

Date of receipt: 07/04/21
Date of issue: 29/04/21
Report consists of 9 test reports.
Defects before testing: None
Sample name: ANDY

SAMPLE N° 308435

Overall dimensions: 730 x 730 x 1100 (h) mm

List of test reports:

1. Office work chair - Dimensions EN 1335-1:2020
2. General design requirements EN 1335-2:2018, clauses 4.1 - 4.2
3. Information for use EN 1335-2:2018, clause 6
4. Work chairs: seat and back static load test EN 1728:2012+AC:2013
5. Work chairs: seat and back durability EN 1728:2012+AC:2013
6. Work chairs: arm rests durability EN 1728:2012+AC:2013
7. Work chairs: arm rest downward static load test-central EN 1728:2012+AC:2013
8. Stability EN 1022:2018, clause 7.3
9. Work chairs: rolling resistance of unloaded chair EN 1728:2012+AC:2013



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Dr. Franco Bulian*
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SAMPLE N° 308435

Date of issue: 29/04/21
Sample weight: Not determined
Sample name: ANDY



Side view



Rear view



Bottom view

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TEST REPORT

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Revision: 0
Date of receipt: 07/04/21
Date of test: 09/04/21
Date of issue: 29/04/21



Sample name: ANDY

Office work chair - Dimensions EN 1335-1:2020

Method: ISO 24496:2017

1. General features

1.1 Seat

depht: X fixed
- adjustable with horizontal movement
inclination: - fixed
X adjustable

1.2 Backrest

height: X fixed
- adjustable
X adjustable lumbar support (height)
- adjustable lumbar support (protrusion)
inclination: - fixed
X adjustable

1.3 Seat and back synchronized yes

1.4 Armrests

height: - fixed
X adjustable
depth: - fixed
X adjustable
clear distance: X fixed
- adjustable
rotation: no

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TEST REPORT
308435 / 1 rev. 0

Date of issue:

29/04/21

Sample name:

ANDY

Test Results

All linear dimensions are in mm

Type of chair: B

symbol	parameter	requirement	measured	conf.
SEAT				
a	seat height and sitting height	420 to 510	401 to 510*	yes
	adjustment range	100 min	109*	yes
b	seat depth adjustable	425 to 445	/	/
	adjustment range	50 min	/	/
c	seat depth not adjustable	within 425 and 485	443* and 450	yes
	seat pad depth	380 min	431	yes
	seat pad width	400 min	448	yes
e	seat pad angle - adjustable	-2°	-10° to -2°*	yes
	adjustment range	5°	8°	yes
	seat pad angle - not adjustable	+ 2° ÷ - 5°	/	/
BACK REST				
f	minimum and maximum lumbar support		150 to 220	
	difference (fmax - fmin) within 170 mm and 300 mm	50 min	50* of 70	yes
	range of the backrest / lumbar support	50 min	59*	yes
h	height of lumbar support - not adjustable	within 170 and 300	/	/
	backrest height	360 min	594	yes
j	backrest width	360 min	446	yes
k	horizontal radius of the back rest	400 min	> 400	yes
l	back rest inclination (adjustment range)	15° min	27°	yes
y	angle between seat and back	90° min	110°	yes
ARM REST				
n	length of arm rest	150 min	211	yes
o	width of arm rest	40 min	51	yes
p	height of armrest - adjustable	225 to 250	198 to 266	yes
	adjustment range	50 min	68	yes
q	height of armrest - not adjustable	within 225 and 275	/	/
	distance from the backrest to the front of the armrests	350 max	291	yes
r	hip breadth clearance with armrests in widest position	460 min	552	yes
z	Clear distance between the armrests pads - adjustable	460 to 510	/	/
	Clear distance between the armrests pads - not adjust.	within 460 and 510	/	/
UNDERFRAME				
s	maximum offset of the underframe	415 max	366	yes

* The limit is included in the uncertainty interval associated with the measured value (see table 1 on page 3/3).

