

(2762)

BIS

Department for
Business Innovation
& Skills

V(10)b

Certificate Pursuant to section 12 of the Weights and Measures Act 1985

Certification No 2762 Revision 1

Valid Until 18 September 2015

In accordance with the provisions of section 12 of the Weights and Measures Act 1985, the Secretary of State for Trade and Industry hereby certifies as suitable for use for trade a pattern of a continuous totalising automatic weighing instrument (beltweigher), as described in the descriptive annex to this Certificate, and having the following characteristics:-

Maximum flow rate: 19.6 t/hr to 147.30 t/hr

Minimum flow rate: 3.9 t/hr to 2.95 t/hr

Scale interval (d): 0.02 kg

Note: This certificate relates to the suitability of the equipment for use for trade only in respect of its metrological characteristics. It does not constitute or imply any guarantee as to the safety of the equipment in use for trade or otherwise.

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Reference No: T1147/0001/31

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1 INTRODUCTION

This pattern of a belt weigher designed to weigh large quantities of loose material from bulk to bulk, is a conveyor belt system having maximum flow rates between 19.6 t/hr and 147.3 t/hr and a minimum flow rate between 3.9 t/hr and 29.5 t/hr. The belt weigher is designated model Scanflow 4600/4674.xx.yy, where; xx is belt width (e.g. 35 cm or 60 cm) and yy is the maximum load (Max, e.g. 30 kg.). This is a standalone unit which is fitted into the conveyor system.

The unit comprises:-

- (i) A framework which supports a load receptor, inclusive of conveyor belt, within which is mounted a weighing module. An inductive scanner, which measures the belt's speed, is mounted at an end stop with speed holes.
- (ii) A weight integrator and indication unit which is mounted on a separate control table.

2 CONSTRUCTION

2.1 Mechanical

2.1.1 Main assembly (Figure 1)

2.1.1.1 The main assembly is principally a welded steel plate and tube constructed framework comprising of a main girder assembly, within which is mounted a weighing module.

2.1.2 Weighing module (Figure 2)

2.1.3 The weighing module is constructed as a Robervall parallelogram fitted with flexures and incorporating a cantilever type strain gauge load cell.

2.1.4 Load receptor (Figure 3)

2.1.4.1 The load receptor comprises the weigh table, which mounted on the weighing module within the main frame, and the inlet and outlet tables.

2.1.5 Belt and speed transducer

2.1.5.1 The belt is designed with indentations which mesh with the toothed wheels fitted onto the belt drive shaft, so as to eliminate the possibility of belt slip. The belt drive shaft is driven by a motor fitted with a gearbox, mounted onto the main frame. The conveyor system also incorporates a belt tensioner device. The belt speed transducer is an inductive scanner, mounted at an end stop with speed holes.

2.1.6 Integrator and indication unit (Figure 4)

2.1.6.1 The weight integrator and indication unit is a micro-computer driven instrument used for deriving quantity of material and flowrate from signals representing the weight of a segment (kg/m) of moving material and its velocity (m/s).

2.1.6.2 By suitable processing of the two input signals (load cells for the weight and a belt speed sensor for the velocity) the unit determines and indicates the total amount of material which has passed over the weigh table.

2.1.6.3 The weight integrator and indication unit is mounted on a control cabinet fitted to a stand-alone frame. The electronics are mounted inside the cabinet within a flush-protected damp proof box.

2.1.6.4 The front panel of the integrator and indication unit has a VGA display, three LED status indicators “Max”; “Min” and “Empty”, and carries a tactile membrane keyboard with:

- 4 programmable “soft” keys
- 2 x 3 key arrangement, 4 x direction keys; 1 menu selection key and 1 blank
- 3 x 5 key arrangement, numerical 0 -9; decimal point; “+/-”; “enter”; “shift” and “clear” keys.

2.1.6.5 The display unit has the following characteristics:

- dynamic zero setting, set up at engineering level
 - automatic, activated automatically when auto zero setting is enabled
 - semi-automatic, activated manually when auto zero setting is disabled
- protective interface with printer
- tare subtracting device.

2.1.7 Conveyor belt

The under surface of conveyor belt has indentations which mesh with the toothed wheels mounted onto the belt drive shaft.

2.2 Electrical

2.2.1 The mains supply is 208, 220, 230, 240 Vac, or 380, 400, 415, 440, 460, 480 Vac 3 phase, 50/60Hz. The integrator contains a switch mode PSU to provide its own supply voltage. The START/STOP and Emergency STOP buttons are mounted on the control box.

2.3 Electronics

2.3.1 Overview

2.3.1.1 The integrator accepts the weight signal from the load cells in analogue format which is converted to digital format by an A/D.

2.3.1.2 The frequency from the belt speed transducer and the digitised load cell signal are used to compute and display instantaneous rate of flow and the totalised load. All set-up procedures and calibrations are carried out through the keyboard within the integrator.

2.3.2 Load cells

2.3.2.1 The load cells are Revere Transducers Europe SHBxR C3 with a maximum capacity of 50 kg.

2.3.3 Software

2.3.3.1 The functioning of the Integrator and Indication Unit is controlled by a microprocessor.

2.3.3.2 The value obtained during the Zero Setting routine is stored in a memory register of the unit.

2.3.3.3 If a problem occurs during operation an alarm message, which may be accompanied by an audio signal, will be activated. The alarm messages/errors can either be shown as a pop-up picture, or on the alarm line in the display.

2.3.3.4 The microprocessor also performs the following main functions:-

- (i) Control of the displays and indicator LED's.
- (ii) Scanning of the keyboard and switches to detect any operations.
- (iii) Processing of the weight value to provide the desired resolution and scale interval.

