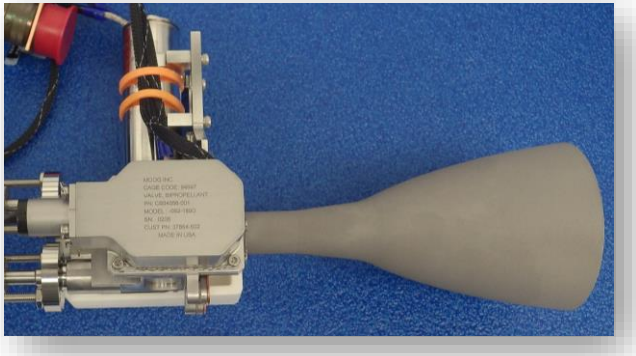
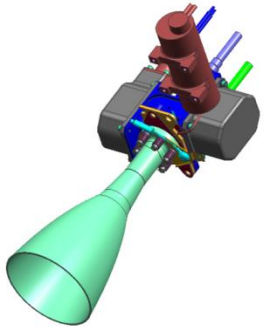
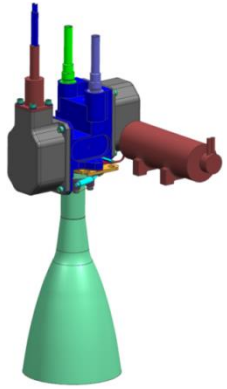
AJ10-220 62.3 N (14.0 lbf) Reaction Control Thruster







Design Characteristics

- Propellant . . . . . .MMH/NTO (MON-3)
- Nominal Thrust (steady state) . . . . . .62.3 N (14.0 lbf)
- Thrust Range (steady state)* . . . . . .59.2–65.4 N (13.3-14.7 lbf)
- Chamber Pressure* . . . . . 6.89 bar (100 psia)
- Inlet Pressure* . . . . . 15.2 bar (220 psia)
- Inlet Pressure Range . . . . . .25.5 – 9.99 bar (370 – 145 psia)
- Valve, Power . . . . . .Moog, 38 W @ 28 VDC
- Expansion Ratio 75:1
- Nominal Flow Rate . . . . . .22.3 g/s (0.049 lbm/s)
- Nominal Mixture Ratio (O/F) 1.65
- Mixture Ratio Range (O/F) . . . . . .1.50 -1.80
- Mass . . . . . 1.95 kg (4.3 lbm)

Performance

- Specific Impulse @ 220 psia, 70°F and MR=1.65…… ……285 s (Steady firing) / 268 s (Pulse Mode)
- Total Impulse Qualified ……..…685,000 N-s (154,000 lbf-s)
- Minimum Impulse Bit . . . . 0.898 N-s (0.202 lbf-s)
- Demonstrated Steady State Firing Duration .. . . . . .300 s
- Total Number of Pulses Qualified . . . . .65,000+ starts

Status

- Flight Proven
- Currently in Production

Dimensional Envelope

- 19.0 cm (7.5 in) long, 7.30 cm (2.9 in) diameter

References

- 1993-AIAA-2218

** Standard Inlet Conditions*

11411 139th Place NE • Redmond, WA 98052
(425) 885-5000 FAX (425) 882-5747