



SAMIA® ITALIA Srl
Via Bergamo, 39
23807 Merate (LC)
ITALY

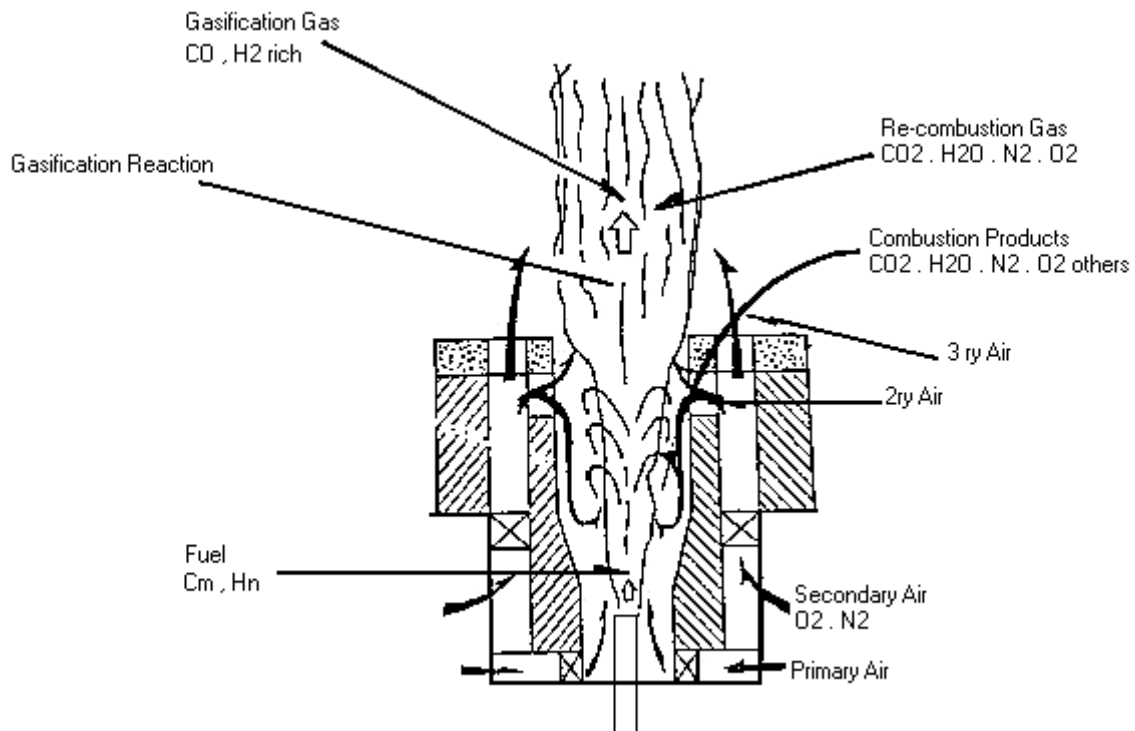
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OPERATING PRINCIPLE OF SRG L_oNO_x GAS AND/OR OIL BURNER

The "SRG" burner , without requiring any special power , recirculates air and part of the combustion products into the jet energy of fuel .

Thus this is called on the "Self Recirculating Gasification" (SRG) burner .

As the attached illustration shows , air and high temperature combustion products are introduced into the tile by the jet energy of fuel so that partial combustion and endo-thermic gas reaction takes place . NO_x is drastically reduced by the effects of both flue gas recirculation and three stages combustion .





