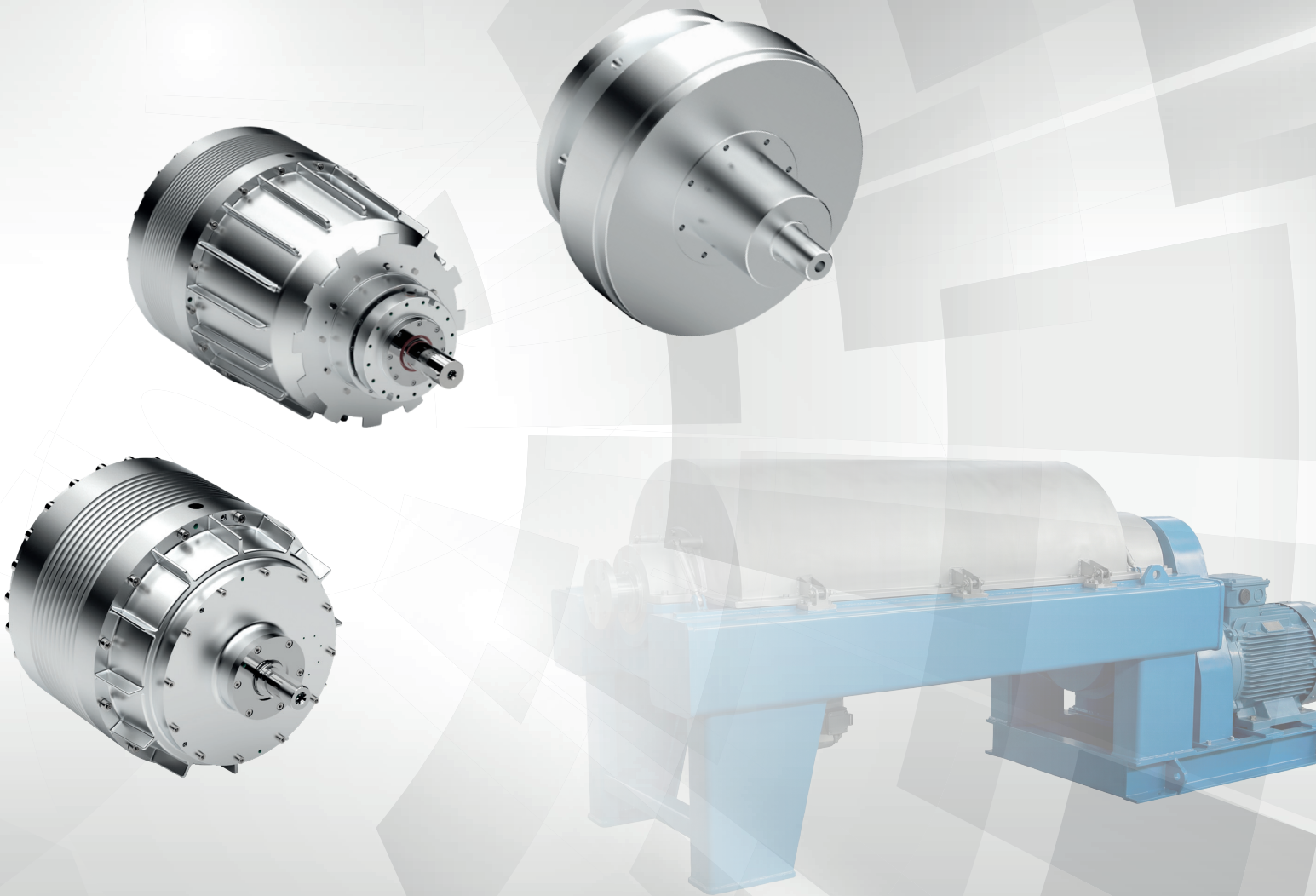




A NIDEC DRIVE TECHNOLOGY CO.

DESCH Drive Technology for Decaners and Centrifuges

ZG Series - Planetary and Cycloid Drives



Gears & Drive Solutions

ZG 26 - GB

When GLOBAL NETWORK is needed



DESCH Canada Ltd.
Ontario / Canada

DESCH USA LP
Akron Ohio / USA

DESCH USA LP
Dallas / USA

Nidec DESCH Antriebs Technik GmbH & Co. KG
Headquarter Arnberg / Germany

Nidec DESCH Machinery (Pinghu) Co., Ltd. / China

Nidec DESCH UK and Ireland
Office in Belfast / Northern Ireland

Nidec DESCH Drive Technology
Office in Milano / Italy

Sales Partners

- France
- Korea
- India
- Turkey
- Taiwan
- Poland
- Norway
Sweden

Nidec DESCH has been developing and manufacturing precision gearboxes, couplings and drive systems for demanding mechanical engineering applications for over 120 years. At our Arnberg site, we design and produce robust, efficient solutions, complemented by professional services such as maintenance, repair and condition monitoring.

