



# RIELLO BURNERS

## R SERIES SET-UP GUIDE

For

**BUDERUS BOILER RANGES**

**G515**

**G615**

**SB 615**

**SB 735**



# CROSS REFERENCE

Page	BOILER	BURNER MODEL												
		RL28/2	RL28/M	RL38/2	RL38/M	RL50/2	RL50/M	RL70/2	RL70/M	RL100/2	RL100/M	RL130/2	RL130/M	
2	OIL	G515/7	•	•										
		G515/8	•	•										
		G515/9			•	•								
		G515/10			•	•								
		G515/11					•	•						
		G515/12				•	•							
5	OIL	G615/9						•	•					
		G615/10						•	•					
		G615/11							•	•				
		G615/12								•	•			
		G615/13								•	•			
		G615/14								•	•			
		G615/15								•				
		G615/16										•		

Page	BOILER	BURNER MODEL												
		RS28/1	RS28/M	RS38/1	RS38/M	RS45/M LN	RS50/M	RS68/M LN	RS70/M	RS100/M	RS120/M LN	RS130/M	RS160/M LN	
3	OIL	G515/7	•	•			•							
		G515/8	•	•			•							
		G515/9			•	•	•							
		G515/10			•	•	•							
		G515/11					•	•						
		G515/12					•	•						
6	GAS	G615/9							•	•				
		G615/10							•	•				
		G615/11								•	•			
		G615/12									•	•		
		G615/13									•	•		
		G615/14									•	•		
		G615/15									•	•		
		G615/16									•	•		
8	GAS	SB615/240	•	•			•							
		SB615/310	•	•			•							
		SB615/400			•	•	•							
		SB615/510				•	•							
		SB615/640						•	•					
9	GAS	SB735/790							•	•				
		SB735/970								•	•			
		SB735/1200									•	•		

Page	BOILER	BURNER MODEL					
		RLS28	RLS38	RLS50	RLS70	RLS100	RLS130
4	OIL	G515/7	•				
		G515/8	•				
		G515/9		•			
		G515/10		•			
		G515/11			•		
		G515/12			•		
7	DUAL FUEL	G615/9			•		
		G615/10			•		
		G615/11			•		
		G615/12				•	
		G615/13				•	
		G615/14				•	
		G615/15				•	
		G615/16				•	

## OIL BURNER SET-UP GUIDE

### BUDERUS G515 SERIES CAST IRON BOILERS

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT ± 5%		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING	MANIFOLD (INCHES W.C.)	RETURN PSIG		OIL BURNER NOZZLE (PSIG ± 5%)			
		OIL (US GPH)	GAS (kBTU/H)					MIN	MAX	PUMP PRESSURE	NOZZLE (SOLID SPRAY)		
G515/7	RL 28/2	6.9	N/A	0.22	0	3.0	N/A			175 - 1 <sup>ST</sup> STAGE	2.75 X 60°		
	175 - 2 <sup>ND</sup> STAGE									2.50 X 60°			
RL28/M		100		220	290	40 kg/h 45° A4							
G515/8	RL 28/2	8.4		0.48	0	5.0						175 - 1 <sup>ST</sup> STAGE	3.25 X 60°
	175 - 2 <sup>ND</sup> STAGE											3.00 X 60°	
RL28/M		100		200	290	50 kg/h 45° A4							
G515/9	RL 38/2	10.0		0.55	0	6.0						175 - 1 <sup>ST</sup> STAGE	4.00 X 60°
	175 - 2 <sup>ND</sup> STAGE											3.50 X 60°	
RL38/M		100		220	290	50 kg/h 45° A4							
G515/10	RL 38/2	11.6		1.00	0	6.0						175 - 1 <sup>ST</sup> STAGE	4.50 X 60°
	175 - 2 <sup>ND</sup> STAGE											4.50 X 60°	
RL38/M		100		210	290	60 kg/h 45° A4							
G515/11	RL 50/2	13.0	1.17	0	6.0					175 - 1 <sup>ST</sup> STAGE	5.00 X 60°		
	175 - 2 <sup>ND</sup> STAGE									5.00 X 60°			
RL50/M		100	220	290	60 kg/h 45° A4								
G515/12	RL 50/2	14.6	1.11	0	6.0					175 - 1 <sup>ST</sup> STAGE	5.50 X 60°		
	175 - 2 <sup>ND</sup> STAGE									5.50 X 60°			
RL50/M		100	220	290	70 kg/h 45° A4								

