



## Dubai International Airport, Terminal 3

**Area:** ...m<sup>2</sup>  
**Architects:**  
**Structural & Façade Engineers:**  
**Specialist Contractor:**



Dubai International Airport Terminal 3 is a good working example of how Hycast like to work on prestige architectural projects anywhere in the world.

Considered the premiere and most busy airport in the Middle East, it is projected by the local Department of Civil Aviation that by 2010 over 30 million passengers per year will use Dubai International Airport.

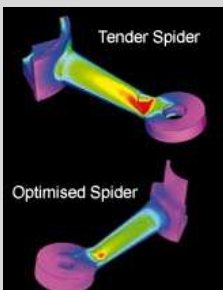
Costing US\$2.5billion, Phase Two of the Dubai Airport expansion program includes Terminal 3.

This work began construction in 2002 and was completed in 2006. Hycast was there every step of the way.

Hycast co-ordinated all of the engineering and metallurgical services required to produce the cast glazing support systems which secure the distinctive Dubai Terminal 3 teardrop windows.



Typically, Hycast develops a 3D computer model of the proposed casting and its ancillary components. Intended to verify the shape, 3D computer modelling enables architects and their clients to view and rotate the casting design.



An FEA is a linear static finite element analysis of a casting used to demonstrate maximum developed stress when design loads are applied.

The cast teardrop window spider used at Dubai T3 form the link between the glazing and catenary tensile support structure. An FEA assisted here to optimise the shape of the casting so that the casting grade ASTM A743 CF3M (equivalent to 316L) could be used.

Forming a reliable casting with structural integrity in a timely manner at Dubai T3 required the design of a suitable metal feed system. Hycast adopted casting simulation technology to simulate and visualise the entire casting process. This included pouring, solidification and defect detection.

