Northrop Grumman’s attitude control motor (ACM) consists of a solid propellant gas generator with eight proportional valves equally spaced around the circumference of the motor. All together, the valves exert up to 7,000 lbs of steering force to the vehicle in any direction. The ACM’s valve control is fully redundant. The motor has two critical functions:

• Steer Orion’s launch abort system and crew module away from the launch vehicle in the event of an emergency
• Orients the capsule for parachute deployment once cleared from hazards

Applications
The ACM is designed for NASA’s Orion crew exploration vehicle.

Product Features and Benefits
• Eight (8) high thrust proportional valves utilizing unique valve materials produced by FMI
• Single fault tolerant controller
• Reliable solid-fueled gas generator based on a heritage propellant
• Software and firmware developed in a Capability Maturity Model® Integration (CMMI®) Level 3 environment
Specifications

Technical Data

Weight: 1650 lb (748.42 kg)
Length: 62 in (1574.8 mm)
Diameter: 32 in (812.8 mm)
Case, External: D6AC
Case, Internal: Aramid-filled ethylene propylene diene monomer (EPDM)
Propellant: Carboxyl-terminated polybutadiene (CTPB) composite

For more information contact:

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Attitude Control Motor