

# Model 5900 MV3® NAWI scale verification of conformity UK 3132 instructions

## FOR FIELD SERVICE ONLY

Authorized for scale verification in the following countries:

- United Kingdom

To order more verification stickers:

- United Kingdom: <https://www.gov.uk/guidance/approved-verification-guidance-application-form-and-stickers#identify-an-approved-verifier>

## Tools required

- Flat blade screwdriver
- (2) 10 kg calibrated weight
- (24) 20 kg calibrated weight
- Hole punch
- Verification sticker
- #2 Phillips screwdriver
- (1) 5 kg calibrated weight
- (1) 1 kg calibrated weight
- (1) Scale calibration counter label (5900180129)

**Note** - If scale verification cannot be completed, the product must remain out of service until the scale issue is resolved and scale verification is complete.

| 5900 MV3 NAWI scale specifications |             |
|------------------------------------|-------------|
| Accuracy class                     | III         |
| Min                                | 102 kg      |
| Max                                | 500 kg      |
| e                                  | 2 kg        |
| d                                  | 2 kg        |
| Verification period                | 1 year      |
| Tare type                          | Subtractive |
| Maximum tare                       | 80 kg       |

## Verification instructions

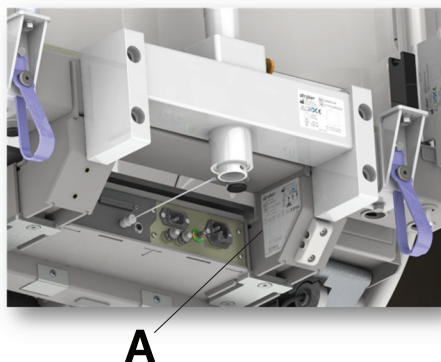
1. Record the following in the *Model 5900 MV3 NAWI scale verification of conformity UK 3132 form* (page 17) or equivalent:

- Operator name or ID
- Product serial number
- Time and date
- Temperature and humidity (humidity optional)
- Head scale and foot scale software versions

**Note** - For instructions about how to access the scale software version, see the **MV3** Operations Manual.

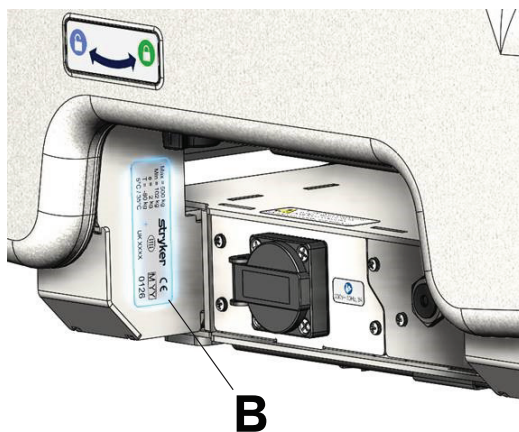
2. Confirm conformity type is UK 3132.

- <https://www.gov.uk/government/collections/nawi-certificates-issued-by-the-national-measurement-office>
3. Confirm the zone of operation is set to the correct zone. For instructions on how to access the zone of operation, see the **MV3** Maintenance Manual.
  4. Confirm the product specification label (A) is readable and not damaged (Figure 1).



**Figure 1 – Specification label**

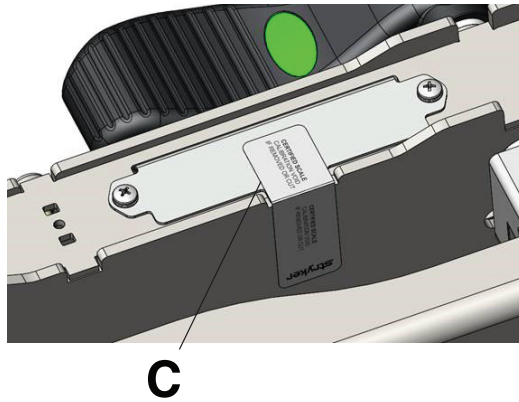
5. Confirm the NAWI certification label (B) is readable and not damaged (Figure 2).



**Figure 2 – NAWI certification label**

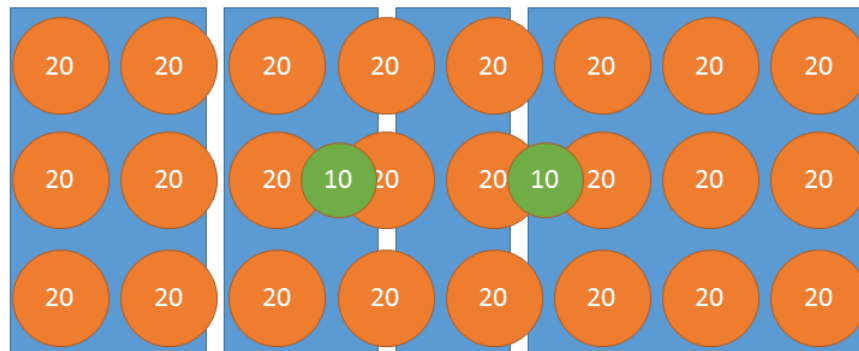
6. Using a flat blade screwdriver and #2 Phillips screwdriver, remove the head end and foot end caster covers. For instructions about how to remove the head end and foot end caster covers, see the **MV3** Maintenance Manual.
7. Confirm that the anti-tamper label, head end and foot end (C), are present and not void (Figure 3).

**Note** - The anti-tamper label is located on the IOM scale-head electrical assembly and the IOM scale-foot electrical assembly under the head end and foot end caster covers.



