AFI presents
THE GENERATION

LIA

MICRO CENTRIFUGES

*From Experience comes Excellence*

★★★★½







2024

AFI Groups

AFI GROUPS

# UNIQUE FRENCH MANUFACTURER

AFI Centrifuge, the only French manufacturer based in Château-Gontier in FRANCE, has been designing and manufacturing innovative centrifuges since 2009. AFI centrifuges have been designed to meet the needs and requirements of medical analysis laboratories, research laboratories, veterinary laboratories, hospitals, etc.

Offering a wide variety of rotors and accessories, the user will have at his disposal all the solutions to meet the required protocols. Available in both ventilated and refrigerated versions, AFI centrifuges are designed to be used with all types of tubes, vials and bottles available on the market.

With more than 20 years of experience in the field of biomedical engineering, electronics and electromechanics, AFI presents today a wide range of versatile and innovative centrifuges



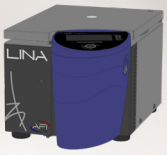

Philippe LE GUYADER

# CENTRIFUGES RANGE




## LIA
Micro Centrifuges*

*Mini, Micro & Labo*



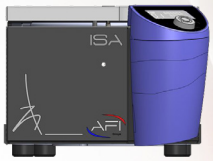

## LINA
Research Centrifuge

*Micro & multifonction*



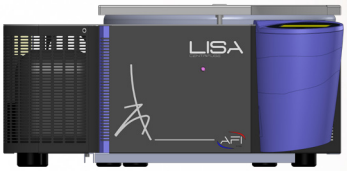

## SIRENA
Centrifuge MultiLab

*0.6 L*




## ISA
Clinical centrifuge

*0.6 L*




## LISA
Centrifuge MultiLab

*1.0 L à 2.5 L*




## LOREENA
Centrifuge MultiLab

*1.6 L à 4 L*




## KATRINA
High Capacity Centrifuge

*12 L*

## REGINA
High Capacity Centrifuge

*16 L*

*OEM products

# A quick overview

## LIA

**Rotor 24 micro tubes**
**15 000 Rpm/ 21 380 x g**
**Ventilated & Refrigerated**
8 rotors

Micro
Research centers / Veterinaire




## LINA

**Rotor 48 micro tubes**
**Rotor 6x 50mL**
**Rotor 6 Micro plates**
**23 000 Rpm/ 39 625x g**
**Ventilated & Refrigerated**
11 rotors




Performance
Research centers/ Universities

## SIRENA

**24-36 tubes 5/7 mL**
**6x 100mL**
**18 000 Rpm/ 31514 x g**
**Refrigerated**
Interactive display
Touch screen, 99 programs,
17 rotors







Compact
Small laboratories

## ISA

**40 tubes 5/7 mL**
**6700 Rpm/ 6324 xg**
**Ventilated, Refrigerated & Reversible**
Touch Screen, 99 programs,
11 rotors

High Capacity
Blood bank / Industry

Routine
Hospitals/ Medical analysis laboratories




## KATRINA

**12 Liters**
**4900 Rpm/ 7301 x g**
**Refrigerated Floor**
Interactive communication, Touch screen, Integral, 6 Rotors




## LOREENA

**108- 200 tubes 5/7 mL / 12x 50 mL**
**16000 Rpm/ 28 335x g**
**Ventilated & Refrigerated & Floor, Reversible**
Interactive communication, Click Spin, Touch Screen, 15 Rotors




## LISA

**60-92 tubes 5-7 mL/ 8x100mL**
**18 000 Rpm/ 31514 x g**
**Ventilated, Refrigerated & Reversible**
Interactive Communication, Click Spin, Touch Screen, 18 Rotors

# LIA MINI

## Mini Centrifuge
## BIOLOGY-LINE




**Mini and compact**
The LIA mini centrifuge is very compact and can be placed on every bench. This way each station will be equipped with its own centrifuge.

**Mini and powerful**
The LIA mini centrifuge with its high speed of 15000 Rpm/ 15100 x g offers an optimal solution for molecular biological separations.

