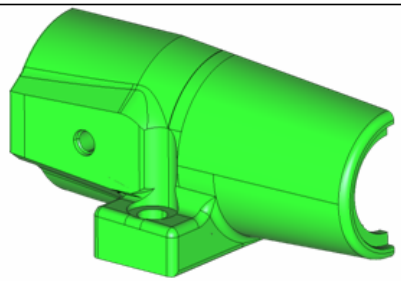
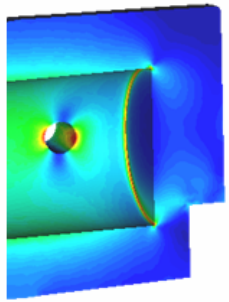
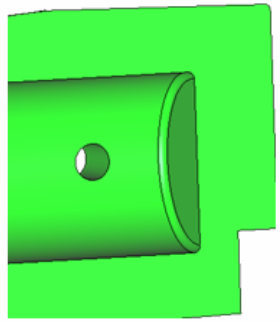
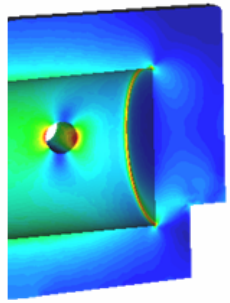
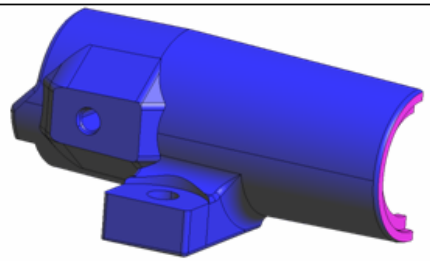
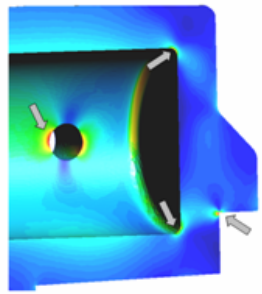
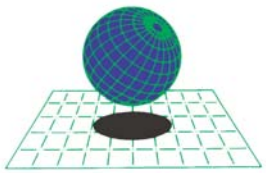
Work performed:

A set of eight different cylinders with different geometries and boundary conditions were analyzed.

AZ4755-7		

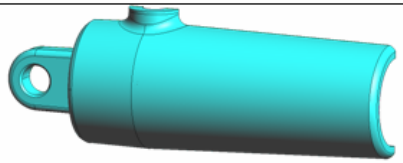
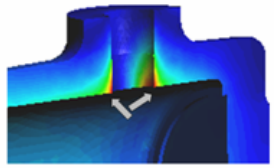
AZ4755-7R		

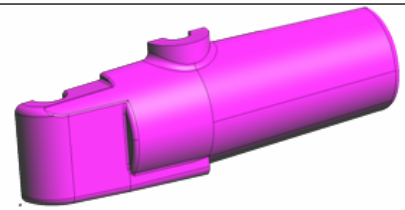
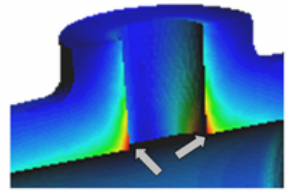
4755-7		

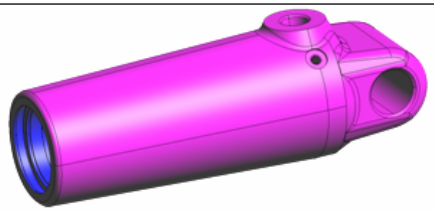
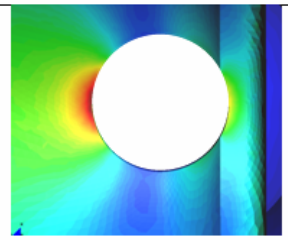


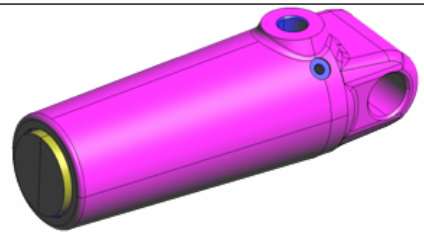
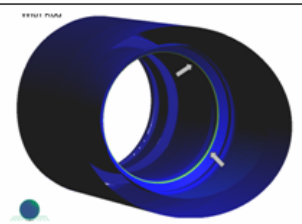
This study was proposed by Pedro Roquet to analyze the stress influence in the operating life of the cylinders

