

# Drying ovens

are designed to provide high temperatures up to 300°C





















- temperature range: 5°C above ambient temperature...+300°C
- quality control protocol (at +105°C)
- English instruction manual
- temperature protection class 2.0 to DIN 12880
- open door alarm
- fan speed control (SLW)
- castors for SL 400, 750, 1000
- air-flap
- air-flap control in range 0...100%
- LAN and USB ports
- height adjustable feet
- access port: Ø30 mm for models 53-1000 or Ø9 mm for models 15, 32 with silicone plug on the left wall
- door lock
- stainless steel wire shelves (INOX)
- solid door
- main power switch flush with housing prevents unintentional switch off

### **EXTRA FOR SMART PRO**

- Wi-Fi
- LAN cable
- LabDesk
- temperature protection class 3.1 to DIN 12880

#### AVAILABLE VERSIONS

- SMART
- SMART PRO (not available for SL 15/32 )
- SIMPLE (see page 74)
- with nitrogen blow (see page 70)
- reinforced

#### SOFTWARE

- LabDesk for data download to a PC via LAN or Wi-Fi (optional for SMART version)
- LabDesk Cloud platform for remote data monitoring





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parameters		SL 15	SL 32	SL 53	SL 75	SL 115	SL 180	SL 240	SL 400	SL 750	SL 1000
air convection				natural (SLN	l) / forced (Sl	-W)				forced (SLW	)
fan speed control [%]				0100 (SLW	)			1	0100 (SLW	")	
chamber capacity [I]		15	32	56	75	112	180	245	424	749	1005
door type		SO	lid			soli	id/door with v	iewing windo	w (option)		
temperature range					+5°C al	oove ambient	temperature	+300°C			
emperature resolution [°C]	]					evei	ry 0,1				
controller				microproc	essor PID, 4,	" (SMART) / 7"	(SMART PRO	) full-colour to	uch screen		
nterior					acid	-proof stainles	s steel to DIN	1.4301			
haudin a	-					powder co	ated sheet				
housing	IG (Inox/G)	stainless steel linen finish to DIN 1.4301									
max shelf	-	10	10	25	25	25	25	25	25	-	-
workload <sup>3</sup> [kg]	PW <sup>1</sup> version	=	=	50	50	50	50	100	100	100	100
max unit	-	20	30	40	40	60	75	90	120	140	-
workload [kg]	W <sup>2</sup> version	-	-	80	80	120	120	300	300	300	300
nominal power [W]		700	1200	1700	1700	2500	2500	3100	4000	5500	5500
weight [kg]		31	35	48	60	65	88	114	162	260	307
castors		r	10			option			yes		
temperature fluctuation <sup>4</sup>	SLN	0,4	0,4	0,4	0,4	0,4	0,4	0,6	-	-	-
at +105°C [+/- °C]	SLW	0,3	0,3	0,2	0,2	0,2	0,2	0,4	0,4	0,6	0,6
temperature variation <sup>4</sup>	SLN	2,5	2,5	2,0	2,2	2,2	2,3	2,5	-	-	-
at +105°C [+/- °C]	SLW	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,5	2,5	3,0
over temperature protectio	n			class	2.0 to DIN 1	2880 / class 3.1	(option) / cla	ss 3.1 in SMART	PRO		
power supply		:	230v 50-60Hz	z /115V 50-60H	z	230V 50-60I	Hz/3P + PE 2	30V 50-60Hz		-N 400V 50-6 PE 230V 50-6	
shelves fitted/max		1/2	1/3	2/5	2/5	2/7	3/9	3/10	3/14	5/16	6/22
warranty				1		24 m	onths				
manufacturer						POL	-EKO®				-

all the above technical data refer to standard units (without optional accessories)

- 1 reinforced shelf
- 2 reinforced version
- 3 on uniformly loaded surface
- $\text{4-fluctuation measured in centre of chamber; in space, variation (K) calculated for chamber as: K= +/- (T avg \, max T \, avg \, min) / \, 2 } \\$

