> / <sub>16</sub> "	2"	5 <sup>5</sup> / <sub>16</sub> "	45 <sup>11</sup> / <sub>16</sub> "-51 <sup>1</sup> / <sub>16</sub> "	811/16"
► RS 130/M	21 <sup>13</sup> / <sub>16</sub> "	13 <sup>5</sup> / <sub>16</sub> "	8 <sup>1</sup> / <sub>2</sub> "	21 <sup>7</sup> / <sub>8</sub> "	33 <sup>1</sup> / <sub>16</sub> "	11 <sup>3</sup> / <sub>8</sub> "-16 <sup>3</sup> / <sub>8</sub> "	71/8"	16 <sup>15</sup> / <sub>16</sub> "	8 <sup>7</sup> / <sub>16</sub> "	2"	5 <sup>5</sup> / <sub>16</sub> "	45 <sup>11</sup> / <sub>16</sub> "-51 <sup>1</sup> / <sub>16</sub> "	8 <sup>11</sup> / <sub>16</sub> "
► RS 190/M	26 <sup>13</sup> / <sub>16</sub> "	14 <sup>7</sup> / <sub>16</sub> "	12 <sup>7</sup> / <sub>16</sub> "	21 <sup>7</sup> / <sub>8</sub> "	33 <sup>1</sup> / <sub>16</sub> "	14 <sup>11</sup> / <sub>16</sub> "	8³/ <sub>4</sub> "	16 <sup>15</sup> / <sub>16</sub> "	9 <sup>1</sup> / <sub>16</sub> "	2"	5 <sup>15</sup> / <sub>16</sub> "	51 <sup>11</sup> / <sub>16</sub> "	7 <sup>5</sup> / <sub>16</sub> "

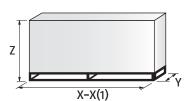
<sup>(1)</sup> Length with extended combustion head.

### **BURNER - BOILER MOUNTING FLANGE**



MODEL	D1	D2	Ø
► RS 28/M	6 <sup>5</sup> / <sub>16</sub> "	8 <sup>13</sup> / <sub>16</sub> "	³/ <sub>8</sub> "W
► RS 38/M	6 <sup>5</sup> / <sub>16</sub> "	8 <sup>13</sup> / <sub>16</sub> "	³/ <sub>8</sub> "W
► RS 50/M	6 <sup>5</sup> / <sub>16</sub> "	8 <sup>13</sup> / <sub>16</sub> "	³/ <sub>8</sub> "W
► RS 70/M	7 <sup>5</sup> / <sub>16</sub> "	10 <sup>13</sup> / <sub>16</sub> "-12 <sup>13</sup> / <sub>16</sub> "	¹/₂″W
► RS 100/M	7 <sup>5</sup> / <sub>16</sub> "	10 <sup>13</sup> / <sub>16</sub> "-12 <sup>13</sup> / <sub>16</sub> "	¹/₂″W
► RS 130/M	7 <sup>5</sup> / <sub>16</sub> "	10 <sup>13</sup> / <sub>16</sub> "-12 <sup>13</sup> / <sub>16</sub> "	¹/₂″W
► RS 190/M	9¹/ <sub>16</sub> "	12 <sup>13</sup> / <sub>16</sub> "-14 <sup>1</sup> / <sub>2</sub> "	<sup>5</sup> / <sub>8</sub> "W

### **PACKAGING**



MODEL	X-X(1)	Z	Υ	lbs
►RS 28/M	40"	24 <sup>13</sup> / <sub>16</sub> "	19 <sup>11</sup> / <sub>16</sub> "	84
►RS 38/M	40"	24 <sup>13</sup> / <sub>16</sub> "	19 <sup>11</sup> / <sub>16</sub> "	88
►RS 50/M	40"	24 <sup>13</sup> / <sub>16</sub> "	19 <sup>11</sup> / <sub>16</sub> "	91
►RS 70/M	46 <sup>7</sup> / <sub>8</sub> "-52 <sup>3</sup> / <sub>16</sub> "	29 <sup>1</sup> / <sub>8</sub> "	271/,"	154
►RS 100/M	46 <sup>7</sup> / <sub>8</sub> "-52 <sup>3</sup> / <sub>16</sub> "	29¹/ <sub>8</sub> "	271/,"	161
►RS 130/M	46 <sup>7</sup> / <sub>8</sub> "-52 <sup>3</sup> / <sub>16</sub> "	29 <sup>1</sup> / <sub>8</sub> "	271/,"	168
►RS 190/M	52³/ <sub>4</sub> "	28¹/₂"	39³/ <sub>8</sub> "	181