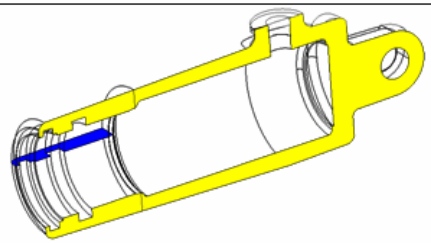
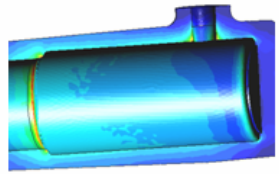
Work performed:

B2108-1		

Z2620-7		

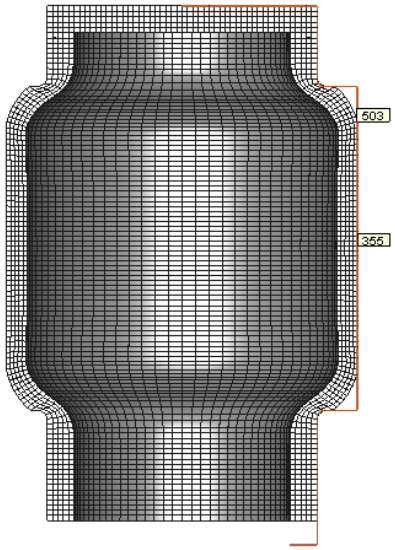
2856-R02-A2		

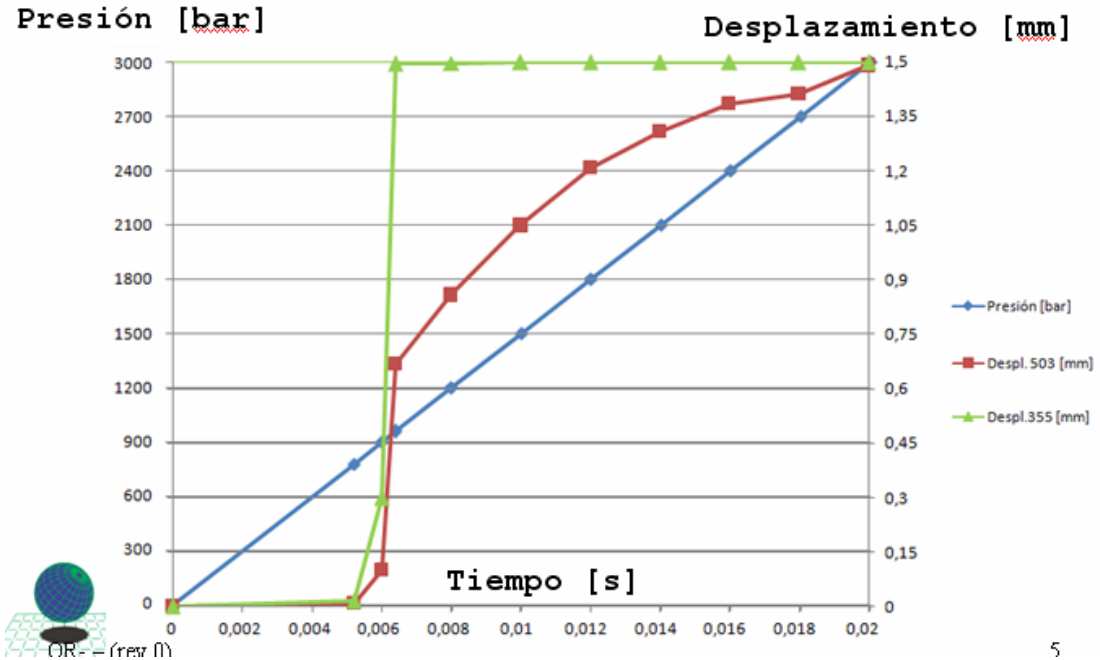
2856-R02-A2 With Rod		

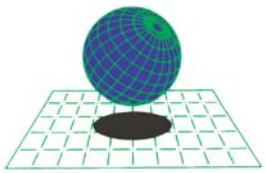
B2108-1 MOD/A		

Work performed:

Hidroconforming analysis.