2.4 Security and protection levels

2.4.1 The display unit has two protection levels with specific related passwords. The protection levels and the passwords are defined using the following scheme:-

Protection Level	Password Level	Status
User/Engineer	0	This is only available to the Authorised persons and the Scanvaegt Service Engineer, to access the factory default settings SYSTEM SETUP DATA
User	1	This level allows START Pause and STOP of different programs, and to read and print out production totals and programs.
User	2	This is a "surveying" level which only allows the operator to view the weighing information, data about the single weighing job, the used time and the check number. Operator functions and data are protected.

Table 1

Changing from User 2 to User 1 or 0 requires the appropriate password. The "user" passwords are different to each other.

2.4.2 A new unique check number will be generated, and displayed, if any changes are made to any critical parameter, i.e. the machine set-up, markings, calibration point or data.

2.4.2.1 The check number is recorded during verification and is durably marked on to the data plate. This number should be identical to the same as the number shown in the instrument display (Figure 5) during startup, or on demand.

2.5 Legends and markings

2.5.1 The following legends are legibly and durably marked on the data plate securely fixed to the control panel:

Manufacturer:	Scanvaegt International A/S
Type indication:	4600/4674.35.30 or 4600/4674.60.30
Manufacturer's(serial) number:	
Type approval number:	2762
Mains voltage/frequency:	VAC/Hz,
'Zero setting will have a duration equal to 3 belt rotations'	
Check number:	

The following are shown on data display, in code:

Accuracy class:	0.5
Max capacity:	30 kg
Indicator interval scale:	0.02 kg
Temperature range:	-5°C/+40°C
Belt speed:	0.1 m/s to 0.75 m/s
Belt length:	3370 mm
Belt width:	350 mm or 600 mm
Platform length L:	550 mm
Maximum flow rate Q _{max} :	19.6 t/hr to 147.3 t/hr,
Minimum flow rate Q _{min} :	0.39 t/hr to 29.5 t/hr
Minimum totalised load Σ _{min} :	0.39 t to 2.95 t
Check number:	

2.5.3 The following is legibly and durably marked on an additional plate:

“Automatic weighing machine for weighing of: (product)”.

2.5.4 The scale interval of at least one totalisation indicating device on a belt weigher shall be capable of indicating a value equal to the quantity of product weighed in 10 hours of operation at maximum flowrate.

2.5.5 The scale interval is of the form; 1×10^k or 2×10^k or 5×10^k where k is a positive or negative integer or zero.

2.6 Securing and stamping

2.6.1 The load cell junction box is to be secured by means of seal stamps or wire and seals, to prevent unauthorised access. The seals bear the verification mark.

2.6.2 A stamping plug is provided, securely fixed to the housing of the weight integrator and indication unit, which also secures the data plate (Section 2.5.1) an additional plate (Section 2.5.3) onto the cabinet to prevent unauthorised removal.

2.6.3 The side cover plates (left and right), item 12 in Figure 3, are to be secured by means of seal stamps or wire and seals, to prevent unauthorised access. The seals bear the verification mark.

2.7 Interlocks and safeguards

2.7.1 A continuous (audible or visual indication) warning signal is given if the instantaneous load is above the maximum capacity of the weighing unit, or if the flowrate is above the maximum or below the minimum flowrate.

2.7.2 In normal operation the general totalisation indicating device is non-resettable and is dedicated to displaying the totalised load and in case of mains supply failure can retain the weight display for at least 30 minutes in any 24 hour period.

2.7.3 The conveyor system stops when power supply to the integrator is interrupted.

2.7.4 Automatic zero setting is inhibited when material (product) is on the beltweigher.

3 RECOMMENDED TESTS

3.1 The following tests should be carried out in addition to those specified in the Regulations to determine conformity to the approved pattern.

3.1.1 Interlocks 2.7.1, 2.7.2, 2.7.3 and 2.7.4 should be checked for conformity.

4 AUTHORISED ALTERNATIVES

4.1 Having simple recipient devices (such as printers) that:

- bear the CE marking for conformity to the EMC Directive 89/336/EEC;
- are not capable of transmitting any data or instructions into the instrument other than to release the printout or to check for correct data transmission;
- print or indicate weighing results and other data as received from the instrument without any modification or further processing; and
- comply with the application requirements of BS EN45501 ie sections 4.2, 4.4, 4.5, 4.6 and 4.7.

may be connected to the instrument which transmits data in accordance with section 5.3.6.3 of BS EN45501, without a test certificate or a specific statement in the type approval certificate having been issued.

4.1.1 Where the printer is situated remotely from the beltweigher it must be accompanied by a flow rate indicator, with the correct indications.

4.2 Having the following alternative models as shown in table 2 below:

Model	4600/4674.35.15	4600/4674.35.50	4600/4674.90.30	4600/4674.90.50
	4600/4674.60.15	4600/4674.60.50		
Belt width / platform width	350 or 600 mm	350 or 600 mm	900 mm	900 mm
Belt length	3370 mm	3370 mm	3370 mm	3370 mm
Platform length (L)	550 mm	550 mm	550 mm	550 mm
Maximum flowrate (Qmax)	9.8 - 73.6 t/hr	32.7 - 245.5 t/hr	19.6 - 98.2 t/hr	32.7 - 163.6 t/hr
Minimum flowrate (Qmin)	2.0 - 14.7 t/hr	6.5 - 49.1 t/hr	3.9 - 19.6 t/hr	6.5 - 32.7 t/hr
Min. totalised load (Σ min)	0.20 - 1.47 t	0.65 - 4.91 t	0.39 - 1.96 t	0.65 - 3.27 t
Belt speed	0.1 - 0.75 m/s	0.1 - 0.75 m/s	0.1 - 0.5 m/s	0.1 - 0.5 m/s
Maximum load (Max)	15 kg	50 kg	30 kg	50 kg
Indicator scale interval	0.01 kg	0.05 kg	0.02 kg	0.05 kg

