

ENSURING QUALITY AT THE END OF THE LINE

## Acoustic measurements for reliable end-of-line (EoL) testing

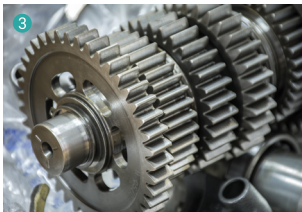
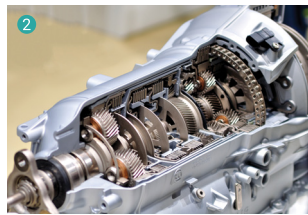
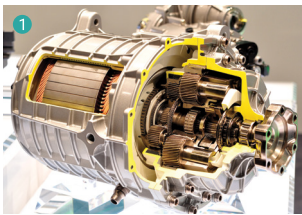
Discom by HBK provides end-of-line NVH and mechanical testing solutions for automotive production. Our sensors, data acquisition systems, and analysis software enable a fully automated solution for production testing of powertrains, transmissions, and actuators, helping detect defects early, and delivering precise root-cause insights – ensuring consistent performance and reliability in series production.

## A COMPLETE SOLUTION PROVIDER

Discom is the global leader in noise, vibration, and harshness (NVH) quality assurance for automotive assembly units, delivering a complete end-of-line testing solution from a single source. Our integrated system includes sensors, front-end hardware, PC racks, analysis software, and a Big Data/AI interface. Test specimens are equipped with sensors, whose signals are digitised by the data acquisition system and analysed by powerful PC-based software. This comprehensive approach enables fast, reliable 100% testing of mechanical and electrical units, ensuring consistent quality throughout the production process.

Our solutions support 100% reliable EoL measurement solutions for:

1. eDrive systems
2. Transmissions
3. Gear testing
4. Actuators
5. Combustion engines
6. Turbochargers
7. Bearing testing
8. Marathon systems for durability testing



With Discom, you can detect production defects, assess acoustic quality, and identify root causes of NVH issues.

## CUTTING-EDGE TECHNOLOGY AND EARLY DETECTION

- High reliability in the production environment: highly accurate, stable, and reproducible measurements
- Precise fault detection and root-cause analysis
- Global project support from Europe, Asia, and the Americas
- AI based anomaly detection
- AI-ready: Big Data interface for analytics and pattern recognition



## EARLY WARNING SYSTEM FOR MANUFACTURING

Discom systems detect anomalies and trends before they become problems:

- Improve manufacturing quality
- Reduce rework and returns
- Optimise processes
- Support NVH experts in the analysis of the statistical production data



## OUR SOLUTIONS

- Modular systems: sensors, hardware, software
- Global engineering support
- Custom consulting and application expertise
- Deep integration into customer workflows

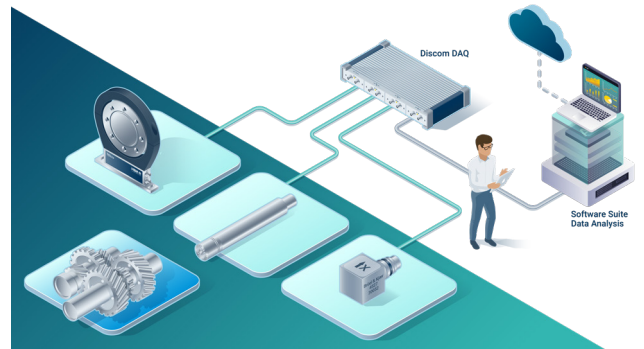


## DURABILITY TESTING

Discom provides advanced tools for comprehensive durability testing and analysis, enabling early detection of wear, tear, and production-related errors in eDrives, combustion engines, and other units. This approach allows R&D teams to take swift corrective action before series production begins, ensuring long-term reliability and production quality.



## SENSORS FOR EOL TESTING



Discom offers a comprehensive portfolio of sensors for end-of-line testing, including accelerometers, torsional accelerometers, microphones, torque transducers, and speed sensors, all fully integrated into the Discom NVH system. This enables synchronised acquisition of acoustic, vibration, and mechanical data for reliable 100% testing in production environments.

