



Test report: Compatibility of Techo Fount Wood Leg office desk with relevant requirements on dimensions, stability, strength and durability according to NEN-EN 527-1:2011, NEN-EN 527-2+A1:2019 and NPR 1813:2016

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1 Assignment

On March 2, 2023, Ahrend commissioned SHR to examine an office desk for compatibility with relevant requirements on dimensions, stability, strength and durability according to the latest version of Dutch and European standards.

2 Execution of the test

2.1 Identification and description of the sample

For the test, the sample mentioned in table 1, was delivered at SHR on 02-03-2023. The selection of the test piece is carried out by the principal.

Table 1. Delivered sample.

Amount	Code	Description
1	220609-1	Techo Fount Wood Leg office desk

2.2 Method

Examination according to relevant requirements on dimensions and mechanical safety of:

- NEN-EN 527-1:2011 Dimensions. The measurements are assessed according to par 4.2 of NEN-EN 527-1:2011 for type A.
- NEN-EN 527-2+A1:2019 Stability, strength and durability, with test methods according to NEN-EN 1730:2012. The stability, strength and durability requirements are assessed according to par 5.2 of NEN-EN 527-2:2016+A1:2019.
- NPR 1813:2016 Dimensions. The measurements are assessed according to Annex A.2 of NPR 1813:2016.

2.3 Period of the test

The tests were executed from 04-04-2023 till 05-04-2023.

2.4 Deviations from the standard

None.



3 Results of the test

The results of each individual test are shown in Appendix 2.

4 Conclusion

The examined sample DOES NOT COMPLY with all requirements for office desk type C. The result of the horizontal static load test did not comply to the demands of NEN-EN 527-2+A1:2019 (see Appendix 2, table 5) and there is a risk regarding shear and squeeze points (see Appendix 2 table 4) .

Literature

European standard NEN-EN 527-1:2011 *Office furniture – Work tables and desks – Part 1: Dimensions*. NEN. Delft. 22 pp.

European standard NEN-EN 527-2+A1:2019 *Office furniture – Work tables and desks – Part 2: Mechanical safety requirements*. NEN. Delft. 11 pp.

European standard NEN-EN 1730:2012 *Furniture – Tables – Test methods for the determination of the stability, strength and durability*. NEN. Delft. 29 pp.

Dutch Code of Practice NPR 1813:2016 *Ergonomie – Richtlijn voor toepassing van kantoormeubelen en werkplekaccessoires – Toelichting bij de NEN-EN 1335, NEN-EN 527 en NEN-EN 16139*. NEN. Delft. 29 pp

Appendix 1 Photos of tested product – Techo Fount Wood Leg office desk



Photo 1: Tested sample 220609-1 of Techo Fount Wood Leg office desk - front view



Photo 2: Tested sample 220609-1 of Techo Fount Wood Leg office desk - side view



Photo 3: Tested sample 220609-1 of Techo Fount Wood Leg office desk - bottom view



Photo 4: Tested sample 220609-1 of Techo Fount Wood Leg office desk - detail connection legs to frame



Photo 5: Tested sample 220609-1 of Techo Fount Wood Leg office desk - detail table top to legs side view



Photo 6: Tested sample 220609-1 of Techo Fount Wood Leg office desk - detail leveller



Photo 7: Tested sample 220609-1 of Techo Fount Wood Leg office desk – after horizontal static load test



Photo 8: Tested sample 220609-1 of Techo Fount Wood leg office desk - risk of compression between leg and table top



Appendix 2 Specification of results – Techo Fount Wood Leg office desk

✓ = OK ✗ = not OK N/a = not applicable

Table 2: Dimensions related to requirements of NEN-EN 527-1 (all sizes in mm).

