



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

Tel. +39 0396065920  
Fax. +39 0396064548  
e-mail: [info@samiasrl.com](mailto:info@samiasrl.com)  
[www.samiasrl.com](http://www.samiasrl.com)

## **OPERATING PRINCIPLE OF SRX LoNOx GAS BURNER**

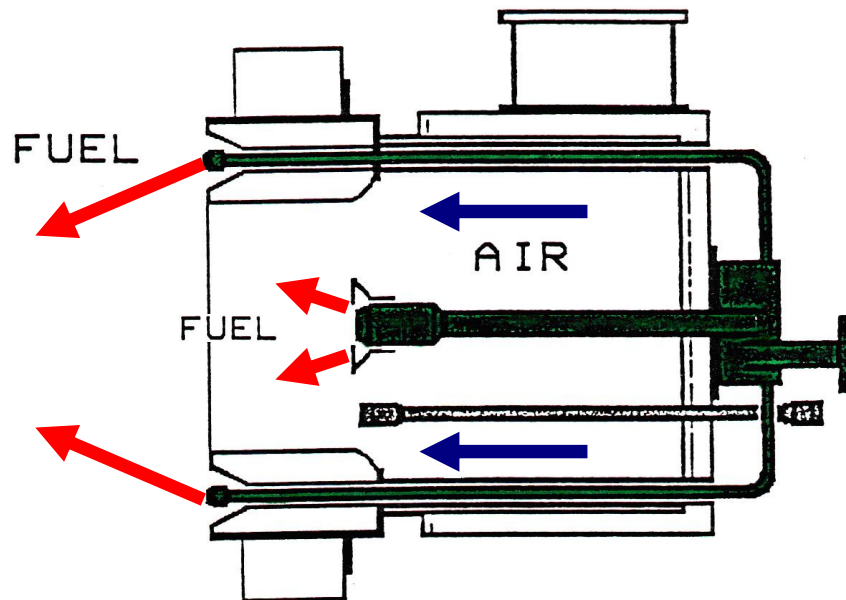
"SRX" burner, utilizes a consolidated combustion method called "Self-fuel diluting" which, without diminishing any combustibility, effectively combines the two most powerful reducing mechanisms to drastically lower NOx emissions:

- a) Flue Gas Recirculation
- b) Multi-Port Fuel Injection

"SRX" burner has an extremely compact construction. As schematically shown below fuel is ejected through a Central Primary Fuel Nozzle and Four Peripheral Secondary Fuel Tips, while all the combustion air flows through the burner tile, allowing the Primary and Secondary combustion zone to be formed within the flame itself .

In the Primary zone, a high temperature area is formed, stabilizing flames in the Secondary zone, obtaining a Super Low NOx performance.

The "SRX" type gas burner produces a short, round flame and it's designed to operate under Natural or Forced draft condition.



**Samia® Italia Srl is an independent Organization NOT being associated to any other entity showing same Brand Name and/or Logo**



