

INDUSTRIAL VERTICAL AXIS CENTRIFUGE WITH BOTTOM DISCHARGE (DEC)



RC 85 Vx DECR

PROPERTIES OF THE DEC RANGE



PRODUCTIVITY

- Suitable for large-scale production.
- Can operate in a closed system under controlled atmosphere to prevent risks to the operator and contamination of the product or environment.



FLEXIBILITY

- Wide range of vertical axis centrifuges with scraper knife discharge.
- Various options in terms of diameters and volumes.
- Design adapted to all types of solutions and consistencies of cakes.



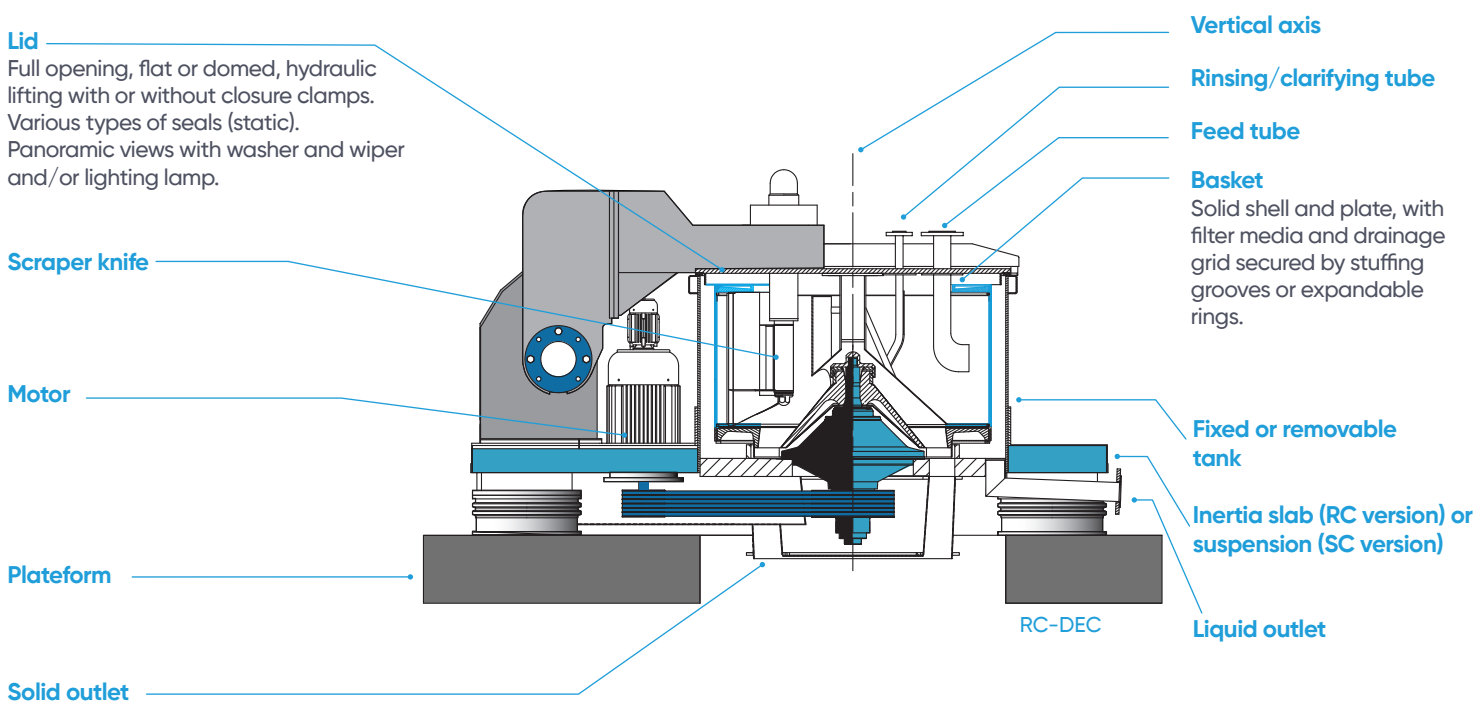
TAILOR MADE

- Custom technical designs.
- A wide choice of optional equipment.

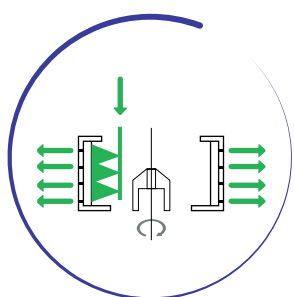
GENERAL CHARACTERISTICS

- **Drive system:** Side-mounted electric motor with single speed, connected to a frequency converter and transmission via antistatic belts.
- **Electrical equipment mounted on the centrifuge:** Waterproof or explosion-proof, compliant with European standards EN 60079 (ATEX certification for the EU) or North American standards.
- **Control panel:** Independent, located near the centrifuge with control and signaling components.
- **Power and control cabinet:** Independent, to be placed in the technical area with power chassis (including frequency converter) and control chassis (including PLC).
- **Hydraulic unit:** Controls the scraper knife, lid lifting, or tank lifting, and optionally the «up and down» feed tube. Positioned near the centrifuge.
- **Operating cycle:** Semi-automatic or automatic with manual cycle resumption available and possibility of communication with a supervisor.
- **Safety features:** Machines equipped with all safety devices according to current standards and additional systems (imbalance or vibration detector, speed sensor, pressure controls, etc.).

