



# SP Climatic Chambers

## SP 90 BVEHF



### Maintain Homogeneous Environmental Conditions

Supporting temperatures up to 60°C and relative humidity of 95%, Froilabo climatic chambers can be used to perform accelerated ageing, stability testing, drying, burn-in tests and much more.

#### TECHPERFORMANCE

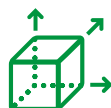
Temperature range	10°C to 60°C
Relative humidity range	10 to 95%RH

#### SERVICE WARRANTY

Parts	2 years
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Maximum temperature of 60°C



Available in 3 volumes



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Instrumentation Superbly Supported  
*L'instrumentation à son meilleur*

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# Technical Specifications

SP CLIMATIC CHAMBERS	
<b>MODEL</b>	<b>SP 90 BVEHF</b>
<b>GENERAL SPECIFICATIONS</b>	
Volume (net)	90 liters
External Dimensions (H x W x D)	1190 x 830 x 520 mm
Internal Dimensions (H x W x D)	470 x 460 x 400 mm
External Construction	Made of epoxy painted electrogalvanized sheet steel
Internal Construction	Stainless steel
Weight (net)	132 Kg
Standard equipment	Full door Demineralized water supply by 10 liter tank Wall passage diameter 35 mm 4 wheels including 2 self-locking
Shelves (450 X 322 mm)	2 anti-tipping stainless steel wire shelves as standard (max weight / shelf: 20 kg)
Working Temperature	10°C to 60°C
Environment	Not designed for use in an explosive atmosphere (ATEX)
Guarantee	2 years
<b>ENVIRONMENTAL CONTROLS</b>	
Heating system	Heating by convection provided by a fan (neither conduction nor radiation)
Refrigeration system	Refrigeration provided by a hermetic compressor air condenser
Refrigerant charge	CFC-free and non-flammable refrigerant R452A
Moisture production	Ultrasonic water vapor generator (rapid rise in humidity after door opening)
Nebulizer life	10,000 hours
<b>ELECTRICAL AND ELECTRONIC DATA</b>	
Controller type	Double electronic regulation by self-regulating PID. Real digital display and setpoint (at 1/10° for temperature)
Temperature probe	Temperature measurement by PT100 Ohms probe
humidity sensor	Relative humidity measurement by capacitive sensor
List of alarms	Class 3.1 independent overtemperature thermostat Visual alarm - high security
Types of alarms	Visual
Energy Consumption	900 watts
Types of power supply	230 V single phase + T - 50 Hz
<b>PERFORMANCE (AMBIENT TEMPERATURE: 22°C)*</b>	
Temperature range	10°C to 60°C
Adjustable humidity	From 10 to 95%RH depending on the associated temperature
Long term stability	+25°C / 60%HR. +30°C / 65%HR
Accelerated aging	+40°C / 75%HR
Intermediate condition	+30°C / 60%HR
<b>TESTS FOR SEMI-PERMEABLE:</b>	
Long term stability	+25°C / 40%HR
Accelerated aging	+40°C / 25%HR
<b>OPTIONS &amp; COMPLIANCE</b>	
Options	<ul style="list-style-type: none"> <li>Key lock</li> <li>16-segment T°C and RH programmer</li> <li>Different sound alarms</li> <li>Visibility window 400 x 350 mm for SP90</li> </ul>
Supplied with	<ul style="list-style-type: none"> <li>1 shelf</li> <li>Demineralized water supply by 10 liter tank</li> <li>35 mm diameter wall passage with plug on the right side</li> <li>Mounted on casters, 2 of which are self-locking</li> <li>Humidity trap for HR Z3 range extension (see climatogram)</li> </ul>
Certification / Conformities	Equipment compliant with CE regulations
Shipping weight	155 Kg
Shipping Dimensions (H x W x D)	1400 x 1200 x 800 mm

\* Measured according to AFNORNF X 15-140 standard. Homogeneity required for the following temperature / humidity pairs: +/-2°C & +/-5%RH stipulated in the ICH Guideline Q1A standard.