**Mini and full option**
The LIA mini centrifuge, despite its small size, has been designed as a large centrifuge. It will provide you with everything you need to make your everyday life easier. The LCD display, the automatic rpm / x g converter as well as all safety features such as automatic door locking, overspeed detection, overheating detection, automatic internal diagnostics are available.

| Centrifuge Description | |
|---|---|
| **AFI-MINIV-E** | LIA Mini Centrifuge Ventilated |
| Specifications | Angular Rotor |
| Max Speed | 15000rpm |
| Max RCF | 15100g |
| Max Loading | 12x 2ml |
| Dim. (HxWxD) | 14x25.5x24.5 cm |
| Weight | 6kg |

# FIXED ANGULAR ROTORS

## Accessories selection guide



### Angular rotor 12x2ml - 45° - Sealed

| Model | V |
|---|---|
| Max Capacity | 12 x 2ml |
| Angle | 45° |
| RPM Max | 15 000 |
| ACR Max | 15 100 |

| Tubes | | | |
|---|---|---|---|
| Capacity (ml) | **1,5-2** | **0,2** | **0,5** |
| Ø x L (mm) | 11x38 | 6x18 | 8x30 |
| Tubes per adapter / rotor | 12 | 1\|12 | 1\|12 |
| **Accessories** |  |  |  |
| Hole Ø X L(mm) | 11,2x40,5 | | 8,3x39 |
| Radius | 60 | 58 | 58 |
| **Ref.** | **AFI-MINI12-2** | **AFI-M2R02*** | **AFI-M2R05*** |

* Set of 12

# DATA SHEET

| Spécifications - *Specifications* | | | |
|---|---|---|---|
| **Modèle - *Model*** | | | Ventilé - *Ventilated* |
| **Centrifugeuse de paillasse**<br>***Benchtop centrifuge*** | | |  |
| **Référence - *Reference*** | | | AFI-MINI-E |
| **Caractéristiques électriques - *Electrical specifications*** | | | |
| **Tension nominale - *Nominal voltage* (+/- 10%)** | | | 230 V |
| **Fréquence - *Frequency*** | | | 50 / 60 Hz |
| **Puissance alimentation max. - *Power max.*** | | | 100 W |
| **Conformité aux directives Européennes - Compliance with European directives** | | | |
| **Certification CE**<br>***CE Certification*** | | | ✓ |
| **Caractéristiques principales (voir brochure) - *Main specifications (see brochure for full specification)*** | | | |
| **Rotors Angulaires *Fixed angle rotors***<br> | Capacité max.<br>*Max. capacity* | Rotor AFI-MINI12-2 | 12x 2 ml |
| | RPM max. | | 15000 rpm |
| | ACR max<br>*Max. RCF* | | 15100 g |
| **Couvercle - *Lid*** | | | ✓ |
| **Dimensions & poids - *Dimensions & Weight*** | | | |
| **Dimensions (HxlxL) - *Foot print Dimensions (HxWxD)*** | | | 14x24.5x25.5 cm |
| **Dimensions emballage (HxlxL) - *Package dimension (HxWxD)*** | | | |
| **Hauteur couvercle ouvert - *Opened lid height*** | | | |
| **Poids net - *Weight unpacked*** | | | 6 Kg |
| **Poids emballé - *Weight packed*** | | | kg |
| **Description de la centrifugeuse / Centrifuge description** | | | |
| **Ecran LCD**<br>***LCD screen*** | | | ✓ |
| **Commandes**<br>***Commands*** | | | Molette +Touches tactiles<br>*Knob + Tactiles Buttons* |
| **Contrôle par microprocesseur**<br>***Microprocessor control*** | | | ✓ |
| **Fonctions de sécurité**<br>*Safety devices* | | | Verrouillage couvercle / Détection sur-vitesse / Détection sur-température / Auto Diagnostique<br>*Door interlock / Over-speed detection / Over-temperature detection / Automatic internal diagnosis* |
| **Durées de cycle**<br>***Cycle duration*** | | | 30 s à 99mn continues<br>*30s to 99mn Continuous* |
| **Unités de température**<br>***Temperature units*** | | | °C / °F |
| **Chambre de centrifugation**<br>***Centrifugation chamber*** | | | Inox |
| **Densité max.**<br>***Max. density*** | | | 1.2 g / $cm^3$ |
| **Moteur à induction sans charbon**<br>***Brushless induction motor*** | | | ✓ |
| **Précision de vitesse**<br>***Speed accuracy*** | | | ± 20 rpm |
| **Fonctions Avancées**<br>***Advance Features*** | | | Choix vitesse-RCF / Fonction pulse / Alertes sonores<br>*Speed/RCF switch / Short time run function / sound alert function* |
| **Décélération libre**<br>***Brakeless mode*** | | | ✓ |
| **Niveau sonore max.**<br>***Max. noise*** | | | ≤ 54dB |

