Parameter-Diagram

NOISE FACTORS

Piece to Piece Variation	Change Over Time / Mileage	Customer Usage / Duty Cycle	External Environment	System Interaction
Uncontrolable variation in parts and manufacturing processes, such as variation in raw materials, hydraulic pressure, voltage, etc.	Normal degradation of equipment, components or materials, such as corrosion, fatigue, wear, build up of impuriteis, etc.	All of the intended and unintended customer usage, such as different lubricants or coolants, different operators, different cleaning materials, accessory kits, etc.	Foreseeable environmental conditions, such as water, snow, dust, mud, salt, wind, temperature swings, etc.	Known system interations with affected neighboring systems, either by direct contact or functional connection, such as vibration, heat, movement, roll, electrical interference, etc.

Input Signals

Description of the energy sources required for fulfilling system functionality, such as speed (m/s), acceleration (m/s/s), input torque (Nm), etc.

System

Ideal Response

The primary intended functional output of the system, such as output torque (Nm), voltage (V), motor power (kW), travel (M), etc.

CONTROL FACTORS

System design parameters that can be changed by the engineering team, such as shaft diameter, stiffness, density, hardness, etc.	Control Factor #2	Control Factor #3	Control Factor #4

ERROR STATES

Any kind of inherent loss of energy transfer or other undesirable system outputs, such as exhaust gases, heat, vibration, leakage, unusual noise, bad odor, etc.