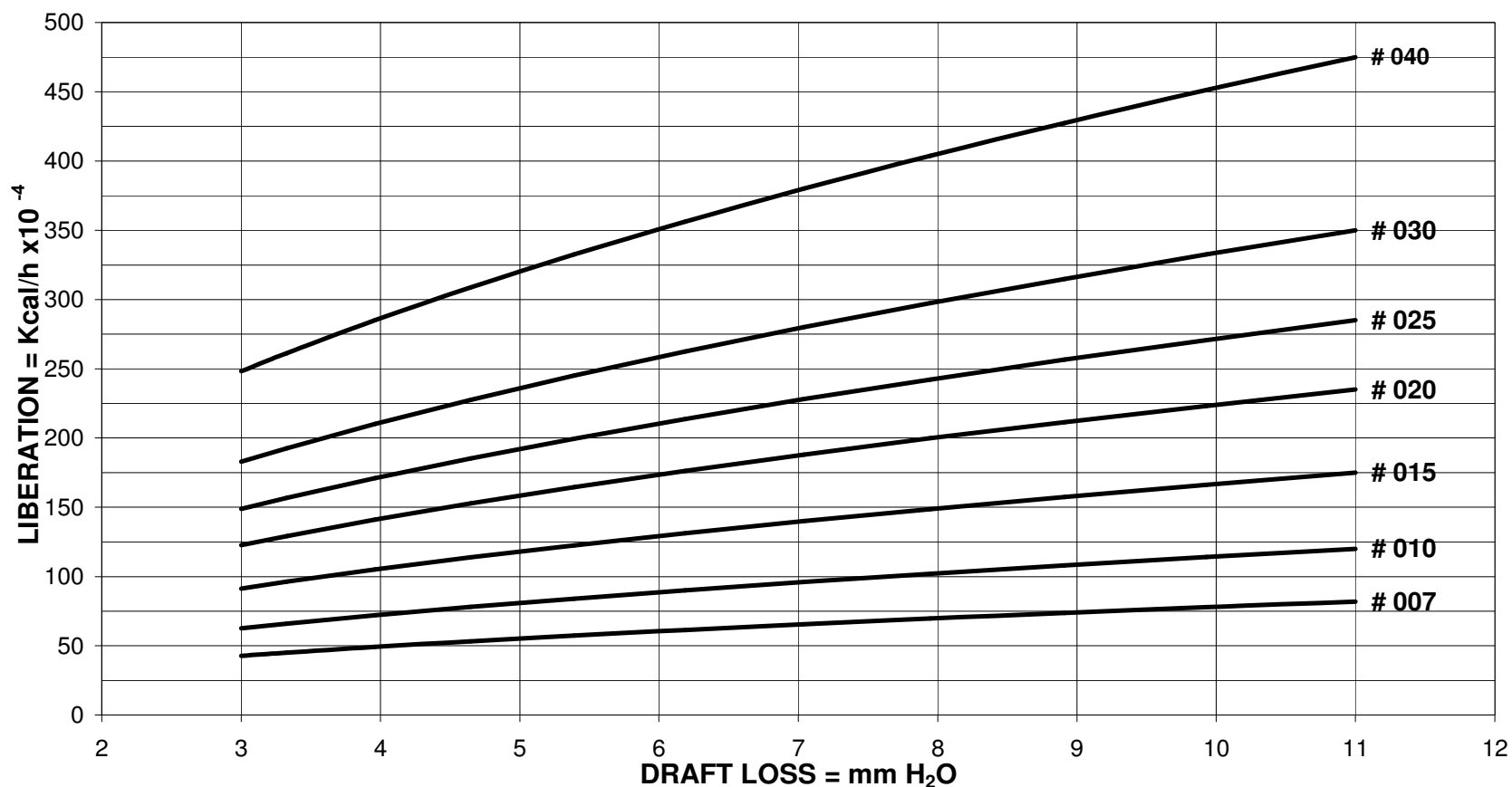
**SAMIA® ITALIA Srl**  
Merate Italy

# SRX BURNER SIZING CHART NATURAL DRAFT

## GAS ONLY FIRING

Date :  
28/10/2018

SC-011-03



GENERAL CONDITION

1. EXCESS AIR:  
GAS 10%

AIR TEMPERATURE :  
20°C

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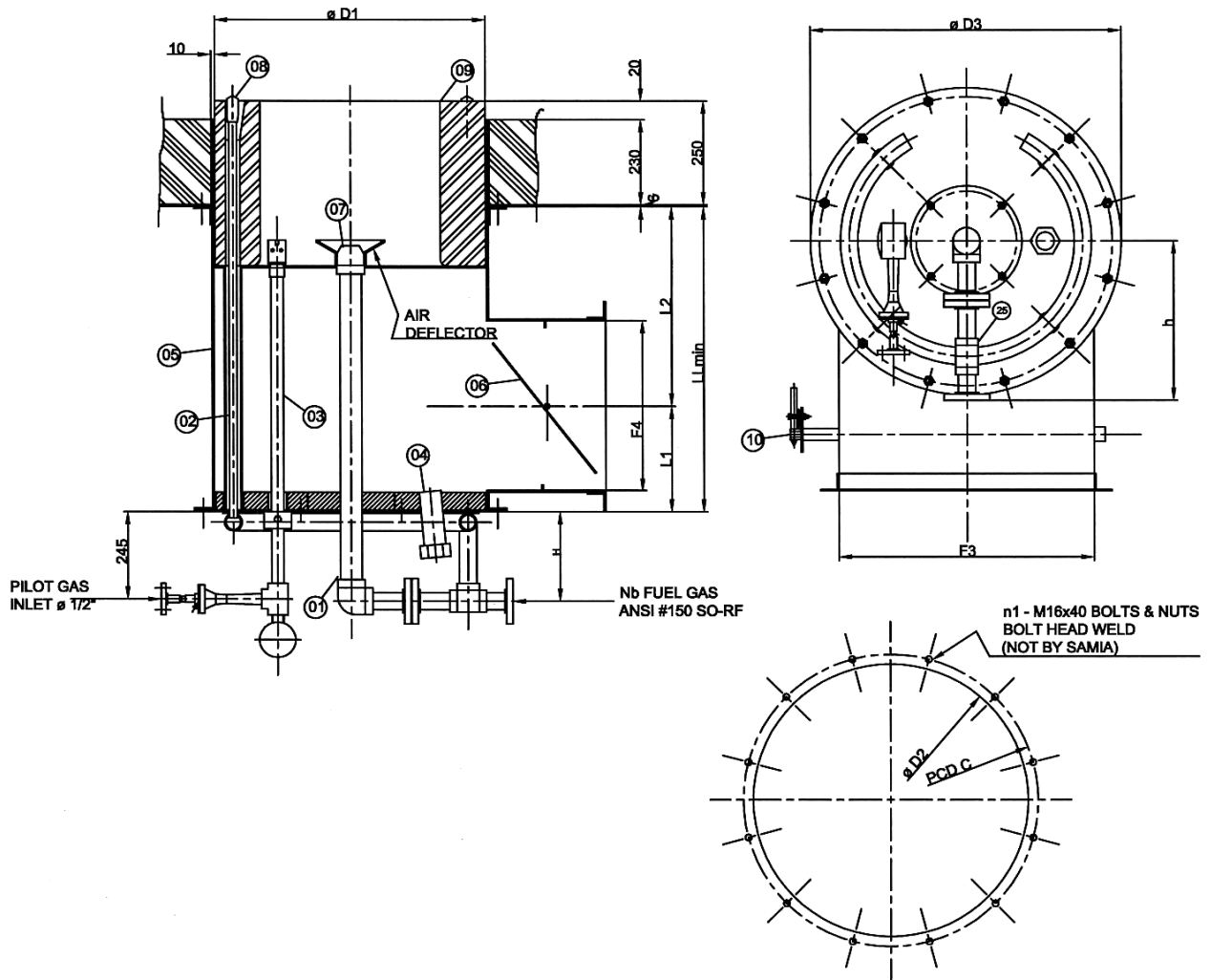
## INSTALLATION OF GAS COMBUSTION BURNER TYPE SRX-ND

DWG. N°: SC-006-03

REV. 1

Page 1 of 1 Date 11/05/18

TYPE / MARK	Nb	D1	D2	D3	C	LL	L1	L2	F3	F4	H	h	n1
SRX-007-ND	1"	510	530	610	570	530	150	380	440	170	220	330	8
SRX-010-ND	1"	530	550	630	590	580	170	410	460	210	220	340	8
SRX-015-ND	1"	605	625	705	665	640	195	445	530	260	220	380	8
SRX-020-ND	1 ½"	655	675	755	715	710	220	490	560	310	255	405	12
SRX-025-ND	1 ½"	700	720	800	760	775	240	535	610	350	255	425	12
SRX-030-ND	2"	740	760	840	800	820	260	560	650	390	280	445	12
SRX-040-ND	2"	820	840	920	880	940	305	635	690	480	280	485	12



10	1	DAMPER CONTROLLER	CarbonSteel
09	1 SET	MUFFLE BLOCK	Al <sub>2</sub> O <sub>3</sub> 45%
08	4	GAS TIP "B"	AISI 304
07	1	GAS TIP "A"	AISI 304
06	1	DAMPER & SHAFT	A 516 GR 60
05	1	AIR CASING thk 5mm	A 516 GR 60
04	1	OBSERVATION PORT	A 516 GR 60
03	1	PILOT BURNER / PILOT TIP	A 106 gr b / AISI 304
02	4	GAS BURNER "B"	A 106 gr b
01	1	GAS BURNER "A"	A 106 gr b
<b>ITEM</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>BASE MATERIAL</b>