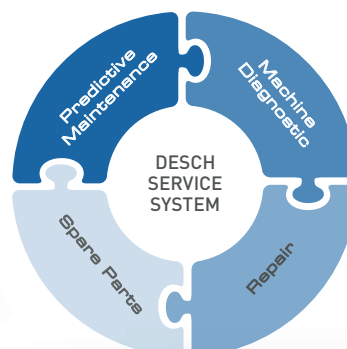
As part of the global Nidec Group, we combine local engineering expertise with international manufacturing competence and a worldwide service and sales network. Customers benefit from short response times, high availability and global presence.

For more than 60 years, Nidec DESCH has set standards in separation and centrifuge technology. Our ZG, ZGD and ZGC series stand for high power density, energy efficiency and durable, standardised designs – ideal for modern decanters and centrifuges. Supported by comprehensive after-sales service and the overhaul of third-party gearboxes, we ensure maximum plant availability and a complete, all-round service package for separation technology.

NIDEC DESCH SERVICE - EVERYTHING FROM A SINGLE SOURCE

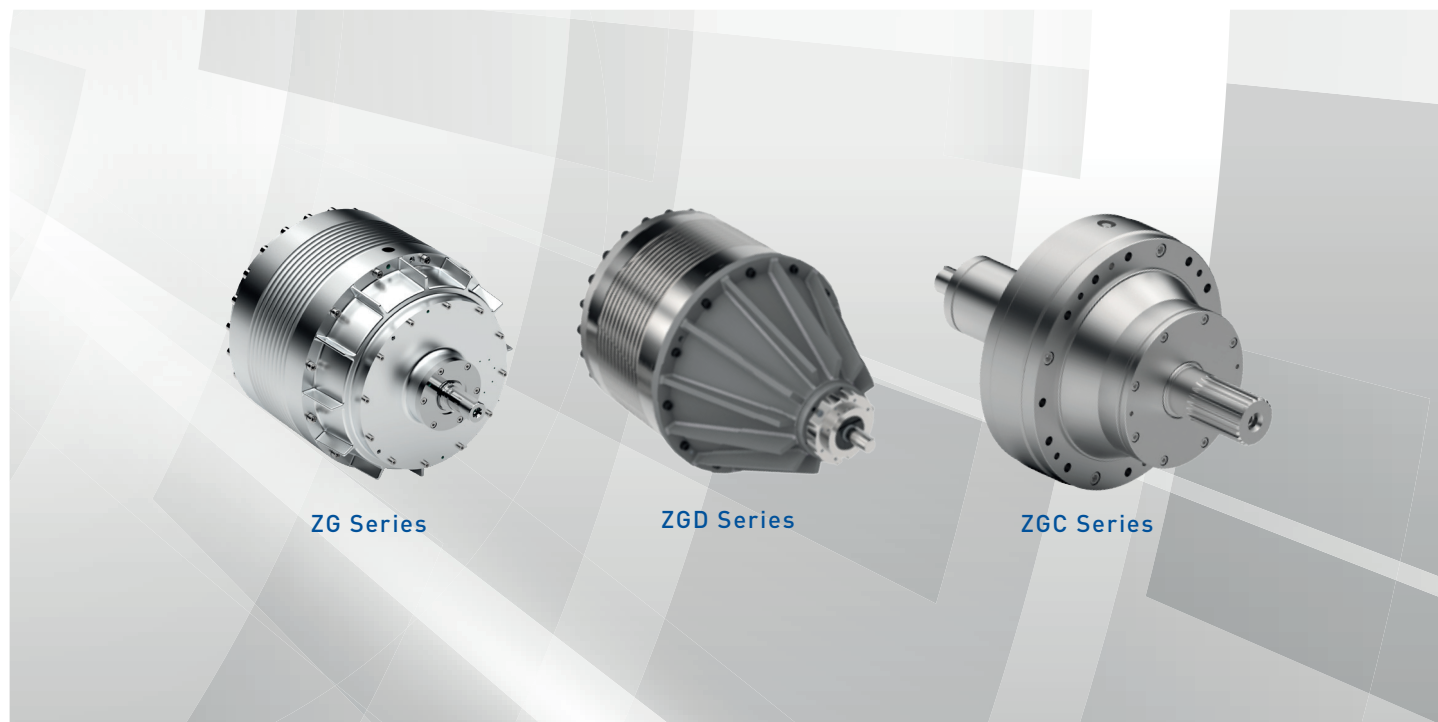
System-oriented maintenance, comprehensive and independent of the manufacturer for the entire drive train.