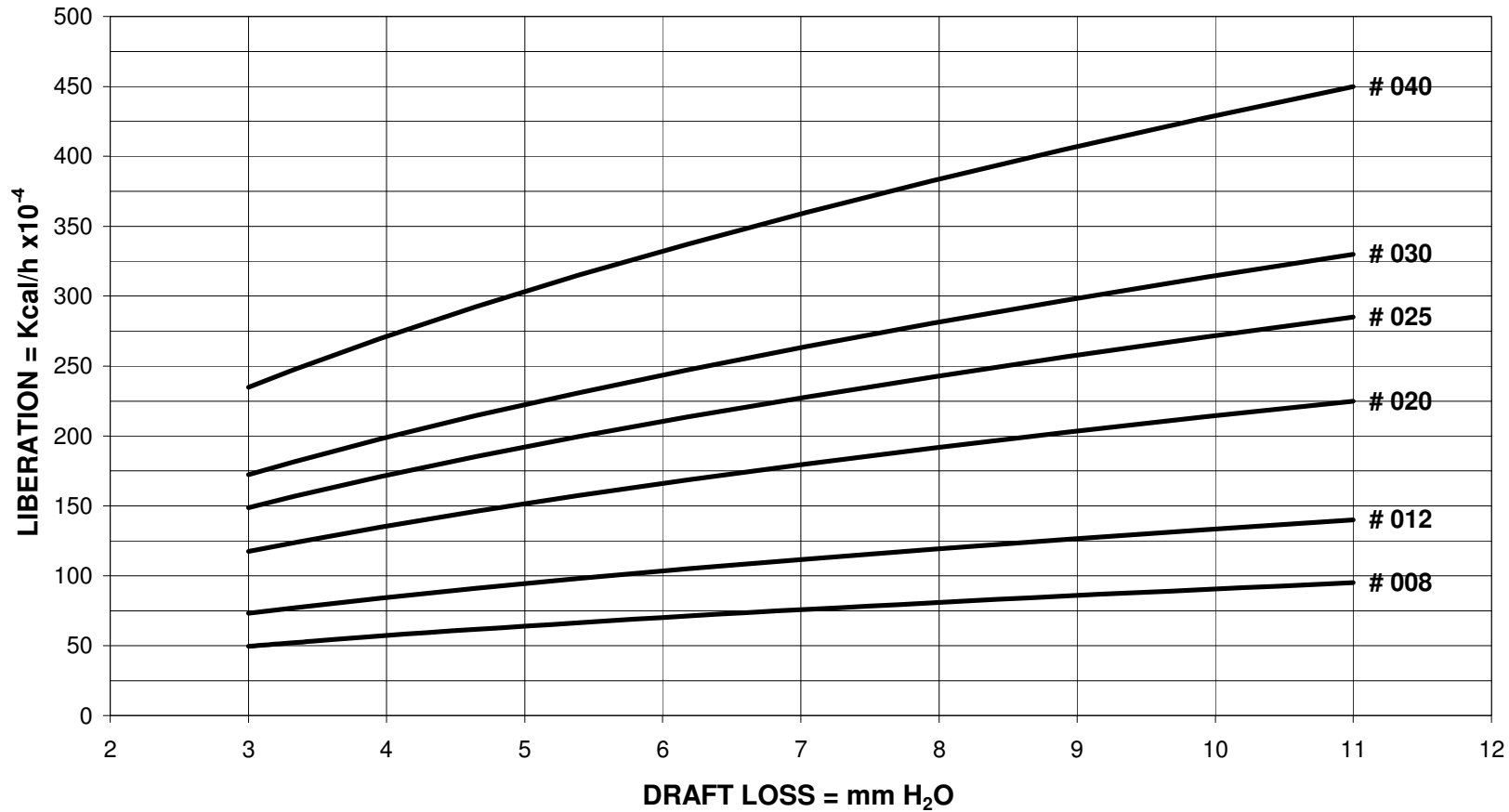
SAMIA® ITALIA Srl
Merate Italy

SRG BURNER SIZING CHART NATURAL DRAFT

OIL & GAS FIRING

Date :
13/03/18

SC-013-03



GENERAL CONDITION

1. EXCESS AIR:

GAS

10%

OIL 15%

AIR TEMPERATURE :