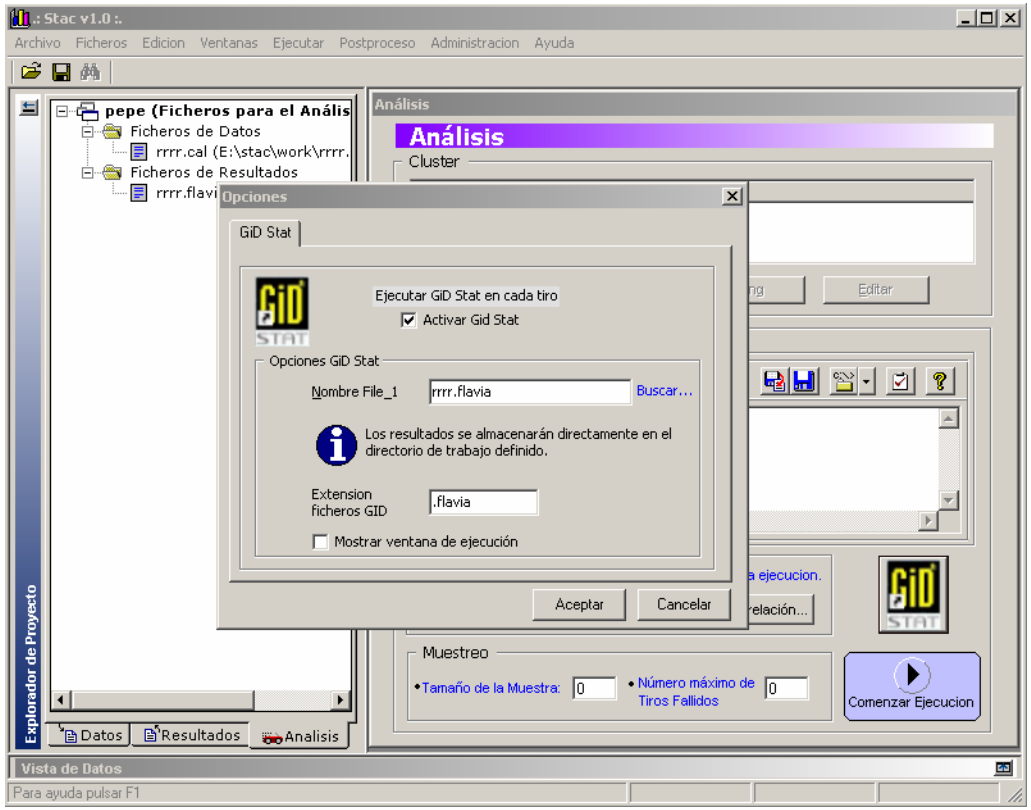




Work performed:

STAC

Windows and Unix together.



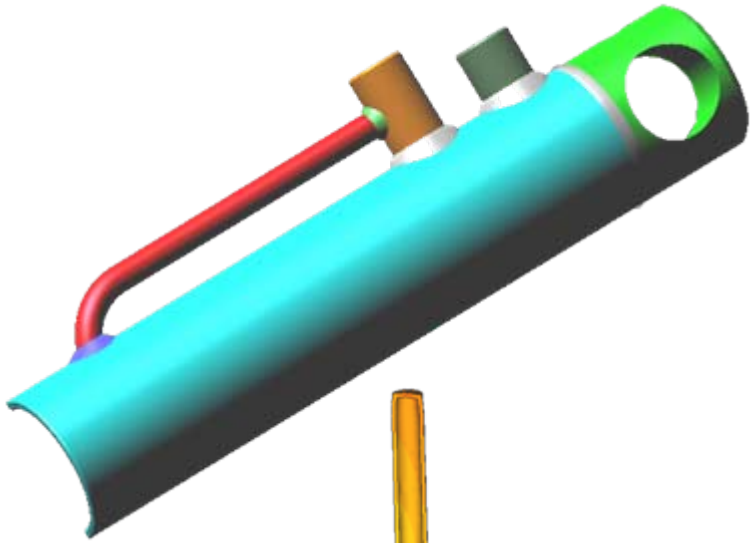
Objectives:

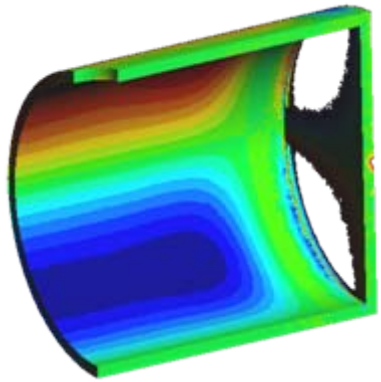
WP2 will focus in the hydraulic cylinder design and analysis procedures in relation with structural requirements of parts and elements and fluid-dynamic aspects related with cylinder performance, including seal/oil/surface interaction.