# Notes

# LIA MICRO

## Centrifuge BIOLOGY-LINE



**Better results and more samples in less time.**
Speed rates up to 15 000 Rpm and with 21 380 RCF accommodate a high number of samples to increase efficiency and throughput in your lab.

**Wide range of capabilities.**
Four rotors are optional complete with 24 place 1.5/2.0mL tubes, bigger 5.0mL, smaller 0.2mL and 0.5mL tubes with the use of adapters. Rotor of PCR 8x 4 is also available

**Powerful cooling system for precise temperature control**
Pre-cooling program ensures optimal protection of the sample before warming. This is ideal for temperature sensitive samples in molecular biology and R&D applications.

| Centrifuge Description | |
|---|---|
| **AFI-MICROV-E** | LIA Centrifuge Ventilated + Angular rotor 24x2 ml |
| **AFI-MICROR-E** | LIA Centrifuge Refrigerated + Angular rotor 24x2 ml |
| **AFI-MICROV-E-PCR** | LIA Centrifuge Ventilated + Angular rotor PCR |
| **AFI-MICROR-E-PCR** | LIA Centrifuge Refrigerated + Angular rotor PCR |
| **AFI-MICROV-E-H** | LIA Centrifuge Ventilated + Hematocrit rotor |

| Specifications | Angular Rotor |
|---|---|
| Max Speed | 15000rpm |
| Max RCF | 21380g |
| Max Loading | 18x 5ml |
| Dim. (HxWxD) | Ventilated : 27x28x37 cm<br>Refrigerated : 23x33x55 cm |
| Pack dim. | V : 35x44x45 cm / R : 35x50x65 cm |
| Weight | V : 12kg / R : 30kg |



# FIXED ANGULAR ROTORS

## Accessories selection guide

### Angular rotor 24x2ml - 45° - Sealed

| Model | V | R |
|---|---|---|
| Max Capacity | 24 x 2ml | |
| Angle | 45° | |
| RPM Max | 15 000 | 15 000 |
| ACR Max | 21 380 | 21 380 |



| Tubes | | | |
|---|---|---|---|
| Capacity (ml) | **1,5-2** | **0,2** | **0,5** |
| Ø x L (mm) | 11x38 | 6x18 | 8x30 |
| Tubes per adapter / rotor | 24 | 1\|24 | 1\|24 |
| **Accessories** | | | |
| Hole Ø X L(mm) | 11,2x40,5 | | 8,3x39 |
| Radius | 85 | 83 | 83 |
| **Ref.** | **AFI-MICRO24-2** | **AFI-M2R02*** | **AFI-M2R05*** |

* Set of 24

### Angular rotor 4x PCR8 - 45° - Sealed

| Model | V | R |
|---|---|---|
| Max Capacity | 32 x 0,2ml | |
| Angle | 45° | |
| RPM Max | 15 000 | 15 000 |
| ACR Max | 21 380 | 21 380 |



| Tubes | |
|---|---|
| Capacity (ml) | **8x0,2** |
| Ø x L (mm) | 6x22 |
| Tubes per adapter / rotor | 4 |
| **Accessories** | |
| Hole Ø X L(mm) | 6,5x20,4 |
| Radius | 85 |
| **Ref.** | **AFI-MICROPCR8-4** |