<sup>(1)</sup> Length with extended combustion head

# **Specification**

#### State of supply

Monoblock forced draught gas burner, two stage progressive or modulating operation with a kit, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades
- Air damper for air setting and butterfly valve for regulating fuel output controlled by a servomotor with variable cam
- Combustion head, that can be set on the basis of required output
- High gas pressure switch (when code requires) to stop the burner in the case of excess pressure on the fuel supply line
- Low air pressure switch stops the burner in case of insufficient air quantity at the combustion head
- Microprocessor-based burner safety control box, with diagnostic functions
- Burner on/off switch
- Flame inspection window
- Manual or automatic output increase/decrease switch
- Slide bars for easier installation and maintenance
- NEMA 1 electric protection level.

#### **Standard equipment:**

- 1 gas train flange
- 1 flange gasket
- 4 screws for fixing the flange
- 1 burner head thermal gasket
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.



# **New RFGO Digital Control Box**



- MICROPROCESSOR BASED CONTROL WITH CONTINUOUS INTERNAL CHECKING TO ENSURE HIGH SAFETY OF OPERATION
- EASY INFORMATION READING BY SMART COLORED LEDS
- CLEAR INFORMATION ABOUT BURNER STATUS AND OPERATING SEQUENCE
- LOCKOUT CODES INFORMATION
- FLAME SIGNAL STRENGTH DETECTION
- REMOTE RESET FUNCTION

RIELLO RFGO

Microprocessor based control

An outstanding evolution is expected during the year 2019 for the great RIELLO RS/M series of burner; the traditional high-efficiency, quality and reliability is going to be powered by the modern Microprocessor technology in order to reach the union of great performance and simplicity of use. The RIELLO RS/M burners models are going to be equipped with the NEW RFGO Digital Control Box which, compared to the original control, offers a modern way for burner management. The NEW RFGO Digital Control Box, coming from the long Riello's expertise and skills in combustion technology and an advanced electronic design capability, is characterized by numerous features, made possible by the microprocessor technology, such us the diagnostic function giving information about burner status, operating sequence and lockout causes analysis. The upgraded RIELLO RS/M burners series, covering a firing range from 198 to 8673 MBtu/hr, is now able to summarize at best the Riello's competencies and know-how making it the perfect choice for use in hot water boilers, superheaters, hot air or steam generators, thermal oil boilers.



#### **LED LIGHTS**



FAN



OPEN DAMPER



**CLOSE DAMPER** 



**AUTO** 



IGNITION



**FLAME** 



**ALARM** 

#### RIELLO RFGO OTHER DISTINCTIVE DETAILS

- Pre-programmed operational timings ensure safe operation of the burner
- · No requirement to learn programming procedures and no risk of set-up errors
- · Safety check of the critical input and output terminals to make sure they are in the right state
- LOCKOUT: the control proceeds to a lockout state when it detects an internal or external fault condition. The keypad and remote reset can be used to exit the lockout state. However, the control will revert to lockout if the fault condition is not rectified.