20°C

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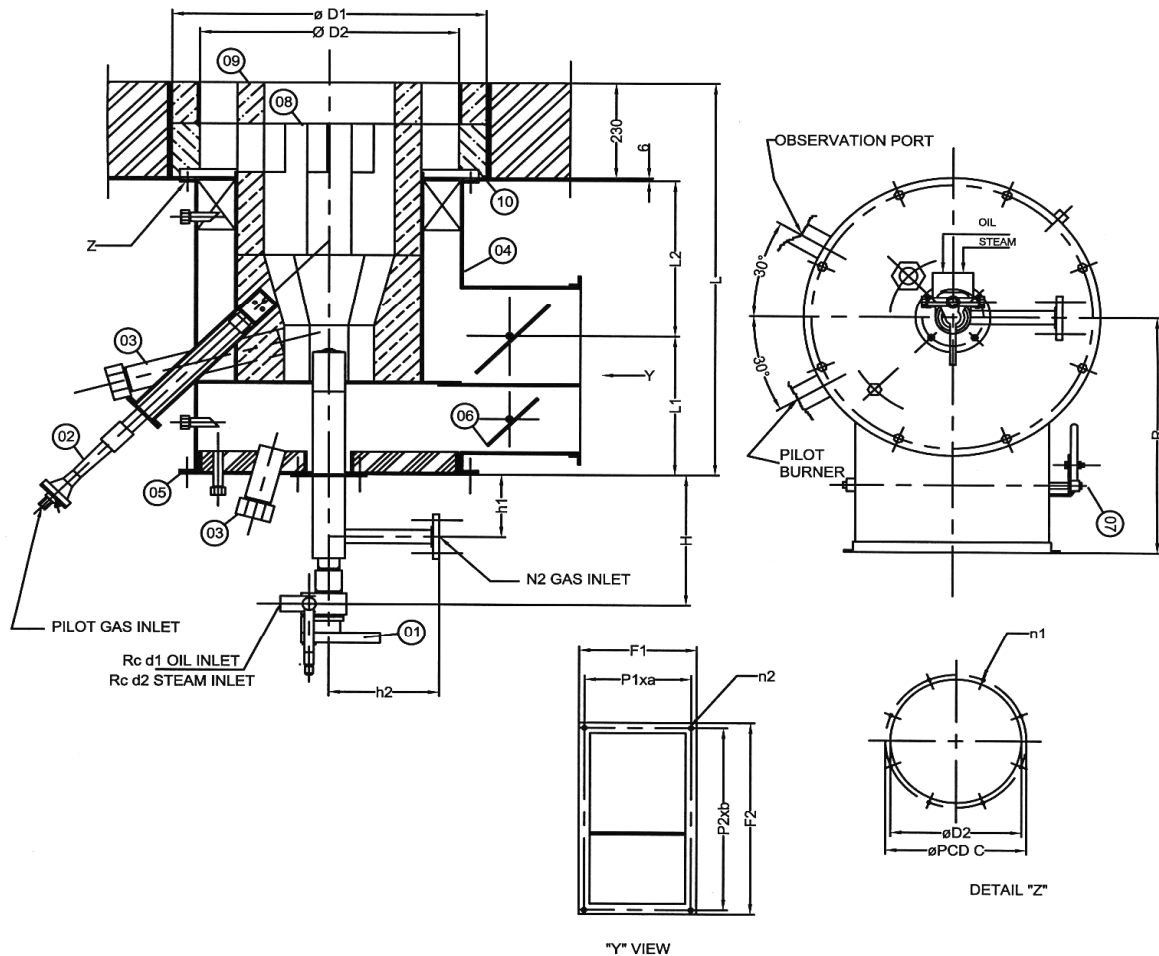
INSTALLATION OF OIL & GAS COMBUSTION BURNER TYPE M-SRG-ND-C