# SP Climatic Chambers

## SP 260 BVEHF



### Maintain Homogeneous Environmental Conditions

Supporting temperatures up to 60°C and relative humidity of 95%, Froilabo climatic chambers can be used to perform accelerated ageing, stability testing, drying, burn-in tests and much more.

#### TECHPERFORMANCE

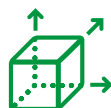
Temperature range	10°C to 60°C
Relative humidity range	10 to 95%RH

#### SERVICE WARRANTY

Parts	2 years
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Maximum temperature of 60°C



Available in 3 volumes



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# Technical Specifications

SP CLIMATIC CHAMBERS	
MODEL	SP 260 BVEHF
<b>GENERAL SPECIFICATIONS</b>	
Volume (net)	330 liters
External Dimensions (H x W x D)	1770 x 960 x 670 mm
Internal Dimensions (H x W x D)	1000 x 600 x 550 mm
External Construction	Made of epoxy painted electrogalvanized sheet steel
Internal Construction	Stainless steel
Weight (net)	185 Kg
Standard equipment	Full door Demineralized water supply by 10 liter tank Wall passage diameter 35 mm 4 wheels including 2 self-locking
Shelves (575 X 475 mm)	2 anti-tipping stainless steel wire shelves as standard (max weight / shelf: 20 kg)
Working Temperature	10°C to 60°C
Environment	Not designed for use in an explosive atmosphere (ATEX)
Guarantee	2 years
<b>ENVIRONMENTAL CONTROLS</b>	
Heating system	Heating by convection provided by a fan (neither conduction nor radiation)
Refrigeration system	Refrigeration provided by a hermetic compressor air condenser
Refrigerant charge	CFC-free and non-flammable refrigerant R452A
Moisture production	Ultrasonic water vapor generator (rapid rise in humidity after door opening)
Nebulizer life	10,000 hours
<b>ELECTRICAL AND ELECTRONIC DATA</b>	
Controller type	Double electronic regulation by self-regulating PID. Real digital display and setpoint (at 1/10° for temperature)
Temperature probe	Temperature measurement by PT100 Ohms probe
humidity sensor	Relative humidity measurement by capacitive sensor
List of alarms	Class 3.1 independent overtemperature thermostat. Visual alarm - high security
Types of alarms	Visual
Energy Consumption	1 600 watts
Types of power supply	230 V single phase + T - 50 Hz
<b>PERFORMANCE (AMBIENT TEMPERATURE: 22°C)*</b>	
Temperature range	10°C to 60°C
Adjustable humidity	From 10 to 95%RH depending on the associated temperature
Long term stability	+25°C / 60%HR. +30°C / 65%HR
Accelerated aging	+40°C / 75%HR
Intermediate condition	+30°C / 60%HR
<b>TESTS FOR SEMI-PERMEABLE:</b>	
Long term stability	+25°C / 40%HR
Accelerated aging	+40°C / 25%HR
<b>OPTIONS &amp; COMPLIANCE</b>	
Options	<ul style="list-style-type: none"> <li>Key lock</li> <li>16-segment T°C and RH programmer</li> <li>Different sound alarms</li> </ul>
Supplied with	<ul style="list-style-type: none"> <li>2 shelves</li> <li>Demineralized water supply by 10 liter tank</li> <li>35 mm diameter wall passage with plug on the right side</li> <li>Mounted on casters, 2 of which are self-locking</li> <li>Humidity trap for HR Z3 range extension (see climatogram)</li> </ul>
Certification / Conformities	Equipment compliant with CE regulations
Shipping weight	200 Kg
Shipping Dimensions (H x W x D)	1950 x 1210 x 800 mm

\* Measured according to AFNOR NF X 15-140 standard. Homogeneity required for the following temperature / humidity pairs: +/-2°C & +/-5%RH stipulated in the ICH Guideline Q1A standard.