## INTRODUCING THE T40LITE TORQUE TRANSDUCER



The T40Lite is a cost-effective, precise torque transducer optimised for end-of-line test bench applications. It integrates seamlessly into the Discom NVH system, adding torque and speed measurement to acoustic and vibration testing.

### Key Benefits:

- Ideal for static and dynamic torque measurements
- Digital and analogue outputs for flexible system integration
- Non-contact power and signal transmission for maintenance-free operation
- Integrated magnetic speed measurement with 256 pulses per rotation
- Available from stock for fast delivery

### Performance Overview:

- Accuracy class: 0.08 (HBK standard)
- Linearity including hysteresis: 0.04%
- Torque range: 50 N·m to 10 kN·m
- Maximum speed: up to 20,000 rpm
- Outputs: analogue, frequency
- Robust design for production test benches
- Integrated speed measurement system, 256 pulses per rotation

By combining torque, speed, vibration (accelerometers), and sound (microphones), the T40Lite enhances end-of-line testing by revealing mechanical imbalance, misalignment, and early wear – before failure occurs.

## SERVICES AND SUPPORT

### Global Expertise – Local Support

- 30+ years of NVH expertise
- Thousands of systems installed worldwide
- Multilingual engineering teams across key regions

### Our Services:

#### 1. Expert Consulting

Hands-on support to define and optimise test strategies.

#### 2. Advanced Analysis Tools

Leverage Discom's powerful toolset to optimise your processes:

- **Root-Cause Analysis:** Identify and understand the source of issues quickly, reducing downtime and saving both time and costs.
- **Statistical Analysis:** Gain a comprehensive overview of production performance, enabling data-driven decisions for continuous improvement.

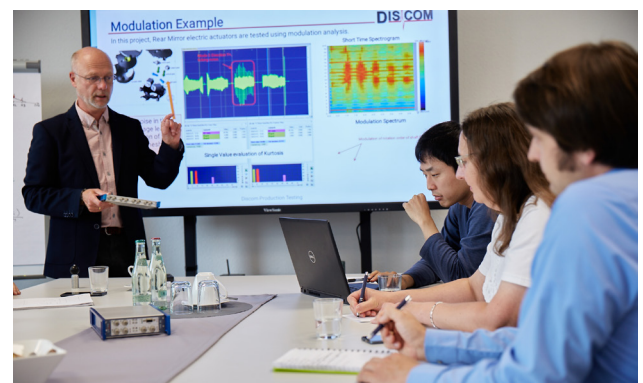
#### 3. Training

Custom training programmes for your teams.

#### 4. Remote and Onsite Support

Direct access to our NVH and torque specialists.

Long-term relationships with our customers are part of Discom's corporate philosophy. It is important to us that our customers receive short-term support for their NVH issues.

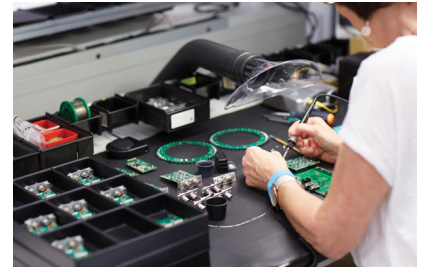


# Market Leader End-of-Line-Production Test

Discom is the global market and technology leader in end-of-line production testing for automotive drives, with over 30 years of experience in NVH-based quality assurance. Our solutions are used worldwide to ensure the acoustic, vibration, and mechanical quality of drive components in series production.

As an innovation-driven system provider, Discom develops and delivers integrated hardware, software, and sensor solutions for end-of-line testing of transmissions, electric drives, combustion engines, bearings, axles, and actuators. Our systems enable fast, reliable 100% testing under real production conditions.

Beyond technology, Discom provides comprehensive consulting and application development, supporting customers from concept to series production. With deep application expertise and data-driven insight, we help optimise test strategies, improve product quality, and accelerate time to market.



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