



# CENTRIFUGE TECHNOLOGIES

ENVIRONMENT AND WASTEWATER



**DISCOVER**  
**THE**  
**HARMONY**







# Boost the Dryness of Your Sludge

*As a centrifugal technology, decanters play a key role in environmental management processes such as reusing clean water obtained by treating wastewater.*

*Polat Makina offers the most suitable centrifugal decanters you need for environmental and wastewater applications. Thanks to our centrifuge technologies, you can achieve higher efficiency in your wastewater management processes.*

*primary usage areas of decanter  
in Environment and Wastewater industry*

- *Wastewater Treatment*
- *Potable Water Treatment*
- *Industrial Wastes*
- *Recycling*



# Advantages of Polat Makina

- High material quality,
- Low polymer consumption,
- Low operation cost,
- Less footprint than conventional dewatering systems,
- Less odour and volatile gas emission than conventional dewatering systems,
- Different product portfolio in reasonable capacities,
- Customized design and R&D activities,
- Design in line with occupational health and safety,
- Low maintenance cost,
- Customer-oriented service and solutions,
- Capability to work in wide range of temperatures,
- Continuous process optimization through PLC and SCADA controls.

*Focus on Performance  
with Polat Decanters*







# 5 continents 44 countries

Group companies in 3 countries  
Dealership, distributorship and agency in 14 countries.

## Group Companies

Italy  
Greece  
Morocco

## Dealer & Distributor & Agency

Germany	China	Egypt
Spain	Argentina	Tunisia
Belgium	Brazil	Jordan
Ukraine	Iran	(Middle East)
Russia	Malaysia	Algeria

## Exported Countries

U.S.A	Georgia	Uzbekistan	Tunisia
United Kingdom	Australia	Tataristan	Morocco
Italy	Albania	Iran	Sudan
Spain	Ukraine	Iraq	Libya
Belgium	Russia	Nicaragua	Lebanon
Slovakia	Azerbaijan	Kazakhstan	Palestine
Poland	Cyprus	Malaysia	Egypt
Greece	China	India	Syria
Romania	Kosovo	South Africa	Jordan
Germany	Argentina	Qatar	Ethiopia
Switzerland	Brazil	Saudi Arabia	Algeria