**Figure 3 – Anti-tamper label**

8. Reinstall the head end and foot end caster covers.
9. Using calibrated weights, pre-load the product to 500 kg.



10. Remove all calibrated weights from the product.



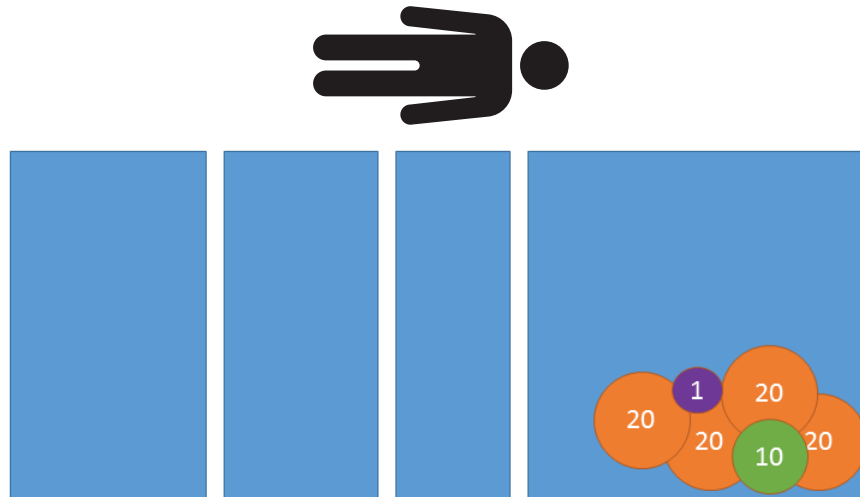
## NAWI scale calibration

1. Access scale maintenance to start the NAWI scale calibration process.

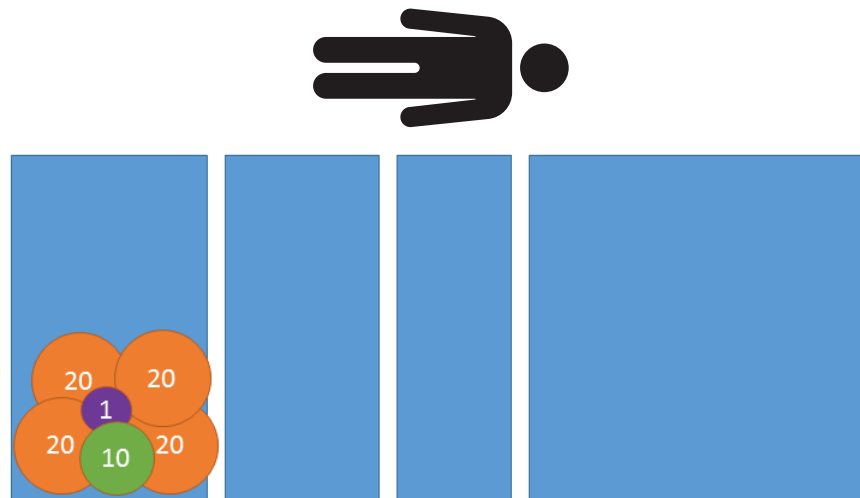
### Note

- For instructions about how to access the maintenance menu and scale maintenance, see the **MV3** Maintenance Manual.
- For instructions about how to calibrate the scale, see the **MV3** Maintenance Manual.

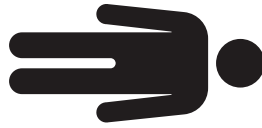
2. The NAWI scale calibration code is as follows: 3, 9, 6
3. Using calibrated weights, place 91 kg at the head left of the product.



4. Calibrate the head left.
5. Using calibrated weights, place 91 kg at the foot left of the product.

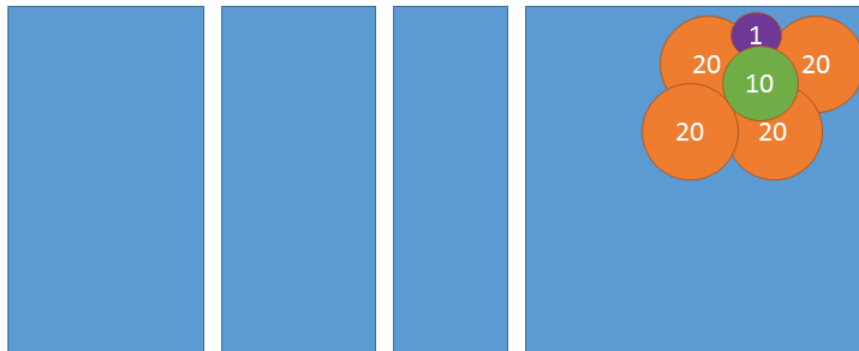


6. Calibrate the foot left.
7. Using calibrated weights, place 91 kg at the foot right of the product.



8. Calibrate the foot right.

9. Using calibrated weights, place 91 kg at the head right of the product.



10. Calibrate the head right.

**Note** - The calibration process must pass.

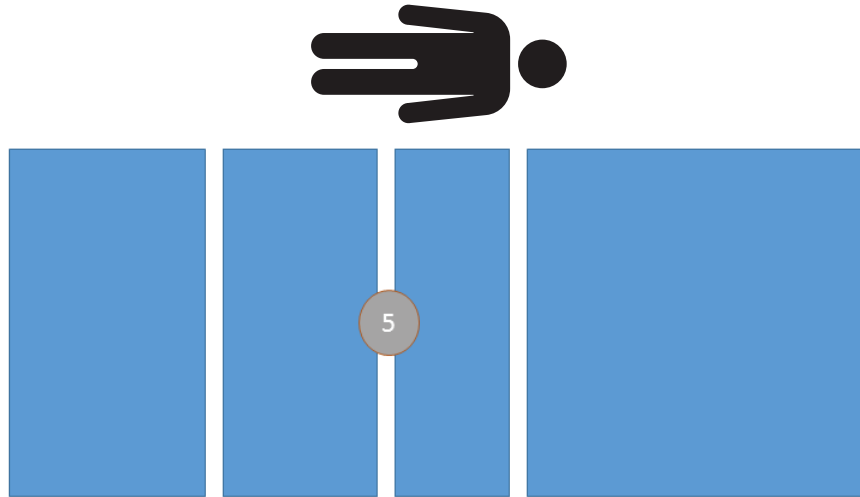
11. Remove all calibrated weights from the product.



## Zero accuracy test

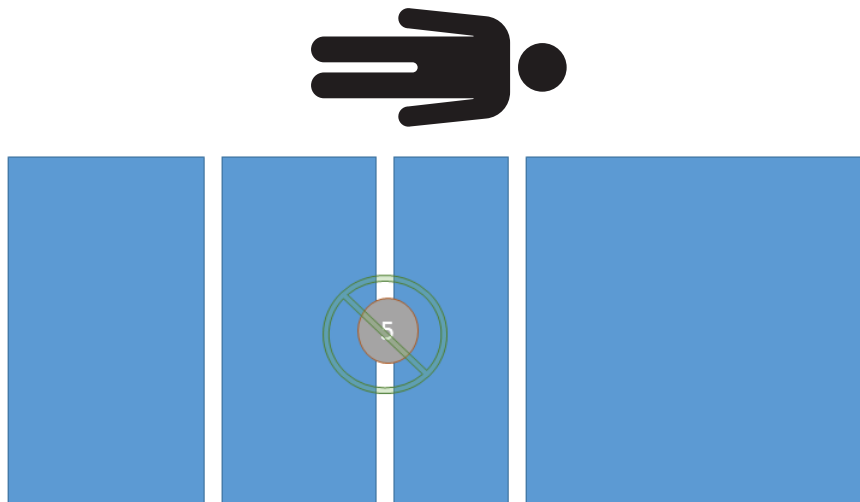
Record the values in the *Model 5900 MV3 NAWI scale verification of conformity UK 3132 form* (page 17) or equivalent.