# FIXED ANGULAR ROTORS

## Accessories selection guide

### Angular rotor 12x5ml (micro conical bottom) - 45° - Sealed

| Model | V | R |
|---|---|---|
| Max Capacity | 12 x 5ml | |
| Angle | 45° | |
| RPM Max | 15 000 | 15 000 |
| ACR Max | 21 380 | 21 380 |





| Tubes | |
|---|---|
| Capacity (ml) | 5 |
| Ø x L (mm) | 16,5x56 |
| Tubes per adapter / rotor | 12 |
| **Accessories** | |
| |  |
| Hole Ø X L(mm) | 17,5x44 |
| Radius | 85 |
| **Ref.** | **AFI-MICRO12-5** |

* Set of 12

### Angular rotor 18x5ml (micro round bottom) - 45° - Sealed

| Model | V | R |
|---|---|---|
| Max Capacity | 18 x 5ml | |
| Angle | 45° | |
| RPM Max | 15 000 | 15 000 |
| ACR Max | 21 380 | 21 380 |





| Tubes | |
|---|---|
| Capacity (ml) | 5 |
| Ø x L (mm) | 13,5x56 |
| Tubes per adapter / rotor | 18 |
| **Accessories** | |
| |  |
| Hole Ø X L(mm) | 13,7x39 |
| Radius | 85 |
| **Ref.** | **AFI-MICRO18-5** |

* Set of 18

## Angular rotor 36x0,5ml - 45° - Sealed

| Model | V | R |
|---|---|---|
| Max Capacity | 36 x 0,5ml | |
| Angle | 45° | |
| RPM Max | 15 000 | 15 000 |
| ACR Max | 21 380 | 21 380 |



| Tubes | | |
|---|---|---|
| Capacity (ml) | 0,5 | 0,2 |
| Ø x L (mm) | 8x36 | 6x18 |
| Tubes per adapter / rotor | 36 | 1\|36 |
| **Accessories** | | |
| Hole Ø X L(mm) | 8,2x29,3 | |
| Radius | 85 | 83 |

# HEMATOCRIT CENTRIFUGE

## LIA ventilated + Hematocrit Rotor - Sealed

| Model | V |
|---|---|
| Max Capacity | 24 |
| Angle | 90° |
| RPM Max | 12 000 |
| ACR Max | 18 620 |





| Tubes | | |
|---|---|---|
| Capacity (ml) | | - |
| Ø x L (mm) | | 1,6x76 |
| Tubes per adapter / rotor | | 24 |
| **Accessories** | | |
| Hole Ø X L(mm) | | 2,6x80 |
| Radius | | 116 |
| **Ref.** | AFI-MICROV-E-H | |

# DATA SHEET

| Spécifications - *Specifications* | | | | |
|---|---|---|---|---|
| **Modèle - *Model*** | | | Ventilé - *Ventilated* | Réfrigéré *-Refrigerating* |
| **Centrifugeuse de paillasse**<br>***Benchtop centrifuge*** | | |  |  |
| **Référence - *Reference*** | | | AFI-MICROV-E | AFI-MICROR-E |
| **Caractéristiques électriques - *Electrical specifications*** | | | | |
| **Tension nominale - *Nominal voltage* (+/- 10%)** | | | 230 V | 230 V |
| **Fréquence - *Frequency*** | | | 50 / 60 Hz | 50 / 60 Hz |
| **Puissance alimentation max. - *Power max.*** | | | 200 W | 400 W |
| **Conformité aux directives Européennes - Compliance with European directives** | | | | |
| **Certification CE**<br>***CE Certification*** | | | ✓ | ✓ |
| **Caractéristiques principales (voir brochure) - *Main specifications (see brochure for full specification)*** | | | | |
| **Rotors Angulaires *Fixed angle rotors***  | Capacité max.<br>*Max. capacity* | Rotor AFI-MICRO18-5 | 18 x 5 ml | |
| | RPM max. | Rotor AFI-MICRO18-5 | 15000 rpm | |
| | ACR max<br>*Max. RCF* | | 21380 g | |
| **Confinement biologique - *Biocontainment*** | | | ✓ | |
| **Dimensions & poids - *Dimensions & Weight*** | | | | |
| **Dimensions (HxlxL) - *Foot print Dimensions (HxWxD)*** | | | 27 x 28 x 37 cm | 28 x 33 x 55 cm |
| **Dimensions emballage (HxlxL) - *Package dimension (HxWxD)*** | | | 35 x 44 x 45 cm | 35 x 50 x 65 cm |
| **Hauteur couvercle ouvert - *Opened lid height*** | | | 48 cm | 48 cm |
| **Poids net - *Weight unpacked*** | | | 12 Kg | 30 Kg |
| **Poids emballé - *Weight packed*** | | | 15 kg | 34 kg |