- Maintenance and repair concept
- Machine diagnostics and condition monitoring
- Repair
- Spare parts management
- Engineering
- Technical support
- Remote video support
- Endoscopy



Drive Technology for Decanters and Centrifuges

ZG Series - Planetary and Cycloid Drives



Nidec DESCH offers three powerful gearbox technologies for centrifuges:

PLANETARY GEARBOXES

DIFFERENTIAL GEARBOXES

CYCLOIDAL GEARBOXES

Each design offers specific advantages and is ideally suited to different performance ranges and applications. This enables Nidec DESCH to always provide the optimum, efficient and reliable drive solution for your separation process.

Nidec DESCH operates its own state-of-the-art test rigs, on which every gearbox undergoes a comprehensive test run. At the same time, these test rigs serve as development platforms for new solutions and technical advancements.

This is how we ensure the highest levels of quality, reliability and innovation – for every single gearbox.

Nidec DESCH Gearbox Test Rig



Drive Technology for Decanters and Centrifuges



Industries and Sectors Served by Nidec DESCH Centrifuge Gear Technology

Our planetary and cycloidal gearboxes are used in the following industries:

Environmental Technology

- Wastewater Treatment
- Sludge Dewatering and Thickening
- Process Fluid Recycling
- Sustainable Environmental Solutions



Chemistry

- Basic Chemical Raw Materials
- Petrochemicals and Polymers
- Specialty and Functional Chemicals
- Metal Extraction and Processing



Food and Raw Food Materials

- Edible Oils and Fats
- Starches and Carbohydrates
- Beverages and Dairy Products
- Extracts, Concentrates, and Seasonings



Mining

- Raw Material Extraction
- Separation and Dewatering Processes
- Dewatering and Tailings Management
- Water and Resource Recycling

