

Inverting Filter Centrifuge *HT/GMP model*



High Recovery Solid/Liquid Separation in a Single Environment
Fine chemicals – active pharmaceutical ingredients



Advantages of the Inverting Filter Centrifuge

- 1. GENTLE** – Solids discharge is performed by inverting the filter cloth and spinning the product off centrifugally. No discharge blade means that delicate crystals and macromolecules can be recovered without breakage.
- 2. HIGH YIELD – LOW RESIDUAL** – High yield is achieved because the solids are discharged immediately by the inversion of the spinning filter and high centrifugal force. Because solids are discharged without the use of a blade or blowback, ultra-thin cakes can be processed efficiently.
- 3. IMPROVED CIP & VALIDATION** – There are three (3) moving parts (filter, platen and basket) inside the Inverting Filter Centrifuge. Crevices, seals and the additional surface area associated with the discharge blade, feed line, spray line and local control are eliminated.
- 4. DRYING CAPABILITY** – Removal of bound moisture is performed with dry or heated gas at up to 6 barg differential pressure across the cake. (**HCS – HYPERBARIC CENTRIFUGATION SYSTEM**)

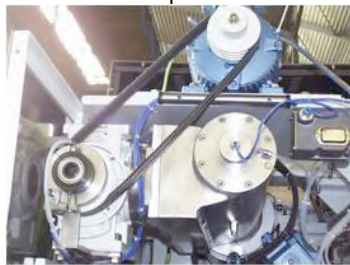
COMI CONDOR S.p.A.

Centrifuge technology since 1920

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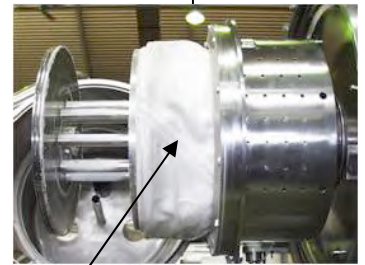
Inverting Filter Centrifuge Design & Specifications



Electro/mechanical filter cloth inversion system



Fully inspectable process chamber



Inverted filter cloth

DESIGN FEATURES

- batch capacities from 7 l to 220 l
- high filtering capability with 1100 to 2000 gravities of force
- horizontal basket design ensures uniform load
- polypropylene or PTFE filter cloth
- outer housing is gas tight to 400 mm H₂O
- inertia Pad with dampers allows installation directly on floor
- through-the wall installation
- shafts and bearings serviceable from the service in rear making the process side free from contamination
- electro/mechanical filter cloth inversion; bearings grease lubricated (oil free execution)
- all process surfaces can be visually inspected
- clean in place design
- available in 316L stainless steel, Hastelloy & other exotic alloy
- all levels of surface finish available

CONTROL OPTIONS

- complete PLC controls with touch screen interface
- switch between automatic and manual operation
- variable frequency drive (VFD) speed control
- ATEX electrical enclosures
- optional instrumentation integrated into the control system including oxygen monitoring, temperature, pressure, liquid feed flow, N₂ purge flow and effluent particle clarity



AFTER-MARKET SUPPORT

- field service & technical support available 24/7
- mechanical and electrical parts
- process control and maintenance manuals
- certifications and construction documentation
- mechanical and electrical upgrades



Centrifuge Model HT/GMP	Units	300/110	470/180	600/225	800/345	1000/430
Basket diameter	mm	300	470	600	800	1000
Basket length	mm	110	180	225	345	430
Filtering surface	m ²	0,10	0,26	0,45	0,90	1,35
Cake volume	dm ³	7	27	60	145	220
Slurry density	kg/dm ³	1,25	1,25	1,25	1,25	1,25
Maximum basket load	kg	9	34	75	181	275
Maximum basket speed	RPM	3400	2500	2150	1700	1400
G-factor x g	G	1927	1640	1550	1300	1100
Centrifuge weight	kg	700	3000	4000	7500	8800