DWG. N: SC-008-03

REV. 1

Page 1 of 1 Date 12/03/18

TYPE / MARK	Oil Gun	Rc d1	Rc d2	N2	D1	D2	D3	C	L	L1	L2	H	h1	h2	F1	P1xa	F2	P2xb	n1	n2	R
M-SRG-008-ND-C	SAO1	1/2	1/2	1	660	430	530	490	881	245	400	400	150	220	310	135x2	445	135x3	8	10	450
M-SRG-012-ND-C	SAO1	1/2	1/2	1	725	495	595	555	906	255	415	400	150	235	400	120x3	470	143x3	8	12	490
M-SRG-020-ND-C	SAO2	1/2	1/2	1	825	595	695	655	946	270	440	410	150	250	540	125x4	500	115x4	8	16	570
M-SRG-025-ND-C	SAO2	1/2	1/2	1 1/2	880	650	750	710	1021	290	495	420	150	250	595	138x4	540	125x4	12	16	620
M-SRG-030-ND-C	SAO2	1/2	1/2	2	925	695	795	755	1076	315	525	440	150	250	625	146x4	590	110x5	12	18	680
M-SRG-040-ND-C	SAO3	1/2	1/2	2	1015	785	885	845	1166	340	590	440	150	250	725	137x5	640	120x5	12	20	760



10	1 SET	MUFFLE BLOCK	Al ₂ O ₃ 45%
09	1 SET	BURNER BLOCK	Al ₂ O ₃ 45%
08	1 SET	BURNER TILE	Al ₂ O ₃ 45%
07	1 SET	DAMPER CONTROLLER	CARBON STEEL
06	1 SET	DAMPER & SHAFT	A 516 GR 60
05	1	FRONT PLATE	A 516 GR 60
04	1	AIR CASING thk 5mm	A 516 GR 60
03	2	OBSERVATION PORT	A 106 gr b / PIREX
02	1	PILOT BURNER	AISI 304/A 106 gr b
01	1	COMBINATION BURNER	AISI 304/A 106 gr b
<i>ITEM</i>	<i>QTY</i>	<i>DESCRIPTION</i>	<i>BASE MATERIAL</i>

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M-SRG-FD BURNER SIZING CHART

DWG. N°: SC-014-03

REV.

1

Page 1 of 1

Date
13/03/18

STANDARD BURNER DESIGN CONDITION

- EXCESS AIR : 15% OIL / 10% AIR
- COMBUSTION AIR TEMPERATURE : AMBIENT / 450 °C
- DRAFT : 50 - 10 mmH₂O

BURNER MODEL N°

HEAT LIBERATION (kcal/h)

