

# Nozzle dimensions

20/04/24 at 11:29:28

## Inputs You provided

thrust	2000
chamber_temperature	2000000
altitude	5000
fuel_ratio	fuel_ratio
chamber_temperature	3
molecular_mass	300
specific_heats_ratio	0.03
chamber_length	1.2
throttle_temperature	15.25
Effective_exhaust_velocity :	272.7272727272727

## Relevant Outputs

impulse	2165.694896496476
effective_exhaust_velocity	21237.99528723751
mass_flow_rate	0.09417084677487683
oxidizer_mass_flow_rate	0.07062813508115762
fuel_mass_flow_rate	0.023542711693719208
exit_temperature	164.37449820768953
exit_mach_number	2.8724564897864466
pressure_ratio	0.027056967000874222
expansion_ratio	5.638508680117473

## Calculated Nozzle Dimensions

throat_area	0.0006620159768587746
exit_area	0.003732782831894649
throat_radius	0.014516412444049926
exit_radius	0.03447001129052896
chamber_radius	0.04105861471075395
chamber_length	15.25
diverging_nozzle_length	0.07446784468890748
converging_nozzle_length	0.026542202266704024