**NOZZLE SELECTION NOTE:**

- NOZZLE MANUFACTURERS:  
2 stages: DELAVAN, HAGO, DANFOSS - modulating: BERGONZO
- NOZZLE SPRAY TYPES - SOLID SPRAY RECOMMENDED
- NOZZLE SIZES & PUMP PRESSURE BASED ON CALCULATED OUTPUT
- RETURN PRESSURES BASED ON BERGONZO A4 NOZZLES CHART

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.**

**FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS**

**BREECH PRESSURE RANGE FROM 0.0 TO -0.03 INCHES WC**

**GAS BURNER SET-UP GUIDE  
BUDERUS G515 SERIES BOILERS**

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT ± 5%		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING		MANIFOLD (INCHES W.C.)		PILOT MANIFOLD PRESSURE RANGE (INCHES W.C.)	OIL BURNER NOZZLE (PSIG ± 5%)	
		OIL (US GPH)	GAS (kBTU/H)			AIR ADJ.	GAS ADJ.	GROSS	NET		PUMP PRESSURE	NOZZLE (SOLID SPRAY)
G515/7	RS 28/1	N/A	995	0.22	0	A = 4	B = 4	2.42	2.20	3.5 - 4.5	N/A	N/A
	RS 28/M					R1 = 2.0	R3 = 0.0					
	RS 45/M LN					R2 = 1.0						
G515/8	RS 28/1	N/A	1216	0.48	0	A = 5	B = 5	3.38	2.90	3.5 - 4.5	N/A	N/A
	RS 28/M					A = 6	B = 6					
	RS 45/M LN					R1 = 3.0	R3 = 1.0					
	R2 = 2.0											
G515/9	RS 38/1	N/A	1438	0.55	0	A = 4	B = 4	2.68	2.13	3.5 - 4.5	N/A	N/A
	RS 38/M					R1 = 5.0	R3 = 1.0					
	RS 45/M LN					R2 = 2.0						
G515/10	RS 38/1	N/A	1660	1.00	0	A = 6	B = 6	3.60	2.60	3.5 - 4.5	N/A	N/A
	RS 38/M					R1 = 6.0	R3 = 2.0					
	RS 45/M LN					R2 = 4.0						
G515/11	RS 50/M	N/A	1881	1.17	0	A = 4	B = 4	3.42	2.25	3.5 - 4.5	N/A	N/A
	RS 45/M LN					R1 = 6.0	R3 = 4.0					
						R2 = 5.0						
G515/12	RS 50/M	N/A	2103	1.11	0	A = 6	B = 6	3.70	2.59	3.5 - 4.5	N/A	N/A
	RS 68/M LN					R1 = 5.0	R2 = 3.0					

**GAS MANIFOLD NOTE:**

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO<sub>2</sub> LEVELS OF 9 - 10%
- BASED ON SEA LEVEL
- NATURAL GAS HH<sub>v</sub> = 1010 BTU PER FT<sup>3</sup>/Hr.
- DATA BASED ON 0 INCHES WC BREECH PRESSURE