# SP Climatic Chambers

## SP 540 BVEHF



### Maintain Homogeneous Environmental Conditions

Supporting temperatures up to 60°C and relative humidity of 95%, Froilabo climatic chambers can be used to perform accelerated ageing, stability testing, drying, burn-in tests and much more.

#### TECHPERFORMANCE

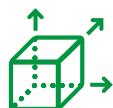
Temperature range	10°C to 60°C
Relative humidity range	10 to 95%RH

#### SERVICE WARRANTY

Parts	2 years
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Maximum temperature of 60°C



Available in 3 volumes



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# Technical Specifications

SP CLIMATIC CHAMBERS	
MODEL	SP 540 BVEHF
<b>GENERAL SPECIFICATIONS</b>	
Volume (net)	540 liters
External Dimensions (H x W x D)	1870 x 1080 x 820 mm
Internal Dimensions (H x W x D)	1100 x 700 x 700 mm
External Construction	Made of epoxy painted electrogalvanized sheet steel
Internal Construction	Stainless steel
Weight (net)	255 Kg
Standard equipment	Full door Demineralized water supply by 10 liter tank Wall passage diameter 35 mm 4 wheels including 2 self-locking
Shelves (675 X 625 mm)	2 anti-tipping stainless steel wire shelves as standard (max weight / shelf: 20 kg)
Working Temperature	10°C to 60°C
Environment	Not designed for use in an explosive atmosphere (ATEX)
Guarantee	2 years
<b>ENVIRONMENTAL CONTROLS</b>	
Heating system	Heating by convection provided by a fan (neither conduction nor radiation)
Refrigeration system	Refrigeration provided by a hermetic compressor air condenser
Refrigerant charge	CFC-free and non-flammable refrigerant R452A
Moisture production	Ultrasonic water vapor generator (rapid rise in humidity after door opening)
Nebulizer life	10,000 hours
<b>ELECTRICAL AND ELECTRONIC DATA</b>	
Controller type	Double electronic regulation by self-regulating PID. Real digital display and setpoint (at 1/10° for temperature)
Temperature probe	Temperature measurement by PT100 Ohms probe
humidity sensor	Relative humidity measurement by capacitive sensor
List of alarms	Class 3.1 independent overtemperature thermostat Visual alarm - high security
Types of alarms	Visual
Energy Consumption	2 200 watts
Types of power supply	230 V single phase + T - 50 Hz
<b>PERFORMANCE (AMBIENT TEMPERATURE: 22°C)*</b>	
Temperature range	10°C to 60°C
Adjustable humidity	From 10 to 95%RH depending on the associated temperature
Long term stability	+25°C / 60%HR. +30°C / 65%HR
Accelerated aging	+40°C / 75%HR
Intermediate condition	+30°C / 60%HR
<b>TESTS FOR SEMI-PERMEABLE:</b>	
Long term stability	+25°C / 40%HR
Accelerated aging	+40°C / 25%HR
<b>OPTIONS &amp; COMPLIANCE</b>	
Options	<ul style="list-style-type: none"> <li>Key lock</li> <li>16-segment T°C and RH programmer</li> <li>Different sound alarms</li> </ul>
Supplied with	<ul style="list-style-type: none"> <li>2 shelves</li> <li>Demineralized water supply by 10 liter tank</li> <li>35 mm diameter wall passage with plug on the right side</li> <li>Mounted on casters, 2 of which are self-locking</li> <li>Humidity trap for HR Z3 range extension (see climatogram)</li> </ul>
Certification / Conformities	Equipment compliant with CE regulations
Shipping weight	260 Kg
Shipping Dimensions (H x W x D)	2000 x 1200 x 850 mm

\* Measured according to AFNOR NF X 15-140 standard. Homogeneity required for the following temperature / humidity pairs: +/-2°C & +/-5%RH stipulated in the ICH Guideline Q1A standard.