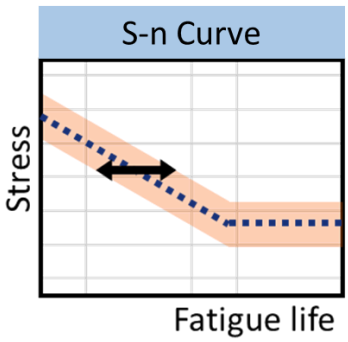
CENTRO DE COMPETÊNCIA EM MANUFATURA

Stackpole International



Assessment of the Manufacturing Chain on the Fatigue Behavior of PM Gears

Motivation

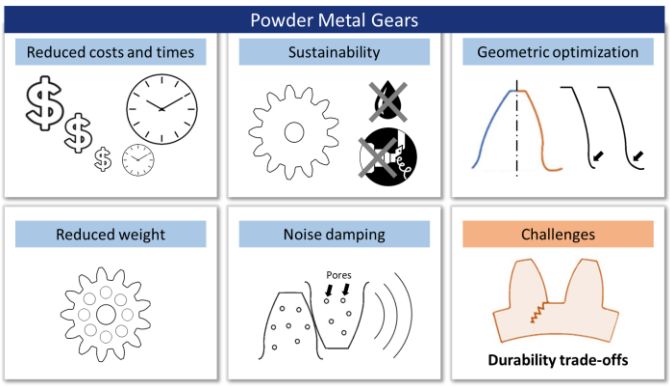
The growth in the gear chain induces not only the evolution of its design, but also its production chain, aiming at more efficient and cost-effective processes to supply the entire chain. In this context, the powder metallurgy (PM) appears as a potential to be technically, economically and environmentally advantageous compared to the traditional gear manufacturing chain (wrought steel).

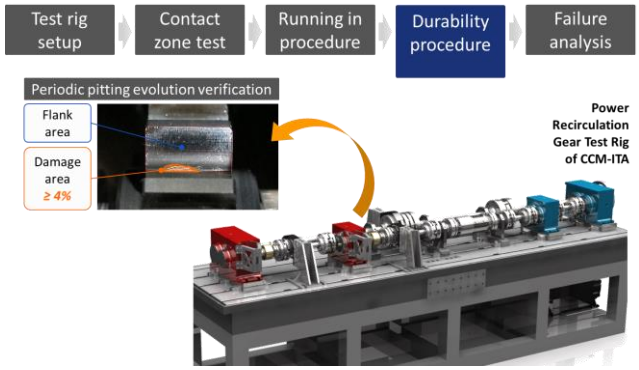
Objective

Identification of the fatigue behavior of gears subjected to an alternative powder metallurgy manufacturing chain, recording them by using an S-n curve

Approach

The project will be performed in five main topics: test rig setup, contact pattern of the gears, development of test procedure, perform the durability test and failure analysis.





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