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.**

**FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS**

**BREECH PRESSURE RANGE FROM 0.0 TO -0.03 INCHES WC**

## DUAL FUEL BURNER SET-UP GUIDE BUDERUS G515 SERIES CAST IRON BOILERS

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT ± 5%		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING AIR ADJ.	MANIFOLD (INCHES W.C.)		PILOT MANIFOLD PRESSURE RANGE (INCHES W.C.)	OIL BURNER NOZZLE (PSIG ± 5%)	
		OIL (US GPH)	GAS (kBTU/H)				GROSS	NET		PUMP PRESSURE	NOZZLE (SOLID SPRAY)
G515/7	RLS 28	6.9	995	0.22	0	4.0	3.69	3.47	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	2.75 X 60°
										175 - 2 <sup>ND</sup> STAGE	2.50 X 60°
G515/8	RLS 28	8.4	1216	0.48	0	6.0	4.74	4.26	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	3.25 X 60°
										175 - 2 <sup>ND</sup> STAGE	3.00 X 60°
G515/9	RLS 38	10.0	1438	0.55	0	4.0	4.92	4.37	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	4.00 X 60°
										175 - 2 <sup>ND</sup> STAGE	3.50 X 60°
G515/10	RLS 38	11.6	1660	1.00	0	6.0	6.10	5.10	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	4.50 X 60°
										175 - 2 <sup>ND</sup> STAGE	4.50 X 60°
G515/11	RLS 50	13.0	1881	1.17	0	4.0	5.84	4.67	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	5.00 X 60°
										175 - 2 <sup>ND</sup> STAGE	5.00 X 60°
G515/12	RLS 50	14.6	2103	1.11	0	6.0	6.36	5.25	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	5.50 X 60°
										175 - 2 <sup>ND</sup> STAGE	5.50 X 60°

**NOZZLE SELECTION NOTE:**

- NOZZLE MANUFACTURERS:  
2 stages: DELAVAN, HAGO, DANFOSS - modulating; BERGONZO
- NOZZLE SPRAY TYPES - SOLID SPRAY RECOMMENDED
- NOZZLE SIZES & PUMP PRESSURE BASED ON CALCULATED OUTPUT
- RETURN PRESSURES BASED ON BERGONZO A4 NOZZLES CHART

**GAS MANIFOLD NOTE:**

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO<sub>2</sub> LEVELS OF 9 - 10%
- BASED ON SEA LEVEL
- NATURAL GAS HH<sub>v</sub> = 1010 BTU PER FT<sup>3</sup>/Hr.
- DATA BASED ON 0 INCHES WC BREECH PRESSURE

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.**

**FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS**

**BREECH PRESSURE RANGE FROM 0.0 TO -0.03 INCHES WC**

## OIL BURNER SET-UP GUIDE BUDERUS G615 SERIES BOILERS

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT ± 5%		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING	MANIFOLD (INCHES W.C.)	RETURN PSIG		OIL BURNER NOZZLE (PSIG ± 5%)	
		OIL (US GPH)	GAS (KBTU/H)					MIN	MAX	PUMP PRESSURE	NOZZLE (SOLID SPRAY)
G615/9	RL70/2	16	N/A	0.85	0.1	3.0	N/A	100	240	175 - 1 <sup>ST</sup> STAGE	6.0 X 60°
	175 - 2 <sup>ND</sup> STAGE									6.0 X 60°	
G615/10	RL70/2	18.5	N/A	1.07	0.1	6.0	N/A	100	240	175 - 1 <sup>ST</sup> STAGE	7.0X 60°
	175 - 2 <sup>ND</sup> STAGE									7.00 X 60°	
G615/11	RL70/2	21.0	N/A	1.3	0.1	8.0	N/A	100	220	175 - 1 <sup>ST</sup> STAGE	8.00 X 60°
	175 - 2 <sup>ND</sup> STAGE									8.00 X 60°	
G615/12	RL100/2	23.5	N/A	1.60	0.1	4.0	N/A	100	240	175 - 1 <sup>ST</sup> STAGE	9.0 X 60°
	175 - 2 <sup>ND</sup> STAGE									9.0 X 60°	
G615/13	RL100/2	26.0	N/A	1.40	0.1	5.0	N/A	100	210	175 - 1 <sup>ST</sup> STAGE	10.0 X 60°
	175 - 2 <sup>ND</sup> STAGE									10.0 X 60°	
G615/14	RL100/2	28.5	N/A	1.4	0.1	7.0	N/A	100	230	175 - 1 <sup>ST</sup> STAGE	11.0 X 60°
	175 - 2 <sup>ND</sup> STAGE									11.0 X 60°	
G615/15	RL100/2	31	N/A	1.4	0.1	9.0	N/A	100	230	175 - 1 <sup>ST</sup> STAGE	12.0 X 60°
	175 - 2 <sup>ND</sup> STAGE									11.5 X 60°	
G615/16	RL130/2	33.5	N/A	1.5	0.1	9.0	N/A	100	220	175 - 1 <sup>ST</sup> STAGE	13.0 X 60°
	175 - 2 <sup>ND</sup> STAGE									12.5 X 60°	
										120 kg/h 45° A4	

