



DAVIES MULLER CO.

DECANTER CENTRIFUGE

Continuous solid-liquid separation for industrial applications



HIGH SEPARATION

Efficient centrifugal separation

CONTINUOUS OPERATION

Steady feed and discharge

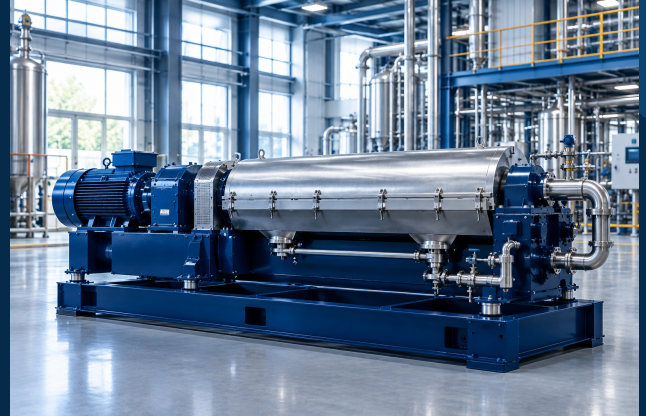
ROBUST DESIGN

Industrial-duty construction

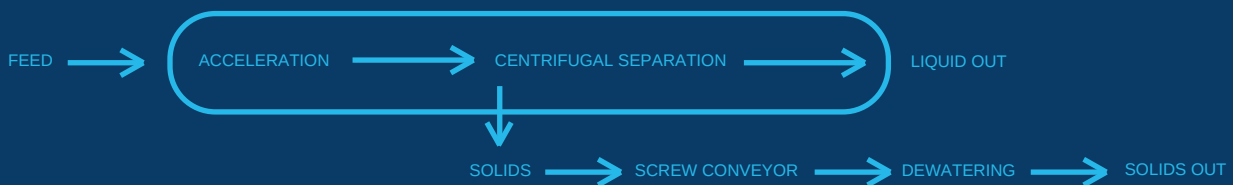
Product Overview

High-performance horizontal decanter technology

A decanter centrifuge is a continuous-operation sedimentation machine built around a high-speed rotating bowl and an internal screw conveyor. Feed enters the bowl, centrifugal force drives denser solids toward the bowl wall, and the screw continuously conveys settled solids toward the conical discharge while the liquid exits separately.



Separation principle



Key characteristics

Continuous

Continuous feeding, separation and discharge supports steady process operation.

Adjustable

Differential speed and operating conditions can be selected for the process duty.

Flexible

Configurations can support solid–liquid and selected liquid–liquid–solid duties.

Industrial

Applications include wastewater, chemical, food and mineral processing.

Final configuration is selected from feed properties, required separation duty and throughput.

Technical Characteristics

Published LW-series reference range

Parameter	Published / configurable basis
Machine type	Horizontal decanter centrifuge; continuous operation
Separation	Solid–liquid; selected configurations can support liquid–liquid–solid duties
Bowl diameter	250–800 mm
Bowl length	900–3,200 mm
Maximum bowl speed	1,800–5,000 rpm
G-force	Approx. 1,306–2,964 ×g
Processing capacity	0.5–120 m³/h
Main motor power	7.5–150 kW
Control	Differential speed and process parameters selected for feed characteristics
Construction	Industrial-duty design; materials selected for process and corrosion conditions

Selection factors

- Feed solids** Solids concentration and loading influence capacity, torque and conveying duty.
- Particle size** Fine particles generally require higher separation performance.
- Viscosity** Higher viscosity can increase separation difficulty.
- Corrosiveness** Product-contact materials should match feed chemistry.
- Scale & duty** Throughput, operating hours and continuity determine model and drive requirements.

Important: Published capacities are reference values. Actual performance depends on feed properties, solids loading, liquid-clarity target, cake dryness and operating conditions.

Model Range & Capacities

Published LW-series model data

Model	Ø mm	L mm	Max rpm	L/D	G ×g	Capacity m³/h	Motor kW	Weight kg
LW250×1000	250	1000	5,000	4	2,722	0.5–5	7.5	950
LW300×900	300	900	4,200	3	2,964	1–6	11	1,160
LW300×1200	300	1200	4,000	4	2,784	2–6	11	1,350
LW355×1160	355	1160	3,600	3.3	2,576	2–8	15	1,400
LW355×1460	355	1460	3,600	4	2,576	2–10	15	1,800
LW400×1200	400	1200	3,200	3	2,294	3–12	18.5	1,800
LW400×1600	400	1600	3,000	4	2,016	3–15	22	2,000
LW450×1800	450	1800	2,800	4	1,976	4–25	37	2,500
LW500×2000	500	2000	2,800	4	1,750	5–35	45	4,000
LW530×1855	530	1855	2,600	3.5	2,006	5–38	55	4,680
LW530×2120	530	2120	2,400	4	1,709	5–40	55	4,800
LW550×2000	550	2000	2,800	4	2,414	6–40	55	5,700
LW650×1950	650	1950	2,200	3	1,761	6–45	75	5,000
LW650×2600	650	2600	2,000	4	1,456	6–65	90	6,000
LW720×2160	720	2160	2,000	3	1,612	7–80	120	6,000
LW720×2880	720	2880	2,000	4	1,306	7–90	120	8,000
LW800×2400	800	2400	1,800	3	1,451	20–100	150	12,000
LW800×3200	800	3200	1,800	4	1,451	20–120	150	—

250–800 mm

1,800–5,000 rpm

0.5–120 m³/h

7.5–150 kW

BOWL DIAMETER

MAX. SPEED

PUBLISHED CAPACITY

MAIN MOTOR

Reference table based on published product data; the LW800×3200 weight is shown as — because the published source contains an inconsistent entry.

Applications & Project Interface

Solid–liquid separation across demanding industrial processes

Wastewater & sludge

Municipal and industrial sludge dewatering and suspended-solids separation.

Chemical & petrochemical

Slurry separation, intermediate recovery and process-stream treatment.

Food & beverage

Starch/slurry dewatering, product separation and clarification.

Mining & minerals

Tailings dewatering, concentrate processing and mineral-slurry separation.

Pharmaceutical & biological

Liquid clarification, biological-solid recovery and fermentation residues.

Industrial & recycling

Continuous solids removal and liquid recovery in industrial separation duties.

European project workflow

01

Process data

Feed composition, solids %, particle size, viscosity, temperature and corrosiveness.

02

Duty definition

Throughput, liquid clarity, cake dryness, operating hours and constraints.

03

Technical selection

Model, bowl geometry, speed, differential speed, drive and materials.

European representative

Davies Muller Co. provides the European commercial interface for project discussions, technical coordination and quotation requests.



Let's discuss your separation requirement

Technical and commercial enquiries — European interface

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EUROPEAN REPRESENTATIVE



For a quotation: application • feed composition • solids concentration • target capacity • temperature • separation duty