

Date received: 11/10/19  
Date of issue: 08/11/19  
Report consists of 9 test reports.  
Defects before testing: None  
Sample name: ANDY

IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

## SAMPLE N° 279397

Overall dimensions: 745 x 745 x 1110 (h) mm

### List of test reports:

1. Office work chair: dimensions EN 1335-1:2000 AC:2002
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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*Managing Director*  
*Dr. Andrea Giavon*

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## SAMPLE N° 279397

Date of issue: 08/11/19  
Sample weight: Not determined  
Sample name: ANDY



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**TEST REPORT**

**279397 / 1**

Revision: 0  
Date received: 11/10/19  
Date of test: 15/10/19  
Date of issue: 08/11/19  
Sample name: ANDY



IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

**Office work chair: dimensions EN 1335-1:2000 AC:2002**

**1. General features**

**1.1 Seat**

depth: - adjustable with horizontal movement  
X fixed

inclination: - fixed  
X adjustable

**1.2 Backrest**

height: X fixed  
- adjustable  
X adjustable lumbar support

inclination: - fixed  
X adjustable

**1.3 Seat and back synchronized**

Yes

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**TEST REPORT**
**279397 / 1 rev. 0**

Date of issue:

08/11/19

Sample name:

ANDY

**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	397 to 518	yes
	adjustment range	100 min	121	yes
b	seat depth - non adjustable	380 ÷ 440	388	yes
	seat depth - adjustable	400 to 420	//	//
	adjustment range	50 min	//	//
c	depth of seat surface	380 min	448	yes
d	seat width	400 min	472	yes
e	inclination of seat surface - non adjustable	-2° ÷ - 7°	//	//
	inclination of seat surface - adjustable	-2° to - 7°	0,9°±0,6°* to -8,7°±0,6°*	yes
<b>BACK REST</b>				
f	height of the back supporting point "S" non adjust.	170 ÷ 220	//	//
	height of the back supporting point "S" adjust.	170 to 220	165,4±0,6* to 221,7±0,6*	yes
	adjustment range	50 min	56,3	yes
g	height of the back pad - adjustable in height	220 min	//	//
	height of the back pad - non adjustable in height	260 min	593	yes
h	height of the upper edge of the back rest	360 min	589	yes
i	back rest width	360 min	449	yes
k	horizontal radius of the back rest	400 min	> 400	yes
l	back rest inclination (adjustment range)	15° min	20°	yes
<b>ARM REST</b>				
n	length of arm rest	200 min	> 200	yes
o	width of arm rest	40 min	> 40	yes
p	height of armrest - adjustable	200 to 250	192 to 260	yes
	height of armrest - non adjustable	200 ÷ 250	//	//
q	distance from the front of the arm rest to the front edge of the seat	100 min	145	yes
r	clear width between the arm rests	460 ÷ 510	500	yes
<b>UNDERFRAME</b>				
s	maximum offset of the underframe	415 max	384	yes
t	stability dimension	195 min	262	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 and ±10mm for the height of the back supporting point "S".

The measurement uncertainties stated in this document have been determined according to UNI CEI 70098-3:2016. They were estimated as expanded uncertainty obtained by 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 by 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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 Mahaging Director  
 Dr. Andrea Giavon

**TEST REPORT**

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Revision: 0  
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IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

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

Requirements	Remarks
<b>Clause 4.1</b>	
a) Edges of seat, back rest and arm rests in contact by the user are rounded $\geq 2$ 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
<b>Clause 4.2</b>	
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.

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**TEST REPORT**  
**279397 / 3**

Revision: 0  
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VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

**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**  
**279397 / 4**

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Date of issue: 08/11/19  
Sample name: ANDY



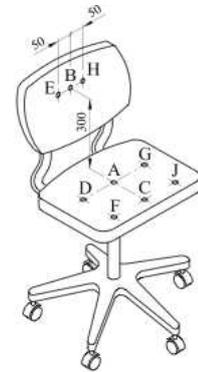
IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

**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**  
**279397 / 5**

Revision: 0  
Date received: 11/10/19  
Date of test: 15/10/19  
Date of issue: 08/11/19  
Sample name: ANDY



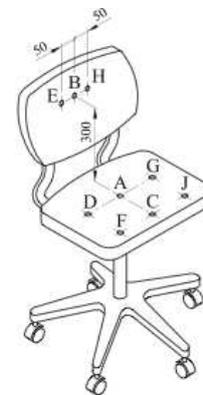
IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

**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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**TEST REPORT**  
**279397 / 6**

Revision: 0  
Date received: 11/10/19  
Date of test: 06/11/19  
Date of issue: 08/11/19  
Sample name: ANDY



IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

**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

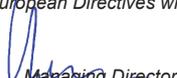
Seat height: lowest position  
Seat inclination: horizontal  
Armrest positioning: highest

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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**TEST REPORT**  
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Revision: 0  
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IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

**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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**TEST REPORT**  
**279397 / 8**

Revision: 0  
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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: 134 : 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**  
**279397 / 9**

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IVARS S.P.A.  
VIA GARGNA' 23/A  
25078 VESTONE (BS)  
ITALIA

**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
37	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.

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