

NDEC 5380DP / 5355DP

Super deep pond decanter centrifuge for organic sludge

BENEFITS



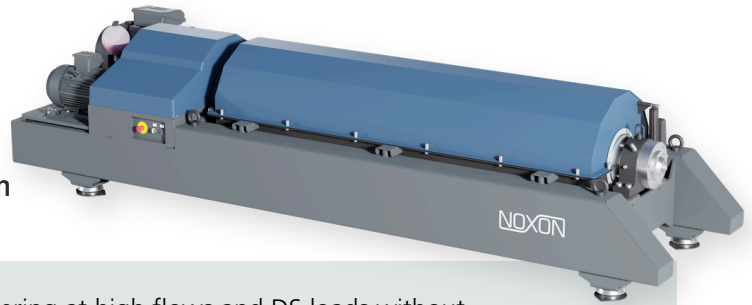
Improved dewatering



Lower cost of operation



Less maintenance and supervision



INTRO

NDEC-series is designed for sludge dewatering at high flows and DS loads without compromising the dewatering performance. The DP-models are specially developed for organic sludge with compressible particles, for instance municipal wastewater, biological sludge, starch rich sludge.

DP stands for "Super Deep Pond", a unique design of the rotor that enables a deeper pond inside the rotor. Pond depth is a key design factor for optimizing clarification and dewatering. Organic sludge needs more time in the rotor exposed to the high centrifugal force. By increasing the depth, the sludge retaining time is prolonged which leads to better separation between solids and fluid.

HIGHLIGHTS

New rotor design with Super deep pond

For organic sludge, it's important to create high hydraulic pressure at the inner surface of the bowl. With the new Super Deep Pond-design, scroll baffle and a small ringdam diameter, the NDEC creates a pumping effect that results in drier DS output, better clarification of liquid, lower polymer consumption and lower energy consumption.

Drivetrain improvements

Powerful motors combined with optimized gearbox are a key to handle higher loads and torque. The differential gearbox (NDEC5380) allows the scroll to operate at an independent differential speed, for even more precision and greater torque. At full load the NDEC can operate at only 0,55kWh/m³ sludge.

Low frame design

NDEC is built with a new low frame with a side-by-side motor arrangement. This design allows for a more flexible installation, less machine weight and reduced vibrations. Still, it is recognized as a Noxon centrifuge by the characteristic shape of the hood and the motorized opening.

Reduced maintenance and supervision

The NDEC series means reduced need for supervision, cleaning and maintenance. Less time is needed for lubrication, as the NDEC is designed for 24/7 operation and prepared for automatic lubrication systems. Optimized ventilation reduces gases and accumulation of particles inside the hood, leading to a cleaner machine and working environment.

TECHNICAL DETAILS

Materials

- Bowl / Scroll: Carbon steel or Duplex
- Wear Protection: Wolfram Carbide
- Cover: Carbon steel or Stainless steel (SS304/SS316)
- Frame: Carbon steel C4 paint (other protection class on request)

Electric

- Standard 400V 3-phase, 50Hz (other on request)
- Motors: Class IE3, IP55
- Frequency Converters: Wall-mounted, IP54

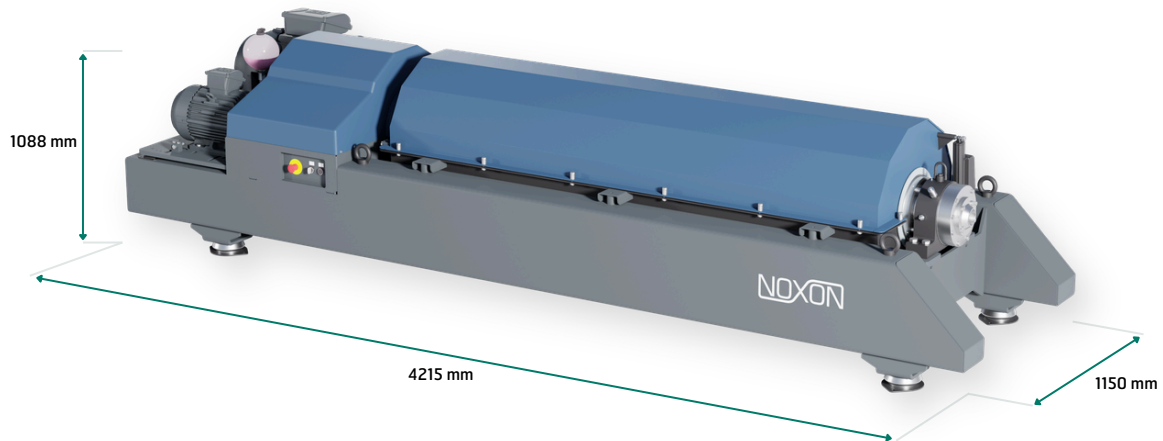
Lubrication

- Main bearings: Grease
- Four-point contact bearing: Grease (Lubricated for life)
- Gearbox: Oil

Other features

- Temperature and vibration sensors (bearing)
- High resolution speed sensor
- Scroll torque sensor (Differential gear)
- Motorized opening of the cover
- 24/7 operation. No stop for lubrication
- Sludge shutter as option

DIMENSIONS



TECHNICAL DATA

	NDEC5380DP	NDEC5355DP
Max Flow (sludge dependent) (m³/h)	45	30
Max Capacity (kg DS/h)	1620	1020
Main / Scroll motor (kW)	30 / 7.5	45 / 15
Gearbox	Differential (Torque-monitored)	Planetary (Backdrive)
Max Torque (Nm)	8000	5500
Max Bowl speed (rpm)	2900	2600
Bowl diameter (mm)	530	530
Bowl Length to Diameter ratio	4	4
Bowl to Solids Output Diameter ratio	0.4	0.4
Cone angle	20° with baffle	20° with baffle
Machine Weight (kg)	2950	3150
Telfer lift capacity (minimum) (kg)	2000	2000

Noxon has the right to make changes without further notice.