Table 2

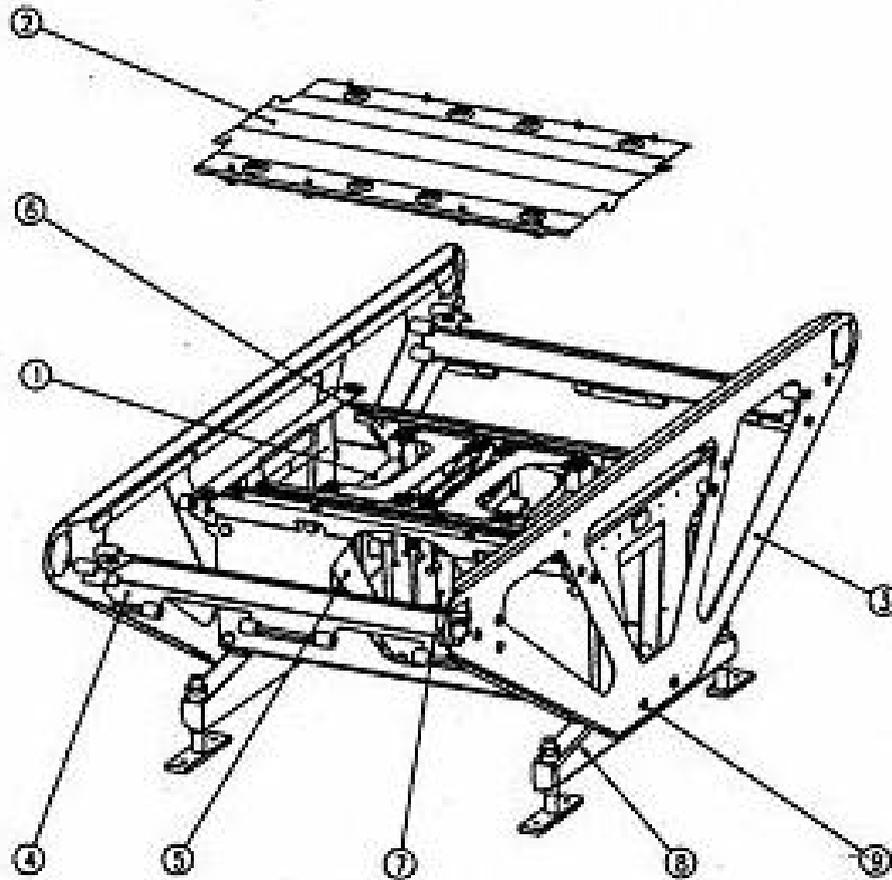
4.3 Having alternative load cells that satisfy the following conditions:

- there is a respective OIML Certificate of Conformity (R60) or a Test Certificate (EN45501) issued for the load cell by a Notified Body responsible for type examination under Directive 90/384/EEC, where the certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 4, 2004, No 11), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to EN45501 has been conducted on this load cell.
- The compatibility of the load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in the above WELMEC 2 document, at the time of verification or declaration of EC conformity of type.
- the load cell output signal satisfies the display unit's requirement of 1.5 μ V per scale interval at minimum input voltage, and
- the weighing module's mechanical design cannot be modified.

4.4 Having a belt cleaner option fitted.

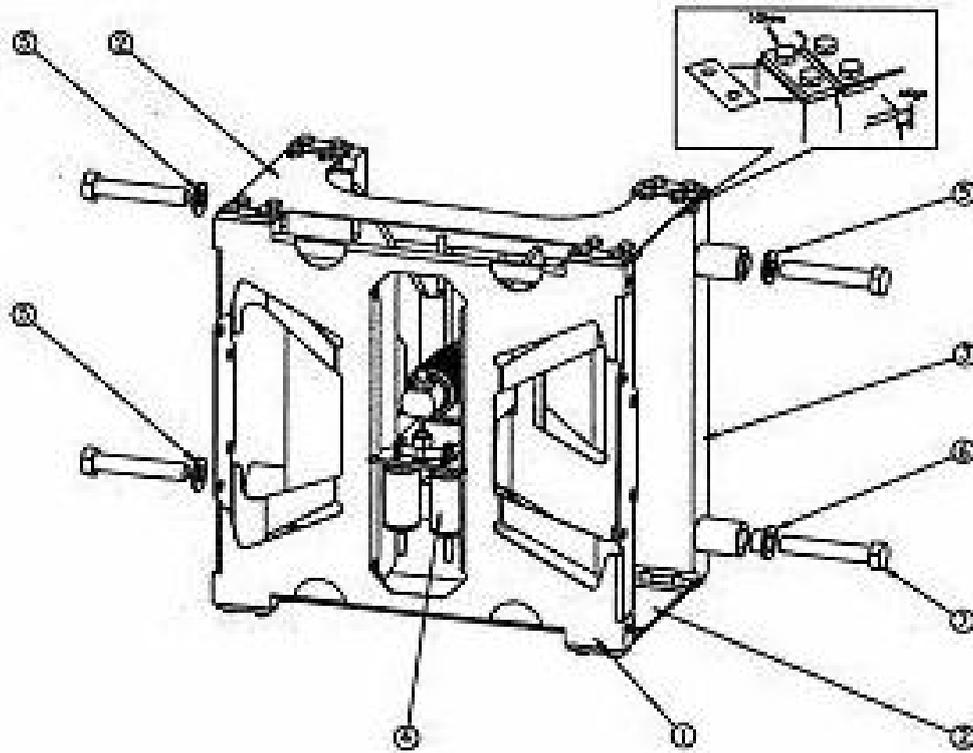
5 CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
2762	19 September 2005	Certificate first issued.
2762 Revision 1	11 February 2011	Revision 1 issued; Amendment to Section 2.6.1 "The weighing unit collection box", is replaced with "The load cell junction box" Addition of Section 2.6.3