### NOZZLE SELECTION NOTE:

- NOZZLE MANUFACTURERS:

2 stages: DELAVAN, HAGO, DANFOSS - modulating: BERGONZO

- NOZZLE SPRAY TYPES - SOLID SPRAY RECOMMENDED

- NOZZLE SIZES & PUMP PRESSURE BASED ON CALCULATED OUTPUT

- RETURN PRESSURES BASED ON BERGONZO A4 NOZZLES CHART

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.**

**FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS**

**BREECH PRESSURE RANGE FROM 0.05 TO 0.2 INCHES WC**

**GAS BURNER SET-UP GUIDE  
BUDERUS G615 SERIES BOILERS**

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT ± 5%		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING		MANIFOLD (INCHES W.C.)		PILOT MANIFOLD PRESSURE RANGE (INCHES W.C.)	OIL BURNER NOZZLE (PSIG ± 5%)	
		OIL (US GPH)	GAS (kBTU/H)			AIR ADJ.	GAS ADJ.	GROSS	NET		PUMP PRESSURE	NOZZLE (SOLID SPRAY)
G615/9	RS70/M	N/A	2309	0.85	0.1	A = 3	B = 3	3.33	2.48	3.5 - 4.5	N/A	N/A
	RS68/M LN					R1 = 4.0	R2 = 4.0	3.55	2.70			
G615/10	RS70/M		2670	1.07	0.1	A = 6	B = 6	4.27	3.20	3.5 - 4.5		
	RS68/M LN					R1 = 2.0	R2 = 6.0	4.53	3.46			
G615/11	RS70/M		3031	1.30	0.1	A = 8	B = 8	5.25	3.95	3.5 - 4.5		
	RS68/M LN					R1 = 1.0	R2 = 7.0	5.47	4.17			
G615/12	RS100/M		3392	1.60	0.1	A = 4	B = 4	3.90	2.30	3.5 - 4.5		
	RS120/M LN					R1 = 3.0	R2 = 4.0	6.40	4.80			
G615/13	RS100/M		3753	1.40	0.1	A = 6	B = 6	4.20	2.80	3.5 - 4.5		
	RS120/M LN					R1 = 2.0	R2 = 5.0	7.40	6.00			
G615/14	RS100/M		4113	1.40	0.1	A = 8	B = 8	4.60	3.20	3.5 - 4.5		
	RS120/M LN					R1 = 1.0	R2 = 6.0	8.2	6.8			
G615/15	RS130/M		4474	1.40	0.1	A = 6	B = 6	3.75	2.35	3.5 - 4.5		
	RS120/M LN					R1 = 0.0	R2 = 9.0	9.00	7.60			
G615/16	RS130/M		4835	1.50	0.1	A = 8	B = 8	4.15	2.65	3.5 - 4.5		
	RS160/M LN					R1 = 6.0	R2 = 0.0	4.77	3.27			