# OPTIONS & ACCESSORIES (icon description see pages 117-124)













































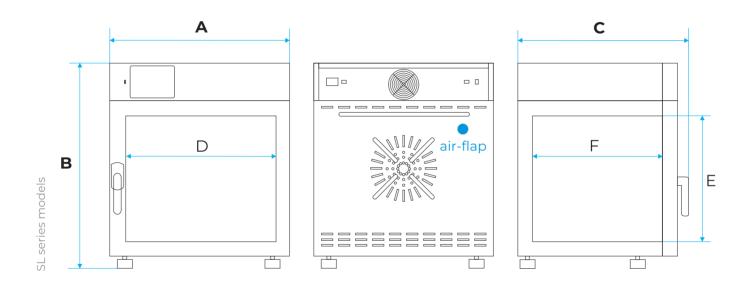


All dimensions refer to standard units (without optional accessories).

Overall depth doesn't include 50 mm of power cable, the width does not include the 20 mm of access port's silicone plug.

Possibility of changing the shelf position:

- SL 15 every 50 mm
- SL 32 every 60 mm
- SL 53/75/115/180/240/400/750/1000 every 70 mm



		SL 15	SL 32	SL 53	SL 75	SL 115	SL 180	SL 240	SL 400	SL 750	SL 1000
overall dims [mm]	A width	520	600	600	600	660	660	820	1020	1260	1260
	B height	560	640	710	850	850	1040	1140	1440	1600	2000
	C depth	470	520	620	620	710	820	770	770	880	880
	D width	320	400	400	400	460	460	600	800	1040	1040
internal dims [mm]	E height	240	320	390	530	540	720	800	1040	1200	1610
	F depth	200	250	350	350	440	550	500	500	600	600
air-flap ext. diameter [mm]					40				60		

DRYING OVENS WITH NITROGEN BLOW

are laboratory ovens with dry nitrogen blow system of the chamber















The PN-ISO 589:2006 standard for the determination of total moisture in hard coal requires that samples of coal subject to oxidation be dried at a temperature of +105°C in a nitrogen flow drying oven.

Detailed requirements and specification of the oven have been described in point 6 of the norm. Use a "nitrogen flow drying oven, allowing to control the temperature in the range from +105°C to +110°C with additional possibility of blowing dry nitrogen stream, at a flow rate of about 15 dryer volumes per hour".

To meet these requirements, we have developed a special version of drying ovens that can operate strictly as per the above standard.





#### MAIN STANDARD BENEFITS

- temperature range: 5°C above ambient temperature...+300°C
- quality control protocol (at +105°C)
- English instruction manual
- temperature protection class 2.0 to DIN 12880
- open door alarm
- fan speed control (SLWN)
- air-flap
- LAN and USB ports
- height adjustable feet
- access port: Ø30 mm for models 53-240 or
  Ø9 mm for models 15, 32 with silicone plug on the left wall
- door lock
- stainless steel wire shelves (INOX)
- solid door
- main power switch flush with housing prevents unintentional switch off

#### CALIBRATION

- Calibration in air in 9 points (corners + geometrical center) of the chamber at 1 selected by the customer temperature in accredited laboratory.
- Calibration in nitrogen in 9 points (corners + geometrical center) of the chamber at 1 selected by the customer temperature in accredited laboratory.
- Calibration of laboratory rotameter in accredited laboratory.

All calibrations are confirmed by 'Calibration Certificate'.

### **a** AVAILABLE **MODELS**

- SLWN1 laboratory oven with dry nitrogen blow system of the chamber; the kit includes connections, valves and a laboratory rotameter (which can be calibrated)
- SLWN2 laboratory oven with dry nitrogen blow system of the chamber; the kit includes connections, valves and a tech rotameter (which cannot be calibrated)

The nitrogen bottle is not supplied.





