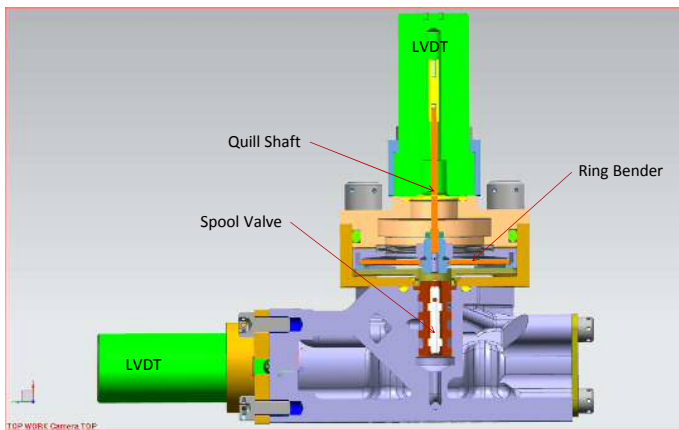
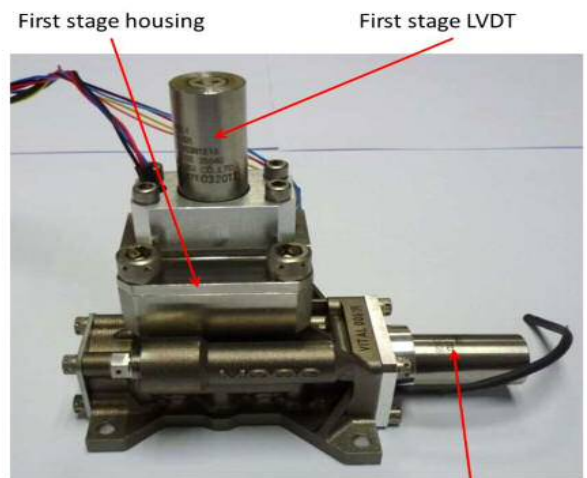


# AM Piezoelectric Demonstrator Valve

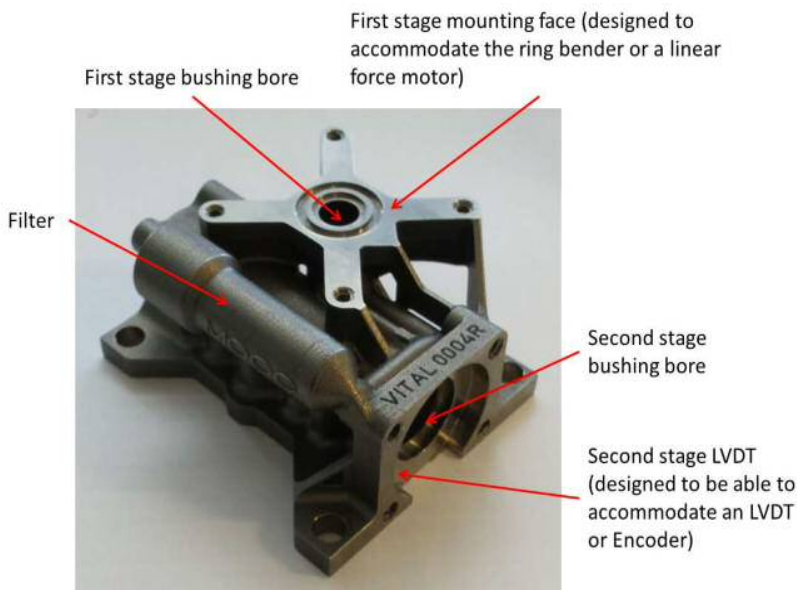
- Additively manufactured valve body.
- Piezoelectric ring bender actuating a mini first stage spool.
- Electrical second stage feedback, using a sensor.



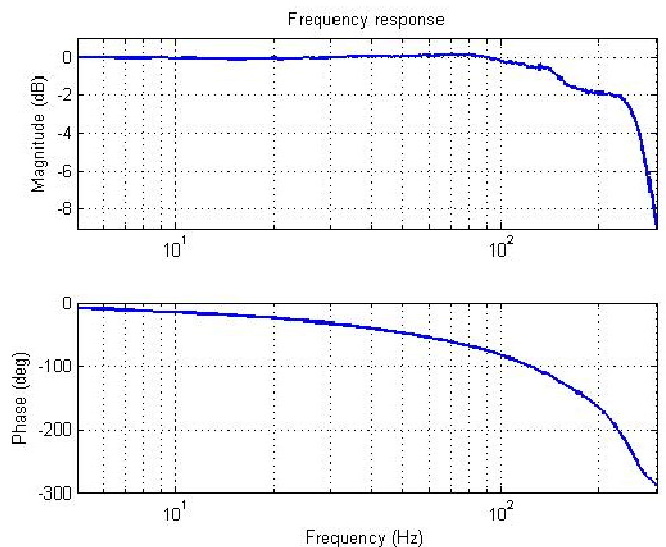
Cross section of the first stage arrangement. A mini spool is used for the first stage to reduce the internal leakage.



Assembled VITAL Alpha demonstrator. LVDT on the first stage is only used for development purposes.



Alpha demonstrator valve body. Valve body was designed to accommodate an LVDT or an encoder for second stage feedback.



Second stage frequency response test.