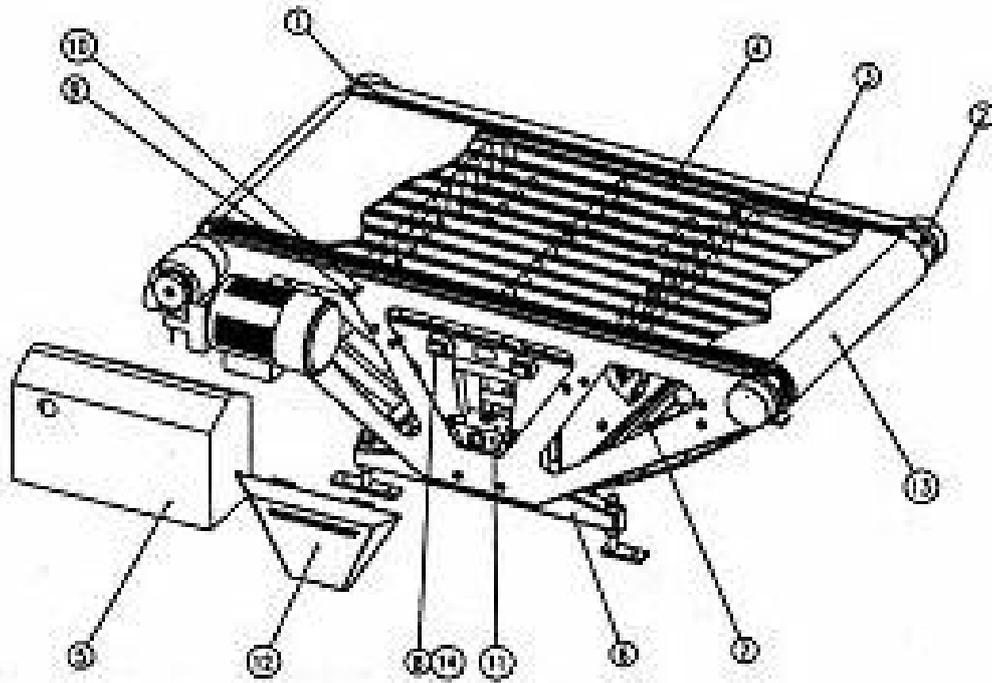
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	Porcilelogram	Assembly
2	1	Topcover	Assembly
3	2	5800.39	Member_side 1500x505 AISI316
4	2	Member_support	Assembly
5	1	Wing ECO Left	Assembly
6	1	Wing ECO Right	Assembly
7	2	Acceleration Mass	Assembly
8	1	Wingrider-Leg	Assembly
9	12	651000	Screw domed M10x16 A4

Figure 1 Main assembly



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	Cocals Plate-Bracket overload	Assembly
2	2	Pinure-Pinure supp	Assembly
3	1	580383	Pentagonnom, fixed I. 4835 ASD18
4	1	Loadcell-Overload springs	Assembly
5	3	751529	Washer plate ø13,0x24,0x2,5 Al
6	1	580377	Bushing guide ø73-ø72,5ø72 ASD316
7	4	751287	Screw Hex M3 M13x70 Al

Figure 2 Weighing module



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1		Driveshaft Assembly
2	1		Idlershaft Assembly
3	1		Table Inlet/outlet Assembly
4	2		Table weighing Assembly
5	1		Motor cover 48"x30"x182 right
6	1		Wainpindm-chassis Assembly
7	2		Ball tension Assembly
8	2	504238	Lead cell junction moulded
9	1	500478	Pin for longitudinal
10	1	751174	Nut self-locking M8 M
11	1		Water system Assembly
12	2	500063	Cover_side for 4800 418x331 ASL18
13	1	550077	Ball inlet/outlet 4800 Wx500 Lx3370 FT
14	1	500479	Bushing #12/16/20-10 FK

Figure 3 Load receptor

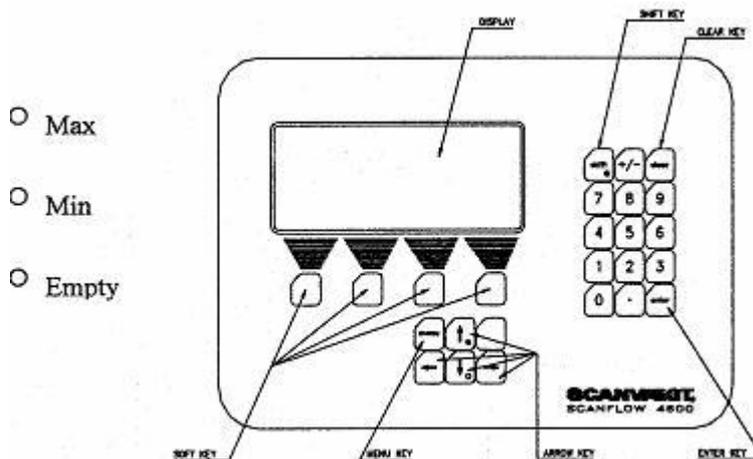


Figure 4 Integrator and indication unit front panel

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SCANVAEGT SF4600App      Version 08 LS2