We are at your disposal **all around the World.**





## S SERIES

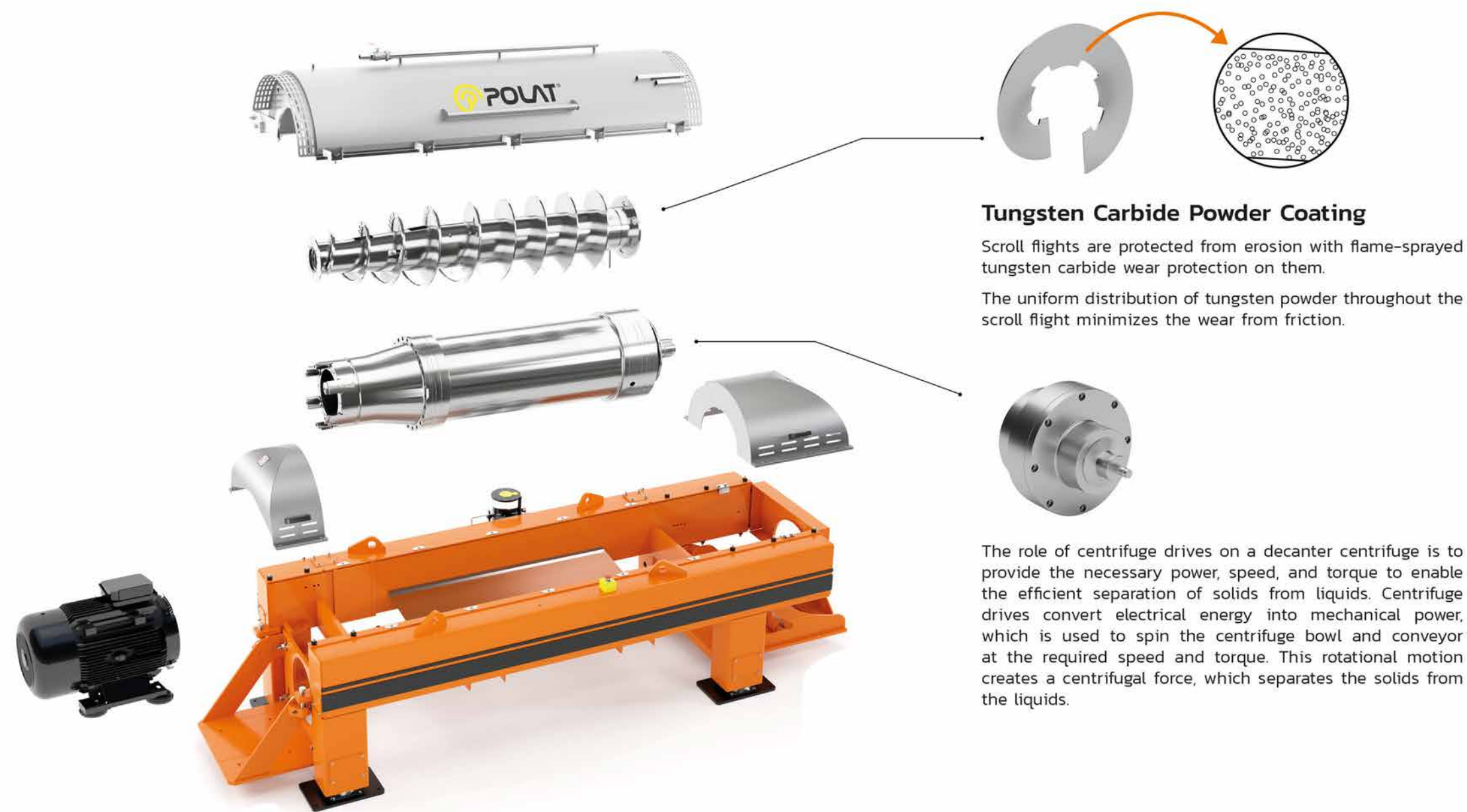
- High-performance separation, resulting in high-value products and low waste management costs
- Low energy consumption
- Low maintenance costs thanks to continuous operation, high-grade materials, smart design and preventive services
- User-friendly
- Outstanding improved wear protection



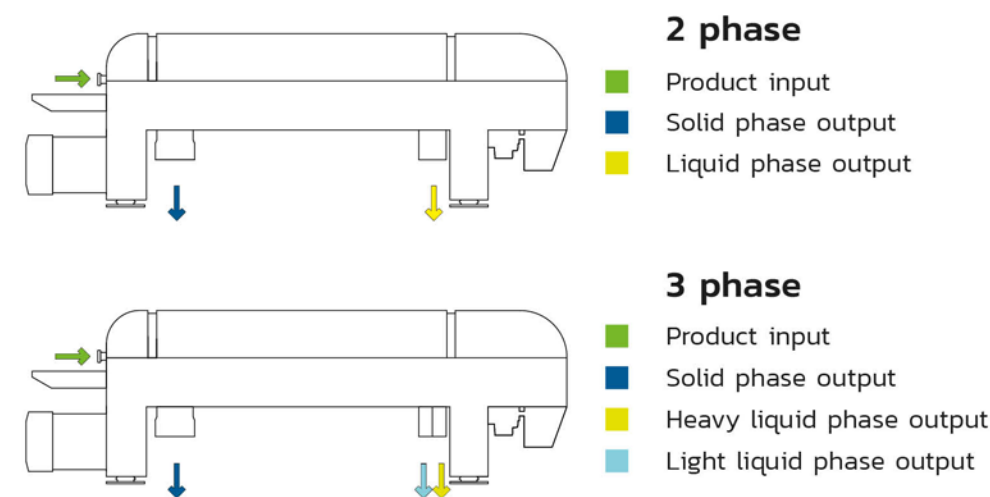
## SX SERIES

- High-performance separation, resulting in high-value products and low waste management costs
- Low energy consumption
- Higher capacity within a small footprint: the compact, modular design
- Low maintenance costs thanks to continuous operation, high-grade materials, smart design and preventive services
- User-friendly
- Outstanding improved wear protection



