



ROTAHANSA
TECHNIK

Direct Drive **TUBULAR CENTRIFUGE**

ROTA-TC12

ROTAHANSA.DE





ROTA HANSA TECHNIK, based in Hamburg, Germany, supports global customers and partners with high-quality manufacturing, helping them achieve their goals efficiently and economically.

Driven by innovation and excellence, we utilize state-of-the-art processes in our advanced production facility, setting industry standards in Europe and worldwide.

Committed to environmental and social responsibility, ROTA HANSA TECHNIK focuses on developing eco-friendly centrifuges and promoting fair working conditions and social projects.

Our new high-performance direct-driven tubular centrifuge, the ROTA-TC12, marks the beginning of our ambitious plans. Our first disc stack centrifuge is set for market launch in 2025, with more systems in the pipeline.

To learn more about our products, contact us directly – we look forward to hearing from you!



Direct Drive Tubular Centrifuge



Tubular Centrifuges have many applications in the field of separation of solid/liquid, liquid/ liquid in different industries. These centrifuges come in variety of rotation speeds and different sizes that are applicable to all purposes from research to mass production. Tubular centrifuges are capable of 5 to 3000 Liters/Hour inlet flow.

Main Machine

- Direct drive (beltless) motor.
- Permanent Magnet rotor drive.
- Two phase separation: solid and liquid / liquid and liquid.
- Designed for Grade "C" clean room.
- Cooling Jacket (water/gas) with temperature sensor.
- 10 liter rotor: maximum speed 13200 RPM, 13830 RCF.
- 8 liter rotor: maximum speed 16000 RPM, 17888 RCF.
- Ra. less than 0.2 μm . Pharmaceutical grade teflon in valves and connections.
- Metal parts not in contact with the product and clean medias (in case if the design allows) stainless steel AISI304, Ra. less than 0.4 μm .
- Power supply: 3 phase, 400 V, 50 Hz / 3 phase, 208 V, 50 Hz.



Advantages

DIRECT DRIVE Centrifuges

over traditional belt-driven centrifuges



Beltless (No particle releasing)



Less Operational Noise



Increased Efficiency



Reduced Maintenance



Improved Reliability



Easy to Use

Control and Monitoring System Specifications

- Portable stainless steel monitoring cabinet (optional).
- Rotational speed monitoring, control and recording.
- Monitoring and recording the product temperature.
- Live displaying all sensors data and graphical display of control logics.
- Process time control and recording.
- Process information (batch number, operator number, Equipment ID, ...) registration.
- Vibration measurement, monitoring and recording system, alarm and trip.
- Saving operation log file.
- Three access levels for equipment control (operator, maintenance/technology engineer, administrator).
- Batch report in unchangeable format.
- Exporting the record process data via a removable hard disk.
- Alarm and trip levels for process parameters.
- Emergency stop button.
- Electrical cabinet with IP54 protection.

PLC Base



PC Base



Designed according to cGMP Health standards

- Contact surfaces are electropolished to less than 0.2 micron roughness.
- Contact surfaces are made of AISI 316L stainless steel.
- All O-rings and gaskets are made of veyton or EPDM that could be sterilized, against environmental bacteria to BL-1-LS level.



Technical Specification

Rotor inner diameter	125-140 mm
Effective length	750 mm
Rotor Inner volume	8-10 liter
Max. rotor speed	16,000 rpm Maximum
Separation force	18,000 × g Maximum
Injection nozzle diameter adjustable range	0.5 mm to 8.5 mm
Injection pressure	0.5 to 1.5 bar
Flow	Determined by injected fluid type
Motor type	Direct coupled permanent magnet DC motor
Machine dimension	75 cm × 75 cm × 160 cm
Machine weight	480 kg
Motor specifications	4 kW/10 A/ three phase (convertible to 32 A/single phase by transformer)



Auxiliary Equipment and Accessories:

- Special rotor mounting equipment
- Inlet and outlet temperature sensors
- Rotor vibration measurement system
- Rotor table
- Teflon sheet stencil
- Tools kit



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