1. Zero the scale.
2. Using calibrated weights, place 5 kg on the product.

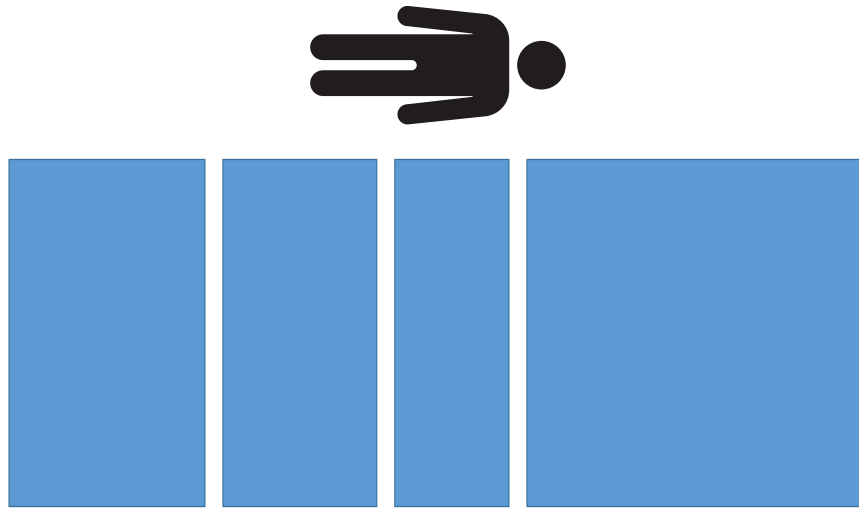


3. Zero the scale with 5 kg on the product.

**Note** - The accuracy of zero must be  $0.0 \text{ kg} \pm 0.5 \text{ kg}$ .



4. Remove all calibrated weights from the product.



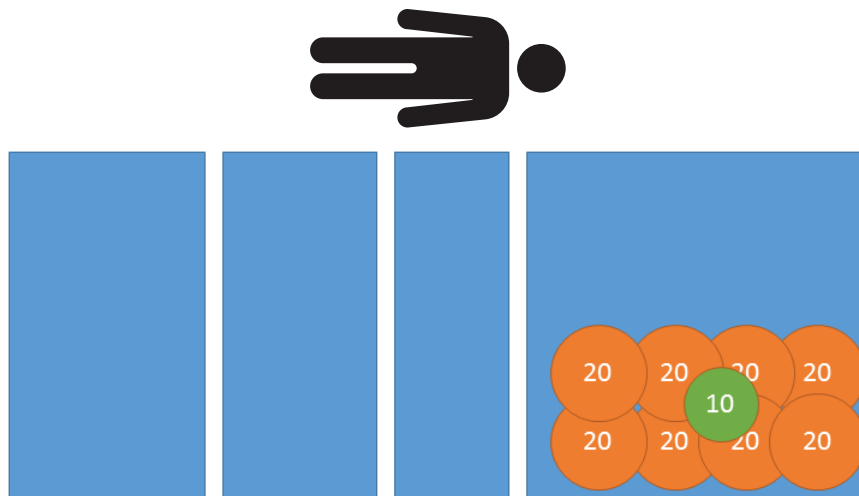
5. Zero the scale.

## Eccentricity test

Record the values in the *Model 5900 MV3 NAWI scale verification of conformity UK 3132 form* (page 17) or equivalent.

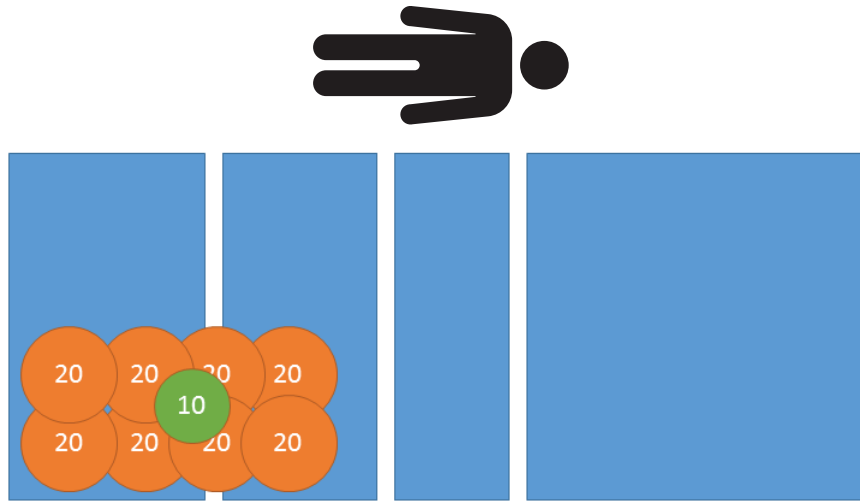
1. Using calibrated weights, place 170 kg at the head left of the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



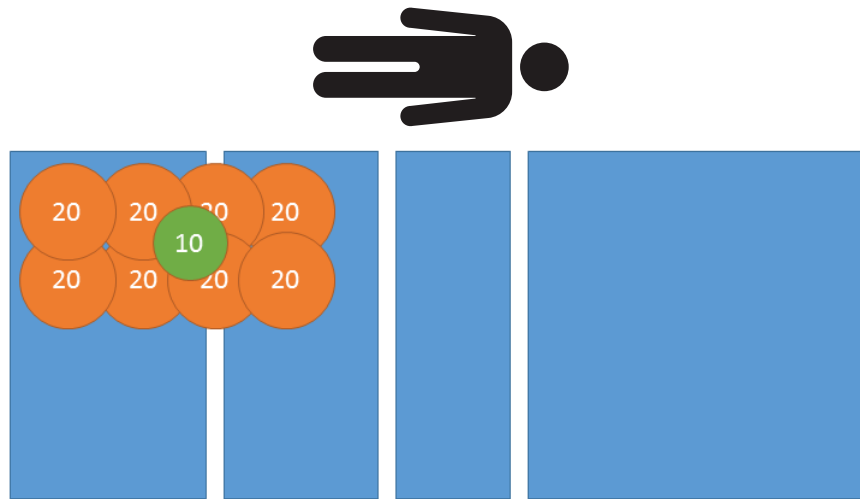
2. Using calibrated weights, place 170 kg at the foot left of the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



