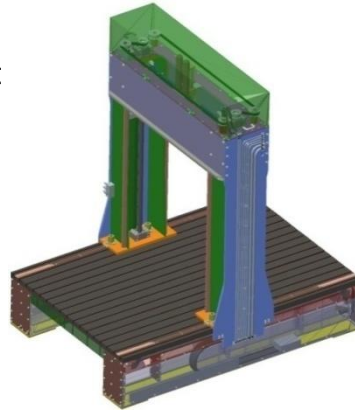


Success Story: Test Machine

Requirements:

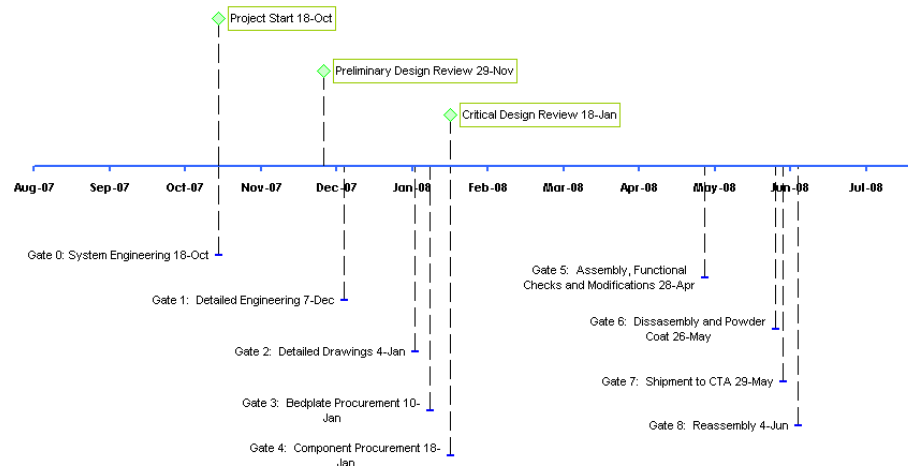
- Critical packaging dimensions
- Critical performance stiffness
- Commissioning & acceptance at customer facility
- Wireless remote control
- Hydraulic position locking in multiple planes



Processes:

- Designed complex hydraulic routing solution
- Integrated partner hydraulic components: MTS Systems
- Conceptual skeleton modeling
- Concurrent design & FEA
- Utilize novel solutions:
 - Synchronous belt
 - Ball screws
 - Bellville washers
 - Ball transfer units

Timing:



Results:

- Packaging & stiffness requirements **achieved**
- Hydraulic motion locks **enabled**
- **100% customer acceptance**
- **0 warranty issues after 18 months of operation**

