

Standard AS
Marja 9
10617 TALLIN
ESTONIA

Testing of Work table desk Type A

(1 appendix)

Summary

Work table/desk meet the requirements for strength and security according to EN 527-2:2002 and ISO 21016:2007 clause 6.1, 6.5.3 and 6.6 and is classified as Type A according to EN 527-1:2011 for sitting and standing use.

1 Introduction

On behalf of Standard AS, a Work table/desk has been tested at SP in accordance with EN 527-2:2002 and ISO 21016:2007 clause 6.1, 6.5.3 and 6.6. Dimensions have been tested according to EN 527-1:2011.

2 Test specimen



Figure 1 Test specimen

Dimension:	W=1600 mm, D=800 mm, H=600-1252 mm
Table top:	Veneered MDF, 23 mm
Frame/Leg:	Metal
Actuator:	Linak
2-pillar T-stand:	Pillars in metal, 3 parts, 80 x 51mm, 74 x 44 mm, 67 x 37 mm
Functions:	Electric adjustable in height 600 - 1252 mm

The test specimen was selected by the customer and arrived at SP 2014-09-08.

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3 Test methods and test procedure

Safety and durability test was carried out according to:
 EN 527 Office furniture - Work tables and desks Part 1:2011 Dimensions, Part 2:2002 Mechanical safety requirements, Part 3:2003 Methods of test for the determination of the stability and the mechanical strength of the structure.
 ISO 21016:2007 Office furniture - Tables and desks - Test methods for the determination of stability, strength and durability.

Tests were carried out in $23 \pm 2^\circ\text{C}$ and $50 \pm 5\%$ RH.
 The test methods are explained in table 1 - 4.

The test was carried out 2014-10-24 – 2014-11-05.

4 Results

Table 1

1.	General requirements	EN 527-2	Req. fulfilled
1.1	Supporting elements shall not restrict the movements of the user.	3.	Passed
1.2	Intermediate supporting elements under the work top shall either be visible or be placed where the risk of injury to the user's legs or feet is minimised.	3.	Passed
1.3	Components or parts accessible during normal use shall have no burrs, sharp edges or sharp points.	3.	Passed
1.4	Edges and corners of the top surfaces shall be rounded with a radius of ≥ 2 mm.	3.	Passed
1.5	Movable and adjustable parts are designed to minimise the risk of injuries and inadvertent operation or release.	3.	Passed
1.6	Shear and squeeze points exist if the distance between two accessible parts moving relative to each other can be less than 25 mm or more than 8 mm in any position during movement.	3.	Passed
1.7	Handles shall be designed to avoid finger entrapment during normal use.	3.	N/A
1.8	There shall be no open-ended tubes.	3.	Passed

Table 2

2.	Strength, durability	EN 527-3	Cycles	Loading	Req. fulfilled
2.1	Stability	5.1	1	750 N	Passed
2.2	Vertical static load test	5.2	10	1000 N	Passed
2.3	Horizontal static load test	5.3	10	450 N	Passed
2.4	Horizontal fatigue test	5.4	5 000	300 N	Passed
2.5	Vertical fatigue test	5.5	10 000	400 N	Passed
2.6	Drop test	5.6	2x5	Max 100 mm	Passed

Table 3

3	EN 527-1	Dimensions	Results (mm)
3.1	h_1	Height of the work surface	595-1260
3.2	t_1	Maximum desk top thickness (Front)	23
3.3	t_2	Maximum desk top thickness (500 mm from the edge)	60
3.4	k_1	Minimum height of knee clearance for standing position only (Applies only to tables with a height more than 850 mm)	>700
3.5	k_2	Minimum depth of knee clearance for standing position only	>80
3.6	k_3	Minimum depth of foot clearance for standing position only	>150
3.7	f_1	Minimum height of minimum foot clearance (Sitting only and sit/stand: From 600 mm to 800 mm from the front edge)	>120
3.8	f_2	Minimum height of minimum foot clearance (Standing only: From front edge to 150 mm)	>120
3.9	g_1	Minimum legroom depth (Applies on sitting and sit/stand tables)	>800
3.10	D	Minimum desk top depth	800
3.11	W	Minimum legroom width	1050

The table is classified as Type A according to EN 527-1:2011 for sitting and standing use.

Table 4¹

4.	Strength, durability	ISO 21016	Cycles	Loading	Req. fulfilled
4.1	Stability under vertical load	6.1.1	1	750 N	Passed
4.2	Stability with extension elements open	6.1.2	1	200 N	N/A
4.2	Stiffness of structure (≤ 17 mm/m)	6.5.3	1	300 N	Passed ²
4.3	Fatigue test of actuator (left side)	6.6	1250	450 N	Passed
4.3	Fatigue test of actuator (middle)	6.6	2500	450 N	Passed
4.3	Fatigue test of actuator (right side)	6.6	1250	450 N	Passed

¹ Testing according to ISO 21016:2007 (table 4) applies only for height adjustable work tables

² Longitudinal = 13 mm, Transversal = 10 mm

5 Conclusion

At the end of the test, the tested piece did not exhibit any faults, fractures or other damage judged to affect its safety and functions when used in accordance with EN 527-2:2002 and ISO 21016:2007 clause 6.1, 6.5.3 and 6.6.

Work table/desk is classified as Type A according to EN 527-1:2011 for sitting and standing use.

The test results apply solely to the specimen tested.

SP Technical Research Institute of Sweden Wood Technology

Performed by

Examined by

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Appendix

1. Pictures (1 page)

Appendix 1

Pictures



Figure 1 Test specimen, underneath

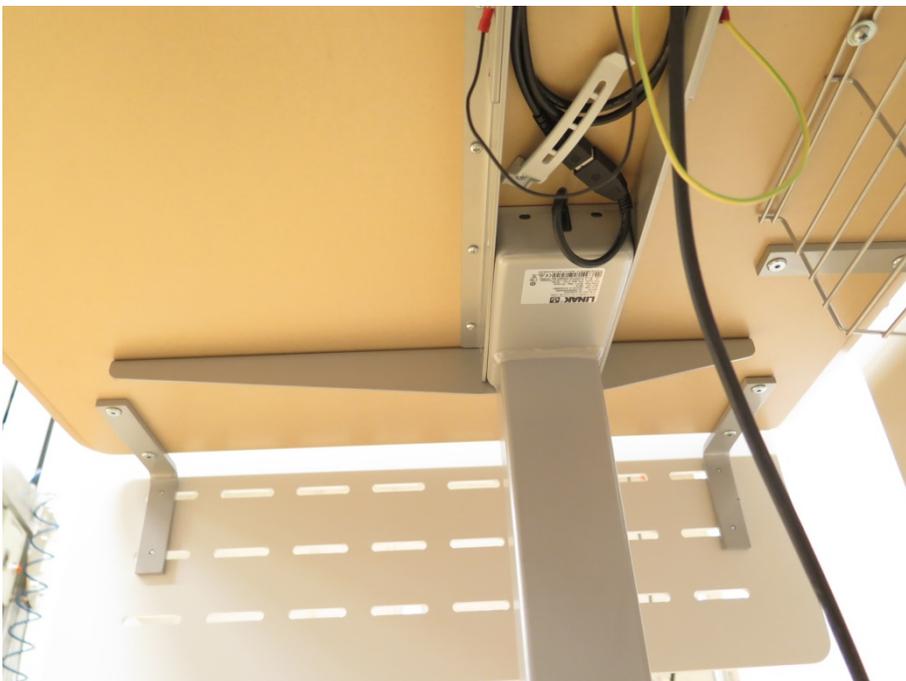


Figure 2 Test specimen, underneath