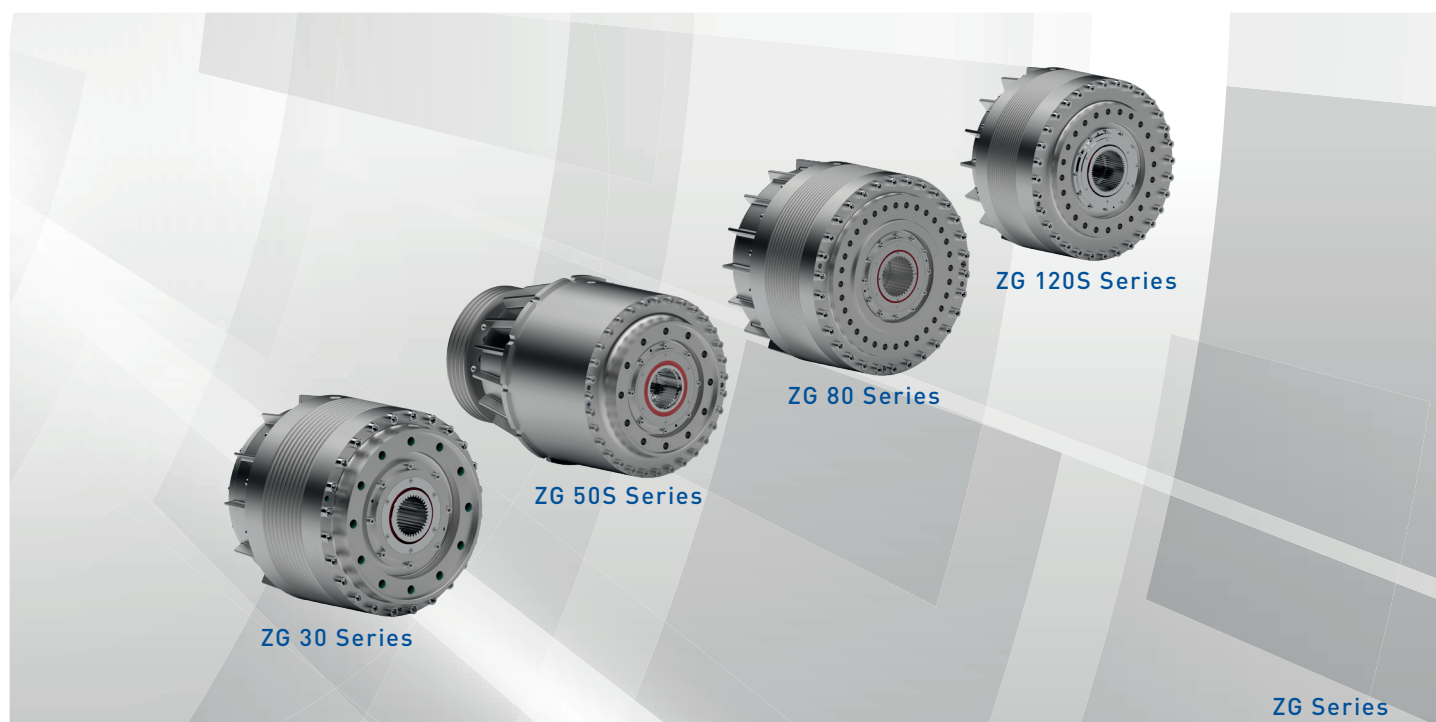


Drive Technology for Decanters and Centrifuges

ZG Series - Planetary and Cycloid Drives



The Nidec DESCH ZG series has been used worldwide in a wide range of industrial applications for decades. In addition to existing sizes and ratios, Nidec DESCH also offers customised solutions tailored precisely to customer requirements.



Technical Data

| Type | Torque Nm | Max. Bowl Speed rpm | Standard Ratios | Alternative Ratios | Diameter mm | Weight kg | |
|--------|-----------|---------------------|-----------------|--------------------|-------------|-----------|---------|
| | | | | | | 2-stage | 3-stage |
| ZG 8 | 8.000 | 3.400 | +40 +80 | -80 -40 | 300 | 110 | 170 |
| ZG 12 | 12.000 | 3.600 | +40 +80 | -80 ... +100 | 345 | 175 | 200 |
| ZG 20 | 20.000 | 3.000 | +40 +80 | -80 ... +215 | 415 | 270 | 310 |
| ZG 30 | 30.000 | 3.000 | +40 +80 | -187 ... +200 | 470 | 335 | 375 |
| ZG 50 | 50.000 | 2.400 | +40 +80 | -80 ... +237 | 540 | 550 | 590 |
| ZG 80 | 80.000 | 1.550 (1.770) | +40 | -120 ... +120 | 680 | 900 | - |
| ZG 120 | 120.000 | 800 | +25 +80 | | 795 | 1.350 | - |

