

T4i chemical propulsion systems are based on highly stabilized hydrogen peroxide and are targeted to low cost platforms.

**Highly Stabilized Hydrogen Peroxide** allows the reduction of safety issues and costs during handling and operations. Thanks to our transportable concentration unit, it can be also concentrated in situ, eliminating any transportation issues related with propulsive grade hydrogen peroxide (>85% concentration).

**Depending on customer needs** T4i offers three types of propulsion options:

**Mono-propellant motors**

**Hybrid motors**

**Bi-propellant motors**

**Common features are:**

- **Low cost:** main target are small low-cost satellite platforms and nanosatellite deployers.
- **Highly customizable:** being internally developed at T4i, the engine can be fully reconfigured depending on specific needs of the platform.
- **Green:** all the combinations are green, non-toxic and non-carcinogenic, providing minimum environmental impact.
- **Restartable / throttleable:** all the systems provide these options to perfectly match with mission requirements.
- **All-in-one:** sharing the same oxidizer, the monoprops can be combined with the other propulsion units to provide a comprehensive propulsion package.

#### MOTORS MAIN FEATURES

Toxicity	No
Storability	Yes, >5 years
Safety	High
Concentration	90-95%. Tailored to customer requirements
Transportation	Motor can be filled in situ. In-situ concentration option available to avoid transportation issues of highly concentrated hydrogen peroxide
Handling	Standard chemical protection suits, no SCAPE suits
Throttleability	1:5
Restartability	Yes
Cost	Low
Customization	Yes

### HYDROGEN PEROXIDE MONOPROPELLANT MOTOR

#### SPECIFICATIONS

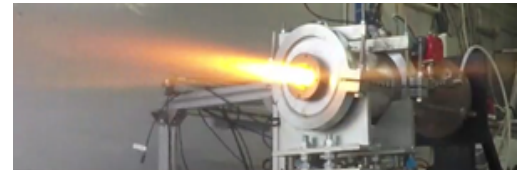
Thrust	10 - 500 N
Burning time	> 100 sec
Specific Impulse	> 150 sec
Propellant combination	90-95% Hydrogen Peroxide
Multiple restarts	yes
Throttleability	1:5
TRL	5
Time to market	1 year
Applications	orbit raising, re-positioning, station-keeping, de-orbiting, reaction control



### HYDROGEN PEROXIDE HYBRID MOTOR

#### SPECIFICATIONS

Thrust	100 - 1000 N
Burning time	< 100 sec
Specific Impulse	> 280 sec
Propellant combination	90-95% Hydrogen Peroxide - Plastics
Multiple restarts	yes
Throttleability	1:5
TRL	5
Time to market	1 year
Applications	orbit raising, re-positioning, de-orbiting



### HYDROGEN PEROXIDE LIQUID MOTOR

#### SPECIFICATIONS

Thrust	100 - 1000 N
Burning time	> 100 sec
Specific Impulse	> 280 sec
Propellant combination	90-95% Hydrogen Peroxide - Diesel
Multiple restarts	yes
Throttleability	1:5
TRL	4
Time to market	2 years
Applications	orbit raising, re-positioning, station-keeping, de-orbiting



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