

# <u>ASTM D 91 – D 96 – D 893 – D 1796 – D 2273 – D 2709 – D 2711 – D 4007 –</u> <u>NF ISO 3734 – NF ISO 9030 – DIN 51793</u>

# **SCOPE**

Standard Test Method for Precipitation Number of Lubricating Oils

# **CENTRIFUGE FOR PETROL AND MINERAL OILS**

- NCP TECH -

# - REF 29408 -

# MAIN CHARACTERISTICS

- ✓ Induction motor maintenance free
- ✓ Controlled by microprocessor
- ✓ Noise level <60dB</p>
- ✓ Automatic rotor recognition, it shows on screen max. R.P.M.,
- max. R.C.F. and max. capacity avoiding overspeed
- ✓ Temperature regulation from ambient +5°C to +70°C
- ✓ Open selectable : automatic at the end of the cycle or manual pressing keypad
- ✓ Temperature selectable on °C/°F
- ✓ RPM / RCF adjustable along run
- ✓ TFT touch screen
- $\checkmark$  RPM regulation on steps of 100, RCF on 10 x g, time 1 to 99 and hold position
- ✓ Up to 16 memories
- ✓ Time starts at set RPM / RCF or from 0 RPM / RCF selectable
- ✓ Buttons lid, start, stop and short cycles
- ✓ Braking ramps 5 to 180 seconds
- ✓ Motorized double lid lock
- ✓ Pre-heating program with selectable temperature
- ✓ Along the run shown a graphic visible from long distances, not required stay close to the unit
- ✓ Rotor and adapters list on memory with max working values

# SCOPE OF DELIVERY

The centrifuge NCP TECH is delivered without rotor neither tube. You must choose accessories according to the methods you will use.

# SAFETY FEATURES

- ✓ Hazard reduction system (optional, see page 3)
- ✓ Continuous checking and follow up device and accessories
- ✓ Chamber of centrifugation in stainless steel, guard ring around
- ✓ Temperature sensor inside the chamber
- $\checkmark~$  Lid dropping protection, and emergency overriding
- ✓ Unbalance switch off
- $\checkmark$  Rotor does not run until the lid is closed, and lid cannot be open until the rotor stops.
- ✓ Safety system against overheating

# CONTACT : sales@normalab.com

NORMALAB FRANCE SAS ZA Caux Multipôles 1 - F-76 190 Valliquerville Tel. : +33 232 700 100 Fax : +33 232 704 732

# **ORDERING INFORMATION**

# REF 29408

NCP TECH for use on AC 230V - 50Hz

**REF 29408 / 115 V** NCP TECH for use on AC 115 V - 60Hz (W) 540x (D) 650x (H) 400 mm (+/-55Kg

# DISTRIBUTED BY

G-Labo Germany Bgm.-Horneffstr.26 69509 Mörlenbach Tel.: + 49 6209 797100 Fax: + 49 6209 797101 Mail: info@g-labo.de Web: www.g-labo.de



### NECESSARY ACCESSORIES for cone-shaped tubes of 100 ml 8"

**REF 29404 1x** Swing out rotor for 4 cone-shaped tubes of 100 ml 8" (encoder)

ASTM D91 - D893 - D1796 - D2711 - D4007

**REF 19319** 4x 8" cone-shaped centrifuge tubes (203 mm - 100ml)

#### ASTM D2273 - D2709

**REF 19435 4x** 8" cone-shaped centrifuge tubes, (203 mm - 100 ml) with a capillary tip capable of measuring 0.01ml and readable by estimation to 0.005

#### **ALL METHODS**

**REF 21194** Silica gel stopper for above tubes

# **NECESSARY ACCESSORIES for pear-shaped tubes of 100 ml**

- **REF 294051x** Swing out rotor for 4 pear-shaped tubes of 100mL, 3000 RPM max, 2113 RCF max**REF 294071x** Reducing adapters for rotor 29405 for pear-shaped tubes (Pack of 4 Pcs)

# ASTM D96

- **REF 19438 4x** Pear-shaped tubes, 100 ml, with graduated tip of 1,5ml
- **REF 19437 4x** Pear-shaped tubes, 100 ml, with graduated tip of 3 ml tip