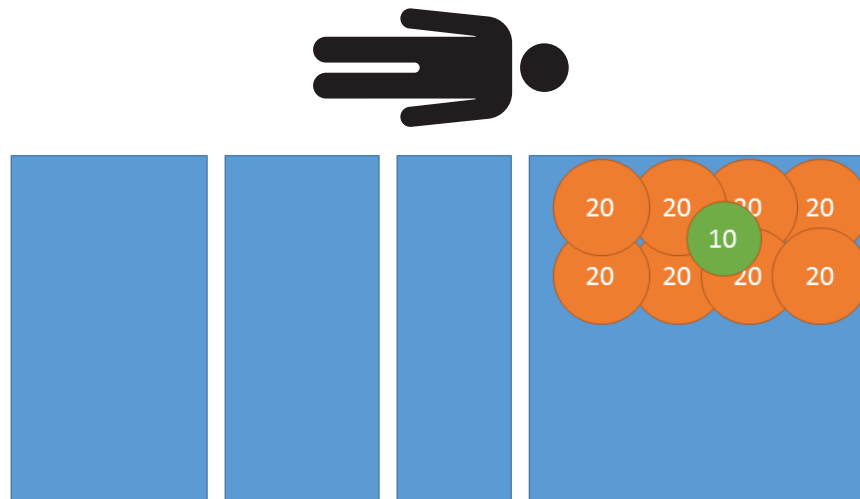
3. Using calibrated weights, place 170 kg at the foot right of the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.

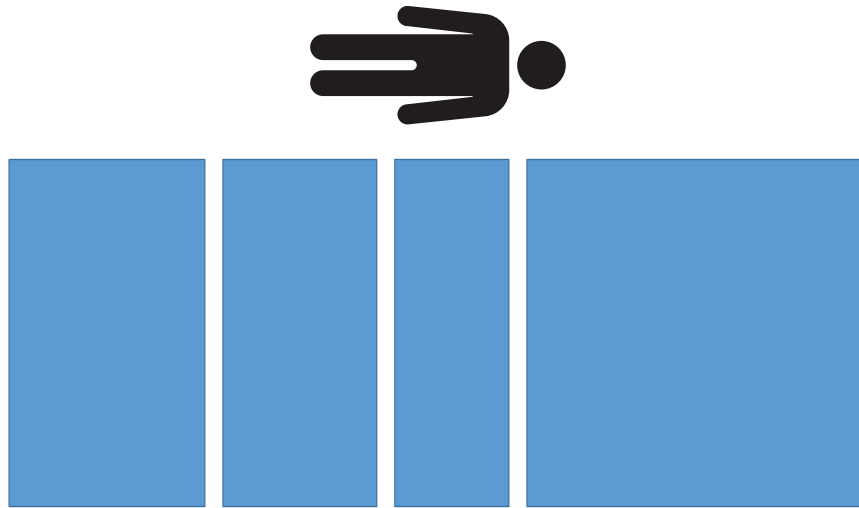


4. Using calibrated weights, place 170 kg at the head right of the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



5. Remove all calibrated weights from the product.



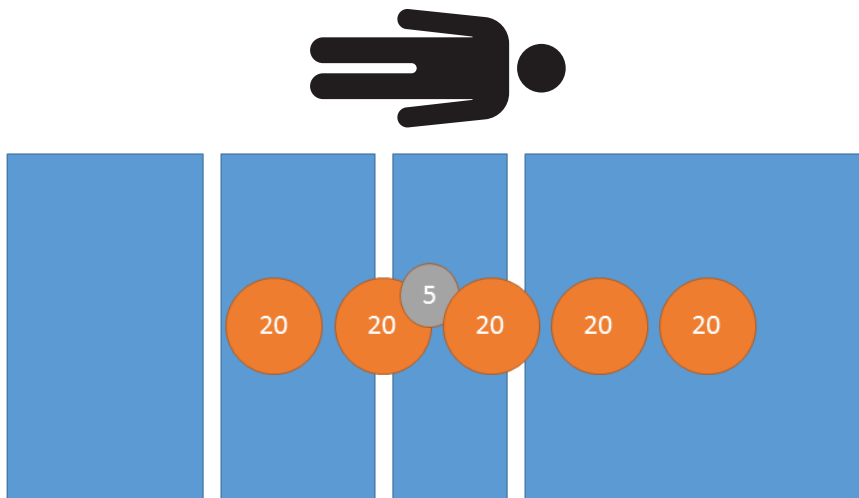
6. Zero the scale.

## Weigh performance test

Record the values in the *Model 5900 MV3 NAWI scale verification of conformity UK 3132 form* (page 17) or equivalent.

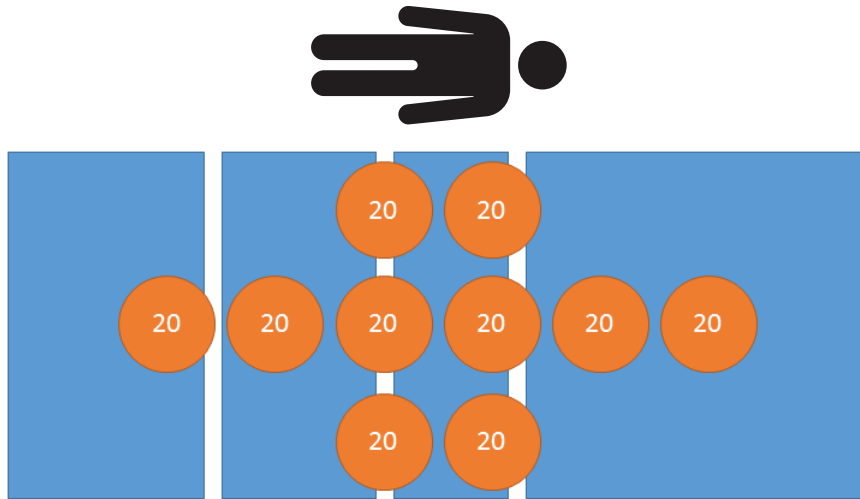
1. Using calibrated weights, place 105 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