### **Burners**

BURNER MODEL	FIRING RATE MBtu/hr	POWER SUPPLY V/Ph/Hz	CODE		
RS 28/M	181-1232	120/1/60	20165993		
		120/1/60	20166042		
RS 38/M	258-1665	230/3/60	ON DEMAND		
K3 30/M	256-1005	460/3/60	ON DEMAND		
		575/3/60	ON DEMAND		
		120/1/60	20166043		
RS 50/M	322-2201	230/3/60	ON DEMAND		
K3 50/M	322-2201	460/3/60	ON DEMAND		
		575/3/60	ON DEMAND		
		230/3/60	20166044		
RS 70/M	512-3084	460/3/60	20166045		
		575/3/60	20166046		
		230/3/60	20166047		
RS 100/M	570-4405	460/3/60	20166048		
		575/3/60	20166049		
		230/3/60	20166101		
RS 130/M	607-5545	460/3/60	20166102		
		575/3/60	20166103		
		230/3/60	20166104		
RS 190/M	1781-8673	460/3/60	20166105		
		575/3/60	20166106		

### Gas Trains UL 795/CSD-1 - selection

Honeywell gas trains are supplied with (2) SSOV, (2) manual ball valves, (1) main gas regulator, 3/8" pilot train including (1) pilot regulator, (2) manual ball valve and (1) SSOV.

	OPERATII	NG PRESSURE (MIN	. / MAX.)		
RS 28/M	RS 38/M	RS 50/M	RS 70/M	RS 100/M	CODE
7"W.C. / 14"W.C.	9"W.C. / 14"W.C.				C8320003
6"W.C. / 14"W.C.	7"W.C. / 14"W.C.	9"W.C. / 14"W.C.			C8320004
5"W.C. / 14"W.C.	6"W.C. / 14"W.C.	6"W.C. / 14"W.C.			C8320005
5"W.C. / 14"W.C.	5"W.C. / 14"W.C.	6"W.C. / 14"W.C.			C8320006
4"W.C. / 14"W.C.	4"W.C. / 14"W.C.	5"W.C. / 14"W.C.			C8320007
			10"W.C. / 14"W.C.		C8320015
			9"W.C. / 14"W.C.	12"W.C. / 14"W.C.	C8320016
			8"W.C. / 14"W.C.	10"W.C. / 14"W.C.	C8320017
				9"W.C. / 14"W.C.	C8320018

# Gas Trains UL 795/CSD-1 - description

CODE	SAFETY SHUT-OFF VALVE	CLZE	MAX. OVER-FIRE PRESSURE AT MAX. FIRING RATE ("W							
CODE	DESCRIPTION	SIZE	RS 28/M	RS 38/M	RS 50/M	RS 70/M	RS 100/M			
C8320003	Honeywell (2) V4295A	1 ¹/ <sub>4</sub>	1.2	1.35	1.0	-	-			
C8320004	Honeywell (2) V4295A	1 <sup>1</sup> / <sub>2</sub>	1.2	1.35	1.0	-	-			
C8320005	Honeywell (2) V4295A	2	1.2	1.35	1.0	-	-			
C8320006	Honeywell (2) V4295A	2 1/2	1.2	1.35	1.0	-	-			
C8320007	Honeywell (2) V4295A	2 1/2	0.8	0.8	1.0	-	-			
C8320015	Honeywell (1) V4295A (1) V5055	2	-	-	-	1.9				
C8320016	Honeywell (1) V4295A (1) V5055	2 1/2	-	-	-	1.9	2.7			
C8320017	Honeywell (1) V4295A (1) V5055	2 1/2	-	-	-	1.9	2.7			
C8320018	Honeywell (1) V4295A (1) V5055	3	-	-	-	-	2.7			

### Gas Trains CSD-1/CSA/FM - selection/description

Honeywell & Dungs gas trains are supplied with (2) SSOV, (1) manual ball valve, (1) main gas regulator, (1) lubricated plug valve, low gas pressure switch and 3/8" pilot train including (1) pilot regulator, (1) manual ball valve and (1) SSOV. Siemens gas train are supplied with (2) SSOV, (1) manual ball valve, (1) SKP 25 regulating actuator, lubricated plug valve, low gas pressure switch, 3/8" pilot train including (1) pilot regulator, (1) manual ball valve and (1) SSOV.