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Sample name:

ANDY

Table 1, ISO 24496:2017

symbol	Parameter	Uncertain at 95% confidence level (k=2)
SEAT		
a	seat height and sitting height	$\pm 8 \text{ mm (seat)} \pm 15 \text{ mm (sitting)}$
b	seat depth	$\pm 25 \text{ mm}$
c	seat pad depth	$\pm 25 \text{ mm}$
d	seat pad width	$\pm 10 \text{ mm}$
e	seat angle	$\pm 2^\circ$
BACK REST		
f	height of lumbar support	$\pm 25 \text{ mm}$
h	backrest height	$\pm 15 \text{ mm}$
j	backrest width	$\pm 10 \text{ mm}$
k	horizontal radius of the back rest	Not applicable
l	back rest inclination	$\pm 4^\circ$
y	angle between seat and back	$\pm 4^\circ$
ARM REST		
n	length of arm rest	$\pm 5 \text{ mm}$
o	width of arm rest	$\pm 5 \text{ mm}$
p	height of armrest	$\pm 10 \text{ mm}$
q	distance from the backrest to the front of the armrests	$\pm 40 \text{ mm}$
r	hip breadth clearance with armrests in widest position	$\pm 20 \text{ mm}$
z	Clear distance between the armrests pads	$\pm 60 \text{ mm}$
UNDERFRAME		
s	maximum offset of the underframe	$\pm 8 \text{ mm}$

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TEST REPORT

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Revision: 0
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Date of test: 09/04/21
Date of issue: 29/04/21
Sample name: ANDY



General design requirements EN 1335-2:2018, clauses 4.1 - 4.2

Requirements	Remarks
Clause 4.1	
a) Edges of seat, back rest and arm rests in contact by the user are rounded ≥ 2 mm	Yes
b) Edges of handles are rounded or chamfered in the direction of the force applied	Yes
c) All other edges and corner are free from burrs and rounded or chamfered	Yes
d) Ends of accessible hollow components are closed or capped	Hollow components not present
It shall not be possible for any load bearing part to come loose unintentionally	Yes
Clause 4.2	
Absence of shear and squeeze points, created by parts operated by powered mechanism.	Yes
Absence of shear and squeeze points, created by loads applied during normal use.	Yes

The test results comply with the requirements in clauses 4.1 and 4.2 of EN 1335-2:2018

Note: evaluation of accessible parts has been carried out according to CEN TR 17202:2018, clause 6.

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Sample name: ANDY



Information for use EN 1335-2:2018, clause 6

Statement checked	Remarks
Information for use in the language of the country in which the chair will be delivered to the end user.	Italian language
a) Information regarding the intended use.	Present
b) Information regarding possible adjustments	Present
c) Instruction for operating the adjusting mechanisms.	Present
d) Instruction for the care and the maintenance of the chair.	Present
e) Information for chairs with seat height adjustments with energy accumulators that only trained personnel may replace or repair seat height adjustment components with energy accumulators.	Present
f) Information on the choice of castors in relation to the floor surface.	Present

The test results comply with the requirements in clause 6 of EN 1335-2:2018.

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TEST REPORT

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Revision: 0
Date of receipt: 07/04/21
Date of test: 09/04/21
Date of issue: 29/04/21
Sample name: ANDY

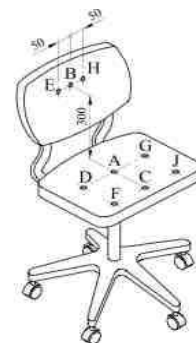


Work chairs: seat and back static load test EN 1728:2012+AC:2013

Test performed according to EN 1335-2:2018

Seat and back static load test, clause 7.3 of EN 1728:2012+AC:2013

Seat height: highest position
Seat inclination: horizontal
Back rest in height: highest position
Back rest in depth: rearmost position
Position of castors: perpendicular to the base arms
Tension of mechanism spring: medium



Test results:

Seat load N	Back force N	Number of cycles	Loading point	Back rest inclination mechanism	Remarks
1.600	560	5	A - B	Blocked	No defects
1.600	560	5	A - B	Unlocked	No defects

Seat front edge static load, clause 7.4 of EN 1728:2012+AC:2013

Seat height: highest position
Seat depth: foremost position

Test results:

Seat load N	Number of cycles	Back rest inclination mechanism	Remarks
1.600	10	F	No defects