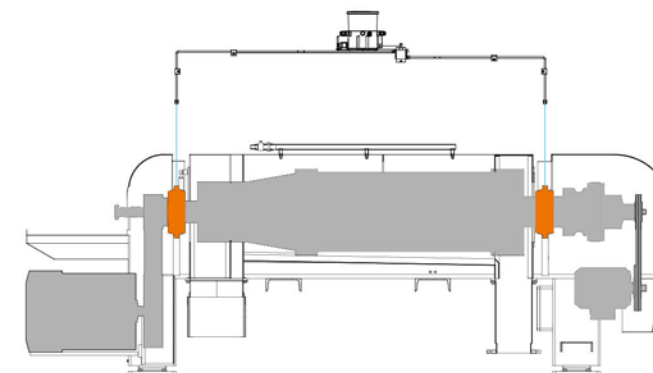


Product Input and Solid & Liquid Output



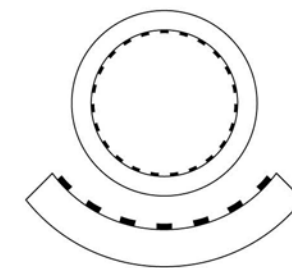
Lubrication

GREASE LUBRICATION SYSTEM

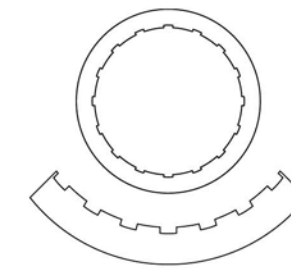


Bowl

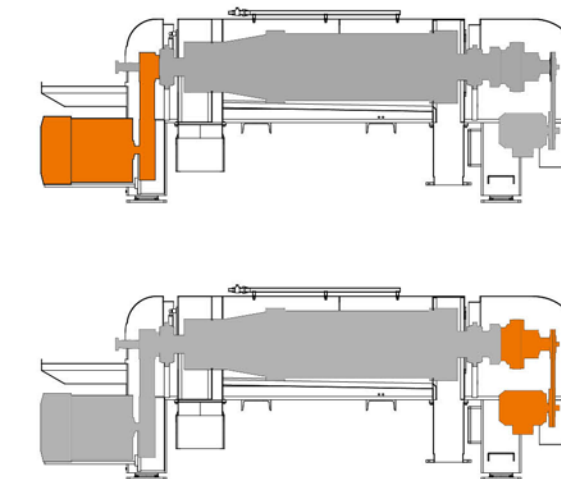
01 Ribbed Bowl



02 Grooved Bowl



Motor & Transmission



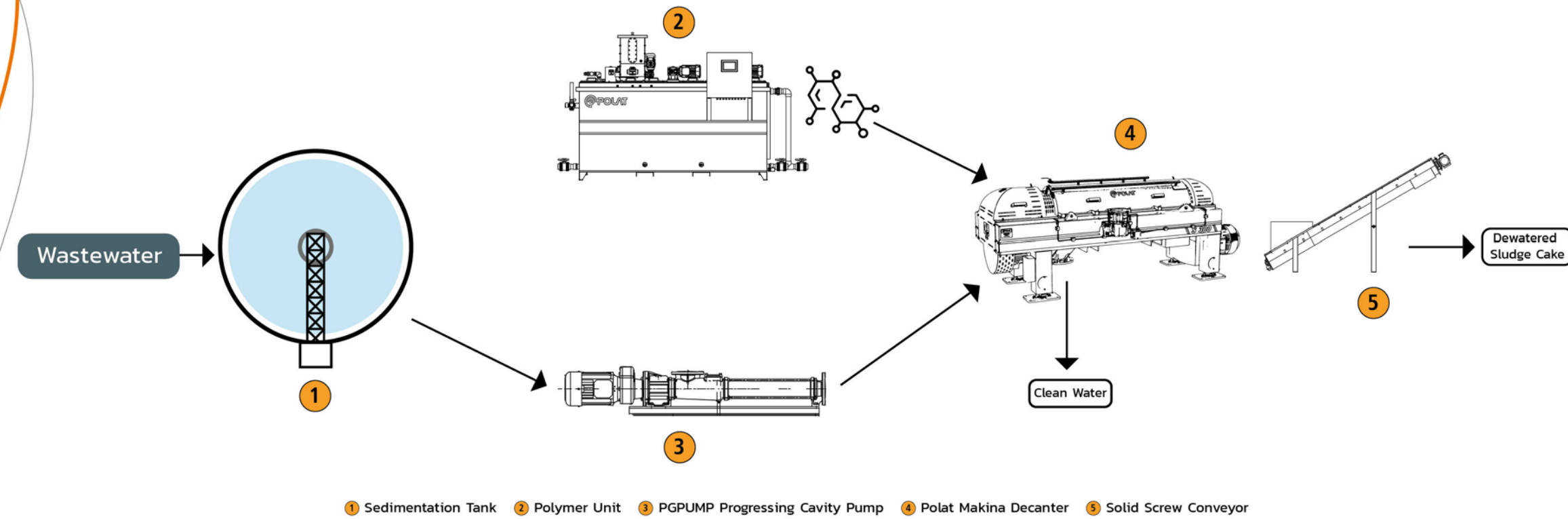
Ability to adjust the desired “G” force according to the product.

Optimum operation with automatically adjustable differential speed.

Model	Bowl Motor (kW)	Scroll Motor (kW)	Drive System	Approx Weight (kg)
S 200	5,5	2.2	VFD	500
S 300	15	4	VFD	1160
S 350	22	5.5	VFD	1850
S 430	37	7,5	VFD	3500
S 470	45	7,5	VFD	4700
S 530	55	11	VFD	5475
S 570	75	11	VFD	6250
S 670	90	22	VFD	10980
SX 650	90	22	VFD	10000
SX 840	132	45	VFD	15000



## Wastewater Treatment Flow Diagram





# OPTIONAL FEATURES

*We offer innovative and sustainable solutions for the customer needs with our approach focused on continuous improvement by using our technological infrastructure*



## Scroll Conveyor

Carries solid from decanter to stock or loading area.



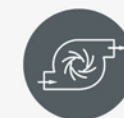
## UPS

Uninterruptible power supply.



## Static Mixer

Continuously mixes the fluid materials, without moving components.



## Supply Pump

Product supply with variable flow rate with speed control.



## SCADA Adaptation

System adaptation.



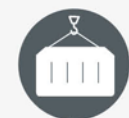
## Remote Control

Monitoring your decanter's performance with mobile equipments, and intervention when necessary.



## Slide Gatevalve

Block fluid flow to prevent leakage to solid output.



## Container System

Mobility for working in different locations.



## Flowmeter

Product capacity monitoring, observing total processed amount.



## Polymer Preparation Unit

Prepares and doses chemicals required for process.



