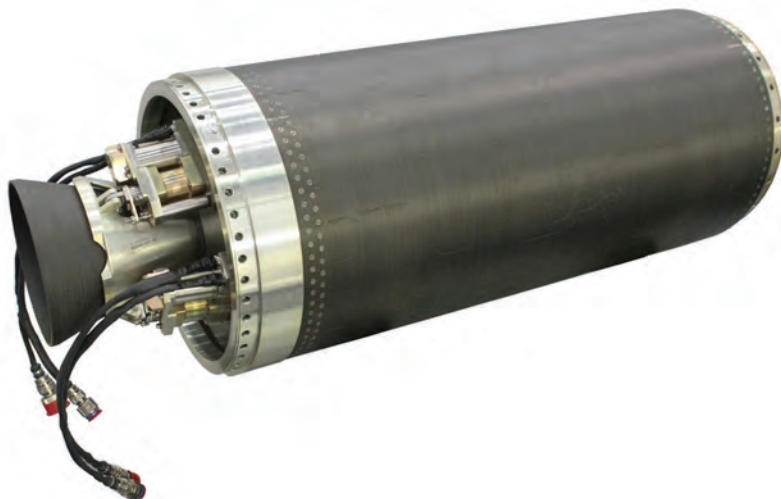
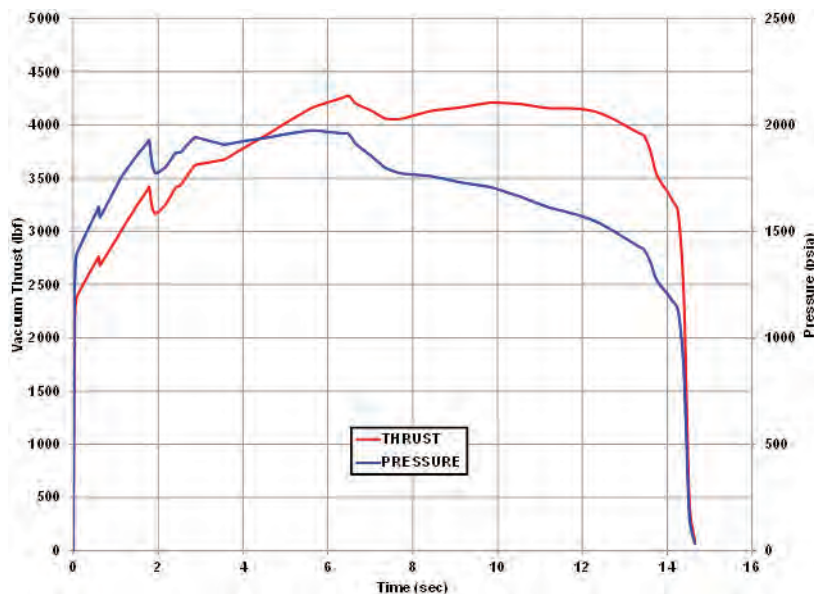


ASAS™ 13-30V



FIXED AND VECTORABLE UPPER STAGE MOTOR

The Advanced Solid Axial Stage (ASAS) 13-30V is a high-performance upper-stage motor derived from the Mk 136 Standard Missile 3 (SM-3) Block IA/IB Third Stage Rocket Motor (TSRM). The motor is 39.3 inches long and nominally designed as an upper-stage motor. The motor uses a pyrogen igniter for highly repeatable ignition performance. The motor incorporates a ± 5 -degree nozzle powered by an Orbital ATK Thrust Vector Electronic Control System (TVECS™) thrust vector actuation (TVA) system using electromechanical (EM) actuators.



MOTOR DIMENSIONS

Motor diameter, in.....	13.5
Motor length, in.....	39.3

MOTOR PERFORMANCE (70°F VACUUM)

Burn time, sec.....	14.3
Burn time average chamber pressure, psia.....	1,730
Maximum chamber pressure, psia.....	1,975
Total impulse, lbf-sec.....	55,180
Propellant specific impulse, lbf-sec/lbm.....	281.8
Effective specific impulse, lbf-sec/lbm.....	279.5
Burn time average thrust, lbf.....	3,825
Maximum thrust, lbf.....	4,275

NOZZLE

Initial throat diameter, in.....	1.1
Exit diameter, in.....	6.8
Expansion ratio, initial.....	38.3:1

WEIGHTS, LBM

Total loaded*.....	250.9
Propellant.....	195.8
Case.....	40.2
Nozzle.....	7.2
Total inert.....	55.1
Burnout*.....	53.5

TEMPERATURE LIMITS

Operation.....	45°-120°F
Storage.....	30°-120°F

PROPELLANT DESIGNATION TP-H-3340A

CASE MATERIAL

..... GRAPHITE-EPOXY COMPOSITE

PRODUCTION STATUS FLIGHT-PROVEN

*Excludes ETA lines, safe and arm device, battery, and controller

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