### NECESSARY ACCESSORIES for cone-shaped tubes of 100 ml 6"

REF 29405	1x Swing out rotor for 4 pear-shaped tubes of 100mL, 3000 RPM max, 2113 RCF max
REF 29406	<b>4x</b> Reducing adapter for rotor PN 29405 for cone-shaped tubes 100 ml 6" (pack of 4)
DEE 20420	

**REF 29439 4 x** Reducing adapter for rotor PN 29405 for 8" tube

# ASTM D96

**REF 19321 4x** 6" cone-shaped tubes, (167mm - 100mL)

### **OPTIONAL ACCESSORIES for swing out rotor 29404**

**REF 29536**Adapter for 4 finger tubes of 12,5ml**REF 29537**Adapter for 16 finger tubes of 12,5ml

### **OPTIONAL ACCESSORIES for swing out rotor 29404**

**REF 29538** Adapter for 28 finger tubes of 12,5ml

### **OPTIONAL THERMOSTATIC BATH FOR D1796 & 4007**

**REF 23400**NTB Classic cone preheating bath (16liters) ambient to 250°C ±0,02°C**REF 23401**Leveling platform for bath NTB Classic<br/>9 cone-shape tubes position & 9 lids



**REF 29405** 

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REF 29404



GAS RELEASE SYSTEM - GRS MODEL -- REF 29412 -

The petroleum testing laboratories environment presents a number of risks inherent to the type of sample. The devices for the analysis of samples should ensure minimal risk conditions at work, critical premise in the development of devices for this application in NORMALAB.

Centrifugation processes for the determination of water and sediment in petroleum, require an organic solvent which, reacting with the sample and caloric intake of the equipment, generates aerosols. In order to remove this gas from the centrifuge and take it to a safe area, NORMALAB propose the GRS (Gas Release System) as an accessory for NCP TECH. This accessory creates inside the centrifuge chamber, on its top when it is locked, low pressure intake or vacuum suction, allowing suction from atmosphere high in aerosols. This atmosphere is piped through the GRS up to its exit, where it can be treated in isolation. The whole circuit is continuously monitored by the equipment, which will lead the right moment to operate the system. Moreover, it is only required the presence of a compressed air supply of 2 bar pressure, in order to create a 10l/min suction, sufficient to perform the suction of the centrifuge inside chamber volume every 5 min.

### **GRS** main functions are:

- Decreasing gas concentration during operation, and therefore the risk of explosion.
- Eliminating the user's health risk by inhalation of produced vapors
- Avoiding gas dispersion into laboratory environment.

### User friendliness:

- It only requires a compressed air supply.
- It has 4 connections: A compressed air inlet, an air inlet for air removed from the equipment, an atmosphere outlet to a safe area, and the control input from the equipment.
- Operation pilot light.
- Air inlet pressure regulator.
- Inlet pressure gauge.
- Operation controlled by core equipment.

### Features:

- Setting up at a 2 bar pressure, creates a 10 l/min suction.
- 0.2 bar gauge accuracy. Max 8 bar inlet pressure.
- Fast inlet and outlet connections.
- Suction capacity: minimum twice total chamber volume in 10 min.

### Safetv:

- Hazardous gases input is not required.
- Low noise level <40 dB.
- Powered only by rotor in motion and lid blocked.
- Low power.
- EU directives: 98/79/EC, 2006/95/EC, 2004/108/EC, 2011/65/EU, 2012/19/EU. Standards: EN 61010-1, EN 61010-2-020, EN 61326-1.



# **ORDERING INFORMATION**

**RFF 29412** GRS for use on AC 230V - 50/60Hz

REF 29412 / 115 V GRS for use on AC 115 V - 50/60Hz (W) 139x (D) 214x (H) 125 mm (+/-3Kg)

EU directives: 98/79/EC, 2006/95/EC, 2004/108/EC, 2011/65/EU, 2012/19/ Standards: EN 61010-1, EN 61010-2-020, EN 61326-1.

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