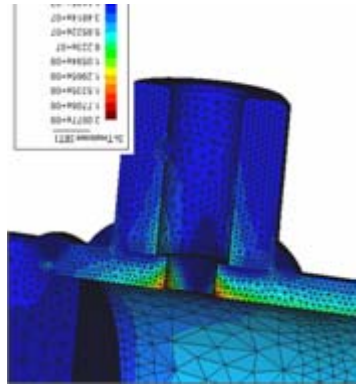
Thanks to everyone for their contribution

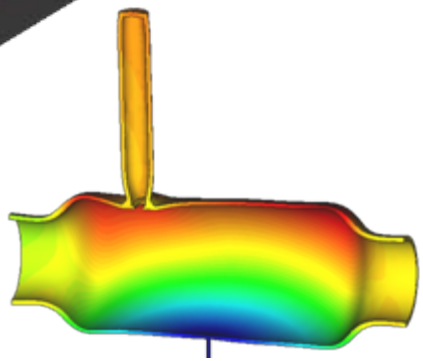
Work performed:

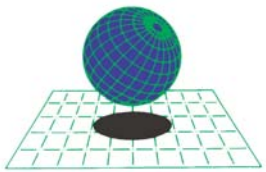
More than 180 cylinders were analyzed with different loads and boundary conditions.
A stress comparison with classical theories were done.

