



ROUSSELET
ROBATEL

INDUSTRIAL VERTICAL AXIS BASKET CENTRIFUGES WITH AUTOMATIC DISCHARGE

for solid/liquid separation
in the pharmaceutical,
chemical and food
industries.

You need to process
large quantities of material ?

You require a **closed system**,
under a controlled atmosphere,
to prevent operator exposure
and product or environmental
contamination ?

You will find that ROUSSELET
ROBATEL **offers the widest
range** of automatic discharge
vertical axis basket centrifuges
consisting of :

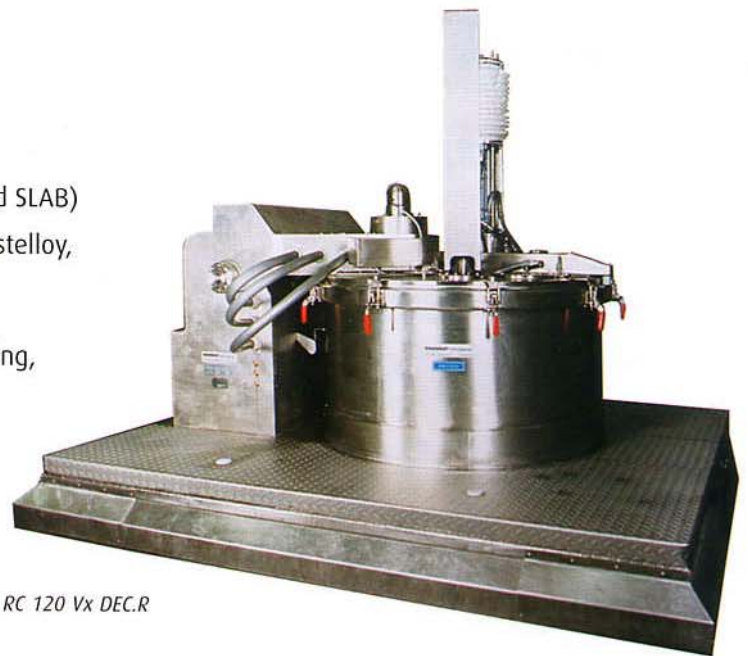
- **Nine basket diameters**
- **Twelve models**
- **Tailor made** technical designs
- **Large choice** of
optional equipment
and ancillaries.



RC 160 Vx DEC.R

Main design features

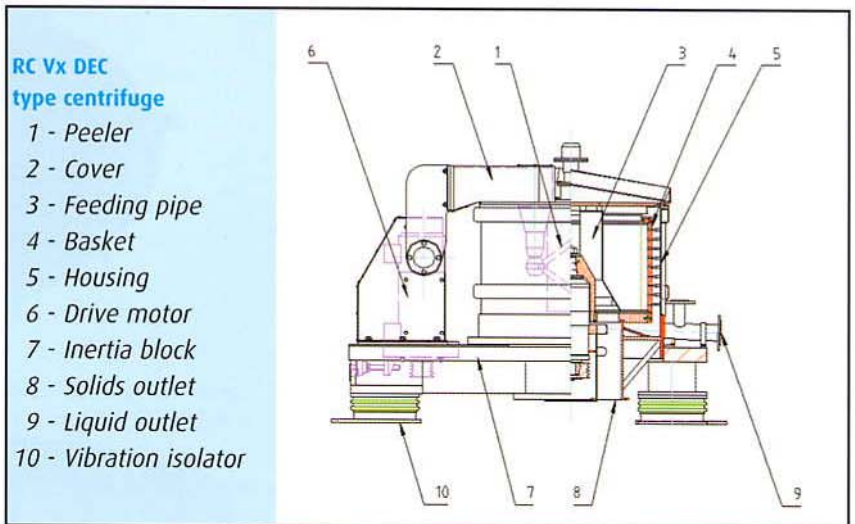
- **Vertical Axis**
- **Installation** : 3 column suspension (Model SC) or with integral inertia plate and vibration isolators (Models RC and SLAB)
- **Materials of Construction / Coatings** : Stainless steel, Hastelloy, Inconel, Titanium. Corrosion resistant coatings : Halar, Ebonite, PFA, Tefzel.
- **Vapour-tight Construction** : Suitable for inert gas blanketing, pneumatic barrier between double lip seals and bearings.
- **Seals** : Dynamic and static : PTFE encapsulated, Viton, EPDM.
- **Surface Finish** : Finish / Polishing grade to meet application and customer requirements (electro polishing available).