## Macerator

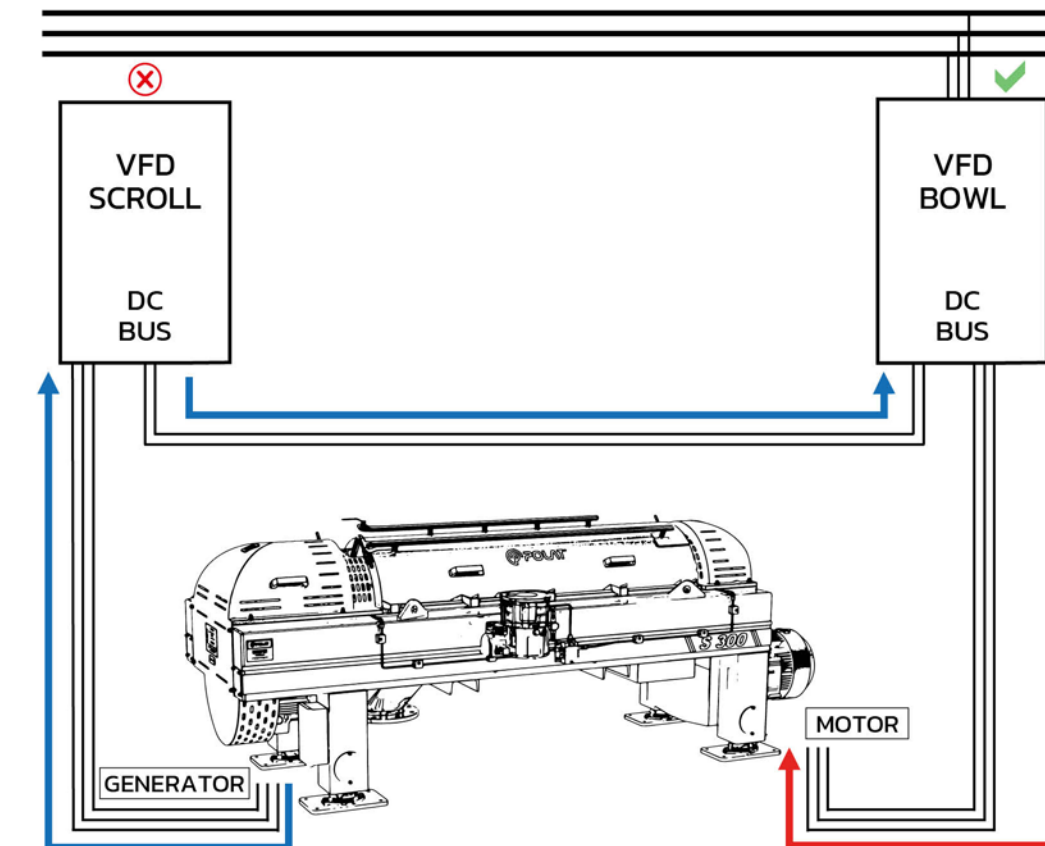
Equipment to break particles from the decanter feed line to protect the machine.

\* Automatic lubrication, sampling and replaceable wear part on bowl discharge are offered as standard features.

## Design for Low Energy Consumption

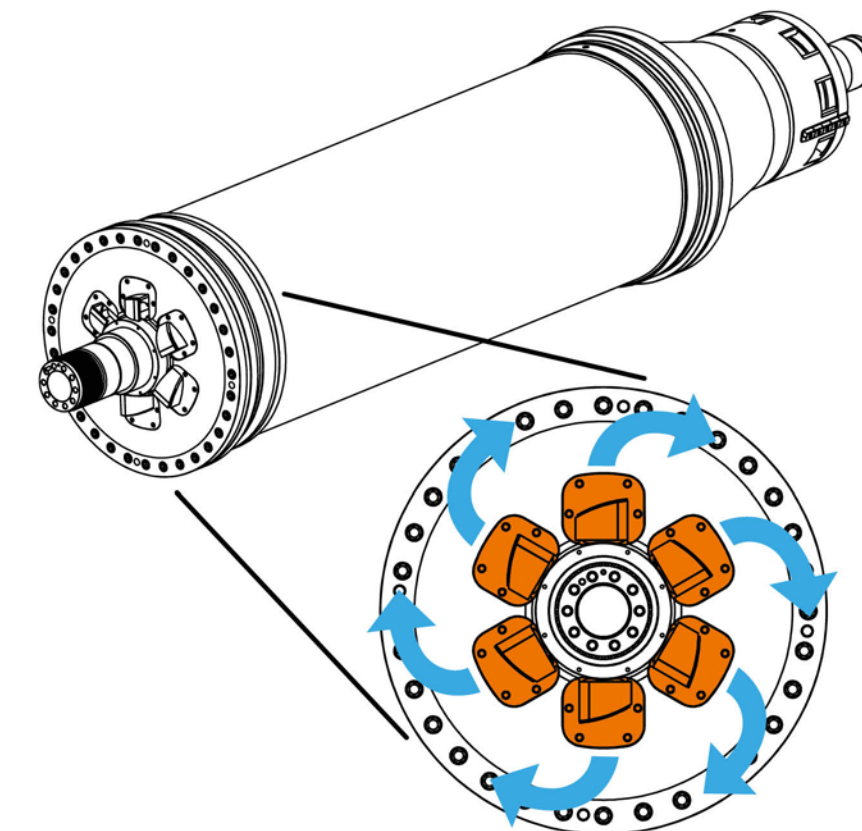
Our high-performance decanter centrifuges are equipped with a unique and innovative system for driving the rotating assembly. The system consists of two motors – a main and a secondary motor – each of which is controlled by a variable frequency drive (VFD). This system allows for independent control of the bowl speed and the scroll speed, resulting in precise and efficient separation of solids from liquids.