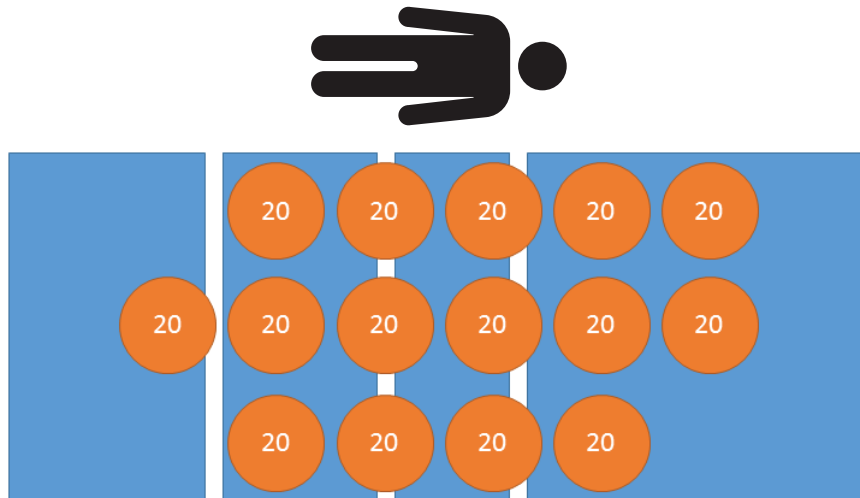
2. Using calibrated weights, place 200 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



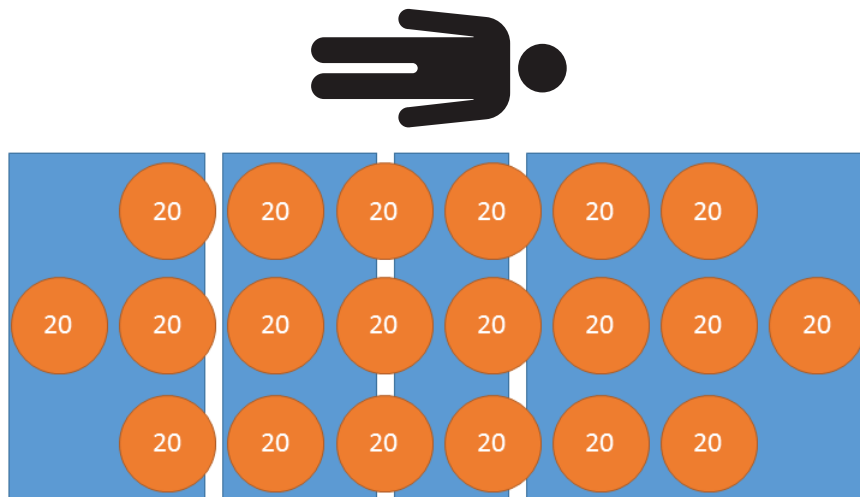
3. Using calibrated weights, place 300 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



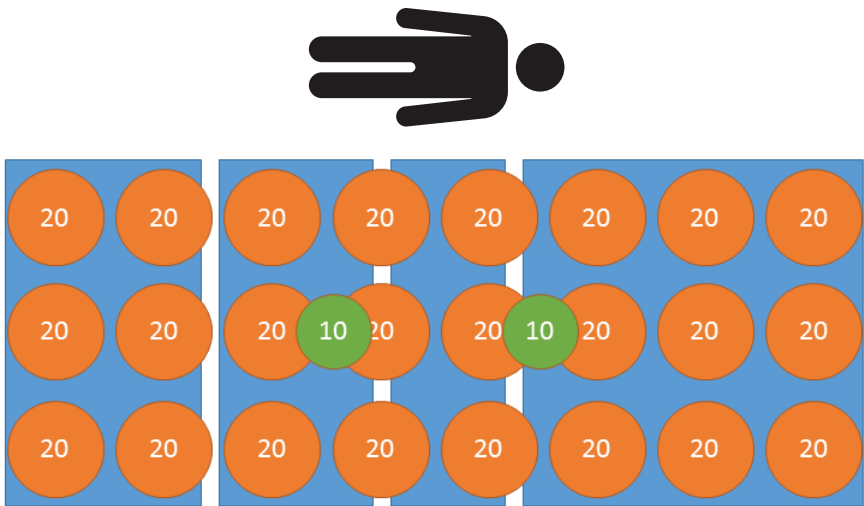
4. Using calibrated weights, place 400 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



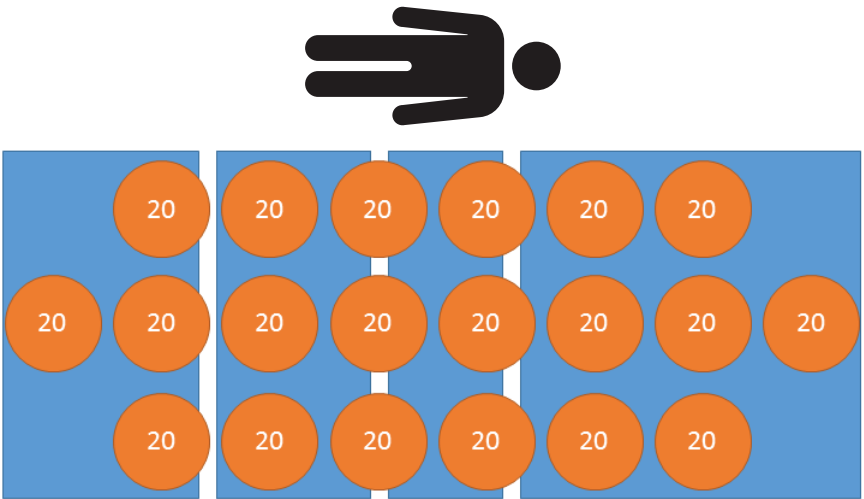
5. Using calibrated weights, place 500 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



