



TRIUMPH™

Capabilities, Products & Services

WE ARE AGILE.

WE ARE RESPONSIVE.

WE ARE TRIUMPH.





Operating Companies

TRIUMPH is recognized as an industry leading solutions provider for systems and aftermarket services to the global aerospace market. We have assembled one of the most comprehensive groups of aerospace design, manufacturing and service companies in the world. Categorized into four specialized operating companies each provides products and services that, when combined, cover the full spectrum of aircraft manufactured, ranging from production of detailed components to integrated systems and product support.

Capabilities

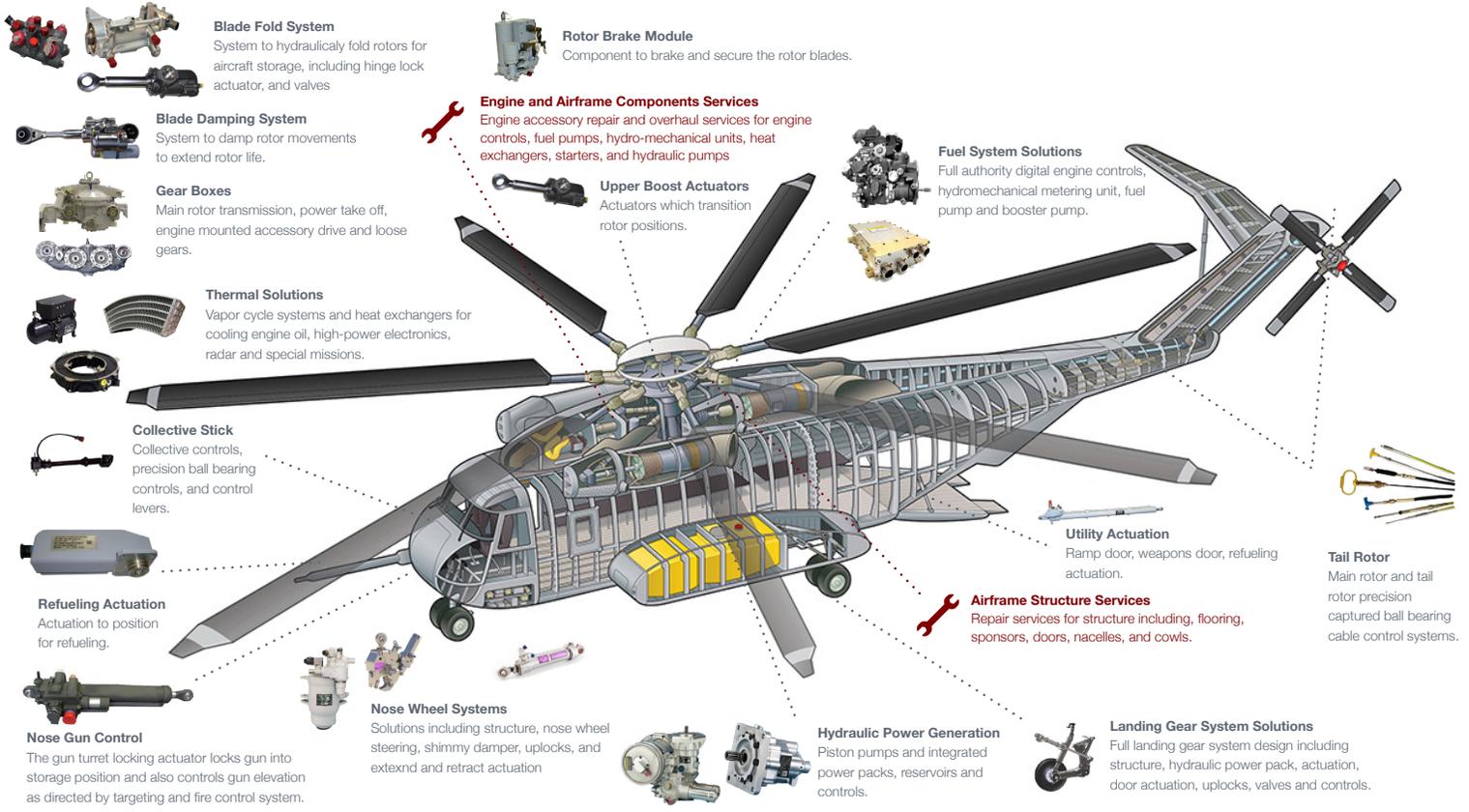
Combining our highly skilled team of manufacturing and engineering professionals with our world class test labs and advanced tooling process, Triumph brings a new level of excellence to the aerospace industry. We manufacture and finish sub-assemblies and components from nearly every material used in the industry, and produce complex integrated systems from both internal and external designs. Triumph also has a unique ability to provide full life-cycle support at all levels of the aerospace supply chain.

Actuation Products & Services - Provides design, manufacturing and MRO services for products and systems that include hydraulic pumps and motors, actuators, fuses, accumulators, valves and manifolds, and carrier launched aircraft holdback bars. They also provide design, manufacturing, and support solutions for highly engineered mechanical and electromechanical controls and components. And maintain a unique capability for systems engineering and integration, as well as hydromechanical and electronics in-house development, and serves as the integration focal for Triumph, specializing in motion, control and power systems for commercial, military and rotorcraft aircraft.

Geared Solutions - Is the premier independent supplier for the design and manufacture of commercial & defense aerospace gearing components and integrated gearboxes for fixed wing, rotorcraft, aircraft engine and ground vehicle applications. Additionally, we provide aftermarket spares and repair/overhaul support for these parts. We collaborate with customers to provide a full array of capabilities including design, engineering and manufacturing of complex mechanical assemblies and build-to-print for highly specialized applications.

