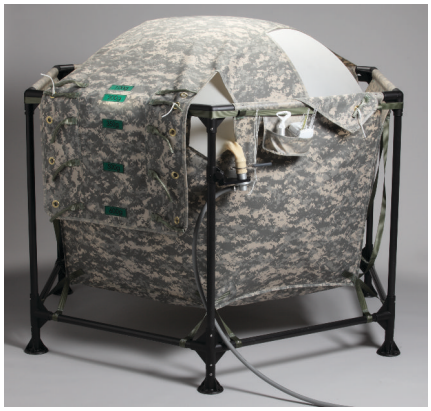
Balloon Launcher FB32



Vaisala Balloon Launcher FB32 is used to inflate and launch sounding balloons in field conditions. One operator can easily launch the balloon and a radiosonde to start an observation. Typical applications for the launcher are defense operations where temporary sounding sites are established.

Features

- Transportability (easy packing and lightweight)
- Easy assembly with captive parts
- No electricity needed for operation and no signal cables required to the sounding system
- Operation in high wind speeds up to 20 m/s (45 mph)
- Can be tied down for operation in high winds
- One-man operation

Construction

FB32 is designed for use with five different Totex sounding balloon sizes. It has a large nozzle for 200-gram (7.05 oz), 350-gram (12.35 oz), 500-gram (17.64 oz) and 600-gram (21.16 oz) balloons. A smaller diameter nozzle is used for 100-gram (3.53 oz) or even smaller balloons that have a narrower neck than normal sounding balloons.

The launcher consists of a lightweight tube frame with six vertical legs. The horizontal tubes of the frame are attached to the canvas launch bag. The launcher is assembled by simply inserting the horizontal tubes into the vertical legs. The tube frame is lined with a launch bag that has an adjustable canvas cover for different balloon sizes. A gas hose is provided for attachment to a gas source.

The canvas is available in Universal Camouflage pattern as standard, and Desert Tan and Woodland Green options are also available.

FB32 can be easily assembled by one person in less than five minutes. It is stored and carried in a lightweight polypropene transport case. The case is fitted with metal fasteners and equipped with wheels for easy transportation.

Operating the Balloon Launcher

The tube frame is lined with a canvas bag that protects the sounding balloon and limits the inflation space. An Y-shaped canvas covers the balloon and it is opened for the balloon release.

When launching a balloon, the launcher is oriented with the radiosonde holder outside the frame pointing downwind. When inflating a balloon it is fastened to a filling nozzle using a clamp. The nozzle is located in the upper frame of the launcher. The nozzle secures the balloon during inflating. The radiosonde is held outside the frame in a holder.

The gas flow is cut when the balloon fills the body frame and the adjustable canvas cover is tight. The canvas cover is opened and if needed, the balloon is launched with the help of a strap passing under the balloon.

Technical Data

Mechanical Specifications

Shipping volume (polypropene box)	1380 × 335 × 385 mm (54.33 × 13.19 × 15.16 in)
Canvas	Universal Camouflage, MIL-C-43734, Class 3
Dimensions	
Width	1760 mm (69.29 in)
Internal diameter	1600 mm (62.99 in)
Height	1270 mm (50.0 in)
Weight	
Net	16 kg (35.27 lb)
With transportation case	26 kg (57.32 lb)

Balloon Size and Approximate Burst Altitudes for a High-Quality Balloon

200 g (7.05 oz)	22 km (13.7 mi)
350 g (12.35 oz)	26 km (16.2 mi)
600 g (21.16 oz)	31 km (19.3 mi)

Operating Environment

Operating temperature	-40 ... +55 °C (-40 ... +131 °F)
Operating humidity	0 ... 100 %RH
Operating precipitation	Unlimited
Storage temperature	-50 ... +71 °C (-58 ... +159.8 °F)
Storage humidity	0 ... 95 %RH
Maximum wind speed	20 m/s (45 mph)

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