Scanvaegt Serial No. : *****

ScanFlow Approved /

Check number : *****

```

Figure 5 Example of the check number shown on the indication unit

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Certificate Pursuant to section 12 of the Weights and Measures Act 1985

Certification No 2762 Revision 1

Valid Until 18 September 2015

In accordance with the provisions of section 12 of the Weights and Measures Act 1985, the Secretary of State for Trade and Industry hereby certifies as suitable for use for trade a pattern of a continuous totalising automatic weighing instrument (beltweigher), as described in the descriptive annex to this Certificate, and having the following characteristics:-

Maximum flow rate: 19.6 t/hr to 147.30 t/hr

Minimum flow rate: 3.9 t/hr to 2.95 t/hr

Scale interval (d): 0.02 kg

Note: This certificate relates to the suitability of the equipment for use for trade only in respect of its metrological characteristics. It does not constitute or imply any guarantee as to the safety of the equipment in use for trade or otherwise.

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Signatory: 
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Chief Executive
National Weights & Measures Laboratory
(part of the National Measurement Office)
Department for Business, Innovation and Skills
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Reference No: T1147/0001/31

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Descriptive Annex

1 INTRODUCTION

This pattern of a belt weigher designed to weigh large quantities of loose material from bulk to bulk, is a conveyor belt system having maximum flow rates between 19.6 t/hr and 147.3 t/hr and a minimum flow rate between 3.9 t/hr and 29.5 t/hr. The belt weigher is designated model Scanflow 4600/4674.xx.yy, where; xx is belt width (e.g. 35 cm or 60 cm) and yy is the maximum load (Max, e.g. 30 kg.). This is a standalone unit which is fitted into the conveyor system.

The unit comprises:-

- (i) A framework which supports a load receptor, inclusive of conveyor belt, within which is mounted a weighing module. An inductive scanner, which measures the belt's speed, is mounted at an end stop with speed holes.
- (ii) A weight integrator and indication unit which is mounted on a separate control table.

2 CONSTRUCTION

2.1 Mechanical

2.1.1 Main assembly (Figure 1)

2.1.1.1 The main assembly is principally a welded steel plate and tube constructed framework comprising of a main girder assembly, within which is mounted a weighing module.

2.1.2 Weighing module (Figure 2)

2.1.3 The weighing module is constructed as a Robervall parallelogram fitted with flexures and incorporating a cantilever type strain gauge load cell.

2.1.4 Load receptor (Figure 3)

2.1.4.1 The load receptor comprises the weigh table, which mounted on the weighing module within the main frame, and the inlet and outlet tables.

2.1.5 Belt and speed transducer

2.1.5.1 The belt is designed with indentations which mesh with the toothed wheels fitted onto the belt drive shaft, so as to eliminate the possibility of belt slip. The belt drive shaft is driven by a motor fitted with a gearbox, mounted onto the main frame. The conveyor system also incorporates a belt tensioner device. The belt speed transducer is an inductive scanner, mounted at an end stop with speed holes.

2.1.6 Integrator and indication unit (Figure 4)

2.1.6.1 The weight integrator and indication unit is a micro-computer driven instrument used for deriving quantity of material and flowrate from signals representing the weight of a segment (kg/m) of moving material and its velocity (m/s).

2.1.6.2 By suitable processing of the two input signals (load cells for the weight and a belt speed sensor for the velocity) the unit determines and indicates the total amount of material which has passed over the weigh table.

