case study

extra low profile xlp™ latching system

installation eligibility

Airbus A340

part number

H3461-1

the problem

The customer was developing a composite cowl for the A340 program and required a latch system that would evenly distribute loads from the latch into the cowling using lightweight thin-walled castings. They also required the system to incorporate high-shear capability into a design that would offer cost-saving solutions throughout the life of the aircraft. Traditionally, the customer would build the housing around the latch as part of their nacelle. This in-house manufacturing caused problems as "fit" was compromised.

the solution

Hartwell provided a lightweight, low-profile solution with alignment and shear pins incorporated into the housing to carry shear loads and align the two halves of the engine nacelle. The result was Hartwell's patented Extra-Low Profile XLP™ system.

the benefits

The XLP™ system penetrates only one inch into the cowl structure which allows the customer to make the cowl size smaller and the fit tighter with the engine. This reduces the frontal area and, therefore, the drag on the aircraft. Also, the weight savings resulting from the low-profile design saves on the cost of aircraft utilization. Assembly costs are reduced significantly as the entire system is easier to install; therefore saving assembly time by allowing the customer to assemble the structure right the first time.

for more information

For more information on this product and other examples of Solutioneering at work, contact Hartwell Corporation at 1.714.993.4200.

Solutioneering at work

HARTWELL

Hartwell Corporation 900 S. Richfield Rd, Placentia, CA 92870 USA • Phone: (714) 993-4200 Fax: (714) 579-4419 www.hartwellcorp.com