**GAS MANIFOLD NOTE:**

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO<sub>2</sub> LEVELS OF 9 - 10%
- BASED ON SEA LEVEL
- NATURAL GAS HH<sub>v</sub> = 1010 BTU PER FT<sup>3</sup>/Hr.
- DATA BASED ON 0.1 INCHES WC BREECH PRESSURE

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.  
FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS  
BREECH PRESSURE RANGE FROM 0.05 TO 0.2 INCHES WC**

## DUAL FUEL BURNER SET-UP GUIDE BUDERUS G615 SERIES BOILERS

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT $\pm 5\%$		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING	MANIFOLD (INCHES W.C.)		PILOT MANIFOLD PRESSURE RANGE (INCHES W.C.)	OIL BURNER NOZZLE (PSIG $\pm 5\%$ )	
		OIL (US GPH)	GAS (kBTU/H)				GROSS	NET		PUMP PRESSURE	NOZZLE (SOLID SPRAY)
G615/9	RLS 70	16	2309	0.85	0.1	3.0	3.13	2.28	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	6.0 X 60°
										175 - 2 <sup>ND</sup> STAGE	6.0 X 60°
G615/10	RLS 70	18.5	2670	1.07	0.1	6.0	3.42	2.35	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	7.0X 60°
										175 - 2 <sup>ND</sup> STAGE	7.0 X 60°
G615/11	RLS 70	21.0	3031	1.30	0.1	8.0	3.72	2.42	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	8.0 X 60°
										175 - 2 <sup>ND</sup> STAGE	8.0 X 60°
G615/12	RLS 100	23.5	3392	1.60	0.1	3.0	5.10	3.50	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	9.0 X 60°
										175 - 2 <sup>ND</sup> STAGE	9.0 X 60°
G615/13	RLS 100	26.0	3753	1.40	0.1	5.0	5.05	3.65	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	10.0 X 60°
										175 - 2 <sup>ND</sup> STAGE	10.0 X 60°
G615/14	RLS 100	28.5	4113	1.40	0.1	7.0	5.22	3.82	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	11.0 X 60°
										175 - 2 <sup>ND</sup> STAGE	11.0 X 60°
G615/15	RLS 130	31	4474	1.40	0.1	7.0	5.30	3.90	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	12.0 X 60°
										175 - 2 <sup>ND</sup> STAGE	11.5 X 60°
G615/16	RLS 130	33.5	4835	1.50	0.1	9.0	5.66	4.16	3.5 - 4.5	175 - 1 <sup>ST</sup> STAGE	13.0 X 60°
										175 - 2 <sup>ND</sup> STAGE	12.5 X 60°

### NOZZLE SELECTION NOTE:

- NOZZLE MANUFACTURERS:  
2 stages: DELAVAN, HAGO, DANFOSS - modulating: BERGONZO
- NOZZLE SPRAY TYPES - SOLID SPRAY RECOMMENDED
- NOZZLE SIZES & PUMP PRESSURE BASED ON CALCULATED OUTPUT
- RETURN PRESSURES BASED ON BERGONZO A4 NOZZLES CHART

### GAS MANIFOLD NOTE:

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO<sub>2</sub> LEVELS OF 9 - 10%
- BASED ON SEA LEVEL
- NATURAL GAS HH<sub>v</sub> = 1010 BTU PER FT<sup>3</sup>/Hr.
- DATA BASED ON 0.1 INCHES WC BREECH PRESSURE