					-	-		
parameters	I	SLWN1 15 SLWN2 15	SLWN1 32   SLWN2 32	SLWN1 53 SLWN2 53	SLWN1 115 SLWN2 115	SLWN1 240   SLWN2 240		
air convection				forced				
fan speed control [%]			O1	00		10100		
chamber capacity [l]		15	32	56	112	245		
door type		SO	lid	solid/d	oor with viewing window	(option)		
emperature range			+5°C abo	ove ambient temperature .	+300°C			
emperature resolution [°C]	ı			every 0,1				
controller			microproce	ssor PID, 4,3" full-colour to	ouch screen			
interior			acid-p	proof stainless steel to DIN	1.4301			
-		powder coated sheet						
housing	IG	stainless steel linen finish to DIN 1.4301						
max shelf	-	10	10	25	25	25		
workload <sup>3</sup> [kg]	PW <sup>1</sup> version	=	-	50	50	100		
max unit	-	20	30	40	60	90		
workload [kg]	W <sup>2</sup> version	-	-	80	120	300		
nominal power [W]		700	1200	1700	2500	3100		
weight [kg]		31	35	48 65		114		
castors		n	10	option				
temperature fluctuation <sup>4</sup>	SLN	0,4	0,4	0,4	0,4	0,6		
at +105°C [+/- °C]	SLW	0,3	0,3	0,2	0,2	0,4		
temperature variation <sup>4</sup>	SLN	2,5	2,5	2,0	2,2	2,5		
at +105°C [+/- °C]	SLW	2,0	2,0	2,0	2,0	2,0		
over temperature protectio	n		class 2	:.0 to DIN 12880 / class 3.1 (d	option)			
power supply		2	30V 50-60Hz / 115V 50-60H	Z	230V 50-60Hz / 3P	+ PE 230V 50-60Hz		
shelves fitted/max		1/2	1/3	2/5	2/7	3/10		
warranty		24 months						
manufacturer		POL-EKO <sup>®</sup>						

all the above technical data refer to standard units (without optional accessories)

- 1 reinforced shelf 2 reinforced version
- 3 on uniformly loaded surface
- 4 fluctuation measured in centre of chamber; in space, variation (K) calculated for chamber as: K= +/- (T avg max T avg min) / 2

# OPTIONS & ACCESSORIES (icon description see pages 117-124)











































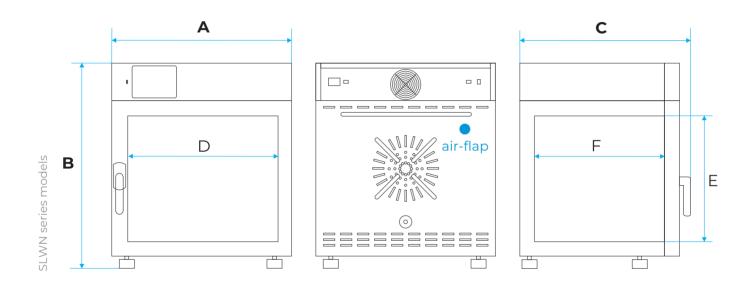


All dimensions refer to standard units (without optional accessories).

Overall depth doesn't include 50 mm of power cable, the width does not include the 20 mm of access port's silicone plug.

Possibility of changing the shelf position:

- SLWN 15 every 50 mm
- SLWN 32 every 60 mm
- SLWN 53/115/240 every 70 mm



		SLWN1 15 SLWN2 15	SLWN1 32 SLWN2 32	SLWN1 53 SLWN2 53	SLWN1 115 SLWN2 115	SLWN1 240 SLWN2 240
overall dims [mm]	A width	510	590	590	650	820
	B height	550	640	710	860	1140
	C depth	470	520	630	730	770
	D width	320	400	400	460	600
internal dims [mm]	E height	240	320	390	530	800
	F depth	200	250	350	440	500
air-flap ext. diameter [mm]			4	-0		60

# SIMPLE DRYING OVEN

Simple in operation laboratory drying oven - convenient unit for customers who do not require advanced programming.

The equipment is based on a simple controller that allows you to set only the temperature.

