RC 120 Vx DEC.R

Centrifuge components

- **External Casing** : Optional fully opening design provides total access to internal components.
- **Cover** : Full-opening, flat or domed, hydraulically actuated, with or without clamps. Various types of sealing (static or inflatable). Panoramic sightglasses with wash nozzle or wiper and / or process area lighting.
- **Basket** : Side wall with reinforcing rings or solid and alloy lined or solid alloy base. Filter cloth or backing screen installed with expandable rings or caulking ropes.

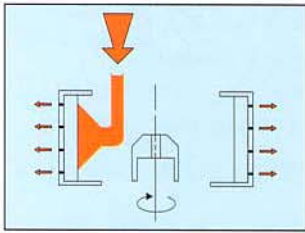


Technical characteristics

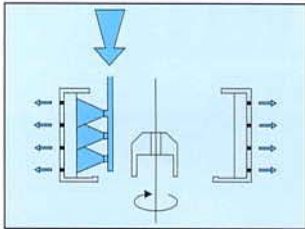
Basket							Centrifuge	
Ø	Height	Useful Volume	Maximum Load	Filtration Area	Speed	Centrifugal Force	Motor Power	Model
mm	mm	l	Kg	m ²	RPM	G	KW	
630	370	50	62	0.73	1500	792	7.5	RC* 63 Vx DEC
850	425	130	162	1.13	1300	803	11	RC 85 Vx DEC
	460	131	164	1.23	1450	999	11	SLAB* 852 DFR
1000	500	170	215	1.57	1000	559	11	RC or SC* 100 Vx DEC
1100	600	270	337	2.07	1200	885	18.5	SLAB 1102 DFR
1200	600	310	390	2.26	1050	740	15	RC or SC 120 Vx DEC
1250	630	395	495	2.47	1200	1006	30	RC or SC 125 Vx DEC
	800	500	625	3.14				
1320	760	556	695	3.2	1000	738	30	SLAB 1322 DFR
1500	750	580	725	3.53	900	679	22	RC or SC 150 Vx DEC
1600	1000	1000	1250	5.03	900	724	45	RC 160 Vx DEC
	1016	1025	1281	5.1	850	647	45	SLAB 1602 DFR

* SLAB and RC : Installation with integral inertia plate. SC : 3 column suspension.

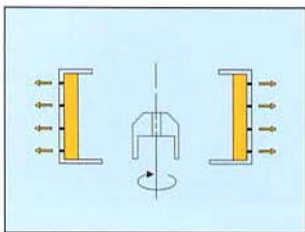
Cycle steps and accessories



1 - FEEDING



2 - WASHING



3 - SPINNING



4 - PEELING FOR CAKE DISCHARGE

FEEDING :

- With **fixed pipe** adjustable height and orientation, when machine is stopped or with **"up and down" motion** adjustment in frequency and movement during centrifuge operation optimizing product distribution over the entire basket height.

- **Feed Control** : Detector, with or without product contact to optimize feeding and prevent any risk of overflowing during feeding and washing.

WASHING :

- With fixed pipe adjustable, when machine is stopped with interchangeable nozzles.

PEELING :

- Single motion, peeler knife extends over the entire basket length, or double motion, with axial and radial movement. Interlocked for safety, adjustable advance speed, rapid retract, and replaceable knife.

CAKE DISCHARGE :

- Through openings in the basket and housing base which diverts the solids into a simple chute or vapour-tight chute for connection to downstream equipment..



