Accesory series Digtor 22 C

GAS RELEASE SYSTEM

The oil 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 Ortoalresa.

Centrifugation processes for the determination of water and sediment in oil, require an organic solvent which, reacting with the sample and heating of the equipment, generates aerosols. In order to remove this gas from the centrifuge and take it to a safe area, Ortoalresa has designed **GRS (Gas Release System)** as an accessory for all of the Digtor 22 C series centrifuges. This accessory creates inside the centrifuge chamber, on its top when it is locked, through a pressure intake, 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.
- Max 8 bar inlet pressure.
 Fast inlet and outlet connections.
- Suction capacity: minimum twice total chamber volume in 10 min.

Safety

- Hazardous gases input is not required.
- Low noise level <40 dB.
- Powered only by rotor in motion and lid blocked.
- Low power.

Versions

Code	Dimensions (mm) (w x d x h)	Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)	
CP 001	140 220 120	2	220-240	50-60	20	322
CP 004	140 220 120	2	110-120	50-60	20	
* The GRS	must be fitted only	on those centrifug	ges provided	d of pre-instal	ation	all results of the second of t
	info@orto	nalresa com	www.ortoa	lresa com	Tel ·+34 91	884 40 16 CE

Tubes references for oun centrifugues for oil/petrol applications:

Code	Capacity ml	Shape	Material	Dimensions mm	Сар	Scale
TU 050 (1)	100	ASTM-Conical 6"	glassware	44-46 x 162-167	no	yes
TU 030 (1)	100	ASTM-Conical 8"	glassware	36-38 x 195-203	no	yes
TU 033	100	ASTM-Pear 6"	glassware	58-59 x 157-160	no	yes
TU 056 (1)	100	ASTM-Trace 8"	glassware	36-38 x 195-203	no	yes

(1) available caps for this tubes: ref. PV 156

Directives & standards for series Digtor 22 C

 COMPANY:
 PRODUCTS:

 Standards
 Directives

 ISO 9001
 2011/65/EU

 ISO 13485
 2012/19/EU

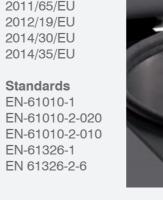
 ISO 14971
 2014/30/EU

 2014/35/EU

ISPM 15 **Directives** 94/62/EC & 2004/12/EC

PACKAGING:

EN-61010-2-010
GOODS TRANSPORT: EN-61326-1
Regulation EN 61326-2-6
(EC) 300/2008





Versions

Digtor 22 C-U

Code		Dimensions mm) (w x d x h)		Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)	Heating
CE 242	530	640	400	73	220-230	50-60	440	NO
CE 243	530	640	400	73	110-120	50-60	460	NO

Digtor 22 C

Code	Dimensions (mm) (w x d x h)		Net weight Voltage (Kg) (V)		Frecuency (Hz)	Consumption (W)	Heating	
CE 238	530	640	400	76	220-230	50-60	1.260	YES
CE 239	530	640	400	76	110-120	50-60	1.260	YES

Digtor 22 C-8

Code	Dimensions (mm) (w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)	Heating	
CE 240	530	640	420	77	220-230	50-60	1.260	YES	
CE 241	530	640	420	77	110-120	50-60	1.220	YES	

Subject to modifications



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Centrifuges for oil/petrol use

Series Digtor 22C



Centrifuges
Rotors
Adapters
Accesories

Digtor 22 C-U
Digtor 22 C-8



Centrifuges on oil/petrol lab can be used for several applications as sediment & water on oils, fuel oils and middle distillate fuels, precipitation on lubricating oils, characterization of bio fuels... Ortoalresa has expanded its Series Digtor 22 C, thinking about all user, now formed by three centrifuges:

- Digtor 22 C-U: Centrifuge for oil/petrol without heating for 4 tubes of 8 ".
- Digtor 22 C: Centrifuge for oil/petrol with heating for 4 tubes 8".
- Digtor 22 C-8: Centrifuge for oil/petrol with heating for 8 tubes of 8".

These three centrifuges include the all standards on safety and also include the pre-installation for GRS (Gas Release System) for aerosols' extraction formed along centrifugation, that could affect to the user and lab environment.

A complete & safety solution for oil and bio fuel labs.

DIGTOR 22 C-U

Digtor 22 C-U is the unheated version of Series Digtor 22C, its provided of several memories which allow the user to store up to 16 programs according different centrifugation parameters following several standards.

It has been equipped with accessories, rotors RT 293 and RT 289 for run 6 and 8 inches, pear shaped tubes, traces and 12,5 ml tubes, all of them specially designed for oil/petrol applications, so they are easy to clean, made in high resistance materials, allow a quick identification of samples on the rotor position.

Its proper for processing samples according following standards:

ASTM D 91, D 893, D 2273, D 2709, D 5546, API 2542, API 2548, BS 4385, DIN 51793 (it can be used for several other standard, please ask us in info@ortoalresa.com).



Features

- Tubes upright on rest.
- GRS: Gas release system (optional); pre-installation included.
- TFT color touch screen, visible from more than 3 m.:
- Shows RPM and RCF, time, temperature, acceleration/ homogenization after separation. deceleration values (PCBS) and unbalancing location system
- Speed programming in 10 RPM/10 xg steps.
- Real RCF values on screen based in accessories configuration.
- Count up/down from "0" or at "set RPM/RCF" for test reproducibility.

- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests
- Timer from 1 min to 99 hours programmable in 1 sec. steps and hold position
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample
- ULS: Unbalancing location system indicating on the screen the number of the bucket which produces the unbalance
- 100 programmable memories, with protection under password
- Several acoustic and visual messages warning the user the

DIGTOR 22 C

Digtor 22 C has been equipped with accessories, rotors RT 293 and RT 289 for run 6 and 8 inches, pear shaped tubes, traces and 12,5 ml tubes, all of them specially designed for oil/petrol applications, so they are easy to clean, made in high resistance materials, allow a quick identification of samples on the rotor position.

The centrifuge is provided of 100 memories which allow the user to introduce programs with selectable centrifugation parameters following different standards.

It's provided of a pre-heating program which allows the operator a constant temperature along the run.

Its proper for processing samples according following standards:

ASTM D 91, D 96, D 893, D 1796, D 2273, D 2709, D 2711, D 4007, D 5546, API 2542, API 2548, BS 4385, ISO 3734, ISO 9030, IP75, IP 359, NF M07-020, DIN 51793 (it can be used for several other standard, please ask us in info@ortoalresa.com).

Heating

- Preheating program with rotor spinning and temperature selectable. Allows keep the chamber at working temperature before starting the process.

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- Regulation of the room temperature +5°C (41°F) to 80°C (176°F) in 1°C/1°F steps Programmable in °C o °F.
- Temperature sensor inside the chamber. Overheating protection. - Internal isolated avoiding heat lost.

Accessories





RT 289

				-		
	SWIN	IG OUT	SWING	OUT		
Max. capacity				4x100 ml. (8")		
	3.000		3.000			
	241		241			
	2.	425	2.42	25		
Dim (mm)	ADAPTERS		ADAPTERS			
approx.	Tubes	Ref.	Tubes	Ref.		
Ø 44-46x162-167	4	RE 475	-	-		
Ø 58-59x157-160	4	RE 477	-	-		
Ø 36-38x195-203	4	RE 476	4	-		
Ø 16x105	28	RE 456	4	RE 455		
Ø 16x105	-	-	16	RE 454		
	approx. Ø 44-46x162-167 Ø 58-59x157-160 Ø 36-38x195-203 Ø 16x105	### Ax100 m 3. 2. Dim (mm)	241 2.425 Dim (mm) ADAPTERS Tubes Ref. Ø 44-46x162-167 4 RE 475 Ø 58-59x157-160 4 RE 477 Ø 36-38x195-203 4 RE 476 Ø 16x105 28 RE 456	4x100 ml. (8"/6") 4x100 ml. 3.000 3.00 241 24 2.425 2.425 241 24 2425 2.42 248 ADAPTERS 349 Tubes 340 Ref. 340 Tubes 340 Ref. 340 <		

^{*} Please check your tubes specifications.





User friendliness

- Microprocessor controlled, PC connection.
- Induction motor maintenance free (brushless).
- Rotors and adapters list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option of free/locked adjustment of RPM/ RCF along the run.
- Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

Safety

- Optional Gas Release System: all devices include pre-installation.
- Isolated avoiding heat lost. Overheating protection.
- Lid locking and holding and lid dropping protection.
- Chamber of centrifugation in stainless steel.
- Viewing and calibration port in the lid.
- Messages about progress on TFT.
- Guard ring between the chamber of centrifugation and the housing.
- Tubes on upright on rest.

- Imbalance switch off.

DIGTOR 22 C-8

Digtor 22 C-8 is has the highest capacity of Series Digtor 22C, it can fit up to 8 tubes of 8 inches at once. Its provided of several memories which allow the user to introduce different programs according different centrifugation parameters following different standards.

It's provided of a pre-heating program which allows the operator a constant temperature along the run.

It has been equipped with accessories, rotors RT 293, RT 289, RT 294 (exclusive for this model) for run up to 8 tubes of 6 and 8 inches, pear shaped tubes, traces and 12,5 ml tubes, all of them specially designed for oil applications, so they are easy to clean, made in high resistance materials, allow a quick identification of samples on the rotor position.

Its proper for processing samples according following standards:

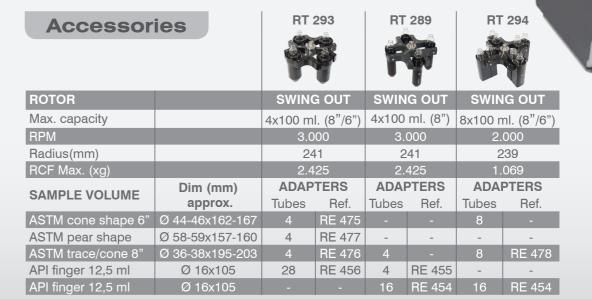
ASTM D 91, D 96, D 893, D 1796, D 2273, D 2709, D 2711, D 4007, D 5546, API 2542, API 2548, BS 4385, ISO 3734, ISO 9030, IP75, IP 359, NF M07-020, DIN 51793 (it can be used for several other standard, please ask us in info@ortoalresa.com).

Heating

- Preheating program with rotor spinning and temperature selectable. Allows keep the chamber at working temperature before starting the process.

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- Regulation of the room temperature +5°C (41°F) to 80°C (176°F) in 1°C/1°F steps Programmable in °C o °F.
- Temperature sensor inside the chamber. Overheating protection.
- Internal isolated avoiding heat lost.



^{*} Please check your tubes specifications.

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