

ULTRAMAX[®] Application Profile

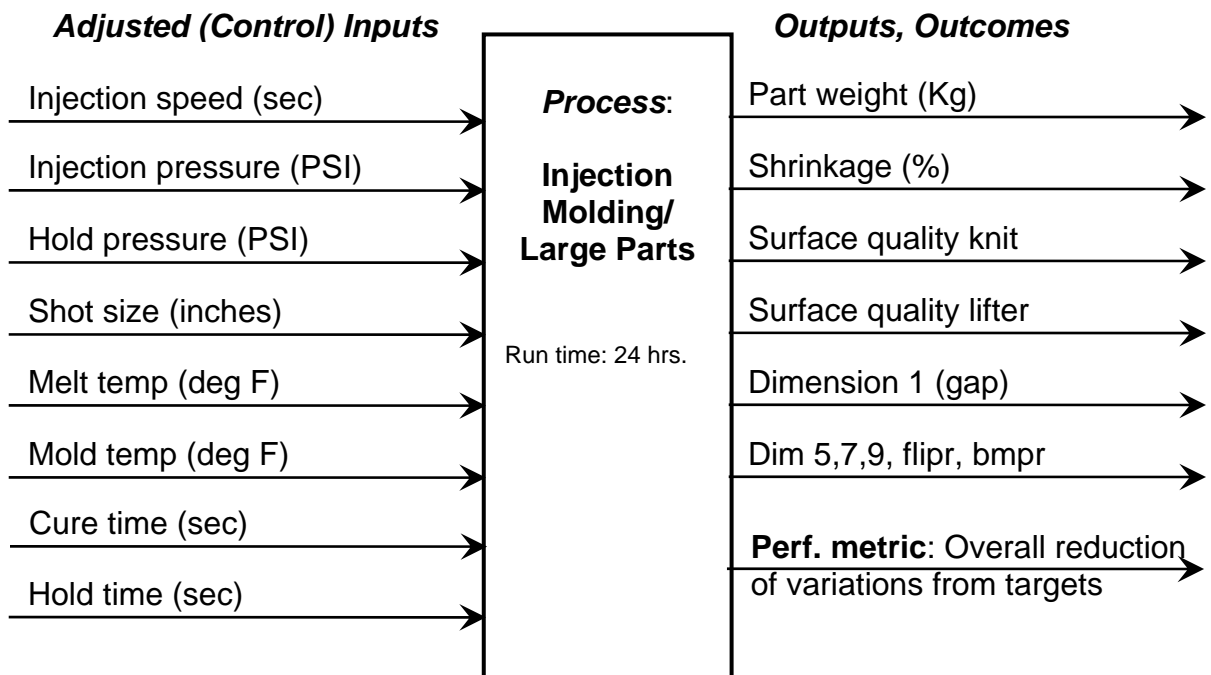
Plastics Forming: Injection Molding / Large Parts

Process: The operation, set up in the machine maker's test facility, used a very large twin screw injection molding machine. It was equipped with a flash gate mold for making auto fenders. Quality was defined by a combination of surface and dimensional requirements.

Objectives: Minimize deviation from dimensional targets and improve surface quality index.

Results Summary: Superior quality parts were produced after only a few days of testing enabling the start of production runs based on the developed procedure. Also further analysis of the data for optimal adjustments of the models for the gap test points disclosed that the top corner and pillar required 3 times the "hold time" of the optimal overall part. This prompted the mold makers to open the flash gate at these points to cause greater plastic flow to these areas of the mold.

DECISION INPUT/OUTPUT DIAGRAM



Optimizing the Performance Metric implies satisfying constraints (not shown)