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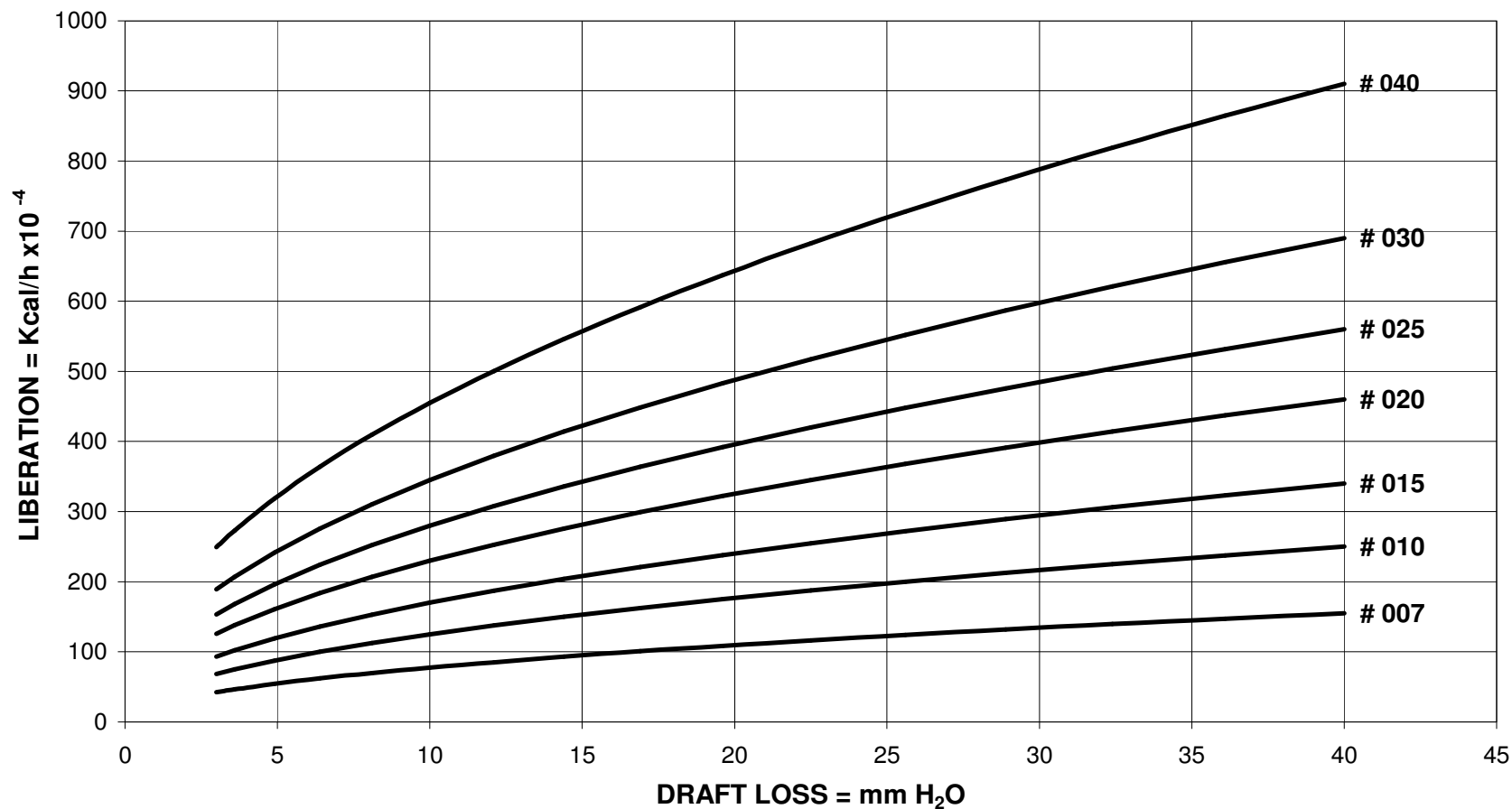
**SAMIA® ITALIA Srl**  
Merate Italy

