

Date received: 14/01/2019

Date of issue: 31/01/2019

Report consists of 7 test reports.

Defects before testing: None

Sample name: TWISTER chair

CERANTOLA S.P.A.  
VIA GIORGIONE 2-ZONA IND.LE  
31037 RAMON DI LORIA (TV)  
ITALIA**SAMPLE N° 180503**

Overall dimensions: 660 x 660 x 1220 (h) mm

**List performed tests:**

1. Office work chair: dimensions EN 1335-1:2000 AC:2002
2. General design requirements EN 1335-2:2009, clause 4.1
3. Information for use EN 1335-2:2009, clause 5
4. Seat and back static load test 1335-3:2009 AC:2009, clause 7.2.1-7.2.2
5. Seat and back durability - EN 1335-3:2009 AC:2009 - Clause 7.3.1
6. Stability EN 1335-3:2009 AC:2009, clause 7.1
7. Rolling resistance of unloaded chair EN 1335-3:2009 AC:2009, clause 7.4



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Managing Director  
Dr. Andrea Giavon



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## SAMPLE N° 180503

Date of issue: 31/01/2019  
Sample weight: Not determined  
Sample name: TWISTER chair



**TEST REPORT****180503 / 1**Date received: 14/01/2019  
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CERANTOLA S.P.A.  
VIA GIORGIONE 2-ZONA IND.LE  
31037 RAMON DI LORIA (TV)  
ITALIA**Office work chair: dimensions EN 1335-1:2000 AC:2002****1. General features****1.1 Seat**depht: - adjustable with  
horizontal movement  
x fixedinclination: - fixed  
x adjustable**1.2 Backrest**heigth: - fixed  
x adjustable  
- adjustable lumbar supportinclination: - fixed  
x adjustable**1.3 Seat and back synchronized**

Yes

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TEST REPORT

180503 / 1

Date of issue:

31/01/2019

Sample name:

TWISTER chair

**Type of chair: B**

**Test Results:**

All linear dimensions are in mm

symbol	Parameter	requirement	measured	conformity
<b>SEAT</b>				
a	seat height	420 to 510	410 to 530	yes
	adjustment range	100 min	120	yes
b	seat depth - non adjustable	380 ÷ 440	412	yes
	seat depth - adjustable	400 to 420	/	yes
	adjustment range	50 min	/	yes
c	depth of seat surface	380 min	448	yes
d	seat width	400 min	461	yes
e	inclination of seat surface - non adjustable	-2° ÷ - 7°	/	yes
	inclination of seat surface - adjustable	-2° to - 7°	2 to -11	yes
<b>BACK REST</b>				
f	height of the back supporting point "S" non adjust.	170 ÷ 220	/	yes
	height of the back supporting point "S" adjust.	170 to 220	168,1 - 0,8* to 226,4- 0,8*	yes
	adjustment range	50 min	58,3	yes
g	height of the back pad - adjustable in height	220 min	551	yes
	height of the back pad - non adjustable in height	260 min	/	yes
h	height of the upper edge of the back rest	360 min	594	yes
i	back rest width	360 min	422	yes
k	horizontal radius of the back rest	400 min	> 400	yes
l	back rest inclination (adjustment range)	15° min	21	yes
<b>ARM REST</b>				
n	length of arm rest	200 min	/	yes
o	width of arm rest	40 min	/	yes
p	height of armrest - adjustable	200 to 250	/	yes
	height of armrest - non adjustable	200 ÷ 250	/	yes
q	distance from the front of the arm rest to the front edge of the seat	100 min	/	yes
r	clear width between the arm rests	460 ÷ 510	/	yes
<b>UNDERFRAME</b>				
s	maximum offset of the underframe	415 max	369	yes
t	stability dimension	195 min	243	yes

\*The result is the average of 3 measures

Unless otherwise specified, measurement uncertainties expanded to a confidence level of about 95% are ±5 mm for linear measures, ±2° for angles, ±10mm for the height of the back supporting point "S".

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.

NOTE: the back supporting point has been determined setting the back rest in its most upright position because the method described in EN 1335-1:2000 clause 3.6 is not applicable.