One of the key advantages of this system is its energy efficiency. The energy required to convey solids is recycled by inverters and fed to the main engine, reducing power consumption by up to 40% compared to standard systems. This not only results in cost savings but also reduces the environmental impact of the centrifuge.



✗ The motor is not powered from the mains

✓ The motor is powered from the mains



Through redirecting the movement of fluid having a certain speed in contra direction of the bowl's direction of rotation. This helps the bowl to rotate faster, and also saves by up to 20% of energy.





## 365 days 7/24 Service Excellence



### *A fast service that reduce downtime to zero?*

The most important preference criteria for you is fast service and spare part solutions.

Polat Services provide a wide range of service without making distinctions between small and big machines.

Upon demand, periodic controls of process performance and mechanical conditions in customers' operations with service contracts and a flawless service is provided for supplying of original spare part and changing fields

*Yes, excellence is possible.*



Who we are?

Having been laid the foundations in 1978, Polat Makina aims to improve constantly and provide products and services in global-scaled quality and standards with its employees.

It continues its journey which had began in an atelier for 4,5 m² by exporting the valves manufactured in an area for 88,000 m² for 44 countries in today's world. Polat Makina is a subsidiary of Polat Group Holding, which has 13 group companies, 4 of which are located abroad, in Italy, Germany, Greece, and Morocco.

Our values

*We prioritize creating value for our customers, meeting their expectations in company with quality and stability, looking after our products and being there for our customers aftermarket process. We aim to realize a corporate management faithful to the values such as modesty, human and endeavor, public closeness and social responsibility awareness. Another fundamental principle which we prioritize is to fulfill our responsibilities for today's world and future generations.*

Eco-friendly

*As a responsible corporate entity, Polat Makina is committed to reducing its environmental impact through eco-friendly policies and practices. We understand the urgent need to address climate change and its impact on our planet. Our eco-friendly policy includes reducing our carbon footprint by using renewable energy sources, reducing waste, and recycling materials.*

*We also encourage sustainable transportation and use of energy-efficient appliances. Our commitment to eco-friendly practices extends to our supply chain, where we work with our suppliers to ensure they also follow eco-friendly policies. We believe that every action we take towards sustainability can contribute to a greener future for our planet.*

Commitment to Human Rights

*Our company is committed to promoting and protecting human rights in all aspects of our operations. We recognize the impact our operations can have on human rights and are committed to respecting the rights of our employees, contractors, suppliers, and the communities in which we operate.*

*Our human rights policy is based on international human rights principles and we strive to create a workplace culture that is free from discrimination and exploitation. We monitor our supply chain for human rights abuses and support human rights initiatives in the communities in which we operate. We believe that every person deserves dignity, equality, and justice and are committed to upholding these principles in all that we do.*



Discover the Harmony  
in the Flow of Life





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Polat reserves the right of design and technical changes for itself to change machine.

**Polat Makina Customer Service**

For Sale, Service, Maintenance and Complaints requests you can reach Polat Makina customer services at the following number:

**+90850 255 1978**