PNEUMATIC MISSILE EJECT LAUNCHER (PMEL)

High-performance, air-to-air missile ejector

PMEL is a pneumatic launcher designed to eject modern medium- and long-range air-to-air missiles from high-performance manned and unmanned platforms.

RELIABLE, HIGHLY EFFICIENT EJECTION

L3Harris’ PMEL is capable of ejecting stores up to 190 kilograms using less compressed air, at a lower pressure, than other launchers. This highly efficient performance, which is enabled by patented two-stage piston technology, significantly reduces turnaround time.

PMEL is also designed to reduce required personnel. During loading, the launcher makes use of a patented yoke alignment system, self-locating connector and automatic sway bracing to allow for rapid weapon loading with only two personnel.

SAFE CARRIAGE

L3Harris’ PMEL is fitted with an in-flight operable lock (IFOL) to ensure maximum retention safety. Loading can be conducted with a charged reservoir to reduce aircraft downtime.

As a combined pylon and launcher unit, the PMEL is currently designed for use under the fuselage on modern high-performance fighter jets to reduce weight and frontal cross section. Development work is underway to adapt the unit for use within weapons bays as a standalone item.

PMEL is not subject to International Traffic in Arms Regulation (ITAR) export rules, making it an ITAR-free solution for high-performance ejection of air-to-air missiles.

BENEFITS

> Return-flight charging and safe loading, even while pressurized, minimize turnaround time
> Two-person, rapid missile loading reduces manpower needs
> Minimal maintenance requirements and no post-mission servicing requirements simplify operations
> Pneumatic technology eliminates the need for pyrotechnics or post-flight consumable replenishment
> IFOL ensures safe carriage
FAST-ACTING PNEUMATIC EJECT SYSTEM

L3Harris has leveraged advanced core technologies in pneumatics, control system logic, piston design and low loss gas paths to develop the fast-acting, highly reliable PMEL.

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<th>SPECIFICATIONS (LAUNCHER ONLY)</th>
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<td><strong>Weight</strong></td>
<td>35 kg (77 lbs)</td>
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| **Dimensions (L x H x W)**    | 969 x 272 x 120 mm (38.1 x 10.7 x 4.7 in)  
969 x 272 x 171 mm (38.1 x 10.7 x 6.7 in) with yokes |
| **Maximum store weight**      | 190 kg (419 lbs) |
| **Piston stroke**             | 266 mm (10.5 in) over two stages |
| **End-of-stroke velocity**    | > 8 m/s |
| **Maximum store diameter**    | 0.178 m (7.0 in) |
| **Store interface**           | AMRAAM-style nose “button” hanger and center body hanger  
MIL-STD-1760 Type II electrical connection |

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers’ mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

Nonexport-controlled Information

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