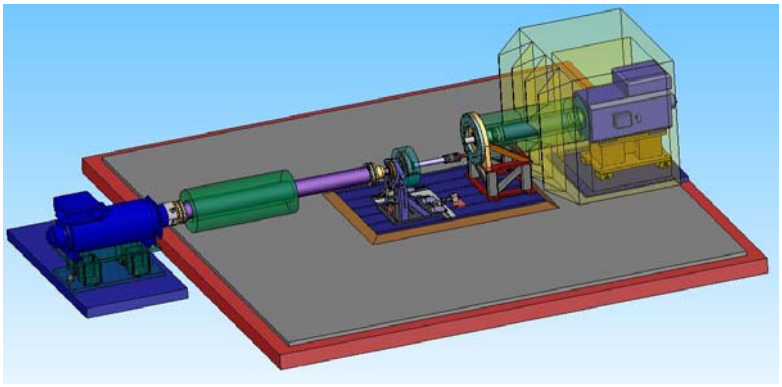
Anechoic Test Chamber
for **T**ransmissions
with **E**ngine Torque Pulsation Simulation

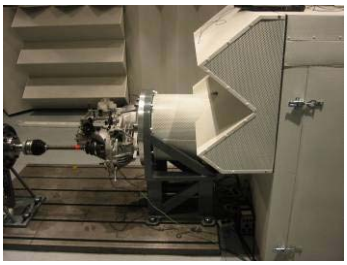
Acoustic properties

Certification
ISO 3745 class 1
(high precision method)

Cut-off frequency
250 Hz

Absorbers
Wedge type
Length: 340 mm





Background noise level
45 dB
Electric machines located outside of the noise chamber

Decoupling
Base plate made of concrete decoupled from structure borne noise by elastomer blocks

Natural frequency: 6 Hz

Special purposes

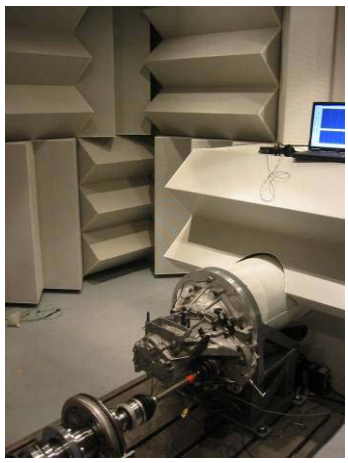
- Gear rattle for neutral and in-gear mode
- Gear whine

Test objects

Transmissions
Coaxial and transversal with blocked differential

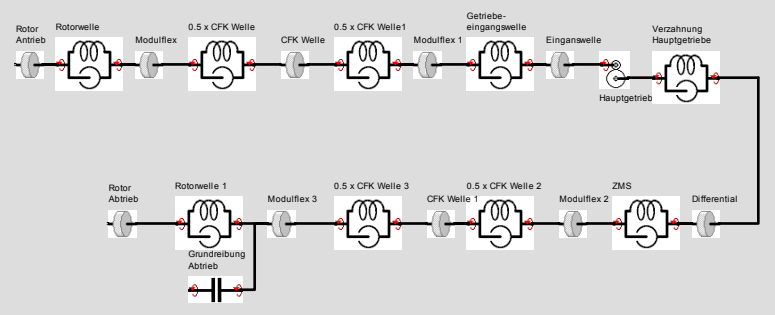
Manual and automatic

General test object of the size 400x400x400 mm



Dynamic system layout

Optimization of test rig with the help of torsional simulation model



Drive

Input
95 kW, 300 Nm (nominal)

490 Nm (overload)

Output
100 kW, 454 Nm (nominal)

640 Nm (overload)

Input driveline with rigid connection of motor and transmission via CFK shaft

ETPS performance

Max. Amplitudes
1500 rad/s^2

Frequency range
15 .. 200 Hz

Speed range
500 .. 4000 rpm (input)

General performance

Speed range
500 .. 6000 rpm (input)

Torque range
0 .. 490 Nm (input)

Output with adaptation drive

Data acquisition

- Radiated noise
- Structure borne noise
- Speed fluctuation (Rotec System)
- Temperatures