SPECIFICATION

RUNWAY FRICTION TEST DEVICE
SKIDDOMETER BV 11 VI RUNWAY FRICTION TESTING VEHICLE INTEGRATION

1. GENERAL

1.1 Mode of measurement

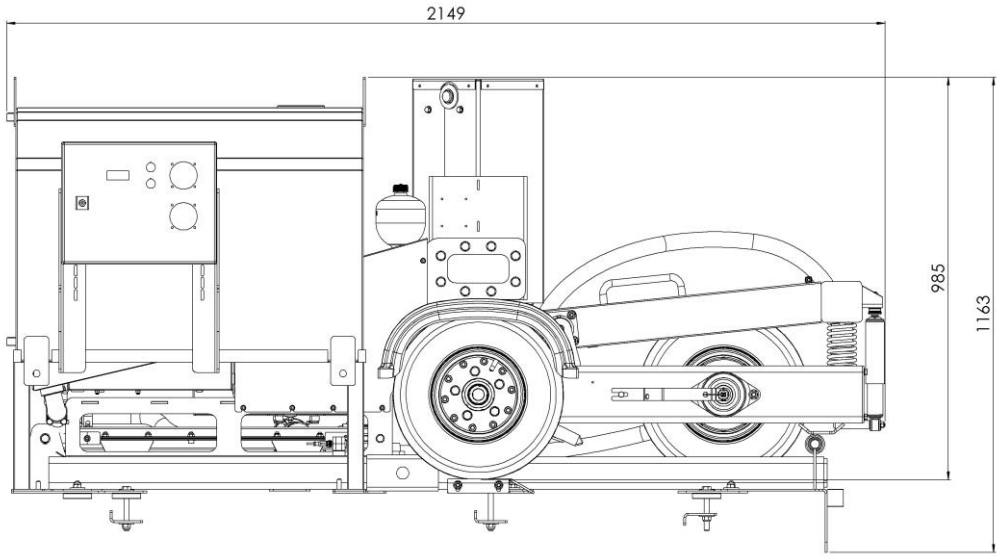
The Skiddometer BV 11 VI is designed for continuous measuring of the friction coefficient on runway surfaces. (when dry, wet, with ice or with tyre/rubber remains, as described by ICAO)

1.2 Approving

The measuring procedure is approved by FAA and ICAO.

1.3 Size

Weight:	600 kg / 1320 lbs.
Length:	2,15 m / 6,97 ft
Width:	1,37 m / 4,49 ft
Height:	0,99 m / 3,25 ft
Height in down position:	1,99 m / 6,53 ft
Measuring speed range:	20–130 km/h / 12–80 mph



Moventor Oy Inc.
Viherkiitaja 2
FI-33960 Pirkkala
Finland

www.moventor.com
e-mail: info@moventor.com
Business ID: FI2322699-3

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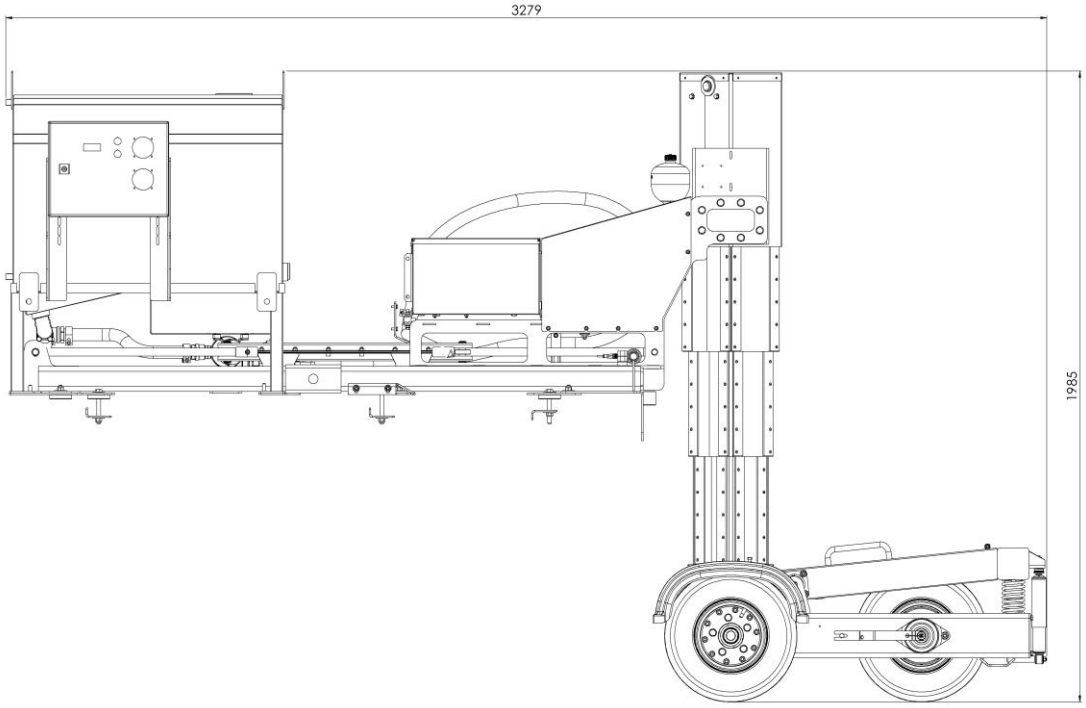