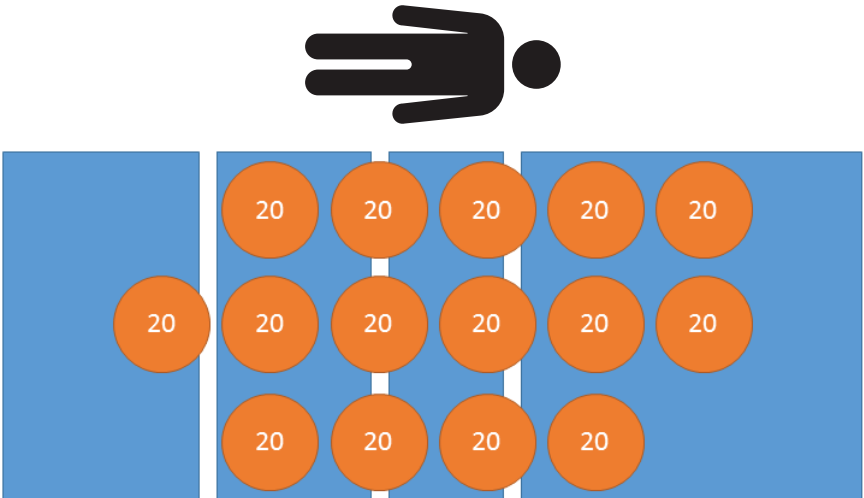
6. Using calibrated weights, place 400 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



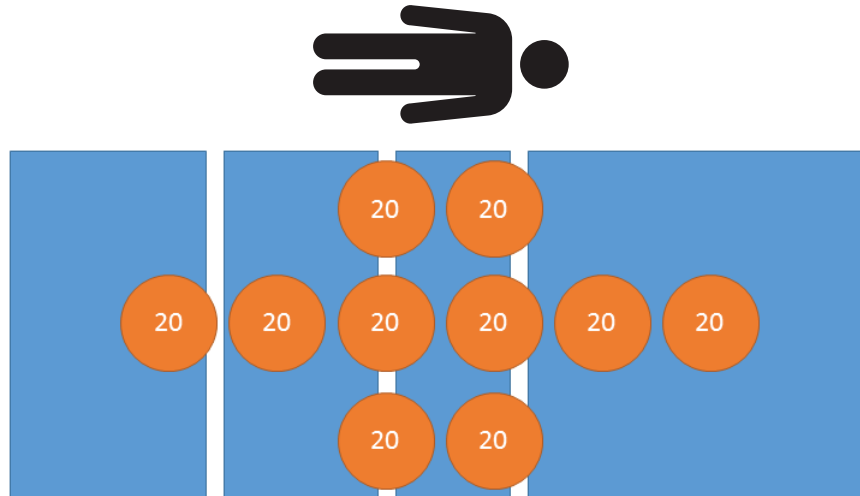
7. Using calibrated weights, place 300 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



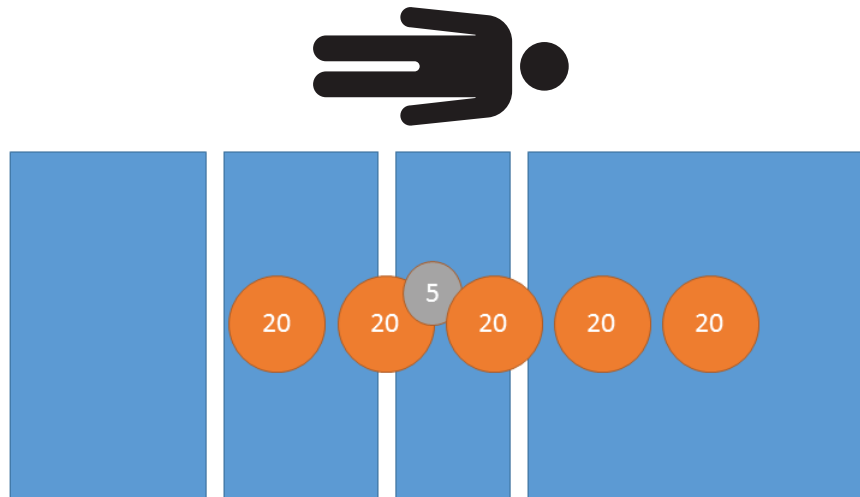
8. Using calibrated weights, place 200 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



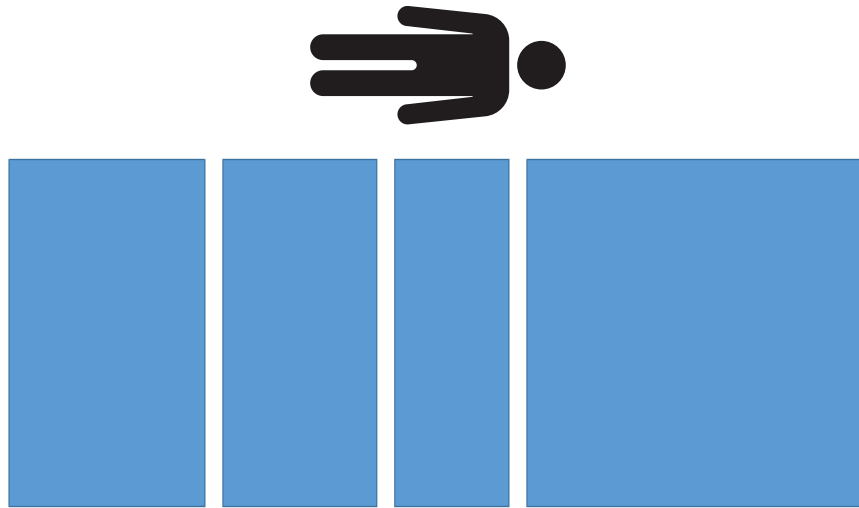
9. Using calibrated weights, place 105 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



10. Remove all calibrated weights from the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



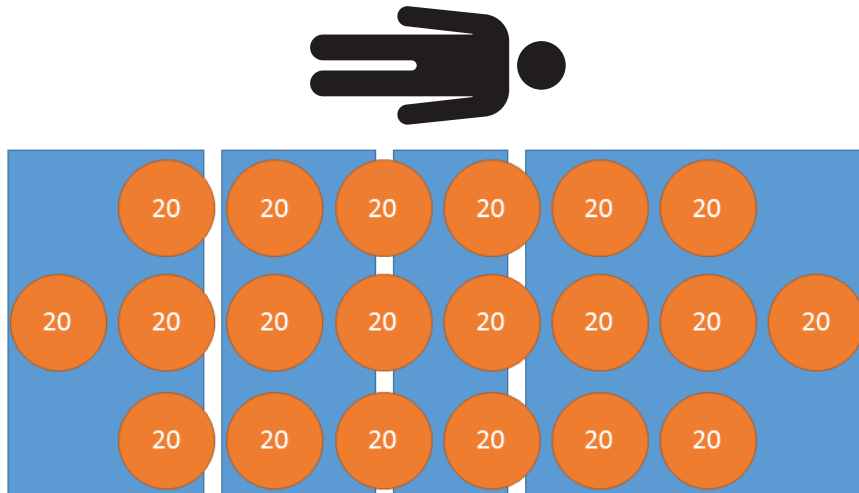
## Repeatability test

The absolute value for the range of repeatability must not exceed 2.0 kg for tests 1, 2, and 3.

