

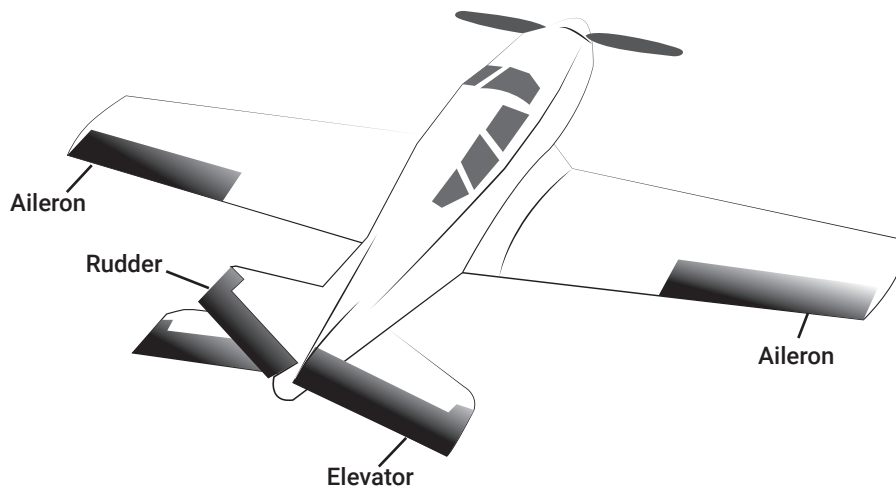
Port Plate

Industry	Fluid Power
Dura-Bar Grade	100-70-03 Ductile Iron
Original Material	Iron Castings
Problems Solved	Machining Cycle Time, Material Quality, Reduced Scrap, Availability
Cost Savings	Total part cost reduced by 30%



When this manufacturer began looking at alternative materials for its port plates, Dura-Bar's high quality and excellent machinability stood out above the rest. A port plate manages the control flaps of military and commercial aircraft through hydraulics. Control flaps direct aircraft airflow. Because the plate is maneuvered in the direction the control flaps are needed—forward, reverse or idle—it is constantly in use.

Dura-Bar's 100-70-03 offers strength and wear resistance, and provides good machinability. But material properties were not the only items the customer wanted. With castings, the manufacturer had as much as an 8 percent scrap rate. Dura-Bar virtually eliminated those costs, since it has no shrinkage, porosity or tool-wearing inclusions that frequently occur in castings. The manufacturer typically had to wait 16-20 weeks to receive the castings. Dura-Bar cut the lead time down to six weeks, giving the manufacturer better control over inventory.



The port plate is part of a hydraulic unit which controls the flaps.