Property			Measured	Work table/desk type			Result	Remarks
				Type A	Type B	Type C		
				adjustable	selectable	fixed		
--	Work top shape		802 x 1601	---	---	---		
h ₁	Height to top (minimum range)	sitting only	752 increment: 0	650 – 850 ^a		740 ± 20	✓	
		standing only		950 – 1250 ^a		1050 ± 20	N/a	
		sit/stand		650 - 1250	N/a			N/a
t ₁	Desk top thickness (maximum)	at front	18	55 ^b		70	✓	
t ₂		at 500 mm from front		80 ^b	90 ^b	100	✓	1)
k ₁	Height knee clearance	standing only → 0-80 mm from front		700 ^d			N/a	
k ₂	Depth knee clearance	standing only		80			N/a	
k ₃	Depth feet clearance	standing only		150			N/a	
f ₁	Height foot clearance (minimum)	sitting only, sit/stand → 600-800 mm from front	734	120			✓	
f ₂		standing only → 0-150 mm from front		120			N/a	
g ₁	Legroom depth (min.)	sitting only, sit/stand	802	800		800 ^f	✓	
D ^g	Desk top depth (min.)	---	802	800		800 ^f	✓	
w	Legroom width (minimum)	sitting only, sit/stand	1402	1200	1000	850	✓	
		standing only		790			N/a	

^a For type B a maximum increment of 20 mm is required

^b Only applies to sitting and sit/stand work tables/desks

^c The construction of the product shall ensure the minimum legroom depth

^d Measured from the floor

^f 600 mm can in some situations be acceptable, e.g. when 17" of smaller flat screens are used, providing that the work surface is not against the wall and that two people are not sitting in front of each other. Information about these limitations shall be provided with the product

^g Size D is the smallest depth of the table top

Remark:

- 1) Checked with a template.

Table 3: Dimensions according NPR 1813:2016 differing from dimensions according NEN-EN 527-1:2011.

Property			Measured	Work table/desk type			Result	Remark
				Type-A	Type-B	Type C		
				adjustable	selectable	fixed		
h ₁	Height to top (minimum range)	sit/stand	increment: 0	650 - 1300	n/a		N/a	
t ₁	Desk top thickness (maximum)	at front	18	50		n/a	✓	
t ₂		at 500 mm from front		80	90	n/a	✓	1)
w	Legroom width (minimum)	sitting only, sit/stand	1450	1200	1000	850	✓	

Remark:

- 1) Checked with a template.

Table 4: General requirements of NEN-EN 527-2+A1:2019.

Par/art. 527-2	Test	Measured	Demand	Result	Remark
4	General requirements	---		X	1)

Remark:

- 1) The opening between the legs and the table top is >7 and becomes smaller under load on the table top. There is a risk for shear and squeeze points. See Appendix 1, photo 8.

Table 5: Mechanical safety related to requirements of NEN-EN 527-2+A1:2019 (with test methods according to NEN-EN 1730:2012) levelling devices set to 5 mm from fully open.

Par/art. EN1730	Test / examination of	Measured	Demand	Result	Remark	
8	1 Durability of height adjustment mechanisms A 1250 cycles		no fracture, no loosening of joints, no major structural deformation, retention of functions of the table	N/a		
	B 2500 cycles			N/a		
	C 1250 cycles			N/a		
6.2	2.1 Horizontal static load test 10 x 450N, min 300N, 50 kg load on table top			X	1)	
6.2	2.2 Additional horizontal static load test for adjustable tables with a height more than 950 mm : 10 x 285 Nm, 50 kg load on table top					
6.3.1	3.1 Vertical static load test 10 x 1000N				2)	
6.3.1	3.2 Additional vertical static load test for adjustable tables with a height more than 950 mm: 10 x 500N					
6.4.1 6.4.2	4 Horizontal durability test 10.000 x 300N, 50 kg load on table top				2)	
6.4.1 6.4.3	5 Stiffness of the structure 200N,	Short side: 3mm/m Long side: 21 mm/m		D/Height of the table \leq 17 mm/m for D1 and D2		2)
6.5	6 Vertical durability test 10.000 x 400N					2)
6.8	7 Durability test for tables on castors 2000 cycles, 50 kg load on table top		no fracture, no loosening of joints, no major structural deformation, retention of functions of the table			
6.6	8 Vertical impact test 10 x 140 mm				2)	
6.9	9 Drop test, nominal drop height 100 mm.				2)	
7.2.2	10 Stability under vertical load V1 = 750N, V2 = 750N		Table shall not overturn		2)	
7.3	11 Stability for extension elements, 400N					
	Information for use		Information shall be available in the language of the country in which it will be available to the end user	✓		
			Intended use	✓		
			Instruction for operating the adjusting mechanisms	✓		
			Instruction for the care and maintenance	✓		

Remarks: 1) Fracture in horizontal part of the wooden leg construction. See Appendix 1, photo 7.
2) Not assessed because of failure on point 6.2.