RC 125 Vx DEC.R

RESIDUAL HEEL REMOVAL :

- Numerous devices available :

- Removal from inside the basket : Gas lance installed on peeler blade or independent mechanism with double motion (axial and radial movement) using mains pressure or high pressure which is generated using a compressor.
- Removal from outside the basket ("blowback") : Installed on the inside of the centrifuge casing.
- Removal by inflatable membrane : Mechanically pushes the filter media to remove heel (Model SLAB only).

CLEAN-IN-PLACE (CIP):

- With strategically located spray nozzles for cleaning of basket and process contact areas.

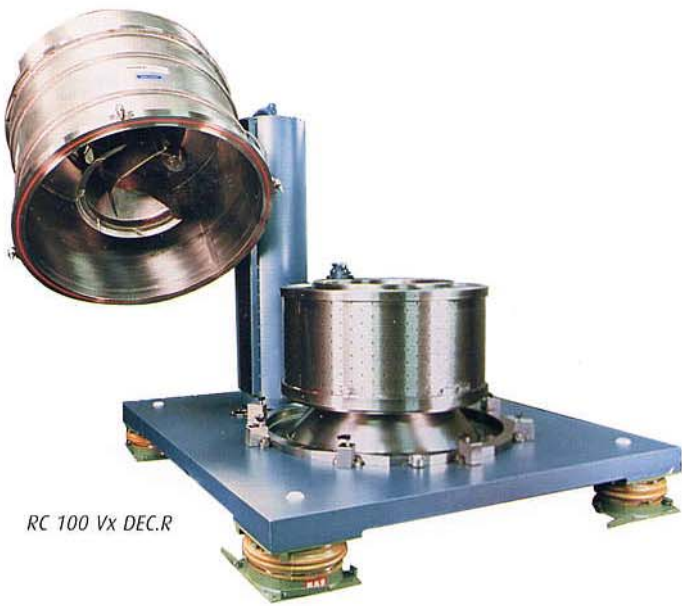


Drive/Controls/Electricals/Safety

- **Main Drive** : Side-mounted electric motor with speed control by AC variable frequency drive and transmission via antistatic belts.
- **Centrifuge mounted electrical equipment** : Vapour-tight or explosion-proof to European or American standards.
- **Local Control Panel** : Independent, installed near the centrifuge with necessary instrumentation and safeties.
- **Main Control Panel** : Independent, installed outside the processing area, with separate drive and control panels.
- **Hydraulic Unit** : For controlling peeler motion, cover opening, and optional "up and down " feed pipe. Installed near the centrifuge.
- **Cycle Control** : Fully automatic or cycle-by-cycle, with manual intervention and possible DCS communication.
- **Safety** : Fully equipped with safety features and ancillary systems. Vibration or unbalance switch, pressure monitoring.



RC 120 Vx DEC.R



“HI-TECH” versions

- Fully-opening housing with three motions, when combined with a flat bottom basket, allows for immediate visual inspection and integral cleaning of all process contact surfaces.
- Quick release basket for periodic inspection and cleaning, used in conjunction with a fixed casing design.
- Allowing integration of electric, pneumatic, and hydraulic equipment, limiting cover connections to the feed and wash piping.
- Clean room installation through the floor design, isolating the upper process zone from the lower mechanical zone.

Simplified versions

- Materials of construction : mild or cast steel
- External casing with partial opening cover or small cover (manually or hydraulically actuated)
- In this version, all internal equipment is fixed on the upper casing
- Cycle manually controlled

Ancillary equipment

DEPENDENT ON THE PROCESS / THE PRODUCT

- Solid bowl decanter version with liquid discharge by overflowing the bowl rim or with liquid skimmer, or skimmer for initial liquid removal (on basket centrifuge). Double shell casing for temperature control, thermal insulation, earth grounding between static and rotating parts, inert gas blanketing systems via pressure control or oxygen monitoring systems, single or double liquid receivers for separating mother and wash liquors, hydraulic siphon to maintain vapour-tightness.

DEPENDENT ON THE CENTRIFUGE DESIGN

- Single or two-piece splash deflector to prevent dripping or projection of liquid into the solids discharge chute. Inflatable cover gasket and front locking without manual clamps (Models RC/SC).



SC 120 Vx DEC.R



RC 120 Vx DEC.R

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