

# KEC launcher

Air vehicle launchers

The QinetiQ Target Systems' KEC launcher is a proven design that has been in continuous worldwide service on land and at sea for over 30 years. Its simple design and rugged construction ensures reliable operation in the world's harshest environments. The launcher has a maximum launch velocity of 35 metres/ second (dependent on air vehicle mass) and has been successfully used to launch air vehicles of over 140 kg in weight. Typically, an air vehicle of 90 kg can be launched at 32 metres/second.

The launch rail has an operating length of 13 metres. It is constructed of welded, box section mild steel. The rail is made in three sections which are joined together by hinges allowing it to be folded for unobstructed road, air or sea transport.

Whilst the launcher may be used as a free-standing unit it is generally fitted to the top of a ground support trailer. It is attached at one end of the trailer body (draw bar end) by a pivot mechanism bolted to the support frame under the body. At the rear end, the launcher is attached by a pair of hydraulic rams extended using a manually operated hydraulic pump. The rams are used to elevate the rail to its 20° operating angle. A pair of support legs is positioned between the launch rail and the top of the trailer body to provide a rigid support when the launcher is in the elevated (operating) position.

Within the structure of the launch rail are positioned elastic power bands, with the number used being dependent upon the weight of the air vehicle being launched and the required launch speed.

The power bands are secured to the frame of the launcher at one end whilst their free end is attached via a multistrand steel cable to a vehicle launch trolley. The air vehicle launch trolley is located on top of the launch rail and is free to travel along its length.

#### Key features

Launch speeds to 35 metres/second	
Air vehicles to 140kg mass	
Rugged design and simple operation	
Easy maintenance and repair	
Low acquisition cost	
Rapid deployment	
Fast turnaround time	

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## **KEC Launcher Specifications**

#### Physical

Length	5.95m (19ft 6in) towing configuration with launch rail folded and tow hitch extended
	13m (42ft 7in) with rail extended
Width	1.9m (6ft 3in)
Height	2.1m (6ft 11in) in towing configuration (shuttle removed)
Weight (empty)	2,125kg (2.09 imperial tons)
(maximum)	2,500 kg (2.46 imperial tons)
Performance	
Max launch velocity	34 metres/second (66 knots)
Max air vehicle mass	140 kg (308 lbs)

#### Other features

Fits a standard ISO 20 foot shipping container for transport by road, sea or rail. Can be transported by air in C130 or main deck 747 freight aircraft

Note: Due to continuous process improvement, specifications are subject to change without notice







### Collaborating with QinetiQ

At QinetiQ we bring organisations and people together to provide innovative solutions to real world problems, creating customer advantage.

Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

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