- temperature range: +5°C above ambient temperature... +250°C
- quality control protocol (at +105°C)
- English instruction manual
- temperature protection 1.0 class to DIN 12880
- access port (Ø30 mm) with silicone plug on the right wall
- stainless steel wire shelves (INOX)
- solid door
- fan (SLW, no control)
- open air-flap (no control)
- continuous operating
- height adjustable feets
- main power switch flush with housing prevents unintentional switch off





### TECHNICAL DATA

TECHNIC/LE DATA	•	<b>-</b>	•	<b> -</b>		
parameters	SLN 53 SIMPLE	SLW 53 SIMPLE	SLN 115 SIMPLE	SLW 115 SIMPLE		
air convection	nat	ural	fore	ced		
chamber capacity [I]	5	56 109				
door type		SC	olid			
temperature range		+5°C above ambient	temperature+250°C			
temperature resolution [°C]		eve	ry 0,1			
controller		SIMPLE controller wit	th external LED display			
interior		stainless stee	el to DIN 1.4016			
housing		powder coated sheet				
max shelf workload [kg]	1	0	1	)		
max unit workload [kg]	4	40 60				
nominal power [W]	17	00	25	00		
weight [kg]	4	-6	6	4		
temperature fluctuation¹ at +105°C [+/- °C]	0	,3	0	3		
temperature variation¹ at +105°C [+/- °C]	2,5	1,5	2,5	1,5		
time to reach set temperature [min]	99	19	88	23		
energy consumption at 105°C [Wh/h]	185	305	247	301		
over temperature protection		class 1.0 to DIN 12880				
power supply	230V 50-60Hz	230V 50-60Hz / 115V 50-60Hz 230V 50-60Hz				
shelves fitted/max	2	/5	2,	7		
warranty		24 m	onths			
manufacturer		POL	-EKO			

all the above technical data refer to standard units (without optional accessories)

 $1-fluctuation\ measured\ in\ centre\ of\ chamber;\ in\ space,\ variation\ (K)\ calculated\ for\ chamber\ as:\ K=+/-\ (T\ avg\ max\ -\ T\ avg\ min)\ /\ 2$ 











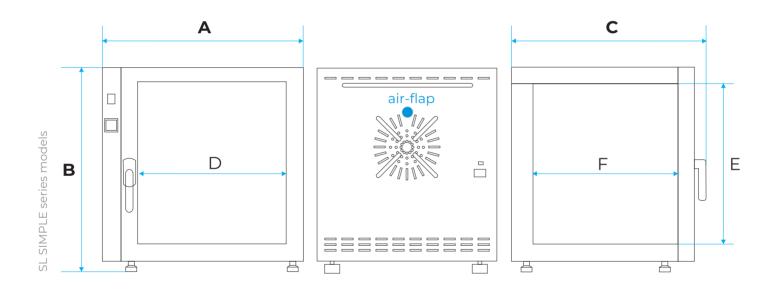




All dimensions refer to standard units (without optional accessories).

Overall depth doesn't include 50 mm of power cable, the width does not include the 20 mm of access port's silicone plug.

Possibility to change the position of shelf SL 53/115 every 70 mm



		SLN 53 SIMPLE	SLN 115 SIMPLE	SLW 53 SIMPLE	SLW 115 SIMPLE
	A width	660	720	660	720
overall dims [mm]	B height	590	730	590	730
	C depth	620	710	620	710
	D width	400	460	400	460
internal dims [mm]	E height	390	530	390	530
	F depth	350	440	350	440
air-flap ext. diameter [mm]			4	0	



# HOT-AIR STERILIZERS

have been equipped with a couple of additional functions that ensure effective sterilization. They can sterilize at temperatures of up to 250°C.