2.1.6.3 The weight integrator and indication unit is mounted on a control cabinet fitted to a stand-alone frame. The electronics are mounted inside the cabinet within a flush-protected damp proof box.

2.1.6.4 The front panel of the integrator and indication unit has a VGA display, three LED status indicators “Max”; “Min” and “Empty”, and carries a tactile membrane keyboard with:

- 4 programmable “soft” keys
- 2 x 3 key arrangement, 4 x direction keys; 1 menu selection key and 1 blank
- 3 x 5 key arrangement, numerical 0 -9; decimal point; “+/-”; “enter”; “shift” and “clear” keys.

2.1.6.5 The display unit has the following characteristics:

- dynamic zero setting, set up at engineering level
 - automatic, activated automatically when auto zero setting is enabled
 - semi-automatic, activated manually when auto zero setting is disabled
- protective interface with printer
- tare subtracting device.

2.1.7 Conveyor belt

The under surface of conveyor belt has indentations which mesh with the toothed wheels mounted onto the belt drive shaft.

2.2 Electrical

2.2.1 The mains supply is 208, 220, 230, 240 Vac, or 380, 400, 415, 440, 460, 480 Vac 3 phase, 50/60Hz. The integrator contains a switch mode PSU to provide its own supply voltage. The START/STOP and Emergency STOP buttons are mounted on the control box.

2.3 Electronics

2.3.1 Overview

2.3.1.1 The integrator accepts the weight signal from the load cells in analogue format which is converted to digital format by an A/D.

2.3.1.2 The frequency from the belt speed transducer and the digitised load cell signal are used to compute and display instantaneous rate of flow and the totalised load. All set-up procedures and calibrations are carried out through the keyboard within the integrator.

2.3.2 Load cells

2.3.2.1 The load cells are Revere Transducers Europe SHBxR C3 with a maximum capacity of 50 kg.

2.3.3 Software

2.3.3.1 The functioning of the Integrator and Indication Unit is controlled by a microprocessor.

2.3.3.2 The value obtained during the Zero Setting routine is stored in a memory register of the unit.

2.3.3.3 If a problem occurs during operation an alarm message, which may be accompanied by an audio signal, will be activated. The alarm messages/errors can either be shown as a pop-up picture, or on the alarm line in the display.

2.3.3.4 The microprocessor also performs the following main functions:-

- (i) Control of the displays and indicator LED's.
- (ii) Scanning of the keyboard and switches to detect any operations.
- (iii) Processing of the weight value to provide the desired resolution and scale interval.

2.4 Security and protection levels

2.4.1 The display unit has two protection levels with specific related passwords. The protection levels and the passwords are defined using the following scheme:-

Protection Level	Password Level	Status
User/Engineer	0	This is only available to the Authorised persons and the Scanvaegt Service Engineer, to access the factory default settings SYSTEM SETUP DATA
User	1	This level allows START Pause and STOP of different programs, and to read and print out production totals and programs.
User	2	This is a "surveying" level which only allows the operator to view the weighing information, data about the single weighing job, the used time and the check number. Operator functions and data are protected.

Table 1

Changing from User 2 to User 1 or 0 requires the appropriate password. The "user" passwords are different to each other.

2.4.2 A new unique check number will be generated, and displayed, if any changes are made to any critical parameter, i.e. the machine set-up, markings, calibration point or data.

