

MESSIER-BUGATTI-DOWTY

(SUZHOU)

Manufacture of Landing gear systems

SPRING
TECHNOLOGIES
Machining as Designed

Success Story



NCSIMUL
MACHINE



**WORLD LEADER
IN LANDING
& BRAKING SYSTEMS**



Information

Industry :	Aeronautic
Solution :	NCSIMUL Machine



Company Overview

Messier-Bugatti-Dowty, a Safran group company, is the world leader in the design, development, manufacture and support of aircraft landing gear systems.

For the supply of commercial airliners, it designs, manufactures develops & tests landing gears for a large range of aircraft, including regional jets to the largest twin aisle series.

Messier-Dowty (Suzhou) is the manufacturing facility located in China in the Suzhou industrial park.

Opened in 2002, the Suzhou plant is dedicated to the manufacture and sub-assembly of medium size structures that enables Messier-Dowty (Suzhou) to supply its products to the other Messier-Bugatti-Dowty sites in Europe and North America for their commercial programs.

The plant also serves as a center of excellence for the following activities:

- Manufacture of medium-sized structural
- Sub-assembly and assembly
- Thermal and surface treatment for in-house manufacture and local supply chain
- Developing hub for Messier-Dowty's Asian supply chain

Challenges

Messier-Dowty (Suzhou) manufacturing site team is facing multiple challenges on a daily basis. To remain competitive the company was looking for a way to save time on program

testing. Time spent on debugging (prove-out) machining programs straight on the machine leads to high costs and lost capacity. The company was looking for a solution that could check, enable CNC program correction and validate all programs even before the NC Machines or the raw material was available.

NCSIMUL Machine CNC program simulation is a solution to check and validate all the ISO coded programs prior to using the CNC machines increasing the reliability of the first part production, reducing the delays due to CNC program changes and giving Messier-Dowty (Suzhou) improved confidence over their Machining processes.

Benefits

NCSIMUL Machine is a software application introduced for the simulation of CNC program machining processes. After 8 months of close cooperation with the supplier (SPRING Technologies China), customizing this software for Messier-Dowty (Suzhou) machine types and CNC programs NCSIMUL Machine software mimics precisely every cutter movement so we were able to correct any programming errors or collisions before machining the actual parts.

The biggest advantage using NCSIMUL Machine is that we save a lot of machine prove-out time, and the machines are kept busy on production work. We've also reduced the amount of programming errors, and minimize risk to zero for scrapped part and machine collision.

The application of NCSIMUL Machine is another important step for the maturity of MDS industrialization process.