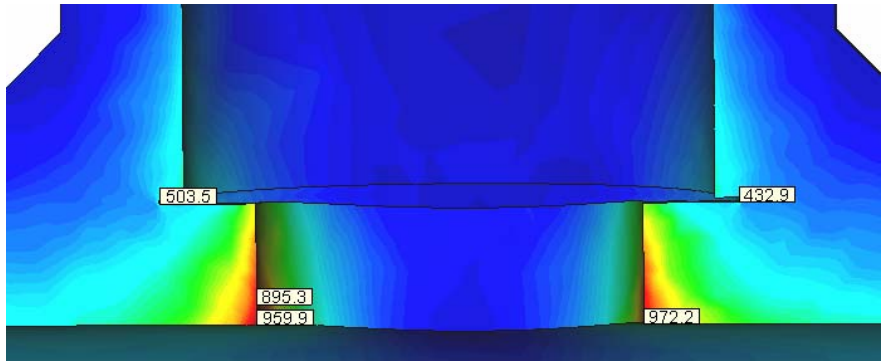






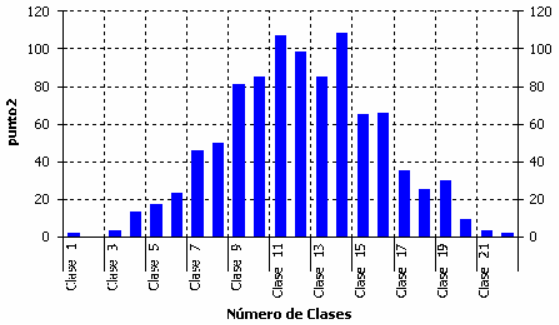


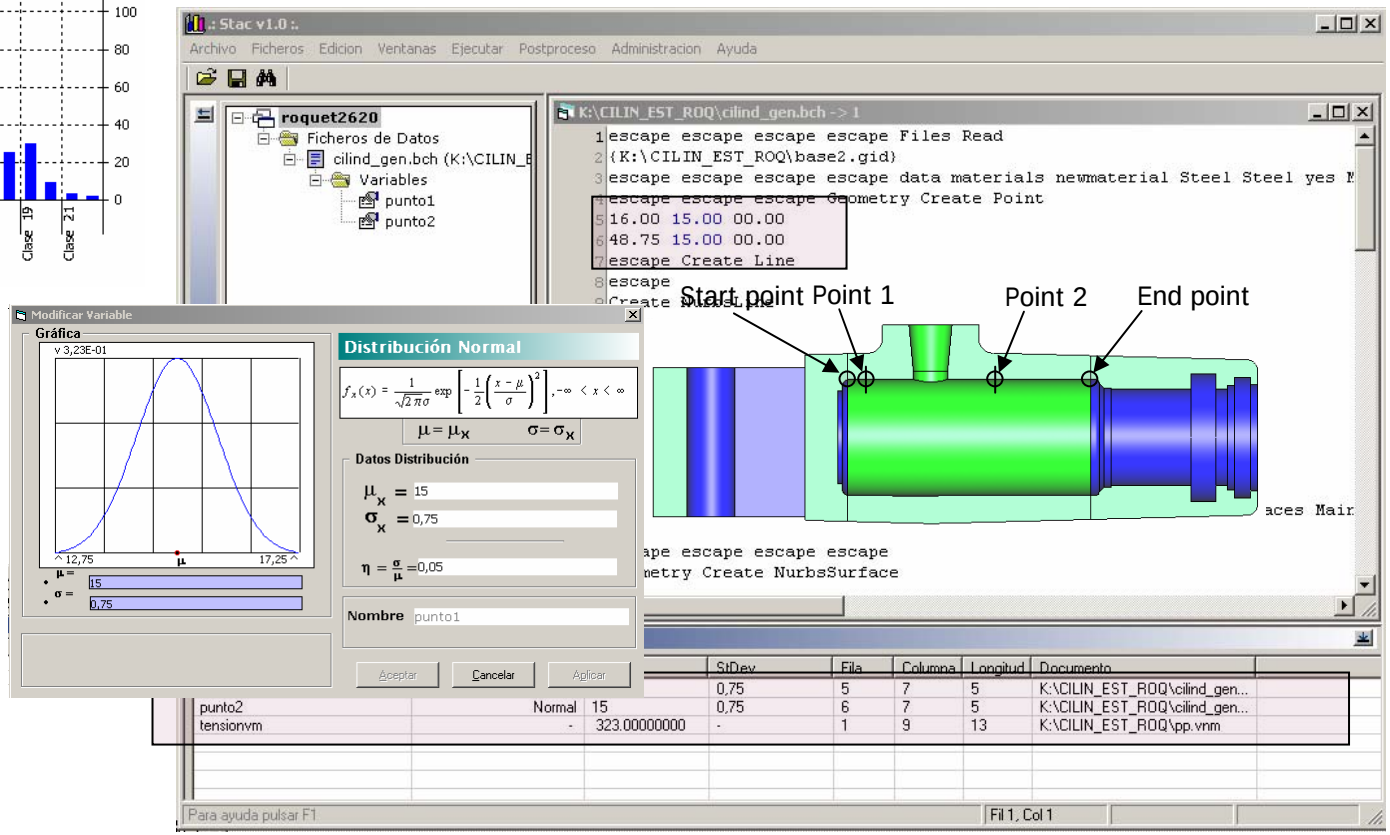




Work performed:

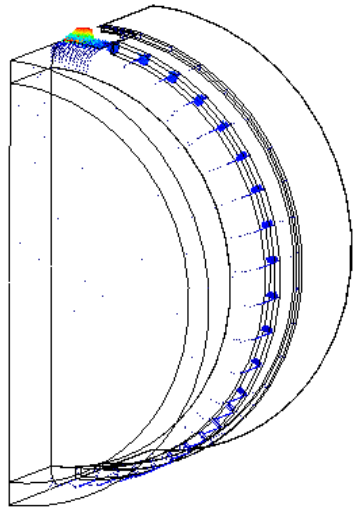
More than 400 cylinders were analyzed under STAC.