2.4.2.1 The check number is recorded during verification and is durably marked on to the data plate. This number should be identical to the same as the number shown in the instrument display (Figure 5) during startup, or on demand.

2.5 Legends and markings

2.5.1 The following legends are legibly and durably marked on the data plate securely fixed to the control panel:

Manufacturer:	Scanvaegt International A/S
Type indication:	4600/4674.35.30 or 4600/4674.60.30
Manufacturer's(serial) number:	
Type approval number:	2762
Mains voltage/frequency:	VAC/Hz,
'Zero setting will have a duration equal to 3 belt rotations'	
Check number:	

The following are shown on data display, in code:

Accuracy class:	0.5
Max capacity:	30 kg
Indicator interval scale:	0.02 kg
Temperature range:	-5°C/+40°C
Belt speed:	0.1 m/s to 0.75 m/s
Belt length:	3370 mm
Belt width:	350 mm or 600 mm
Platform length L:	550 mm
Maximum flow rate Q _{max} :	19.6 t/hr to 147.3 t/hr,
Minimum flow rate Q _{min} :	0.39 t/hr to 29.5 t/hr
Minimum totalised load Σ _{min} :	0.39 t to 2.95 t
Check number:	

2.5.3 The following is legibly and durably marked on an additional plate:

“Automatic weighing machine for weighing of: (product)”.

2.5.4 The scale interval of at least one totalisation indicating device on a belt weigher shall be capable of indicating a value equal to the quantity of product weighed in 10 hours of operation at maximum flowrate.

2.5.5 The scale interval is of the form; 1×10^k or 2×10^k or 5×10^k where k is a positive or negative integer or zero.

2.6 Securing and stamping

2.6.1 The load cell junction box is to be secured by means of seal stamps or wire and seals, to prevent unauthorised access. The seals bear the verification mark.

2.6.2 A stamping plug is provided, securely fixed to the housing of the weight integrator and indication unit, which also secures the data plate (Section 2.5.1) an additional plate (Section 2.5.3) onto the cabinet to prevent unauthorised removal.

2.6.3 The side cover plates (left and right), item 12 in Figure 3, are to be secured by means of seal stamps or wire and seals, to prevent unauthorised access. The seals bear the verification mark.

2.7 Interlocks and safeguards

2.7.1 A continuous (audible or visual indication) warning signal is given if the instantaneous load is above the maximum capacity of the weighing unit, or if the flowrate is above the maximum or below the minimum flowrate.

2.7.2 In normal operation the general totalisation indicating device is non-resettable and is dedicated to displaying the totalised load and in case of mains supply failure can retain the weight display for at least 30 minutes in any 24 hour period.

2.7.3 The conveyor system stops when power supply to the integrator is interrupted.

2.7.4 Automatic zero setting is inhibited when material (product) is on the beltweigher.

3 RECOMMENDED TESTS

3.1 The following tests should be carried out in addition to those specified in the Regulations to determine conformity to the approved pattern.

3.1.1 Interlocks 2.7.1, 2.7.2, 2.7.3 and 2.7.4 should be checked for conformity.

4 AUTHORISED ALTERNATIVES

4.1 Having simple recipient devices (such as printers) that:

- bear the CE marking for conformity to the EMC Directive 89/336/EEC;
- are not capable of transmitting any data or instructions into the instrument other than to release the printout or to check for correct data transmission;
- print or indicate weighing results and other data as received from the instrument without any modification or further processing; and
- comply with the application requirements of BS EN45501 ie sections 4.2, 4.4, 4.5, 4.6 and 4.7.

may be connected to the instrument which transmits data in accordance with section 5.3.6.3 of BS EN45501, without a test certificate or a specific statement in the type approval certificate having been issued.