Appendix 3 Techo Fount Wood Leg office desk - Information for use- by Techo

FOUNT table - user instructions

This is the user manual for the FOUNT table.

We strongly recommend to read this user manual carefully before using this table for the first time and pay attention in particular to the safety precaution. It is recommended to keep this manual with the table. In case of damage or loss, please send a request for a copy.

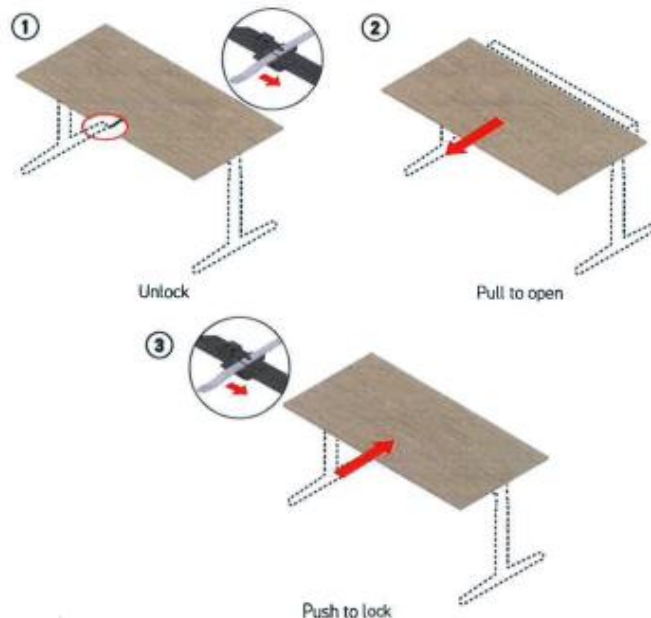
1 Intended use

The FOUNT table is developed to use in an office environment. This table consists of a work surface which is mounted with a quick fix on a frame with the legs of your choice. You may have chosen for a sliding table top therefore the handlings are described in paragraph 2.

2 Instructions for operating the adjusting mechanisms

To open: Push the handle underneath the top in right direction to release and slightly pull table top forward until it locks with an opening of about 180 mm.

To close: Release the handle again and push the tabletop backward until it clicks into place, ready for further use








FOUNT table - user instructions

3 Safety Precaution

We reduced all safety risks to a minimum. Before you use and/or move the table, please read the following safety precaution measures:

Sliding top:

-  3.1 Before pushing the top back in its work position assure that the sliding way is fully free and no person can be hurt by clamping in between.
-  3.2 Do not sit or stand on the tabletop in any "open" position on risk of damaging the table or personal injury.
-  3.3 Before operating the sliding mechanism remove all matters that can easily fall.

Lift and/or move table:

-  3.4 Do not lift up the entire table by holding the table top
-  3.5 Do not move the table by sliding
-  3.6 When you want to remove the table top, please unlock the four quick fix elements underneath the table top and then remove the table top.
-  3.7 Lift and move the table by holding the legs on the side
-  3.8 Don't forget when the table has been moved and the table top is placed, to lock the four quick fix elements

FOUNT table user instructions

4 Maintenance and care

Maintenance:

The sliding mechanism including the handle mechanism do not need any maintenance.

Cleaning work surfaces:

Normal stains (coffee, tea, pencil, lipstick, finger marks, grease, water soluble glue, felt tip pen ink etc.) can be removed with a clean, damp cloth. If necessary, a little soft soap may be added to the water and a soft nylon brush may be used to treat more stubborn stains. Solvent-based lacquer, glue, nail varnish, ballpoint pen ink etc. should be removed with an organic solvent, such as methylated spirits.

Cleaning hard parts:

Use a microfibre cloth (dry or damp) to clean the hard parts. Small quantities of cleaning agent can be used.

Cleaning plastic parts:

A damp cloth or commercially available plastic cleaner are suitable for cleaning. Please do not use aggressive detergents.

End of usage:

This table is made of high quality materials and components that can be recycled and reused. Do not dispose of any parts in the household waste. Follow local laws and regulations.