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Balloon Launcher FB32

Vaisala Balloon Launcher FB32 is used for inflating and launching meteorological 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-person operation

Construction

FB32 is designed for use with 5 different Totex 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 balloons.

The launcher consists of a lightweight tube frame with 6 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 MultiCam® Camouflage pattern on durable 1000 denier water-repellent and back-coated fabric in accordance to MIL-DTL-32439 specification.

One person can easily assemble FB32 in less than 5 minutes. FB32 is stored and carried in a lightweight polystyrene transport case. The case is fitted with metal fasteners and equipped with wheels for easy transportation.

Operating balloon launcher

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

When the balloon fills the body frame and the adjustable canvas cover is tight, you can cut the gas flow. Open the canvas cover and if needed, launch the balloon with the help of a strap passing under the balloon.

Technical data

Mechanical specifications

Dimensions	
Maximum width (assembled)	1760 mm (69.29 in)
Maximum height (assembled)	1270 mm (50.0 in)
Maximum internal diameter	1600 mm (62.99 in)
Transportation case	1380 × 335 × 385 mm (54.33 × 13.19 × 15.16 in)
Gas hose	Ø 16/10 Length 5 m
Weight	
Net	16 kg (35.27 lb)
With transportation case	26 kg (57.32 lb)
Materials	
Canvas	MultiCam® Camouflage MIL-DTL-32439, Type I, Class 3
Gas hose	Glassfiber reinforced PVC
Transportation case	Cellular polypropene

Balloon weights and approximate burst altitudes

100 g (3.53 oz)	16 km (9.9 mi)
200 g (7.05 oz)	22 km (13.7 mi)
350 g (12.35 oz)	26 km (16.2 mi)
500 g (17.64 oz)	30 km (18.6 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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