Systems, Electronics and Controls - Specializes in design, development, certification, manufacture and repair of fuel pumps, fuel metering units, fuel controls and electronic engine control systems for helicopters and fixed-wing aircraft servicing military, commercial, regional and business jet market sectors.

Product Support - Provides maintenance, repair and overhaul (MRO) services for structural components, engine and airframe accessories, interior refurbishment and wheels and brakes. They provide global solutions and services for commercial, regional and military operators.



Blade Fold System
System to hydraulically fold rotors for aircraft storage, including hinge lock actuator, and valves

Blade Damping System
System to damp rotor movements to extend rotor life.

Gear Boxes
Main rotor transmission, power take off, engine mounted accessory drive and loose gears.

Thermal Solutions
Vapor cycle systems and heat exchangers for cooling engine oil, high-power electronics, radar and special missions.

Collective Stick
Collective controls, precision ball bearing controls, and control levers.

Refueling Actuation
Actuation to position for refueling.

Nose Gun Control
The gun turret locking actuator locks gun into storage position and also controls gun elevation as directed by targeting and fire control system.

Rotor Brake Module
Component to brake and secure the rotor blades.

Engine and Airframe Components Services
Engine accessory repair and overhaul services for engine controls, fuel pumps, hydro-mechanical units, heat exchangers, starters, and hydraulic pumps

Upper Boost Actuators
Actuators which transition rotor positions.

Fuel System Solutions
Full authority digital engine controls, hydromechanical metering unit, fuel pump and booster pump.

Utility Actuation
Ramp door, weapons door, refueling actuation.

Airframe Structure Services
Repair services for structure including, flooring, sponsons, doors, nacelles, and cowl.

Tail Rotor
Main rotor and tail rotor precision captured ball bearing cable control systems.

Nose Wheel Systems
Solutions including structure, nose wheel steering, shimmy damper, uplocks, and extend and retract actuation

Hydraulic Power Generation
Piston pumps and integrated power packs, reservoirs and controls.

Landing Gear System Solutions
Full landing gear system design including structure, hydraulic power pack, actuation, door actuation, uplocks, valves and controls.

Cockpit Controls
Cockpit controls including flight controls, landing gear, parking lever, and throttle quadrants.

Ram Air Turbine
Emergency hydraulic power.

Cargo Door Solutions
Hydraulic power pack, snubbers, actuation, software and controls.

Door & Utility Locking Actuation
Wide variety of electromechanical, hydraulic and mechanical actuation components and systems for aircraft door and utility locking functions.

Flight Control Surfaces
Repair and overhaul of all flight control surfaces including slats, flaps, ailerons, elevators, rudders and winglets.

Interiors
Repair and refurbishment of sidewalls, bin doors, galleys, lavs, PSU's and seats and manufacture of interior component parts for commercial and regional aircraft operators.

Engine or Airframe Mounted Accessory Drives
Accessory and emergency power gear boxes.

LANDING GEAR SYSTEM SOLUTIONS

Landing Gear Actuation Systems
Control system and components including valves, extend and retract actuation, bogey trim and fuses.

Nose Wheel Steering
Push-pull and 360 degree rotary systems.

Landing Gear and Door Uplocks
Uplocks retaining the landing gear or door in the up position.

Hydraulic Control Valves
Controls the operation of the landing gear by supplying hydraulic fluid pressure to actuators, which retract or extend the landing gear and doors.

Reservoirs and Accumulators
Hydraulic tanks and piston accumulators.

Electronic Brake Systems
Electromechanical actuation braking solutions.

Wheels and Brakes
Industry leading maintenance on wheels and brakes for commercial operators.

ENGINE AND NACELLE

Hydraulic Power Generation
Hydraulic power for aircraft controls and actuation includes pumps, power transfer units, power packs, ram air turbines and starters.

Main Fuel and Booster Pumps
Engine fuel gear pumps and vane pumps.

Cowl Door Actuation, Valves, Hold Open Rods, Latches, Keepers
Holding doors in position for maintenance. Fixing and locking doors.

Heat Exchangers
Engine mounted heat exchangers for oil and fuel.

Engine Mounted Gear Boxes
EMAD's, power take offs and loose gears.

Nacelles and Accessories Repair
Global solutions for repair and overhaul of nacelles, thrust reversers, hydraulic and fuel pumps, CSIDG, heat exchangers and gear boxes.

Thermal Solutions
Vapor cycle systems for galley cooling, high-power electronics and special missions.

Cabin Insulation and ECS Ducting

Hydraulic Accumulators
Component used for fluid and energy storage in aircraft hydraulic and brake systems.

Air Drive Unit
Pneumatic Drive Turbine assembly, provides supplementary power for hydraulic systems experiencing high load conditions.

Hydraulic Fuses
Rate and volume triggered safety fuses to protect the hydraulic system in an emergency.



North America



- 1. Hot Springs, AR
 - 2. Valenci, CA
 - 3. West Hartford, CT
 - 4. Windsor, CT
 - 5. Shelbyville, IN
 - 6. Wellington, KS
 - 7. Macomb, MI
 - 8. Clemmons, NC
 - 9. Forest, OH
 - 10. North Wales, PA
 - 11. Grand Prairie, TX
 - 12. San Antonio, TX
 - 13. Park City, UT
 - 14. Redmond, WA
 - 15. Yakima, WA
- ★ Dallas, TX (Headquarters)
★ Berwyn, PA (Corporate Office)

Europe



Asia



- Europe**
- 1. Onchan, Isle of Man
- 2. Villeneuve, France
- 3. Heiligenhaus, Germany
- 4. Deeside, Wales
- Asia**
- 1. Chonburi, Thailand



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