



**DANISH
TECHNOLOGICAL
INSTITUTE**

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Initials Prni/jlj/hbs

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Test report

Materiale: Model: Volaris RA
Walking tables - ISO Classification 12.06.12

Type:	Walking table				
SWL	125 kg	Width:	630 mm	Height:	1000-1250 mm
Serial no.	1040081714	Date of manufacture	130816		
Materials:	Aluminium and plastic	Weight:	12 kg		

See appendix 2

Sampling The test material was sampled by the client and received at the Danish Technological Institute on 22.05.2015.

Method: ISO 11199-3:2005 Walking aids manipulated by both arms - Requirements and test methods –
Part 3: Walking tables.
The testing was carried out under normal indoor conditions

Period: The testing was carried in the period 22.05.2015 to 29.07.2015.

Result: Model Volaris RA meets the requirements of ISO 11199-3:2005.

Individual results appear from Appendix 1.

Storage: The test material will be returned after 1 month, unless otherwise agreed.

Terms: The test has been performed according to the attached conditions, which are according to the guidelines laid down by DANAK (The Danish Accreditation). The testing is only valid for the tested specimen. The test report may only be extracted, if the laboratory has approved the extract.

30-07-2015, Danish Technological Institute, Wood Technology, Taastrup

Test responsible

Verifier

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Requirements

		Result
4.1	<p>Stability</p> <p>When tested according to the forward stability test (see 5.4), the angle of the plane at the point of walking table tilting shall be not less than 10.0° from the horizontal for walking tables intended by the manufacturer for indoor use and 15.0° for those intended for outdoor use.</p> <p>When tested according to the backward stability test (see 5.5), the angle of the plane at the point of walking table tilting shall be not less than 4.0° from the horizontal for walking tables intended by the manufacturer for indoor use and 7.0° for those intended for outdoor use.</p> <p>When tested according to the sideways stability test (see 5.6), the angle of the plane at the point of walking table tilting shall be not less than 3.5° from the horizontal for walking tables intended by the manufacturer for indoor use and 4.5° for those intended for outdoor use.</p>	<p>Passed</p> <p>Passed</p> <p>Passed</p>

Tipping angles are measured as indicated in the table below with a static force of 250 N, plus eventually extra weight depending on accessory, mentioned in table.	TIPANGLE
5.3 Forward-direction stability test:	15.3°
With accessory item: Basket with 10 kg	15.2°
5.4 Backward-direction stability test:	7.9°
With accessory item:	
5.5 Sideway-direction stability test, right:	5.0°
With accessory item:	
5.5 Sideway-direction stability test, left:	5.4°
With accessory item:	

Outdoor use

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		Result
4.2	Brakes All walking tables with more than two wheels and intended by the manufacturer for outdoor use shall have running brakes which are easy to operate by the user when the walking table is in motion. Note 1: Hand-operated brakes and pressure brakes are examples of running brakes.	Passed
	All walking tables shall have parking brakes, which are easy to operate by the user. They may be integrated with the running brakes. Note 2: Rubber tips are accepted as parking brakes.	Passed
	If the efficiency of the brakes deteriorates by wear, in order to remain effective they shall have means of adjustment.	Passed
	Maximum grip distance for operating running brakes shall be not greater than 75 mm measured according to 5.8.2.2 (see Figure 8).	Passed
	When tested according to the running brake test (see 5.8.2) the walking table shall not move more than 10 mm in 1 min.	Passed
	Maximum force to apply and release parking brakes shall not exceed 60 N pushing force or 40 N pulling force.	Passed
	When tested according to the parking brake test (see 5.8.3) the walking table shall not move more than 10 mm in 1 min.	Passed
	Brake performance shall not be adversely affected by folding, unfolding or adjusting actions. If re-adjustment of the brakes is necessary following an adjusting action of the walking table (e.g. height adjustment), tools shall not be required.	Passed
4.3	Mechanical durability When tested according to the static strength test (see 5.10) no part of the walking table shall crack or break and the permanent set of the rollator height shall not exceed 1 %.	Passed
	When tested according to the fatigue test (see 5.11), no part of the walking table shall crack or break.	Passed
4.4	Manoeuvrability The wheel diameter shall be not less than 75 mm.	Passed
	The wheel diameter of walking tables manufactured for outdoor use shall be not less than 180 mm.	Passed
	The wheel width of walking tables manufactured for outdoor use shall be not less than 22 mm as defined in 3.18	Passed
4.5	Handgrip The handgrip width shall be not less than 20 mm and not more than 50 mm. Note: The requirement is not applicable to anatomic handgrips.	Passed
	The handgrip shall be securely fixed to the handle of the walking table as judged by the inspector.	Passed
	The handgrip shall be replaceable or easy to clean.	Passed

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		Result
4.6	<p>Leg section and tip Where there is no wheel, the leg section shall end in a tip of a design that will prevent the leg section from piercing through it when the walking table is used as intended by the manufacturer. Where there is no wheel, the tip shall be replaceable. Where there is no wheel, the tip shall not cause discolouring of the walking surface, as verified by visual inspection. That part of the tip that is in contact with the walking surface shall have a minimum area at least covering a circle diameter of 35 mm. Compliance shall be verified by measurement. When inspected, the rubber tip shall be securely fixed to the leg of the walking table as judged by the inspector.</p>	No tips – N/A
4.7	<p>Adjusting devices The handles may be adjustable but shall be securely fixed when in use, as verified by inspection.</p> <p>Each of the height adjustment devices shall be clearly marked with its maximum permissible elongation.</p> <p>After the fatigue test (see 5.11), the adjustment/folding mechanisms shall operate as intended by the manufacturer.</p> <p>Folding walking tables shall lock into working position when unfolded.</p>	<p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p>
4.8	<p>Resting seat When tested according to 5.9, no part of the walking table shall crack or break.</p>	Passed
4.9	<p>Materials and finish Walking table materials, which come into contact with the human body during intended use, handling, transportation and storage, shall be assessed for bio-compatibility using the guidance given in ISO 10993-1.</p> <p>The walking table materials shall not cause discolouring of skin or clothing when the walking table is used as intended by the manufacturer.</p> <p>All parts of the walking table shall be free from burrs, sharp edges or projections that could cause damage to clothing or discomfort to the end user and attendant.</p>	<p>Not tested</p> <p>Passed</p> <p>Passed</p>