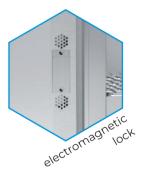




















- temperature range: 5°C above ambient temperature...+250°C
- quality control protocol (at +170°C)
- English instruction manual
- temperature protection class 2.0 to DIN 12880
- open door alarm
- fan speed control
- castors for SR 400, 750, 1000
- air-flap
- air-flap control in range 0...100% for user programs
- LAN and USB ports
- access port (Ø30 mm) with silicone plug on the left wall
- door lock
- height adjustable feet
- stainless steel wire shelves (INOX)
- solid door
- main power switch flush with housing prevents unintentional switch off

## **AVAILABLE VERSIONS**

- SMART
- Pass-through sterilizers

#### SOFTWARE (OPTIONAL)

- LabDesk for data download to a PC via LAN (option)
- LabDesk Cloud platform for remote data monitoring

# **ADVANTAGES** OF SR HOT-AIR STERILIZERS

- factory set sterilization programs
- automatic door lock during the sterilization program
- automatically closed air-flap after starting the sterilization program
- 5 user programs and 3 factory preset programs





		-	-	-	-d b-			
parameters		SR 53	SR 115	SR 240	SR 400	SR 750	SR 1000	
air convection		natura	al (SRN) / forced (	SRW)		forced (SRW)		
fan speed control [%]		0100 (	SRW)		10100	(SRW)		
chamber capacity [I]		56	112	245	424	749	1005	
door type				solid/door with v	iewing window (opt	ion)		
temperature range				+5°C above ambie	nt temperature+2	50°C		
temperature resolution [°C]				e	every 0,1			
controller			m	nicroprocessor PID,	4,3" full-colour toucl	n screen		
interior				acid-proof stain	less steel to DIN 1.43	301		
housing	-			powder	r coated sheet			
nousing	IG	stainless steel linen finish to DIN 1.4301						
max shelf workload <sup>2</sup> [kg]	-	25	25	25	25	-	-	
max shell workload [kg]	PW <sup>1</sup> version	50	50	100	100	100	100	
max unit workload [kg]		40	60	90	120	140	300	
nominal power [W]		1700	2500	3100	4000	5500	5500	
weight [kg]		48	65	114	162	260	307	
castors		option			yes			
temperature fluctuation <sup>3</sup> at +105°C [+/- °C]	SRN	0,4	0,4	0,6	-	-	-	
temperature nuctuation at 1103 C [1/- C]	SRW	0,2	0,2	0,3	0,4	0,6	0,6	
temperature variation <sup>3</sup> at +105°C [+/- °C]	SRN	2,0	2,2	2,5	-	-	-	
temperature variation at +103 C [+/- C]	SRW	2,0	2,0	2,0	2,5	2,5	3,0	
over temperature protection			class 2.0 to DIN 1	12880 / class 3.1 (opti	on)			
power supply		230V 50-60Hz / 115V 50-60Hz		-60Hz / 3P IV 50-60Hz		E+N 400V 50-60H: + PE 230V 50-60H:		
shelves fitted/max		2/5	2/7	3/10	3/14	5/16	6/22	
warranty		24 months						
manufacturer		POL-EKO®						

all the above technical data refer to standard units (without optional accessories)

- 1 reinforced shelf
- 2 on uniformly loaded surface
- 3 fluctuation measured in centre of chamber; in space, variation (K) calculated for chamber as: K = +/- (T avg max T avg min) / 2

# • OPTIONS & **ACCESSORIES** (icon description see pages 117-124)





































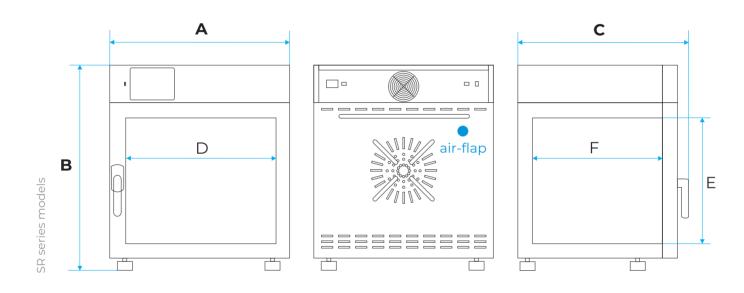




All dimensions refer to standard units (without optional accessories).

Overall depth doesn't include 50 mm of power cable, the width does not include the 20 mm of access ports' silicone plug.