SRG-M-005-FD

500,000

SRG-M-010-FD

500,000 ~ 1,000,000

SRG-M-015-FD

1,000,000 ~ 1,500,000

SRG-M-020-FD

1,500,000 ~ 2,000,000

SRG-M-025-FD

2,000,000 ~ 2,500,000

SRG-M-030-FD

2,500,000 ~ 3,000,000

SRG-M-040-FD

3,000,000 ~ 4,000,000

SRG-M-050-FD

4,000,000 ~ 5,000,000

SRG-M-060-FD

5,000,000 ~ 6,000,000

SRG-M-080-FD

6,000,000 ~ 8,000,000

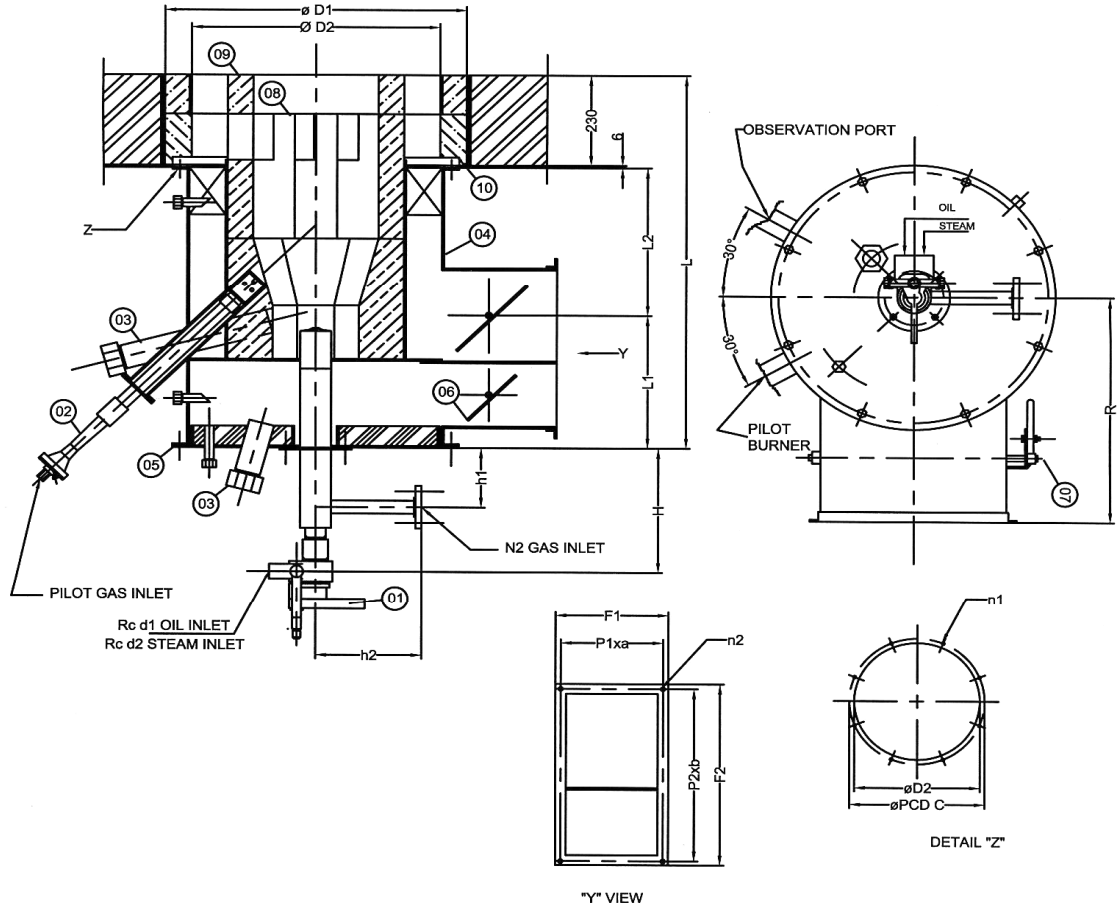
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TYPE / MARK	Oil Gun	Rc d1	Rc d2	N2	D1	D2	D3	C	L	L1	L2	H	h1	h2	F1	P1xa	F2	P2xb	n1	n2	R
M-SRG-005-FD	SA01	1/2	1/2	1	550	390	530	480	691	215	240	410	150	220	230	95 x 2	385	115 x 3	8	10	380
M-SRG-010-FD	SA01	1/2	1/2	1	635	475	615	565	816	250	330	410	150	220	270	115 x 2	460	105 x 3	8	12	470
M-SRG-015-FD	SA02	1/2	1/2	1	700	540	680	630	896	260	400	410	150	235	325	95 x 3	480	110 x 4	8	14	520
M-SRG-020-FD	SA02	1/2	1/2	1 1/2	745	585	725	675	946	270	440	410	150	250	355	105 x 3	500	115 x 4	8	14	560
M-SRG-025-FD	SA02	1/2	1/2	2	775	615	755	705	1021	290	495	410	150	250	385	115 x 3	540	100 x 5	12	16	610
M-SRG-030-FD	SA03	1/2	1/2	2	810	650	790	740	1076	315	525	460	150	250	400	90 x 4	590	110 x 5	12	18	650
M-SRG-040-FD	SA03	1/2	1/2	2	870	710	855	820	1166	340	590	460	150	250	440	100 x 4	640	100 x 6	16	20	720