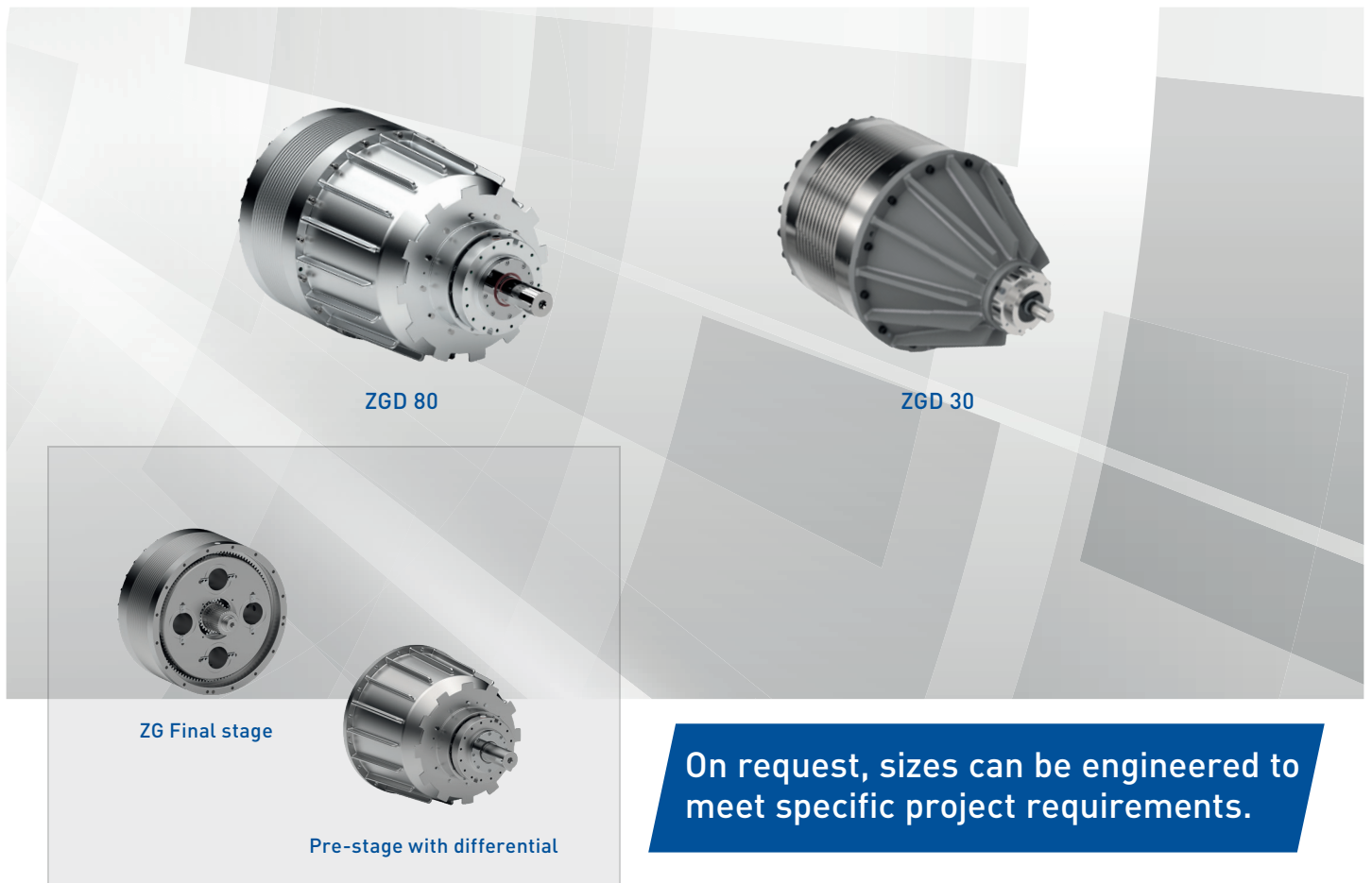
Drive Technology for Decanters and Centrifuges

ZGD Series - Planetary and Cycloid Drives



The new generation of differential gearboxes for the decanter market is based on the proven ZG series and has been enhanced with an additional differential stage. By integrating this mechanical differential stage, Nidec DESCH enables variable speed control within the customer's machine.

This provides significant technical added value, particularly when processing inhomogeneous materials, ensuring optimised process stability and increased operating efficiency.



On request, sizes can be engineered to meet specific project requirements.

Customer benefits at a glance:



Higher process stability

The integrated mechanical differential stage ensures reliable and consistent speed control, even with fluctuating material properties.



Optimised processing of inhomogeneous materials

Variable speed control improves adaptation to different material structures, increasing the efficiency of the decanter process.



Greater flexibility in machine control

Customers can fine-tune speed settings and optimise the overall process more effectively.



Enhanced performance of the proven ZG series

The new stage complements the robust basic design and functionally increases the value of the existing technology.