Possibility to change the position of shelf: SLWN 53/115/240/400/750/1000 - every 70 mm



		SR 53	SR 115	SR 240	SR 400	SR 750	SR 1000
overall dims[mm]	A width	600	660	820	1020	1260	1260
	B height	710	850	1140	1440	1600	2000
	C depth	620	710	770	770	880	880
	D width	400	460	600	800	1040	1040
internal dims [mm]	E height	390	530	800	1040	1200	1610
	F depth	350	440	500	500	600	600
air-flap ext. diameter [mm]		4	0		6	0	



# PASS-THROUGH STERILIZERS

are made on the basis of standard laboratory sterilizers. They are also used on production lines for sterilization between clean and dirty areas.





















- temperature range: +5°C above ambient temperature... +250°C
- quality control protocol (at +105°C)
- English instruction manual
- temperature protection class 2.0, 3.1 (option) to DIN 12880
- open door alarm for both doors
- fan speed control (SRWP)
- LAN and USB ports
- access port: Ø30 mm with silicone plug on the left wall
- door lock
- stainless steel wire shelves (INOX)
- solid door on both sides
- 3 factory preset sterilization programs and 5 user programs
- automatic door lock during the sterilization program
- main power switch flush with housing prevents unintentional switch off
- trim frames and stand for SRWP mounting

#### **AVAILABLE VERSIONS**

SMART

#### SOFTWARE (OPTIONAL)

- LabDesk for data download to a PC via LAN (option)
- LabDesk Cloud platform for remote data monitoring





			_	_			
			-	-			
parameters			<b>SRWP 115</b>	SRWP 240			
air convection				forced			
fan speed control [%]			0100	10100			
chamber capacity [l]			105	240			
door type				solid			
temperature range			+5°C above ambi	ent temperature+250°C			
temperature resolution [°C]			every 0,1				
controller			microprocessor PID, 4,3" full-colour touch screen				
interior			acid-proof stainless steel to DIN 1.4301				
L	-		powder coated sheet				
housing	IG		stainless steel linen finish to DIN 1.4301				
max shelf workload [kg]			10	10			
PW version [kg]			50	100			
max unit worklad [kg]			60	90			
nominal power [W]			2500	3000			
weight [kg]			65	126			
over temperature protection			class 2.0 to DIN 12880 / class 3.1 (option)				
power supply			230V 50-60Hz				
shelves fitted/max			2/7 3/10				
warranty			24 months				
manufacturer			POL-EKO <sup>®</sup>				

all the above technical data refer to standard units (without optional accessories)

# OPTIONS & ACCESSORIES (icon description see pages 117-124)





























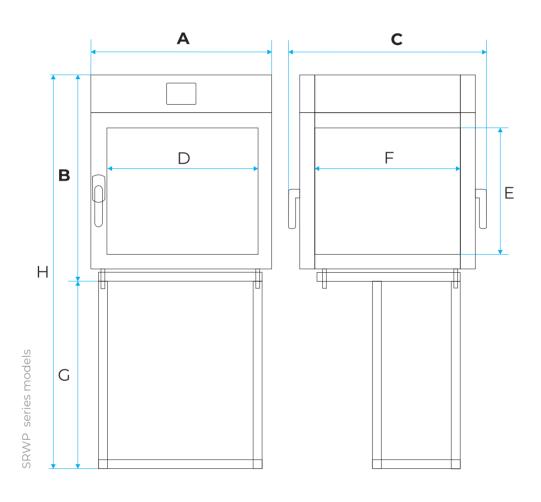




All dimensions refer to standard units (without optional accessories).

Overall depth doesn't include 50 mm of power cable, the width does not include the 20 mm of access port's silicone plug.

Possibility to change the position of shelf: SRWP 115/240 - every 70mm



		SRWP 115	SRWP 240
	A width	680	820
	B height	950	1220
overall dims[mm]	C depth	710	780
	G height	550	290
	H height	1500	1500
	D width	460	600
internal dims [mm]	E height	540	810
	F depth	430	500