# SRX BURNER SIZING CHART FORCED DRAFT

## GAS ONLY FIRING

Date :  
13/05/18

SC-012-03



GENERAL CONDITION

1. EXCESS AIR: GAS  
10%

AIR TEMPERATURE :  
20°C

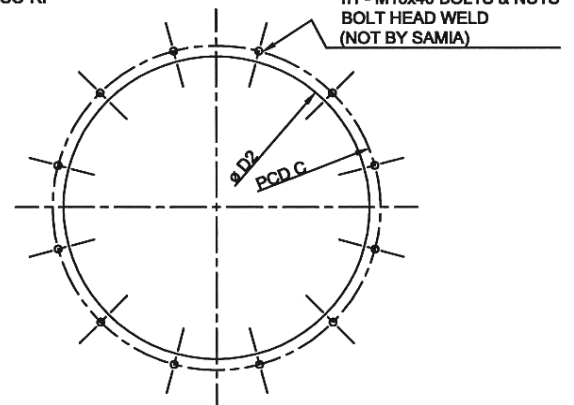
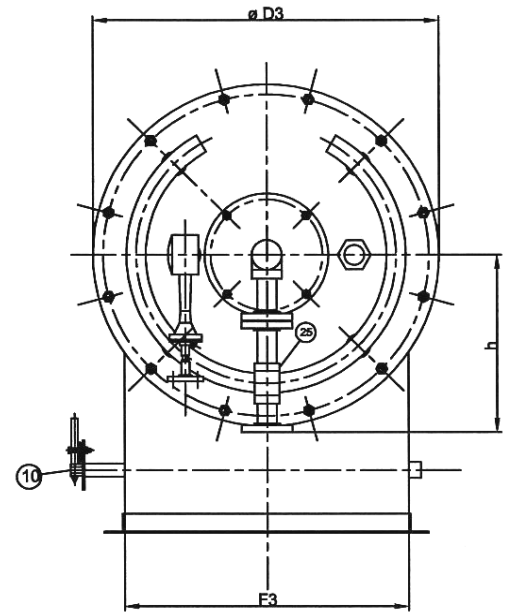
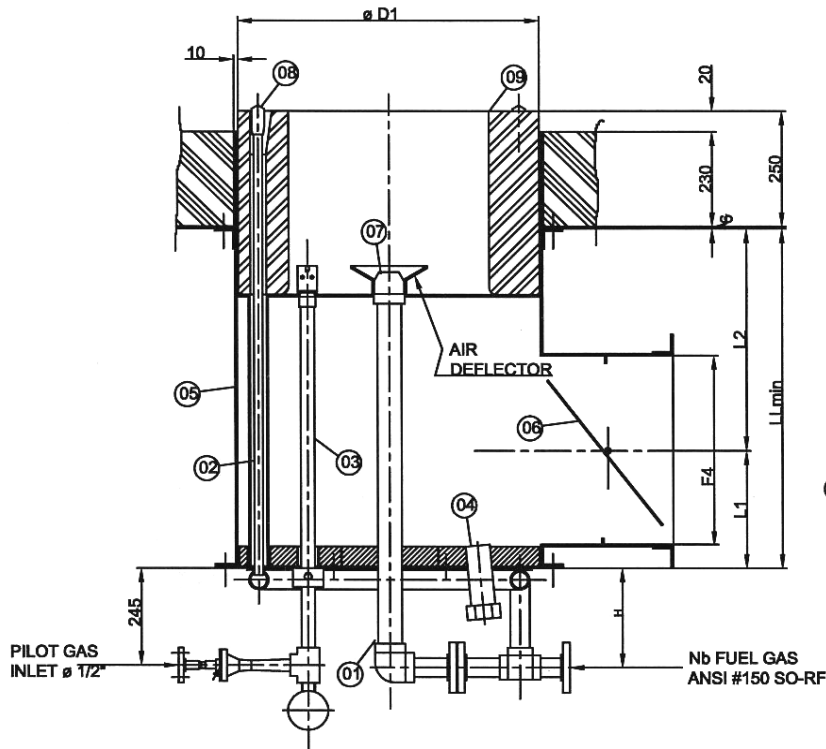
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## INSTALLATION OF GAS COMBUSTION BURNER TYPE SRX-FD

TYPE / MARK	Nb	D1	D2	D3	C	LL	L1	L2	F3	F4	H	h	n1
SRX-007-FD	1"	425	445	525	485	530	150	380	355	165	220	290	8
SRX-010-FD	1"	470	490	550	530	580	170	410	390	185	220	310	8
SRX-015-FD	1"	505	525	605	565	640	195	445	420	235	220	330	8
SRX-020-FD	1 1/2"	540	560	640	600	710	220	490	450	270	255	345	8
SRX-025-FD	1 1/2"	570	590	670	630	775	240	535	475	295	255	360	8
SRX-030-FD	2"	620	640	720	680	820	260	560	515	320	280	385	12
SRX-040-FD	2"	665	685	765	725	940	305	635	550	380	280	410	12



n1 - M16x40 BOLTS & NUTS  
BOLT HEAD WELD  
(NOT BY SAMIA)

10	1	DAMPER CONTROLLER	CarbonSteel
09	1 SET	MUFFLE BLOCK	Al <sub>2</sub> O <sub>3</sub> 45%
08	4	GAS TIP "B"	AISI 304
07	1	GAS TIP "A"	AISI 304
06	1	DAMPER & SHAFT	A 516 GR 60
05	1	AIR CASING thk 5mm	A 516 GR 60
04	1	OBSERVATION PORT	A 516 GR 60
03	1	PILOT BURNER / PILOT TIP	A 106 gr b / AISI 304
02	4	GAS BURNER "B"	A 106 gr b
01	1	GAS BURNER "A"	A 106 gr b
<b>ITEM</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>BASE MATERIAL</b>