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## TEST REPORT

### 180503 / 2

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Date of issue: 31/01/2019



Sample name: TWISTER chair

CERANTOLA S.P.A.  
VIA GIORGIONE 2-ZONA IND.LE  
31037 RAMON DI LORIA (TV)  
ITALIA

## General design requirements EN 1335-2:2009, clause 4.1

Requirements	Remarks
a) Parts in contact by user: Distance of accessible movable parts shall be either $\leq 8$ mm e $\geq 25$ mm in any position during movement.	Yes
b) Corners and edges in contact by user: Minimum radius of corners and edges: 2 mm	Yes
c) Edges of handles: Minimum radius of handle edges: 2 mm	Yes
d) All other edges: Rounded or chamfered:	Yes
e) Ends of hollow components: Closed or capped	Yes
f) It shall be possible to operate the adjusting devices from sitting position in the chair:	Yes
g) It shall not be possible for any load bearing part to come loose unintentionally:	Yes
h) Lubricated parts: All parts wich are lubricated shall be protected	Yes

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**TEST REPORT**

**180503 / 3**

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Sample name: TWISTER chair

CERANTOLA S.P.A.  
VIA GIORGIONE 2-ZONA IND.LE  
31037 RAMON DI LORIA (TV)  
ITALIA

**Information for use EN 1335-2:2009, clause 5**

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
Information regarding the intended use.	Present
Information regarding possible adjustments and chair type	Present
Instruction for operating the adjusting mechanisms.	Present
Instruction for the care and the maintenance of the chair.	Present
Information regarding adjustment of the seat and back rest.	Present
Advice that only trained personnel may replace or repair seat height adjustment components with energy accumulators.	Present
Information on the choice of castors in relation to the floor surface.	Present

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**TEST REPORT**

**180503 / 4**

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Sample name: TWISTER chair

CERANTOLA S.P.A.  
VIA GIORGIONE 2-ZONA IND.LE  
31037 RAMON DI LORIA (TV)  
ITALIA

**Seat and back static load test 1335-3:2009 AC:2009, clause 7.2.1-7.2.2**

**Seat front edge static load, clause 7.2.1**

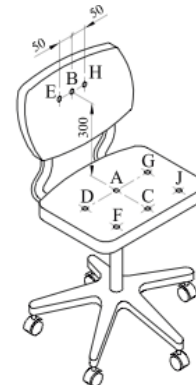
Seat height: highest position  
Seat depth: foremost position

Test results:

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

**Seat and back static load test, clause 7.2.2**

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	530	5	A - B	Blocked	No defects
1.600	530	5	A - B	Unlocked	No defects

Note: according to EN 1335-3:2009 back force has been reduced from 560 N to 530 N to avoid tipping.

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## TEST REPORT

# 180503 / 5

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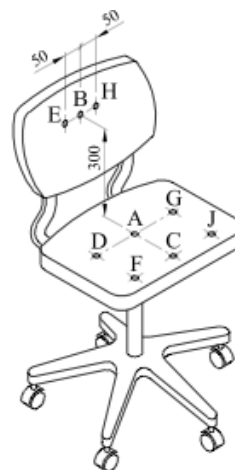
Sample name: TWISTER chair

CERANTOLA S.P.A.  
VIA GIORGIONE 2-ZONA IND.LE  
31037 RAMON DI LORIA (TV)  
ITALIA

## Seat and back durability - EN 1335-3:2009 AC:2009 - Clause 7.3.1

### Seat and back durability clause 7.3.1

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	Locked	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

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Sample name: TWISTER chair

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ITALIA

**Stability EN 1335-3:2009 AC:2009, clause 7.1**

Chairs with back rest inclination: no overturning with 13 discs of 10 Kg.

Positioning of chair components: as specified in Table 1 of EN 1335-3

Forwards overturning

Horizontal force : 20 N does not overturn

Front edge overturning

Horizontal force : 27 kg does not overturn

Rearwards overturning

Fixed back chair

Horizontal force : /

Chair with back rest inclination

Loading discs on the seat : 13 does not overturn

Sideways overturning for chairs with arms

Horizontal force : /

Sideways overturning for chairs without arms

Horizontal force : 20 N does not overturn

Forwards overturning for chairs with footrest

Horizontal force : /

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TEST REPORT

180503 / 7

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Sample name: TWITER chair

CERANTOLA S.P.A.  
VIA GIORGIONE 2-ZONA IND.LE  
31037 RAMON DI LORIA (TV)  
ITALIA

**Rolling resistance of unloaded chair EN 1335-3:2009 AC:2009, clause 7.4**

Rolling resistance of unloaded chair, clause 7.4

Type of castors: H  
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
13,5 ± 0,8 *	12	No defects

\*The result is the average of 3 measures

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