

Nozzle dimensions

Inputs You provided

thrust	12312
chamber_temperature	321
altitude	323223
fuel_ratio	fuel_ratio
chamber_temperature	123
molecular_mass	123
specific_heats_ratio	2
chamber_length	23
throttle_temperature	0.125
Effective_exhaust_velocity :	10.25

Relevant Outputs

impulse	105.43910300717486
effective_exhaust_velocity	1033.9938355950105
mass_flow_rate	11.907227660516055
oxidizer_mass_flow_rate	11.811201630995765
fuel_mass_flow_rate	0.09602602952029077
exit_temperature	1.6498204001730937e-05
exit_mach_number	823.2615820940644
pressure_ratio	6.533511032187211e-08
expansion_ratio	1.755646135476514

Calculated Nozzle Dimensions

throat_area	21.450450920369157
exit_area	37.65940126257475
throat_radius	2.613023266458547
exit_radius	3.462276668557825
chamber_radius	(4157.15,)
chamber_length	0.125
diverging_nozzle_length	3.1694568451352265
converging_nozzle_length	4.7777226179857