| Description de la centrifugeuse / Centrifuge description | | |
|---|---|---|
| **Référence - *Reference*** | AFI-MICROV-E | AFI-MICROR-E |
| **Ecran L**<br>***LCD screen*** | ✓ | |
| **Commandes**<br>***Commands*** | Molette +Touches tactiles<br>*Knob + Tactiles Buttons* | |
| **Contrôle par microprocesseur**<br>***Microprocessor control*** | ✓ | |
| **Reconnaissance automatique du rotor**<br>***Automatic rotor recognition*** | ✓ | |
| **Détection de balourd**<br>***Imbalance detection*** | ✓ | |
| **Durées de cycle**<br>***Cycle duration*** | 30 s à 99mn continues<br>*30s to 99mn Continuous* | |
| **Unités de température**<br>***Temperature units*** | °C / °F | |
| **Chambre de centrifugation**<br>***Centrifugation chamber*** | Inox | |
| **Densité max.**<br>***Max. density*** | 1.2 g / $cm^3$ | |
| **Moteur à induction sans charbon**<br>***Brushless induction motor*** | ✓ | |
| **Précision de vitesse**<br>***Speed accuracy*** | ± 20 rpm | |
| **Fonction Pulse**<br>***Pulse (short run)*** | ✓ | |
| **Décélération libre**<br>***Brakeless mode*** | ✓ | |
| **Système de réfrigération**<br>***Cooling system*** | Ventilation<br>*Ventilation device* | Sans CFC<br>*CFC free* |
| **Plage de réglage en température**<br>***Range of setting temperature*** | N/A | -20°C → +40°C |
| **Fonction de pré-refroidissement**<br>***Precool function*** | N/A | ✓ |
| **Niveau sonore max.**<br>***Max. noise*** | ≤ 64 dB(A) | ≤ 56 dB(A) |

# LIA LABO

## Clinical Centrifuge LABORATORY-LINE



**A compact centrifuge**
The LIA Labo centrifuge is very compact and can be placed on every bench. In this way each station will be equipped with its own centrifuge.

**Optimized capacity**
The LIA Labo is supplied with an angled rotor that can hold up to 12 5 and 10 mL tubes or 8 15 mL tubes.

**A dedicated centrifuge**
Widely used in clinical laboratories, small laboratories and veterinary laboratories to centrifuge blood and urine samples.

| Centrifuge Description | |
|---|---|
| **AFI-LABOV-E** | LIA Labo Centrifuge Ventilated |
| Specifications | Angular Rotor |
| Max Speed | 4500rpm |
| Max RCF | 2490g |
| Max Loading | 12x 5ml, 10ml |
| Dim. (HxWxD) | 22x30x35.5 cm |
| Weight | 6kg |

