

Fighter Jet Manufacturing



Situation

A maker of high-tech fighter jets needed a simpler way of moving planes through final assembly. Previously, workers had to secure all stress-bearing doors and remove the lifting jacks before towing a jet to the next workstation with a ride-on tugger. Moving a single plane could take an entire work shift.

Solution

Airfloat designed and built a T-shaped transporter that literally floats the 12-ton aircraft from workstation to workstation — without removing the jacks. The transporter is comprised of three 36-in. air-bearing platforms, equipped with 17-ton-capacity aircraft jacks and connected by a steel truss section for torsion rigidity. When floating friction-free, a jet can be nudged in any direction by simply leaning against it.

Result

Moves that once took a whole shift now are performed in three to four hours with the Airfloat equipment. Time savings per aircraft range from 29 to 100 worker hours. In addition, the Airfloat transporters are virtually maintenance-free, eliminating much of the maintenance costs normally associated with most tooling and equipment. The aircraft maker was so pleased it began using Airfloat equipment in other areas such as wing-to-fuselage and tail-to-fuselage splicing and engine removal and installation.