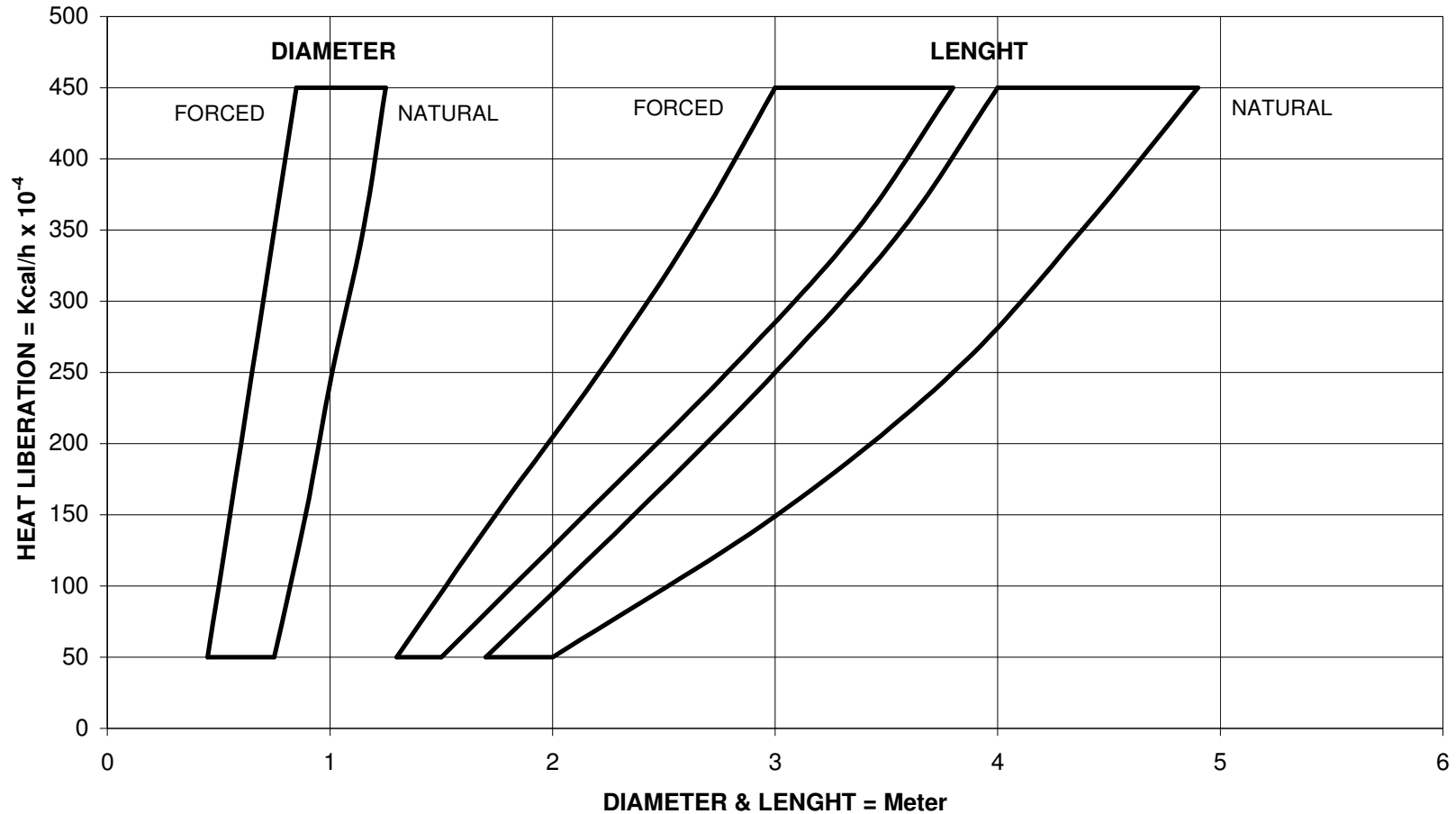


**SAMIA® ITALIA Srl**  
Merate Italy

## SRX-BURNER FLAME CHART GAS FIRING NATURAL & FORCED DRAFT

Date :  
13/05/18

SC-010-03



CONDITION  
1. EXCESS AIR : 10%  
2. FURNACE TEMPERATURE : 800°C

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