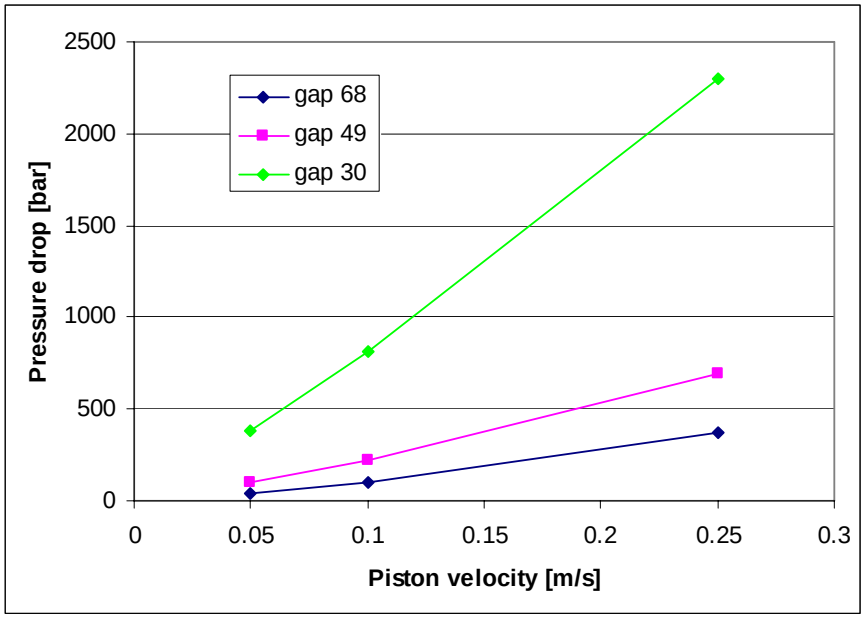


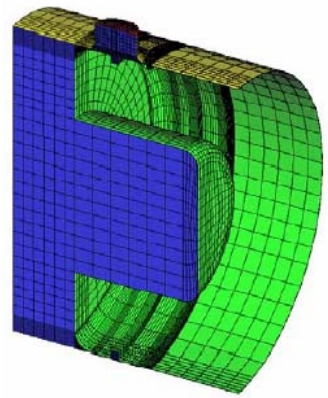
Work performed:

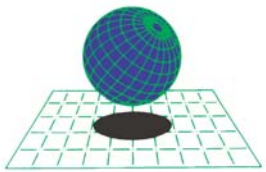
Fluid dynamic analysis.



Pressure Drop chart

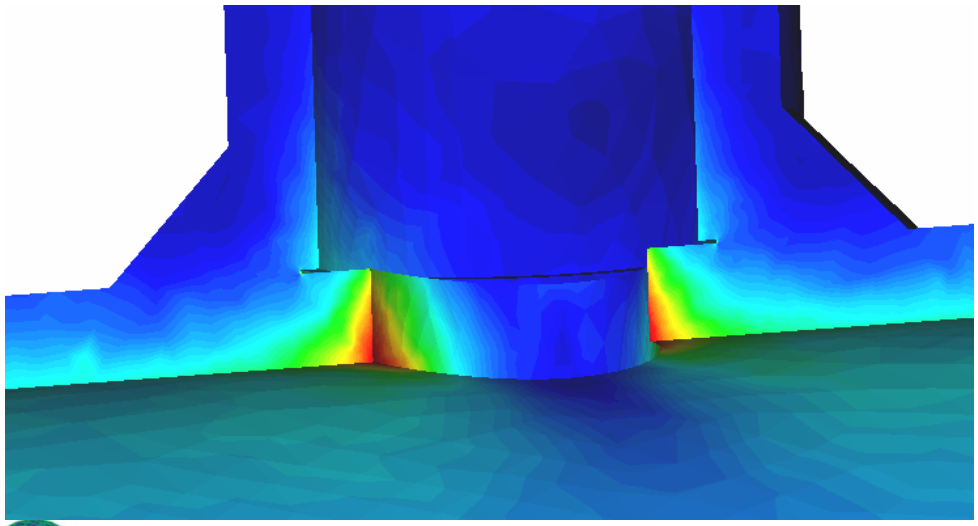


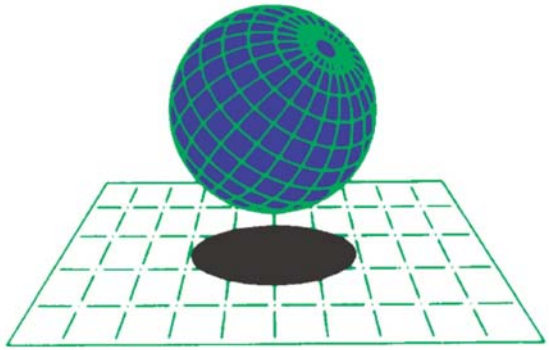




Exploitable results:

A simple methodology to infer the cylinders life using standard FEM





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