When **ENGINEERING KNOW HOW** is needed

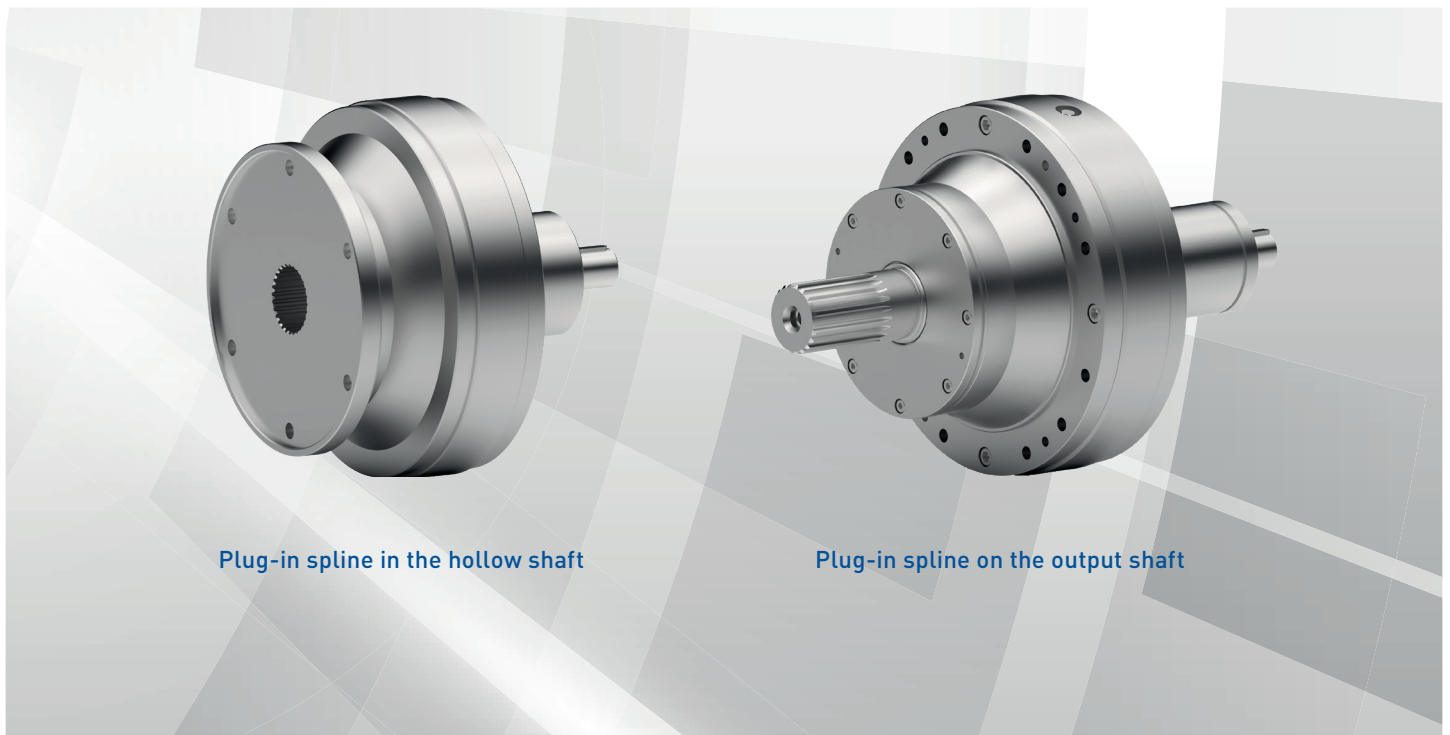
Drive Technology for Decanters and Centrifuges

ZGC Series - Planetary and Cycloid Drives



The ZGC cycloidal gearbox series has been specifically designed for centrifuge and decanter applications and features a space-saving, flange-mounted design. Customers benefit from maximum power transmission and exceptional durability, making this product the ideal choice for demanding industrial applications.

The compact design increases stiffness and reduces potential vibrations. Customised designs are available on request.



Technical Data

| Type | | Standard Gear Ratios | | | | | | | | |
|--------------------------|--------|----------------------|----|----|----|----|----|----|----|----|
| Cycloidal gearbox series | Torque | 21 | 25 | 29 | 35 | 43 | 51 | 59 | 71 | 87 |
| | [Nm] | | | | | | | | | |
| ZGC 616 | 2.100 | x | x | x | x | x | x | x | x | x |
| ZGC 617 | 3.500 | x | x | x | x | x | x | x | x | x |
| ZGC 618 | 5.000 | x | x | x | x | x | x | x | x | x |
| ZGC 619 | 7.960 | x | x | x | x | x | x | x | x | x |
| ZGC 621 | 12.650 | x | | x | | x | | x | | x |
| ZGC 622 | 15.880 | x | | x | | x | | x | | x |
| ZGC 623 | 20.500 | x | | x | | x | | x | | x |

Maximum drum speeds and special designs available on request.

| Type | | Standard Gear Ratios | | | |
|--------------------------|--------|----------------------|----|----|----|
| Cycloidal gearbox series | Torque | 29 | 35 | 59 | 71 |
| | [Nm] | | | | |
| ZGC-HT 618 | 6.500 | x | x | x | x |
| ZGC-HT 619 | 10.400 | x | x | x | x |
| ZGC-HT 621 | 17.000 | x | | x | |
| ZGC-HT 622 | 21.000 | x | | x | |
| ZGC-HT 623 | 15.880 | x | | x | |

Maximum drum speeds and special designs available on request.

Cycloidal gearbox series ZGC

ZGC: Shaft-mounted gearbox unit for internal integration

ZGC-HT: Compact high-performance gearbox unit for demanding operating conditions

Contact

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