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.**

**FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS**

**BREECH PRESSURE RANGE FROM 0.05 TO 0.2 INCHES WC**



**GAS BURNER SET-UP GUIDE  
BUDERUS SB 615 SERIES BOILERS**

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT ± 5%		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING		MANIFOLD (INCHES W.C.)		PILOT MANIFOLD PRESSURE RANGE (INCHES W.C.)	OIL BURNER NOZZLE (PSIG ± 5%)	
		OIL (US GPH)	GAS (KBTU/H)			AIR ADJ.	GAS ADJ.	GROSS	NET		PUMP PRESSURE	NOZZLE (SOLID SPRAY)
SB615 240	RS 28/1	N/A	835	0.89	0.1	A = 3	B = 3	2.54	1.65	3.5 - 4.5	N/A	N/A
	RS 28/M					R1 = 3 R2 = 6	R3 = 0					
	RS 45/M LN *							3.35	2.46			
SB615 310	RS 28/1		1080	0.97	0.1	A = 4	B = 4	3.47	2.50	3.5 - 4.5		
	RS 28/M					R1 = 3 R2 = 6	R3 = 0					
	RS 45/M LN *							5.60	4.63			
SB615 400	RS 38/1		1393	1.22	0.1	A = 4	B = 4	3.25	2.03	3.5 - 4.5		
	RS 38/M					R1 = 3 R2 = 6	R3 = 2					
	RS 45/M LN *							6.25	5.03			
SB615 510	RS 50/M	1776	1.44	0.1	A = 4	B = 4	3.44	2.00	3.5 - 4.5			
	RS 45/M LN				R1 = 6 R2 = 4	R3 = 3						
							6.31	4.87				
SB615 640	RS 70/M	2228	1.78	0.1	A = 3	B = 3	4.13	2.35	3.5 - 4.5			
	RS 68/M LN				R1 = 4 R2 = 3	4.34				2.56		

**GAS MANIFOLD NOTE:**

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO<sub>2</sub> LEVELS OF 9 - 10%
- BASED ON SEA LEVEL
- NATURAL GAS HH<sub>v</sub> = 1010 BTU PER FT<sup>3</sup>/HR.
- DATA BASED ON 0.1 INCHES WC BREECH PRESSURE
- \* MODIFIED COMBUSTION HEAD

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.**

**FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS**

**BREECH PRESSURE RANGE FROM 0.05 TO 0.2 INCHES WC**

**GAS BURNER SET-UP GUIDE  
BUDERUS SB 735 SERIES BOILERS**

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT ± 5%		CHAMBER PRESSURE (INCHES W.C.)	BREECH PRESSURE (INCHES W.C.)	COMB. HEAD SETTING		MANIFOLD (INCHES W.C.)		PILOT MANIFOLD PRESSURE RANGE (INCHES W.C.)	OIL BURNER NOZZLE (PSIG ± 5%)	
		OIL (US GPH)	GAS (kBTU/H)			AIR ADJ.	GAS ADJ.	GROSS	NET		PUMP PRESSURE	NOZZLE (SOLID SPRAY)
SB735 790	RS 70/M	N/A	2751	1.98	0.1	A = 7	B = 7	5.38	3.40	3.5 - 4.5	N/A	N/A
	RS 68/M LN					R1 = 2	R2 = 6	5.60	3.62			
SB735 970	RS 100/M		3378	2.31	0.1	A = 4	B = 4	4.60	2.29	3.5 - 4.5		
	RS 120/M LN					R1 = 3	R2 = 4	7.15	4.84			
SB735 1200	RS 100/M		4179	2.6	0.1	A = 7	B = 7	5.90	3.30	3.5 - 4.5		
	RS 120/M LN					R1 = 1	R2 = 7	9.43	6.83			

**GAS MANIFOLD NOTE:**

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO<sub>2</sub> LEVELS OF 9 - 10%
- BASED ON SEA LEVEL
- NATURAL GAS HH<sub>v</sub> = 1010 BTU PER FT<sup>3</sup>/Hr.
- DATA BASED ON 0.1 INCHES WC BREECH PRESSURE

**ALL SETTINGS ARE PRELIMINARY COMMISSIONING SETTINGS.  
FURTHER ADJUSTMENTS MAYBE NECESSARY DUE TO SITE INSTALLATION AND COMBUSTION CONDITIONS  
BREECH PRESSURE RANGE FROM 0.05 TO 0.2 INCHES WC**





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