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Loading and deformations are made as indicated in the table below: SWL = 125 kg

Loading	Deformation before load	Deformation after load
150 % of SWL (min. 420 N) for 5 second, applied over a minimum period of 2 seconds.	0 mm	2 mm

Fatigue test

A cyclic (max. 1 Hz.) force of 81 % of SWL (min. 280 N) for 200.000 times, with wheels travelling with min. 0,4m/loading cycle. If failure occurs, record this and the number of cycles.	F(1) = 0.25 Hz F(2) = 0.25 Hz	V(1)/F(1) = 1.3 m V(2)/F(2) = 1.3 m
	V(1) = 0.33 m/s V(2) = 0.33 m/s	

Note: X(1) means initial values, X(2) means values at the end of testing

		Result
5.12	Final inspection When all tests have been completed, inspect the walking table and its mechanisms and functions for satisfactory operation as specified by the manufacturer.	Passed
6.2	Information supplied by the manufacturer Each walking table shall be clearly and indelibly marked with the following: a.) maximum permissible user mass; b.) maximum safe working load (SWL) to be marked on accessories; c.) manufacturer's name or trade name and address; d.) manufacturer's model identification name and/or number; e.) month and year of manufacture; f.) maximum extension of the height adjustment, marked on the adjusting member; g.) maximum limits of its adjustment ranges marked on the adjusting members or mechanism; h.) maximum width of the walking table; i.) whether or not the walking table is designed for indoor or outdoor use, according to 4.1 and 4.4	Passed Passed Passed Passed Passed Passed Passed

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6.0 INFORMATION SUPPLIED BY THE MANUFACTURER

6.3	Documentation	
	<p>The following information shall be contained in the instructions for use and/or assembly, or clearly and indelibly marked on the product:</p> <ul style="list-style-type: none"> a.) maximum supporting height; b.) minimum supporting height; c.) maximum walking table turning width; d.) maintenance instructions including adjustments of brakes for wear and required inspection intervals; e.) cleaning instructions, including a description of the method and suitable cleaning agents and any precautions needed to avoid corrosion and/or ageing of the materials used in the construction of the walking table; f.) instructions for assembly, adjustment of all kinds, folding and unfolding; g.) warnings and advice about precautions relating to safe distances between moving and stationary parts if applicable (see 12 and 13 in EN 12182:1999 for guidance). <p>Note 1: Most countries require that information be in one or more of their official languages.</p> <p>Note 2: The guidance document ISO/IEC Guide 37 will be of help when preparing this information.</p> <p>Note 3: Manufactures are recommended to present their information in separate parts that cover use, prescription, technical and/or paramedical aspects.</p>	<p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p>

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Photo



Volaris RA

The general conditions pertaining to assignments accepted by Danish Technological Institute shall apply in full to the technical testing and calibration at Danish Technological Institute and to the completion of test reports and calibration certificates within the relevant field.

Danish Accreditation (DANAK)

DANAK was established in 1991 in pursuance of the Danish Act No. 394 of 13 June 1990 on the promotion of Trade and Industry.

The requirements to be met by accredited laboratories are laid down in the "Danish Agency for Trade and Industry's ("Erhvervsfremme Styrelsens") Statutory Order on accreditation of laboratories to perform testing etc. and GLP inspection. The statutory order refers to other documents, where the criteria for accreditation are specified further.

The standards DS/EN ISO/IEC 17025 "General requirements for the competence of testing and calibration laboratories" and DS/EN 45002 "General criteria for the assessment of testing laboratories" describe fundamental criteria for accreditation. DANAK uses guidance documents to clarify the requirements in the standards, where this is considered to be necessary. These will mainly be drawn up by the "European co-operation of Accreditation (EA)" or the "International Laboratory Accreditation Co-operation (ILAC)" with the purpose of obtaining uniform criteria for accreditation. In addition, DANAK draws up Technical Regulations with specific requirements for accreditation that are not contained in the standards.

In order for a laboratory to be accredited it is, among other things, required:

- that the laboratory and its personnel are not subject to any commercial, financial or other pressures, which might influence their technical judgement

- that the laboratory operates a documented quality system
- that the laboratory has at its disposal all items of equipment, facilities and premises required for correct performance of the service that it is accredited to perform
- that the laboratory management and personnel have technical competence and practical experience in performing the service that they are accredited to perform
- that the laboratory has procedures for traceability and uncertainty calculations
- that accredited testing or calibration is performed in accordance with fully validated and documented methods
- that the laboratory keeps records, which contain sufficient information to permit repetition of the accredited test or calibration
- that the laboratory is subject to surveillance by DANAK on a regular basis
- that the laboratory shall take out an insurance, which covers liability in connection with the performance of accredited services

Reports carrying DANAK's logo are used, when reporting accredited services and show that these have been performed in accordance with the rules for accreditation.