SPACE FLIGHT AWARENESS

SPACE SHUTTLE REUSABLE SOLID ROCKET MOTOR TEAM

PRIORITY SAFETY

VpCI-126 & VpCI-136 for RSRM Safety









CORTEC CORPORATION®
St. Paul, MN

The Space Shuttle program's Reusable Solid Rocket Motor (RSRM) is the largest solid rocket motor ever flown and the first designed for reuse. The integrity of the motor begins early in the production, transportation and storage of motor components and/or segments.

CORTEC CORPORATION's VpCI-126 & VpCI-136 products are used in the RSRM manufacturing process to protect against the potential corrosion of the five-inch CP (center perforated) motor nozzle, and the Booster Separation Motor (BSM) exit cone and BSM igniter cap. The BSM separate the RSRM from the obiter at approximately 128 seconds into flight. The Five-inch CP motors are used in determining the RSRM propellant formulation / burn-rate. Also, the VpCI-126 plastic bag servers as protection from environment contamination.

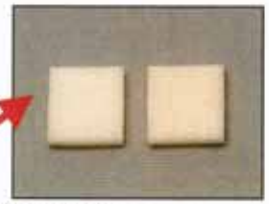
NASA and ATK Thiokol are appreciative of CORTEC CORPORATION 's attention to detail and focus on quality.

CORTEC CORPORATION
Environmentally Safe VpCI™/MCI® Technologies

ATK THIOKOL

NASA

Booster Separation At Approximately 128 Seconds Into Flight

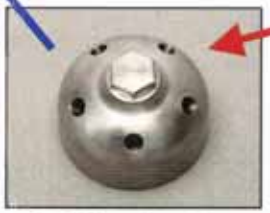


VpCI-136 Foam Squares

Booster Separation Motor

BSM Exit Cone

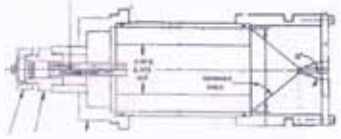
VpCI-126 Plastic Bag



BSM Igniter Cap

Nozzle

Five-inch CP motor Left to right:



Sketch

Test Firing

RSRM Facts…

- Each stacked Space Shuttle booster is nearly the same height as the Statue of Liberty, minus the pedestal, but weighs almost three times as much
- Each RSRM burns nearly 5 tons of propellant per second, or a total of 1.1 million pounds during its 120-second burn time
- Each RSRM has the maximum thrust of 32 Boeing 747s at takeoff
- It takes only 8 minutes for the Space Shuttle to accelerate to a speed of more than 17,000 miles per hour
- RSRM combustion gases approach 6,100°F, approximately two-thirds the temperature of the sun's surface

- During flight, each RSRM generates approximately 15,400,000 horsepower, or as much horsepower as 38,500 Corvettes
- If their heat energy could be converted to electric power, two RSRMs firing for 2 minutes would produce 2.2 million kilowatt-hours of power, or enough power to satisfy the needs of 87,000 homes for a full day

More than 500 astronauts and scientists from around the world have safely ridden into orbit to explore, research, build, repair, and foster international relationships.

FIND OUT MORE...

Shuttle Website
http://www.shuttle.msfc.nasa.gov

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http://www.msfc.nasa.gov

ATK Thiokol
http://www.atk.com

NASA Human Spaceflight
http://spaceflight.nasa.gov/index-n.html

NASA Today
http://www.nasa.gov/today/index.html

NASA News
http://www.nasa.gov/hqpao/newsroom.html

KSC Homepage
http://www.ksc.nasa.gov

JSC Homepage
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Partnering With The Nation's Shuttle Team

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