OPERATING PRESSURE (MIN. / MAX.)	CODE	SAFETY SHUT-OFF VALVE DESCRIPTION	SIZE	RS 28/M	RS 38/M	RS 50/M	RS 70/M	RS 100/M	RS 130/M	RS 190/M
	C8316005	Honeywell (2) V4297A1013	1 <sup>1</sup> / <sub>2</sub>	•						
	C8316416	Dungs (2) MVD515/6	1 1/2	•						
	C8316607	Siemens (1) SKP15 (1) SKP25 (2) VGG10.404U	1 1/2	•	•					
	C8316012	Honeywell (2) V4297A1013	1 <sup>1</sup> / <sub>2</sub>		•					
	C8316418	Dungs (2) MVD 520/6	1 <sup>1</sup> / <sub>2</sub>		•					
	C8316016	Honeywell (2) V4297A1013	2			•				
	C8316424	Dungs (2) MVD 520/6	2			•				
	C8316617	Siemens (1) SKP15 (1) SKP25 (2) VGG10.504U	2			•				
8" W.C. / 14"W.C.	C8316022	Honeywell (2) V5097A1012 (2) V4055A1031	2 <sup>1</sup> / <sub>2</sub>				•			
	C8316430	Dungs (1) MVD 525/6 (1) MVDLE 225/6	2 <sup>1</sup> / <sub>2</sub>				•			
	C8316618	Siemens (1) SKP15 (1) SKP25 (2) VGG10.654U	2 <sup>1</sup> / <sub>2</sub>				•			
	C8316026	Honeywell (2) V5097A1012 (2) V4055A1031	3					•		
	C8316432	Dungs (1) MVD 530/6 (1) MVDLE 230/6	3					•		
	C8316621	Siemens (1) SKP15 (1) SKP25 (2) VGG10.804U	3					•		
	C8316028	Honeywell (1) V5097A1012 (1) V4055A1031 (1) V5097C1018 (1) V4055D1001	3						•	
Major compos	C8316622	Siemens (1) SKP15 (1) SKP25 (2) VGG10.804U	3						•	

Major components shipped loose for assembly and wiring by others For lower or higher gas pressure, please contact factory for correct sizing



# Gas Trains CSD-1/CSA/FM - selection/description

OPERATING PRESSURE (MIN. / MAX.)	CODE	SAFETY SHUT-OFF VALVE DESCRIPTION	SIZE	RS 28/M	RS 38/M	RS 50/M	RS 70/M	RS 100/M	RS 130/M	RS 190/M
	C8316006	Honeywell (2) V4297A1013	1	•						
	C8316408	Dungs (2) MVD510/6	1	•						
	C8316602	Siemens (1) SKP15 (1) SKP25 (2) VGG10.254U	1	•						
	C8316014	Honeywell (2) V4297A1013	1 <sup>1</sup> / <sub>2</sub>		•					
	C8316413	Dungs (2) MVD 515/6	1 <sup>1</sup> / <sub>2</sub>		•					
	C8316606	Siemens (1) SKP15 (1) SKP25 (2) VGG10.254U	1 <sup>1</sup> / <sub>2</sub>		•					
	C8316019	Honeywell (2) V4297A1013	1 <sup>1</sup> / <sub>2</sub>			•				
	C8316419	Dungs (2) MVD 515/6	1 <sup>1</sup> / <sub>2</sub>			•				
	C8316609	Siemens (1) SKP15 (1) SKP25 (2) VGG10.404U	1 <sup>1</sup> / <sub>2</sub>			•	•	•		
	C8316025	Honeywell (1) V4297A1013 (1) V5097A1004 (1) V4055A1031	1 <sup>1</sup> / <sub>2</sub>				•			
1 PSI / 2 PSI	C8316421	Dungs (1) MVD 515/6 (1) MVDLE 215/6	1 <sup>1</sup> / <sub>2</sub>				•			
	C8316031	Honeywell (2) V5097A1012 (2) V4055A1031	2					•		
	C8316423	Dungs (1) MVD 520/6 (1) MVDLE 220/6	2					•		
	C8316036	Honeywell (1) V5097A1012 (1) V4055A1031 (1) V5097C1018 (1) V4055D1001	2						•	
	C8316614	Siemens (1) SKP15 (1) SKP25 (2) VGG10.504U	2						•	•
	C8316041	Honeywell (1) V5097A1012 (1) V4055A1031 (1) V5097C1018 (1) V4055D1001	2 1/2							•
	C8316620	Siemens (1) SKP15 (1) SKP25 (2) VGG10.654U	2 1/2							•
	C8316212	Honeywell (2) V5097C1000 (2) V4055D1019	1 <sup>1</sup> / <sub>2</sub>	•						
	C8316808	Siemens (1) SKP15 (1) SKP25 (2) VGG10.404U	1 <sup>1</sup> / <sub>2</sub>	•	•					
	C8316211	Honeywell (2) V5097C1000 (2) V4055D1019	1 1/2		•					
8" W.C. /	C8316213	Honeywell (2) V5097C1018 (2) V4055D1019	2			•				
14"W.C. IRI	C8316815	Siemens (1) SKP15 (1) SKP25 (2) VGG10.404U	2			•				
11/1	C8316218	Honeywell (2) V5097C1018 (2) V4055D1019	2 1/2				•			
	C8316819	Siemens (1) SKP15 (1) SKP25 (2) VGG10.654U	2 1/2				•			
	C8316220	Honeywell (2) V5097C1018 (2) V4055D1019	3					•	•	
	C8316821	Siemens (1) SKP15 (1) SKP25 (2) VGG10.804U	3					•	•	