Record the values in the *Model 5900 MV3 NAWI scale verification of conformity UK 3132 form* (page 17) or equivalent.

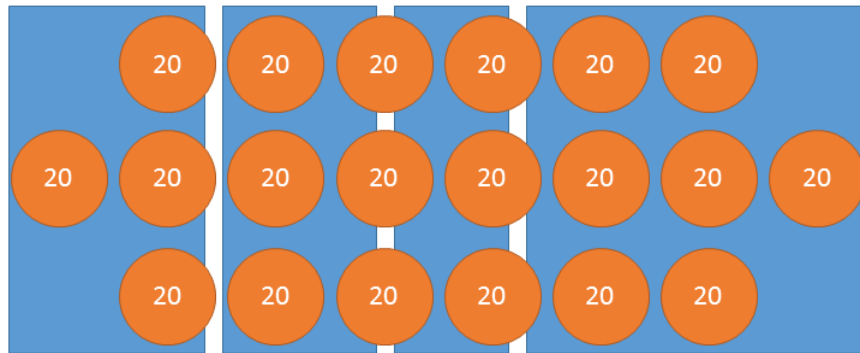
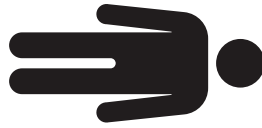
1. Test 1: Zero the scale.
2. Using calibrated weights, place 400 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



3. Test 2: Zero the scale.
4. Using calibrated weights, place 400 kg on the product.

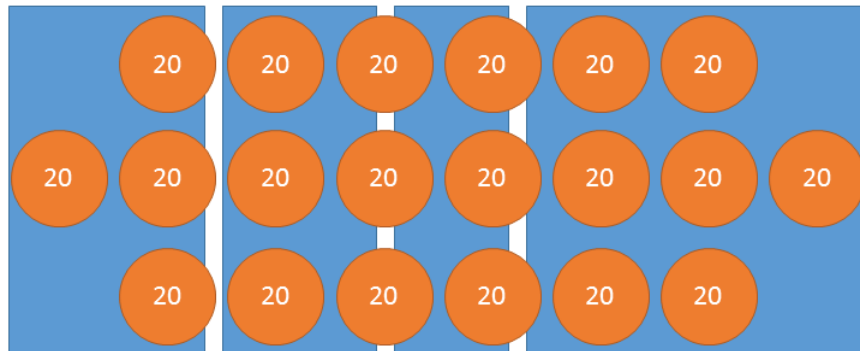
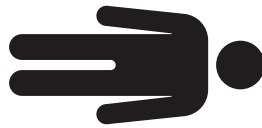
**Note** - The weight indication must be  $\pm 2.0$  kg.



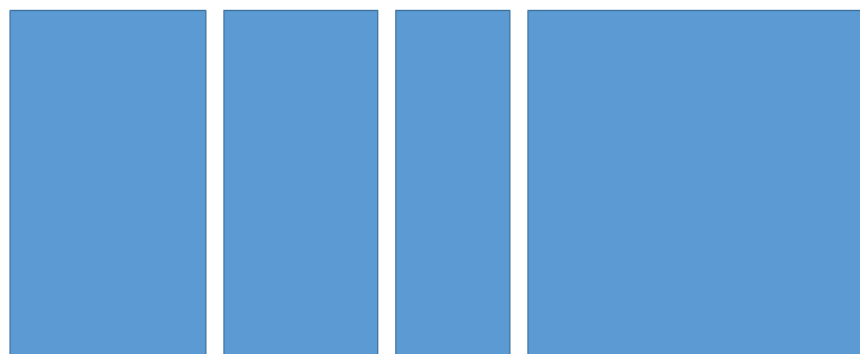
5. Test 3: Zero the scale.

6. Using calibrated weights, place 400 kg on the product.

**Note** - The weight indication must be  $\pm 2.0$  kg.



7. Remove all calibrated weights from the product.



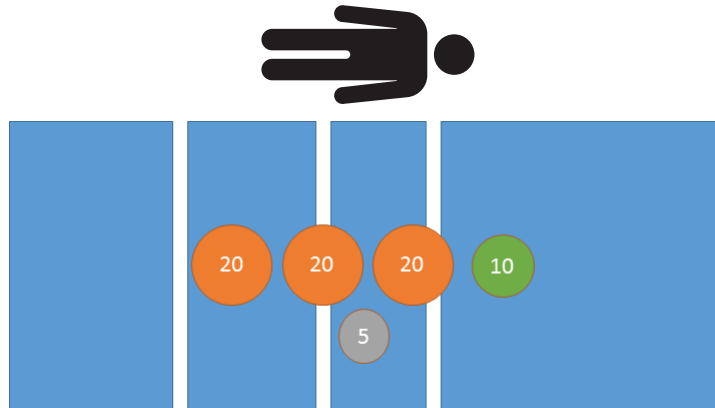
8. Zero the scale.