1.4 **Vehicle requirements**

carrying capacity with watering system:	1100 kg / 2430 lbs.
carrying capacity without watering system:	700 kg / 1540 lbs.
Min. bed length:	1,85 m / 6,1 ft
Min. bed width:	1,37 m / 4,49 ft
Min. bed width between rear wheels:	1,06 m / 3,48 ft
Max. bed height from ground:	0,90 m / 2,95 ft

2. OPERATING CHARACTERISTICS

2.1 **Handling**

The Skiddometer is easy to operate and maintain by any ground staff, especially as the computer has a ”built in” operation manual. The Skiddometer is designed to be operated and maintained by one operator only.

2.2 **Travel speed of the Skiddometer**

Measuring speed range 20-130 km/hour

2.3 **Presentation of the measurement results**

The measuring result is presented in an touch screen display as well as printed simultaneously on paper indicating name of airport, date, time, temperature and the runway code number. All these are instantly available in the cabin of the tow vehicle. Friction data can be stored on a cloud service or transferred to

a PC/laptop for analyzation. Information is also stored on memory for later usage. Range of friction coefficient 0-1,0.

2.4 **Calibration**

The Skiddometer does not require regular calibration before use, the computer system is auto zeroed after power is switched on. The validity of existing calibration can be checked by “calibration check” function. Time for this is approx. 2-3min. Annual service and calibration shall be performed according to service manual.

2.5 **Reliability**

Relative error of the Skiddometer in operating condition does not exceed 5 %.

3. TECHNICAL CHARACTERISTICS

3.1 **Mode of braking**
Measuring tyre has a continuous slip ratio of 17%.

3.2 **Tyres**
The Skiddometer has two reference tyres and one measuring tyre. All the three tyres are air-filled type and fits to same rim.

3.3 **Types of a measuring tyre**
As per FAA-ICAO recommendation two different types of measuring tyres are recommended: 1 low pressure tyre for wet runway measuring (ASTM) and 1 high pressure tyre for snow or ice covered surface (T520), the latter made by natural rubber, same as for aircraft tyres. Skiddometer is designed to operate with low as well as high pressure measuring tyre.

3.4 **Design**
The Skiddometer and its power lines, measuring hub and electrical system are built in type and protected for use in all weather conditions.

3.5 **Stability**
The Skiddometer offers a maximum stability also during turns and urgent braking. This is due to the low and wide, fully suspended chassis of the Skiddometer.

3.6 **Measured and recorded parameter**
An average friction coefficient is presented for sectors A, B and C for both measurement directions on a runway. Complete averages are given for each sector and runway total friction coefficient is also given.

3.7 **Further special technical characteristics and equipment**
The Skiddometer BV 11 VI is designed to attach to any pick-up type truck described in the specification 1.4. The Skiddometer system can be removed and attached to a new vehicle if needed. The vehicle is not damaged, only six holes to the bed is needed.

3.8 **Power Source**
12 Volt electrical system from separate battery. Battery is connected to vehicles battery to ensure proper load to work battery on all times.

3.9.1 **Runway Calibration** (WOB water on-board)
The Skiddometer can be equipped with optional self-wetting system including pump, water nozzle and tank supplying a uniform water depth of 1 mm in front of measuring tire. Tank is 550 liters and can be used to measure up to 10000m.

4. ACCESSORIES - SPARES

4.1 **Availability**
Spare parts are available for all units for next 15 years. All spare and wear parts are stocked In Finland Pirkkala delivered same day by courier services. Spare parts are also stocked globally by Moventor certified dealers.

4.2 **Special tools**
Special tools not required.

5. **GUARANTEE TIME**
1 year general full warranty
10 years warranty for frame construction

6. **DELIVERY**
According customer needs

7. **MANUALS**
Complete operation, maintenance and spare-part manuals, in English language, delivered with each unit. Network diagram of functions included.

8. **TRAINING**
2 days, at local airport or at Moventor factory by Moventor staff, covering operation, service and maintenance.

9. **MANUFACTURER**
Moventor Oy Inc. Finland