

PIERALISI DECANTERS

for industrial use



GRUPPO

PIERALISI

A LEADER IN CENTRIFUGATION

With its vast number and range of installations Peralisi is able to offer the full spectrum of centrifugation solutions available to meet production requirements and offer new solutions to industrial processes.

More than 40,000 Peralisi centrifugation systems have been installed all over the world in a wide variety of industrial fields.

Centrifugal extractors (decanter), vertical centrifuges (separators), belt filter presses and filter centrifuges – Peralisi technology is available to solve any problem of clarifying, dewatering and separating with the safety and reliability derived from a progressive, innovative production.



being made to find new solutions to the many problems that arise, taking new approaches and anticipating future developments.



The aim of such activity is to generate new products, improve quality levels and reduce costs.

Peralisi's constant commitment to research is aimed at finding and developing new fields for the use of centrifuges, carrying out the necessary tests and monitoring the effectiveness of these new applications. The results have received wide recognition not only from the market, but also from top research institutes.

RESEARCH - THE KEY TO GROWTH

Peralisi's business strategy is based on the constant commitment to research. Innovation is one of the foundation stones on which the group's strength lies. The group's dedication to this aspect is demonstrated by the efforts continually



PRINCIPLES OF THE SEPARATION SYSTEM

The decanter is used for the separation of two or more phases of different specific gravity, in particular for the clarifying of liquids in which suspended solids are present. The separation of solids and liquids takes place within a cylindrical/conical rotating drum, upon the periphery of which the heavier solid phase collects and is continually removed by the internal conveyor.

A polyelectrolyte, suitably chosen for its type and specific characteristics, may be added to the product being fed to the machine in order to improve the solid-liquid separation. The polyelectrolyte favours the aggregation and thus the easier capture of the solid particles.

A polyelectrolyte is not always compatible with products being processed. It is generally used in purification processes for the drying of sludge, but not in intermediate product conversion processes, and even less in the processing of foodstuffs.

The **ROTOVARIATOR** - an electronically programmable electro-mechanical system - is designed and manufactured by the Peralisi Group and patented worldwide.

The ROTOVARIATOR continuously varies the number of screw revolutions in relation to the bowl of the Decanter.

Thanks to the Rotovariator device, it is possible to:

- regulate the torque on the

decanter reduction gear to the maximum levels allowed;

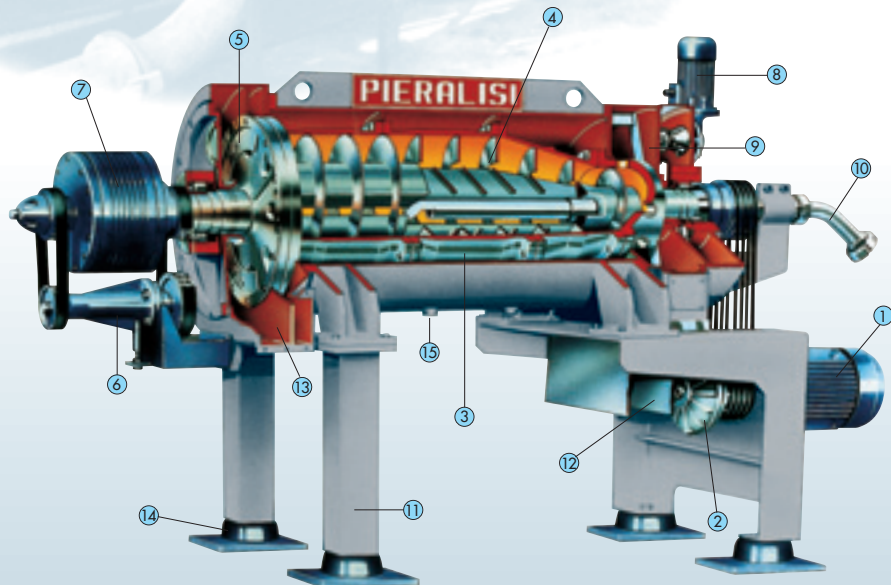
- obtain the highest possible percentage of dry solids in dewatered sludge according to the type of product;
- ensure the highest levels of sludge capture;
- adjust the rate of feed flow to the decanter thanks to a frequency inverter on the feed pump.