# Gas Trains CSD-1/CSA/FM - selection/description

OPERATING PRESSURE (MIN. / MAX.)	CODE	SAFETY SHUT-OFF VALVE DESCRIPTION	SIZE	RS 28/M	RS 38/M	RS 50/M	RS 70/M	RS 100/M	RS 130/M	RS 190/M
	C8316201	Honeywell (2) V5097C1000 (2) V4055D1019	1	•						
	C8316802	Siemens (1) SKP15 (1) SKP25 (2) VGG10.254U	1	•	•					
	C8316204	Honeywell (2) V5097C1000 (2) V4055D1019	1		•					
	C8316206	Honeywell (2) V5097C1000 (2) V4055D1019	1 1/2			•				
	C8316809	Siemens (1) SKP15 (1) SKP25 (2) VGG10.404U	1 1/2			•	•			
	C8316210	Honeywell (2) V5097C1000 (2) V4055D1019	1 1/2				•			
1 PSI / 2 PSI IRI	C8316813	Siemens (1) SKP15 (1) SKP25 (2) VGG10.404U	1 1/2					•		
	C8316208	Honeywell (2) V5097C1018 (2) V4055D1019	2					•		
	C8316215	Honeywell (2) V5097C1018 (2) V4055D1019	2						•	
	C8316816	Siemens (1) SKP15 (1) SKP25 (2) VGG10.504U	2						•	
	C8316817	Siemens (1) SKP15 (1) SKP25 (2) VGG10.504U	2							•
	C8316219	Honeywell (2) V5097C1018 (2) V4055D1019	2 1/2							•
	C8316820	Siemens (1) SKP15 (1) SKP25 (2) VGG10.654U	2 1/2							•

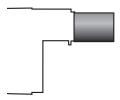
Major components shipped loose for assembly and wiring by others

For lower or higher gas pressure, please contact factory for correct sizing



## **Burner accessories**

#### Extended heads



"Standard head" burners can be transformed into "extended head" versions, by using the special kit.

BURNER	'STANDARD HEAD' LENGTH	'EXTENDED HEAD' LENGTH	KIT CODE
►RS 28/M	8 <sup>1</sup> / <sub>2</sub>	13 <sup>13</sup> / <sub>16</sub>	3010256
►RS 38/M	8 <sup>1</sup> / <sub>2</sub>	13 <sup>13</sup> / <sub>16</sub>	3010257
►RS 50/M	8 <sup>1</sup> / <sub>2</sub>	13 <sup>13</sup> / <sub>16</sub>	3010258
►RS 70/M	9 <sup>7</sup> / <sub>8</sub>	15³/ <sub>16</sub>	3010259
►RS 100/M	9 <sup>7</sup> / <sub>8</sub>	15³/ <sub>16</sub>	3010260
►RS 130/M	11³/ <sub>8</sub>	16³/ <sub>8</sub>	3010261
►RS 190/M	14 <sup>11</sup> / <sub>16</sub>	-	-

## **Accessories for Modulating Operation**



**PROBE** 



To obtain modulating operation, the RS/M series of burners requires a regulator.

