

## **FALCON 100 ACLM** - Automated Cone Laying Machine



*Figure 1: Falcon 100 on a Scania L Series chassis*

### **Product Characteristics:**

The FALCON 100 ACLM is a premium solution for automatic cone laying, featuring some unique characteristics:

- **EASY:** Easy to operate through touch screen control panel.
- **RESILIENT:** Machine design suited for all-weather use (except snow).
- **RELIABLE:** Developed and tested since 2015 and with experience of 150'000+ cones deployed and collected over hundreds of kilometers of lane closures.
- **FAST:** FALCON 100 out-performs most competitor systems based on speed.
- **SAFE:** Minimal exposure of machine structure to live traffic. Zero exposure of moving parts to live traffic.
- **FLEXIBLE:** Various modes allow for use in different traffic management settings.
- **ENDORSED** by National Highways / NSCRG for use on UK roads.
- **WINNER** of the following awards:
  - HIGHWAYS Award: Product of the Year 2021.
  - National Highways Industry Award for 'Exceptional contribution to safety research and innovation' 2023.
- **FALCON 100** is our 3<sup>rd</sup> generation cone laying machine. With close to 10 years of experience with automated cone laying systems, we've raised the bar for performance and reliability.

## Technical Data:

- The machine is designed for the use with 1'000 mm, 7.5 kg cones, Type Falcon 100. The Falcon 100 cone can be delivered with different types of reflective sleeves, depending on local requirements.
- The machine is designed to be mounted on the back of a truck bed or inside a curtain side body.
- Recommended chassis type: Scania L Series 18 ton or similar.
- Cone Storage:
  - Model S: 240 cones.
  - Model M: 336 cones.
  - Model L: 432 cones.
- Net weight without cones:
  - Model S: Approx. 2'800 kg.
  - Model M: Approx. 3'100 kg.
  - Model L: Approx. 3'500 kg.
- Gross weight:
  - Model S with 240 cones: Approx. 4'600 kg.
  - Model M with 336 cones: Approx. 5'600 kg.
  - Model L with 432 cones: Approx. 6'750 kg.
- Machine length:
  - Model S: Approx. 5'180 mm.
  - Model M: Approx. 6'340 mm.
  - Model L: Approx. 7'500 mm.
- To be installed on min. 2'000 mm wide flat bed.
- Max. working speed:
  - Deploy: Approx. 7.5 cones / minute.
  - Collect: Approx. 6.5 cones / minute.
- Distance between cones: Can be freely set by operator within a range of 3-100 m.
- Taper functions: Automatic Taper left to right and right to left functions. Number of cones and spacing between cones as per local requirements.
- User friendly touch screen for remote control and camera system display.
- Process is monitored by 4 cameras.
- The machine is run by a 48 VDC / 180 Ah battery on board of the machine. This is sufficient for approx. 750 cones cycles. External battery charging: 230 VAC, 16 A.
- Battery support charging form vehicle engine upon request.

- Cones can be placed and picked up all the way across the back of the vehicle including to the outside of the vehicle L/R on each side. This is to cover a full lane of 3'500 mm. Preset modes for work in medium and narrow lanes (e.g. hard shoulders).
- Modes of operation:
  - Continuous deployment of cones in one lane at a set distance while driving forward.
  - Continuous collecting of cones in one lane while driving backwards.
  - Single cone deploy/collect at user defined position (e.g. to do tapered layouts at work zone start and end).
  - Taper modes.
- Remote access functionality through GSM network for training, check-ups, data logging and trouble shooting.
- Signalization:
  - Beacons at all corners of the machine.
  - Light arrow or similar can be installed at the back of the machine as per customer's request.

### **FALCON 100 Cone Data:**

- Height: 1'100 mm. Cone Base: 550x550 mm
- Weight: Approx. 7.5 kg
- Stacking pitch: Approx. 50 mm
- Different cone base colors and sleeve types available.



Figure 2: Falcon 100 cone