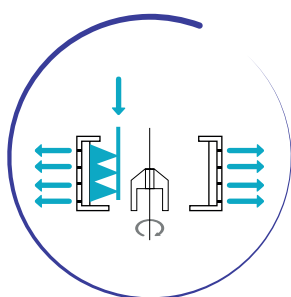
DESCRIPTIVE SCHEME OF THE DEC RANGE



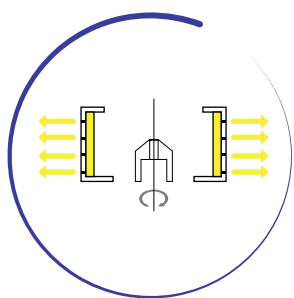
DIFFERENT PHASES OF A CYCLE



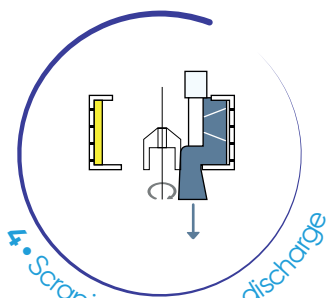
1 • Feeding



2 • Rinsing



3 • Spinning



4 • Scraping and cake discharge

1 • FEEDING

- **Through a fixed tube** with one or two outlets (or adjustable in height and orientation when the machine is stopped) or a «up-and-down» movement tube (adjustable stroke and frequency), optimizing product distribution across the basket height.
- **Filling control:** Via sensor or detector, with or without contact with the product, to optimize filling and prevent overflow during feeding and washing.

2 • RINSING/WASHING

- **Through a fixed tube** (or adjustable in orientation when the machine is stopped) with interchangeable diffusers.

3 • SPINNING

- Multiple spinning cycles can be performed at different speeds and durations within the same cycle.

3 • SCRAPING AND CAKE DISCHARGE

- **Scraping with a scraper** (racloir)
By single motion over the entire basket height of double motion with axial and radial movement. Interchangeable blade.
- **Confined cake discharge** through openings in the basket plate and tank bottom, via a simple chute or extended chute for connection to downstream accessories.

FOCUS ON DIFFERENT VERSIONS

OPTIONS :

- **Fully opening outer casing:** Combined with a flat-bottom basket, allows immediate visual inspection and complete cleaning of all product-contact parts.
- **Quick-release basket** for regular inspections and cleaning (fixed-tank centrifuge version).
- **Partially opening outer cover/casing** and small-opening lid (manual or hydraulic lifting). In this version, all internal centrifuge components are mounted on the upper casing cover/lid.
- **Various construction materials** (stainless steel, alloys, etc.), coatings (ECFTE, ebonite), and **seal materials**.
- **Gas-tight operation**, with or without pressure, enabling machine inerting.
- **ATEX compliance, cGMP construction**.
- **Inerting devices** (various principles: pressure control, oxygen analysis).
- **Hydraulic seal** (siphon) or liquid receiver for flow sealing.
- **Finish:** Degree of finish/polishing according to user applications and constraints (electropolishing available).
- **Various sensor** principles for filling management.
- **Different methods** for securing the filter cloth and drainage grid.
- **One- or two-piece deflector** (depending on models).
- **Double-jacketed tank** for temperature maintenance.



RESIDUAL LAYER REMOVAL

- **1) Internal basket cleaning:**
Device mounted on the scraper knife or independent, with double movement (rotation + translation), operating with network pressure or overpressure.
- **2) External basket cleaning («blow back»):** Nozzle array fixed to the tank, injecting nitrogen counter-current under pressure to vibrate the filter cloth and detach the residual layer.
- **3) Cleaning-in-place (CIP):** System with rotating nozzles and fixed nozzle ramps for cleaning the basket and sensitive centrifuge areas.

TECHNICAL CHARACTERISTICS OF DEC RANGE

MACHINE	ø Basket (mm)	Height (mm)	Max. speed (rpm)	Useful volume (l)	Load capacity (kg)	Max G-force (G)	Filtration area (m²)
RC63 DEC	630	370	1 500	50	68	792	0,73
RC85 DEC	850	520	1 300	125	160	803	1,39
RC100 DEC	994	500	1 200	165	150	800	1,56
RC120 DEC	1 200	600	1 100	305	375	812	2,26
RC125 DEC	1 250	700	1 000	430	537	699	2,75
RC125 DEC	1 250	800	1 000	490	613	699	3,14
RC150 DEC	1 500	800	1 000	615	725	838	3,77
RC160 DEC	1 600	1 000	1 000	990	1 250	894	5,03

MACHINE	ø Basket (mm)	Height (mm)	Max. speed (rpm)	Useful volume (l)	Load capacity (kg)	Max G-force (G)	Filtration area (m²)
SC100 DEC	994	500	1 000	165	215	556	1,56
SC120 DEC	1 200	600	1 100	305	390	812	2,26
SC125 DEC	1 250	700	900	430	537	566	2,75
SC125 DEC	1 250	800	900	490	613	566	3,14
SC150 DEC	1 500	800	1 000	600	725	838	3,77



HEADQUARTERS

ROUSSELET ROBATEL
45 Avenue Rhin et Danube
Parc d'activité économique de Marenton
07104 ANNONAY - FRANCE
Tel.: +33 (0)4 75 69 22 28
E-mail: info@rousselet-robatel.com

UNITED KINGDOM

ROUSSELET UK Ltd
Parkside House, 17 East Parade
HARROGATE
NORTH YORKSHIRE HG1 5LF
Tel: + 44 (0)1 423 530 093
E-mail: salesuk@rousselet-robatel.com

DEUTSCHLAND

ARRGOS GmbH
Max-Eyth-Str. 1
D-71691 FREIBERG a.N.
Tel : +49 (0)7141 97229 20
E-mail : info@rousselet-robatel.com

USA

ROBATEL Inc.
703 West Housatonic Street
PITTSFIELD
MA 01201
Tel: + 1 413 499 4818
E-mail: sales@rr-centrifuge.com