BURNER	REGULATOR TYPE	REGULATOR CODE
RS 28/M-38/M-50/M RS 70/M-100/M-130/M-190/M	RWF 55	20094961

The relative temperature or pressure probes fitted to the regulator, must be chosen on the basis of the application.

BURNER	PROBE TYPE	RANGE	PROBE	CODE
RS 28/M-38/M RS 50/M RS 70/M-100/M RS 130/M-190/M	_	Water NI 1000 RTD	C533	2020
	Temperature sensor	Air NI 1000 RTD	C5332021	
	3611301	Water QAE 2020 RTD	C533	2027
			4-20 mA	0-10 V
	RS 70/M-100/M	0 <b>-</b> 15 PSI	C5332040	C5332050
		0 - 60 PSI	C5332041	C5332051
		0 <b>-</b> 150 PSI	C5332042	C5332052
		0 - 200 PSI	C5332043	C5332053
		0 <b>-</b> 300 PSI	C5332044	C5332054

## **Burner accessories**

## **Analog Input Signal Converter**

RCO3 Analog Input Signal Converter for SQN7X installed with feedback potentiometer (0-135 0hms, 0-10 Vdc, 4-20 mA).

BURNER	CODE
►RS 28/M-38/M-50/M	C7000500

## Post Purge Time Delay Kit

Installed

BURNER	CODE
RS 28/M-38/M-50/M RS 70/M-100/M-130/M	C7000389
►RS 190/M	C7000388

## **Step-down Transformers**

BURNER	DESCRIPTION	CODE	NOTE
RS 38/M-50/M* RS 70/M-100/M-130-190/M*	Step-down Transformer 500 VA 600/120V	C5400470	(1)
	Step-down Transformer 500 VA 460/120V	C5400471	(1)
	Disconnect Panel - Stepdown Transformer 460V - 120V	C7400416	(2)
	Disconnect Panel - Stepdown Transformer 575V - 120V	C7400418	(2)
	Disconnect Panel - Stepdown Transformer 230V - 120V	C7400419	(2)
	Disconnect Panel - Stepdown Transformer 208V - 120V	C7400424	(2)

## **Electrical Options**

BURNER	DESCRIPTION	CODE	NOTE
RS 28/M-38/M-50/M RS 70/M-100/M-130/M-190/M	Set of dry contacts	C7000327	(1)
	Alarm horn with silencing switch	C7000335	(1) (2)
	Local/Remote Switch	C7000336	(1) (2)
	Wiring modifications including up to 3 extra terminals	C7000395	
	Additional indicating light	C7000396	(1) (2)

<sup>\* 3-</sup>phase burners only (1) Shipped loose (2) Including fuses (no power fuses)

<sup>(2)</sup> A maximum combination of 4 devices can be installed on burner (example: 3 lights and alarm horn or 2 lights, alarm horn and local/remote switch).

Additional electrical modifications: consult factory.



# **Burner accessories**

## **Ducted Air Intake**

BURNER	KIT CODE
►RS 28/M-38/M-50/M	C7005530
►RS 70/M-100/M-130/M	C7005531
►RS 190/M	C7005532

### **LPG Kit**



For burning LPG gas, a special kit is available to be fitted to the combustion head of the burner, as given in the following table:

BURNER	STANDARD KIT CODE
►RS 28/M	3010270
►RS 38/M	3010271
►RS 50/M	20043293
▶RS 70/M	20043296
►RS 100/M	20043300
►RS 130/M	20043301
►RS 190/M	3010276

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



[1]



[2]

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

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

With burner capacity from 17 thousand to 163 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 13 operational branches abroad (in Europe, America and Asia), with customers in over 60 countries.

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