The test results comply with the requirements in clause 5.2 of EN 1335-2:2018

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TEST REPORT

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Sample name: ANDY

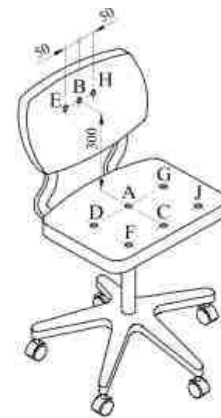


Work chairs: seat and back durability EN 1728:2012+AC:2013

Test performed according to EN 1335-2:2018

Seat and back durability clause 7.9 of EN 1728:2012+AC:2013

Seat height: highest position
Seat inclination: horizontal
Back rest in height: highest position
Back rest in depth: rearmost position
Position of castors: perpendicular to the base arms
Tension of mechanism spring: medium



Test results:

Number of cycles	Loading point	Force N	Back rest inclination mechanism	Remarks
120.000	A	1.500	Unlocked	No defects
40.000	C B	1200 320	Locked	No defects
40.000	C B	1200 320	Unlocked	No defects
20.000	J E	1200 320	Unlocked	No defects
20.000	F H	1200 320	Unlocked	No defects
20.000	D G	1100 1100	Unlocked	No defects

The test results comply with the requirements in clause 5.2 of EN 1335-2:2018.

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Revision: 0
Date of receipt: 07/04/21
Date of test: 26/04/21
Date of issue: 29/04/21



Sample name: ANDY

Work chairs: arm rests durability EN 1728:2012+AC:2013

Test performed according to EN 1335-2:2018

Arm rest durability, clause 7.10 of EN 1728:2012+AC:2013

Seat height: lowest position
Seat inclination: horizontal
Armrest positioning: highest

Test results:

Load on arm rest N	Number of cycles	Remarks
400	60.000	No defects

The test results comply with the requirements in clause 5.2 of EN 1335-2:2018

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Revision: 0
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Sample name: ANDY



Work chairs: arm rest downward static load test-central EN 1728:2012+AC:2013

Test performed according to EN 1335-2:2018

Arm rest downward static load test - central, clause 7.5 of EN 1728:2012+AC:2013

Seat height: lowest position
Seat inclination: horizontal
Armrest positioning: highest

Test results:

Load on the arm rest	Number of cycles	Remarks
750	5	See note
900	5	No defects

Note: after the functional load of 750 N the chair does not overbalance.

The test results comply with the requirements in clause 5.2 of EN 1335-2:2018.

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Stability EN 1022:2018, clause 7.3

Type of chair: tilting

Positioning of chair components: as specified in Table 1 of EN 1022:2018

Loads and masses according to table B1 of EN 1022:2018, annex B

Forwards overturning

Forwards overturning, clause 7.3.1 : does not overturn

Forwards overturning for seating with foot rest, clause 7.3.2 : //

Corner stability, clause 7.3.3 : does not overturn

Sideways overturning

Sideways overturning, all seating without arm rests, clause 7.3.4 : //

Seating with arm rests, clause 7.3.5.2 : does not overturn

Seating with raised side edges, clause 7.3.5.3 : //

Rearwards overturning

Rearwards overturning all seating with back rests, clause 7.3.6

Minimum force required: 141 N : does not overturn

Tilting seating, clause 7.4.2 : does not overturn

Reclining seating with leg rest, clause 7.4.3 : //

Reclining seating without leg rest, clause 7.4.4 : //

Rearwards stability test for rocking chairs, clause 7.4.5 //

Note: The test has been carried out after the functional load on the arm rest.

The test results comply with the requirements in clause 4.4 of EN 1335-2:2018.

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TEST REPORT

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Revision: 0
Date of receipt: 07/04/21
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Sample name: ANDY

Work chairs: rolling resistance of unloaded chair EN 1728:2012+AC:2013

Test performed according to EN 1335-2:2018

Rolling resistance of unloaded chair, clauses 6.30 and 7.14 of EN 1728:2012+AC:2013

Type of castors: W
Test surface: steel floor
Test speed: 50 mm/s
Seat height: lowest position

Test results:

Measured resistance of castors N	Minimum allowed resistance N	Remarks
17,8	12	No defects

Unless otherwise specified, measurement uncertainty expanded to a confidence level of about 95% are $\pm 2,0$ N.

The measurement uncertainties stated in this document have been determined according to UNI CEI ENV 13005:2000. They were estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally k=2.

The test results comply with the requirements in clause 5.2 of EN 1335-2:2018
The limit is included in the uncertainty interval associated with the measured value.

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