CROSS SECTION OF THE CENTRIFUGAL EXTRACTOR

Legenda:

1. Main motor
2. Hydraulic coupling
3. Bowl
4. Scroll, open type
5. Effluent weir plates
6. Pulley transmission
7. Planetary reduction unit
8. Scraper motor (patented system)
9. Separate sediment scraper room (patented system)
10. Removable shuttle feed pipe
11. Studs (standard)
12. Cake discharge
13. Effluent discharge
14. Vibration dampers
15. Flushing drains



All parts in contact with the product to be treated are made of stainless steel.

Optional variations for special applications of the decanters

- Automatic differential speed variation via Rotovariator
- other systems on request
- Selection of optimum conveyor and bowl design
- Selection of product feedzone
- Conveyor and bowl in various stainless steels, incl. Duplex
- Wear protection incl. interchangeable sintered Tungsten Carbide segments
- CIP (clean in place)-execution
- 3-phase design
- Centripetal pump for liquid discharge under pressure
- 3-phase execution with Centripetal Pump for process optimization during operation



PIERALISI Decanter GIANT III in Chemicals, HDPE

TECHNICAL SPECIFICATIONS OF PIERALISI DECANTERS

Model	Bowl diameter (mm)	Slender-ness ratio L/D	Length A (mm)	Width B (mm)	Height C (mm)	Weight (kg)
BABY 1	232	2,43	1700	785	1090	500
BABY 2	232	3,33	1900	785	1090	550
BABY 3	232	4,2	2100	785	1090	600
FP600/M	353	2,62	2250	1050	1400	1200
FP600 RS/M	353	3,48	2550	1050	1400	1350
FP600 2RS/M	353	4,32	3000	1050	1400	1500
JUMBO 1	470	2,51	3000	1470	1650	2350
JUMBO/HERCULES 2	470	3,38	3418	1605	1720	2950
JUMBO/HERCULES 3	470	4,25	3996	1605	1720	3350
JUMBO/HERCULES 4	470	5,12	4406	1605	1720	3700
MAMMOTH 2	570	3,92	4350	1920	1985	5540
MAMMOTH 3	570	5,10	5010	1920	1985	6520
GIANT 2	700	3,59	5200	2500	2200	9100
GIANT 3	700	4,05	5700	2500	2200	10500
GIANT II	735	3,20	5000	3000	1300	10500
GIANT III	800	2,90	5000	3000	1400	11500
GIANT IV	900	2,90	5500	3300	1500	13000



Pieralisi Decanter FP 600 RS, a Pharma-modul, gastight, Ex-ATEX



Pieralisi Decanter Jumbo 4, CP-A, 3-phase in Biodiesel

PIERALISI DECANTERS

AREAS OF APPLICATION

Environmental Applications:

- filtering and dewatering of sludge from municipal and industrial waste waters (paper, tanning, textile, quarrying industries, etc.);
- sludge from water treatment plants;



Meat processing

- drilling mud recovery;
- supply of mobile platforms or skids for third-party sludge dewatering;
- tank oil residues and slop oils from the petrochemical

industry;

- pig and cattle manure;
- waste oil.

Sugar Industry:

- sugar beet wash water.

Chemical-Pharmaceutical Industry:

- calcium and sodium sulphate/sulphite;
- potassium sulphate;
- polyethylene, PVC;
- biotechnological processes;
- chemical processes.

Biodiesel

- FFA/Glycerine/Salt Separation
- Salt Raffination

Wine Industry:

- must and lees.

Food Industry:

- fruit juices;
- tomato juice;
- liquorice;
- distillery dregs;
- potato starch recovery.

Other Sectors:

- treatment of fish-processing by-products;
- treatment of butchery by-products;
- plastic waste recovery;
- paint waste recovery.



Decanter centrifuge "Hercules" series.



Decanter centrifuge "Mammoth" series



Treatment of slop oils

SOME EXAMPLES OF APPLICATIONS



Biodiesel production



Sludges from depuration plants



Animal blood treatment



Refinery slurries



Drilling mud recovery



Chemical-pharmaceutical industry



Waste treatment on Cruise ship



Pig manure



Sugar beet wash water



Bio-waste treatment

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