4.1.1 Where the printer is situated remotely from the beltweigher it must be accompanied by a flow rate indicator, with the correct indications.

4.2 Having the following alternative models as shown in table 2 below:

Model	4600/4674.35.15	4600/4674.35.50	4600/4674.90.30	4600/4674.90.50
	4600/4674.60.15	4600/4674.60.50		
Belt width / platform width	350 or 600 mm	350 or 600 mm	900 mm	900 mm
Belt length	3370 mm	3370 mm	3370 mm	3370 mm
Platform length (L)	550 mm	550 mm	550 mm	550 mm
Maximum flowrate (Qmax)	9.8 - 73.6 t/hr	32.7 - 245.5 t/hr	19.6 - 98.2 t/hr	32.7 - 163.6 t/hr
Minimum flowrate (Qmin)	2.0 - 14.7 t/hr	6.5 - 49.1 t/hr	3.9 - 19.6 t/hr	6.5 - 32.7 t/hr
Min. totalised load (Σ min)	0.20 - 1.47 t	0.65 - 4.91 t	0.39 - 1.96 t	0.65 - 3.27 t
Belt speed	0.1 - 0.75 m/s	0.1 - 0.75 m/s	0.1 - 0.5 m/s	0.1 - 0.5 m/s
Maximum load (Max)	15 kg	50 kg	30 kg	50 kg
Indicator scale interval	0.01 kg	0.05 kg	0.02 kg	0.05 kg

Table 2

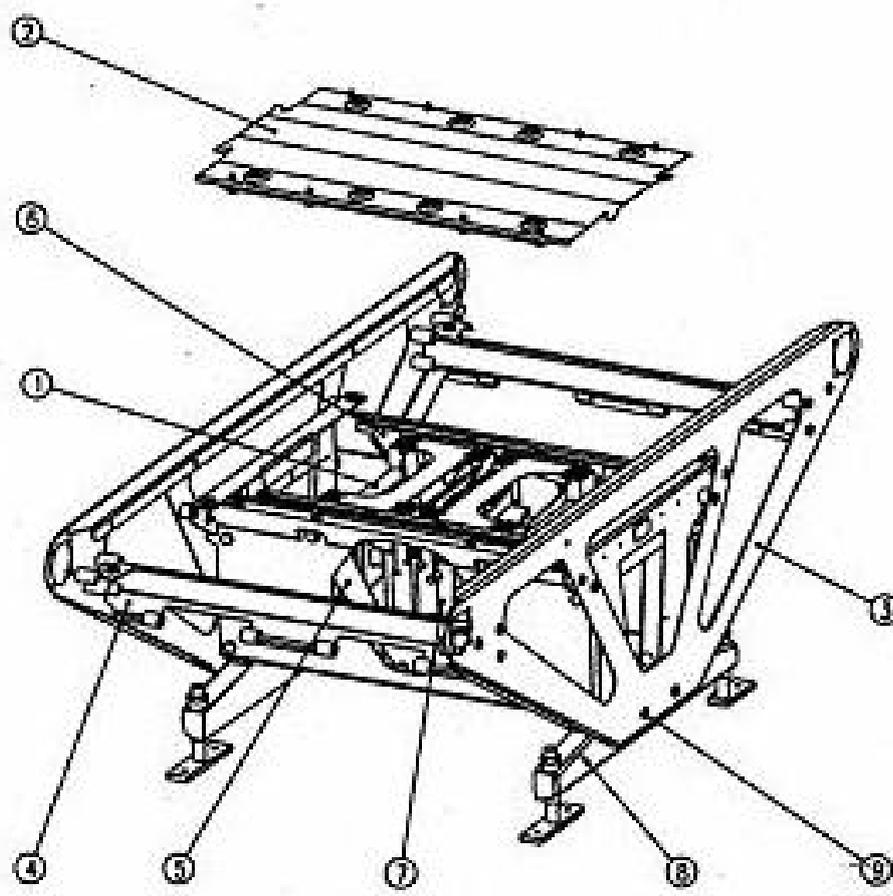
4.3 Having alternative load cells that satisfy the following conditions:

- there is a respective OIML Certificate of Conformity (R60) or a Test Certificate (EN45501) issued for the load cell by a Notified Body responsible for type examination under Directive 90/384/EEC, where the certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 4, 2004, No 11), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to EN45501 has been conducted on this load cell.
- The compatibility of the load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in the above WELMEC 2 document, at the time of verification or declaration of EC conformity of type.
- the load cell output signal satisfies the display unit's requirement of 1.5 μ V per scale interval at minimum input voltage, and
- the weighing module's mechanical design cannot be modified.

4.4 Having a belt cleaner option fitted.

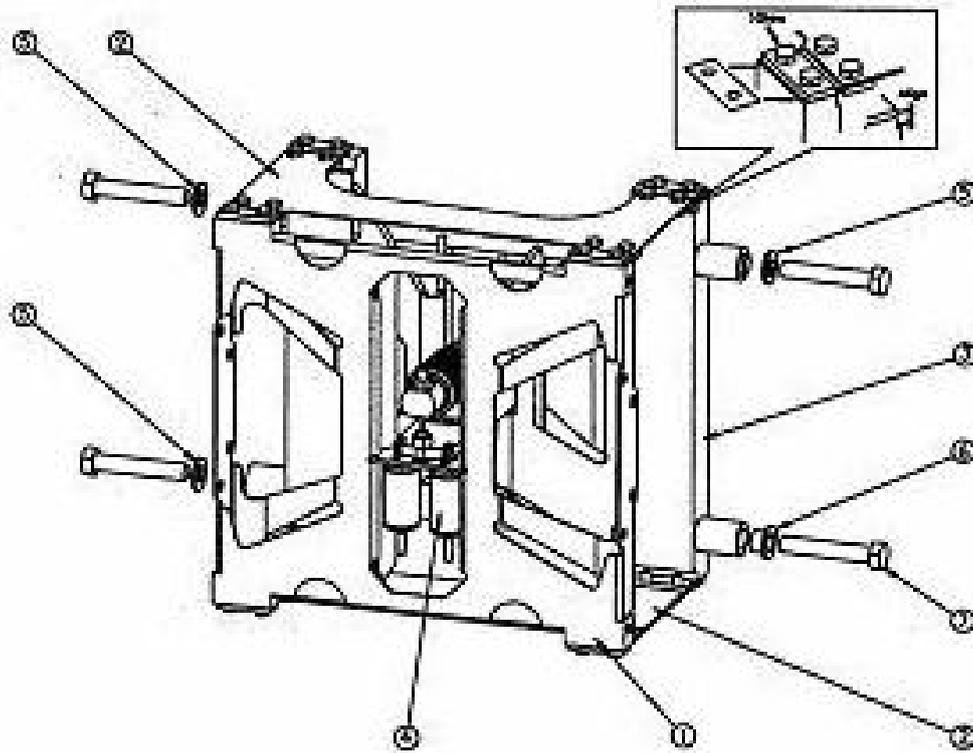
5 CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
2762	19 September 2005	Certificate first issued.
2762 Revision 1	11 February 2011	Revision 1 issued; Amendment to Section 2.6.1 "The weighing unit collection box", is replaced with "The load cell junction box" Addition of Section 2.6.3



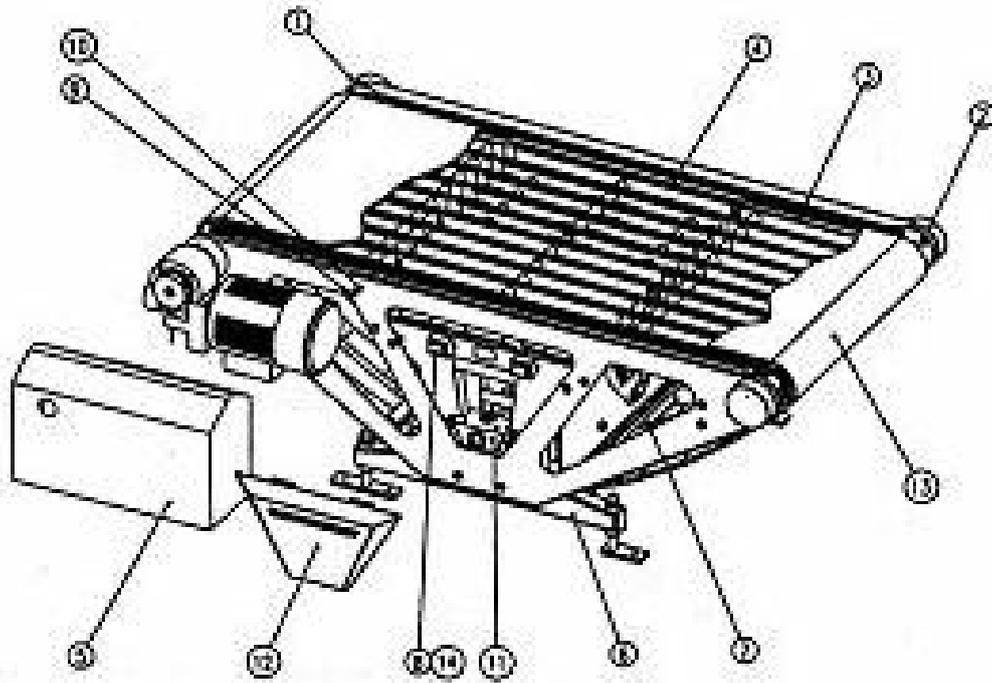
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	Porcilelogram	Assembly
2	1	Topcover	Assembly
3	2	5800.39	Member_side 1500x505 AISI316
4	2	Member_support	Assembly
5	1	Wing ECO Left	Assembly
6	1	Wing ECO Right	Assembly
7	2	Acceleration Mass	Assembly
8	1	Wing/ider-Leg	Assembly
9	12	651000	Screw domed M10x16 A4

Figure 1 Main assembly



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	Cocals Plate-Bracket overload	Assembly
2	2	Pinure-Pinure supp	Assembly
3	1	580383	Pentagonnom, fixed I. 4835 ASD18
4	1	Loadcell-Overload springs	Assembly
5	3	751529	Washer plate ø13,0x24,0x2,5 Al
6	1	580377	Bushing guide ø73-ø72,5x12 ASD16
7	4	751287	Screw Hex M3 M13x70 Al

Figure 2 Weighing module



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1		Driveshaft Assembly
2	1		Idleshaft Assembly
3	1		Table Inlet/Outlet Assembly
4	2		Table weighing Assembly
5	1		Motor cover 45/230x182 right
6	1		Weighing chassis Assembly
7	2		Bell tension Assembly
8	2	804238	Lead cell junction included
9	1	500478	Pin for longitudinal
10	1	751174	Nut self-locking M8 M
11	1		Water system Assembly
12	2	500063	Cover side for 4500 418x331 ASL18
13	1	550077	Bell Inlet/Out 4800 Wx500 Lx3370 FT
14	1	500479	Bushing #12/16/20-10 FK

Figure 3 Load receptor

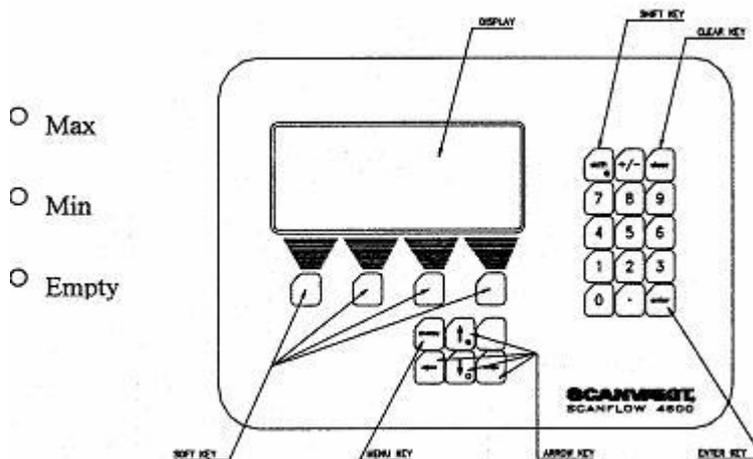


Figure 4 Integrator and indication unit front panel

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SCANVAEGT SF4600App      Version 08 LS2

Scanvaegt Serial No. : *****

ScanFlow Approved /

Check number : *****

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Figure 5 Example of the check number shown on the indication unit