10	1 SET	MUFFLE BLOCK	Al ₂ O ₃ 45%
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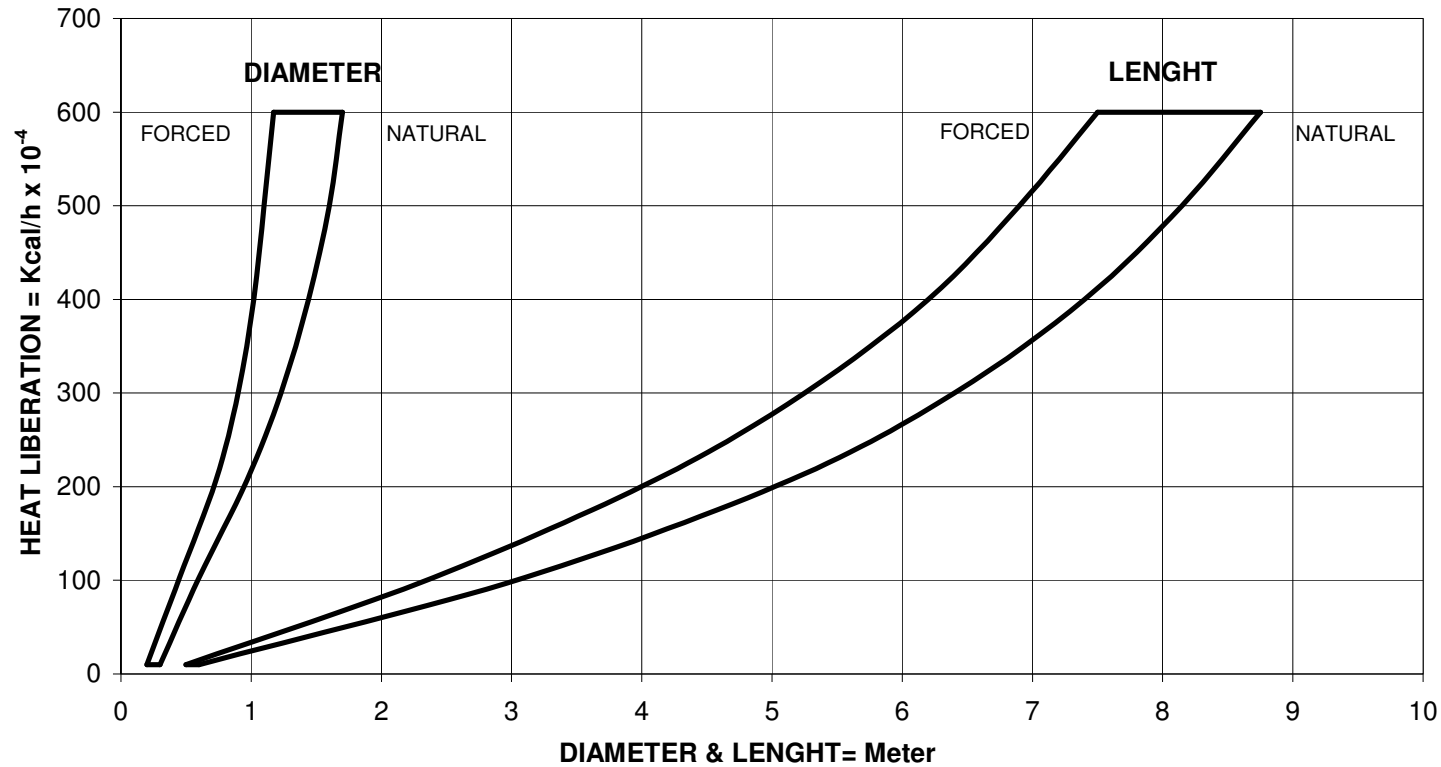
SAMIA® ITALIA Srl
Merate Italy

M-SRG-BURNER FLAME CHART

OIL FIRING NATURAL & FORCED DRAFT

Date :
13/03/18

SC-009-03



CONDITION

1. EXCESS AIR : 15%
2. FURNACE TEMPERATURE : 800°C
3. ATOMIZING STEAM : 0.35Kg / Kg of OIL
4. FURNACE PRESSURE : -6 ÷ -10 mmH₂O

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