# FIXED ANGULAR ROTORS

## Accessories selection guide



### Angular rotor 12x5ml/10ml & 8x15ml - 45° - Sealed

| Model | V | |
|---|---|---|
| Max Capacity | 12 x 5ml / 10mL | 8x 15mL |
| Angle | 45° | |
| RPM Max | 4 500 | |
| ACR Max | 2 490 | |

| Tubes | | | | |
|---|---|---|---|---|
| Capacity (ml) | | **1,6-7** | **10** | **15** |
| Ø x L (mm) | | 13x75 / 100 | 16x100 | 17x120 |
| Tubes per adapter / rotor | | 12 | 12 | 8 |
| **Accessories** |  |  | - | - |
| Hole Ø X L(mm) | | | | |
| Radius | | 110 | 110 | 110 |
| **Ref.** | **included** | **included** | - | - |

# DATA SHEET

| Spécifications - *Specifications* | | | |
|---|---|---|---|
| **Modèle - *Model*** | | | Ventilé - *Ventilated* |
| **Centrifugeuse de paillasse**<br>***Benchtop centrifuge*** | | |  |
| **Référence - *Reference*** | | | AFI-LABOV-E |
| **Caractéristiques électriques - *Electrical specifications*** | | | |
| **Tension nominale - *Nominal voltage* (+/- 10%)** | | | 100V – 240 V |
| **Fréquence - *Frequency*** | | | 50 / 60 Hz |
| **Puissance alimentation max. - *Power max.*** | | | 70 W |
| **Conformité aux directives Européennes - Compliance with European directives** | | | |
| **Certification CE**<br>***CE Certification*** | | | ✓ |
| **Caractéristiques principales (voir brochure) - *Main specifications (see brochure for full specification)*** | | | |
| **Rotors Angulaires *Fixed angle rotors***<br> | Capacité max.<br>*Max. capacity* | inclus | 12x 5 ml, 10ml |
| | RPM max. | | 4500 rpm |
| | ACR max<br>*Max. RCF* | | 2490 g |
| **Couvercle - *Lid*** | | | ✓ |
| **Dimensions & poids - *Dimensions & Weight*** | | | |
| **Dimensions (HxlxL) - *Foot print Dimensions (HxWxD)*** | | | 22x30x35.5 cm |
| **Dimensions emballage (HxlxL) - *Package dimension (HxWxD)*** | | | |
| **Hauteur couvercle ouvert - *Opened lid height*** | | | |
| **Poids net - *Weight unpacked*** | | | 6 Kg |
| **Poids emballé - *Weight packed*** | | | kg |
| **Description de la centrifugeuse / Centrifuge description** | | | |
| **Ecran LCD**<br>***LCD screen*** | | | ✓ |
| **Commandes**<br>***Commands*** | | | Molette +Touches tactiles<br>*Knob + Tactiles Buttons* |
| **Contrôle par microprocesseur**<br>***Microprocessor control*** | | | ✓ |
| **Fonctions de sécurité**<br>*Safety devices* | | | Verrouillage couvercle / Détection sur-vitesse / Détection sur-température / Auto Diagnostique<br>*Door interlock / Over-speed detection / Over-temperature detection / Automatic internal diagnosis* |
| **Durées de cycle**<br>***Cycle duration*** | | | 30 s à 99mn continues<br>*30s to 99mn Continuous* |
| **Unités de température**<br>***Temperature units*** | | | °C / °F |
| **Chambre de centrifugation**<br>***Centrifugation chamber*** | | | Inox |
| **Densité max.**<br>***Max. density*** | | | 1.2 g / $cm^3$ |
| **Moteur à induction sans charbon**<br>***Brushless induction motor*** | | | ✓ |
| **Précision de vitesse**<br>***Speed accuracy*** | | | ± 20 rpm |
| **Fonctions Avancées**<br>***Advance Features*** | | | Choix vitesse-RCF / Fonction pulse / Alertes sonores<br>*Speed/RCF switch / Short time run function / sound alert function* |
| **Décélération libre**<br>***Brakeless mode*** | | | ✓ |
| **Niveau sonore max.**<br>***Max. noise*** | | | ≤ 54dB |

# Notes




MADE IN FRANCE

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***Scan me to discover AFI catalogs***

* If necessary or useful without affecting the essential characteristics of a model, the technical and stylistic characteristics may be modified without prior notice from the manufacturer.

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