9. Subtract the minimum value recorded from the maximum value recorded. Record the results.

**Note** - The repeatability range must be  $\leq 2.0$  kg.

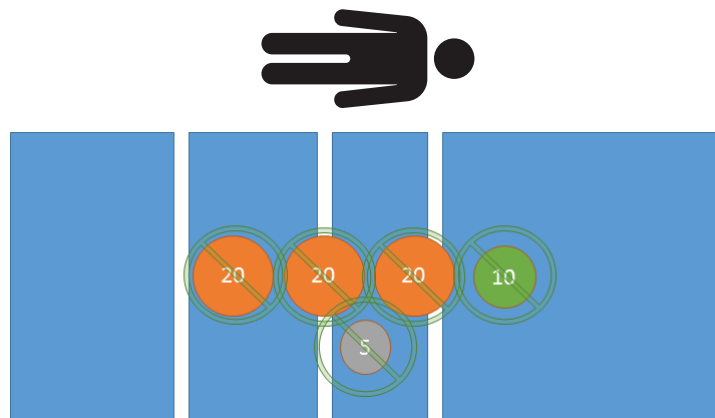
## Tare accuracy

1. Using calibrated weights, place 75 kg on the product.

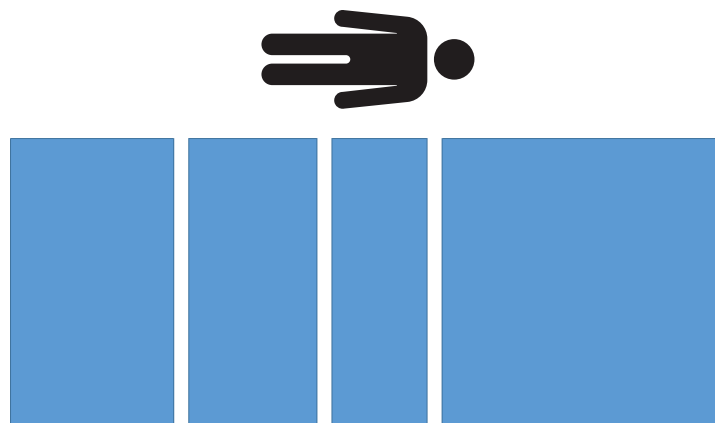


2. Tare the scale with 75 kg on the product. Record the value in the *Model 5900 MV3 NAWI scale verification of conformity UK 3132 form* (page 17) or equivalent.

**Note** - The accuracy of tare must be  $0.0 \text{ kg} \pm 0.5 \text{ kg}$ .



3. Remove all calibrated weights from the product.



4. Record the following in the *Model 5900 MV3 NAWI scale verification of conformity UK 3132 form* (page 17) or equivalent:

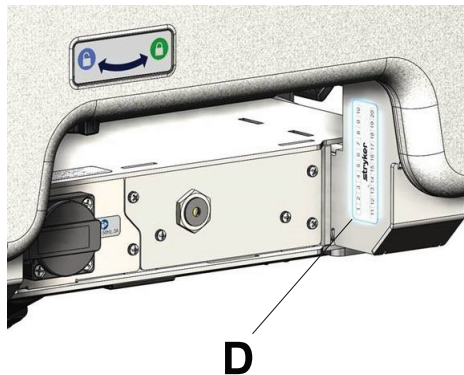
- Time and date
- Temperature

**Note** - The temperature must not change  $\pm 5^{\circ}\text{C}$  from the start of the procedure.

- Calibration counter and zone

**Note** - Found in the scale calibration menu.

5. Remove the current scale calibration counter label (D) (Figure 4).



**Figure 4 – Calibration counter label**

6. Using a hole punch, punch the calibration counter and zone on the new scale calibration counter label (5900180129) to match the scale calibration menu.
7. Affix the punched scale calibration counter label (5900180129) onto the product (D) (Figure 4).
8. Affix the verification sticker next to the NAWI certification label (B) (Figure 2)

United Kingdom

**NB/0126/20**



# Model 5900 MV3 NAWI scale verification of conformity UK 3132 form

Use this form to record data from the Model 5900 **MV3** NAWI scale verification of conformity UK 3132 instructions.

**Note** - If scale verification cannot be completed, the product must remain out of service until the scale issue is resolved and scale verification is complete.

|                                                               |  |
|---------------------------------------------------------------|--|
| Operator name or ID                                           |  |
| Product serial number                                         |  |
| Time and date (pre-calibration)                               |  |
| Temperature (pre-calibration)                                 |  |
| Humidity (pre-calibration)<br><b>Note</b> - Humidity optional |  |
| Head scale software version                                   |  |
| Foot scale software version                                   |  |
| Calibrated weight IDs                                         |  |

| Zero accuracy test           |                |                     |
|------------------------------|----------------|---------------------|
| Operation                    | Recorded value | Acceptance criteria |
| Zero accuracy with 5 kg load |                | 0.0 kg $\pm$ 0.5 kg |

| Eccentricity test |                |                       |
|-------------------|----------------|-----------------------|
| Operation         | Recorded value | Acceptance criteria   |
| Head left         |                | 170.0 kg $\pm$ 2.0 kg |
| Foot left         |                | 170.0 kg $\pm$ 2.0 kg |
| Foot right        |                | 170.0 kg $\pm$ 2.0 kg |
| Head right        |                | 170.0 kg $\pm$ 2.0 kg |

| Weigh performance test    |                |                       |
|---------------------------|----------------|-----------------------|
| Operation                 | Recorded value | Acceptance criteria   |
| Scale performance: 105 kg |                | 105.0 kg $\pm$ 2.0 kg |
| Scale performance: 200 kg |                | 200.0 kg $\pm$ 2.0 kg |
| Scale performance: 300 kg |                | 300.0 kg $\pm$ 2.0 kg |
| Scale performance: 400 kg |                | 400.0 kg $\pm$ 2.0 kg |
| Scale performance: 500 kg |                | 500.0 kg $\pm$ 2.0 kg |
| Scale performance: 400 kg |                | 400.0 kg $\pm$ 2.0 kg |
| Scale performance: 300 kg |                | 300.0 kg $\pm$ 2.0 kg |
| Scale performance: 200 kg |                | 200.0 kg $\pm$ 2.0 kg |
| Scale performance: 105 kg |                | 105.0 kg $\pm$ 2.0 kg |

| Repeatability test                                     |                |                       |
|--------------------------------------------------------|----------------|-----------------------|
| Operation                                              | Recorded value | Acceptance criteria   |
| Test 1: 400 kg                                         |                | 400.0 kg $\pm$ 2.0 kg |
| Test 2: 400 kg                                         |                | 400.0 kg $\pm$ 2.0 kg |
| Test 3: 400 kg                                         |                | 400.0 kg $\pm$ 2.0 kg |
| Repeatability range<br>(maximum value - minimum value) |                | $\leq$ 2.0 kg         |

| Tare accuracy                 |                |                     |
|-------------------------------|----------------|---------------------|
| Operation                     | Recorded value | Acceptance criteria |
| Tare accuracy with 75 kg load |                | 0.0 kg $\pm$ 0.5 kg |

|                                        |  |
|----------------------------------------|--|
| Time and date (post-calibration)       |  |
| Temperature (post-calibration)         |  |
| Calibration counter (post-calibration) |  |
| Calibration zone (post-calibration)    |  |