

**C-36-001498**

**BIOMECHANICAL QUALITY CERTIFICATE**

**UMANA**

Biomechanical Analysis Centre (C-36-001498)

**CERTIFIES**

that the



**3.60 DYNAMIC BALANCING SYSTEM**



developed and marketed by  
**GRUPO FORMA 5 S.L.U.**

improves the user's comfort levels and health by up to

**12.90%**

in complex seating postures, regarding contact comfort and lumbar spine deformation  
(as specified in the technical annex).

UMANA guarantees the accuracy and objectivity of the biomechanical tests, which have been carried out under strict study protocols and which allow obtaining values for the analytical parameters in a direct, instrumental manner without human intervention.

15<sup>th</sup> of September 2015

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**TECHNICAL ANNEX**

Detailed evaluation of the biomechanical improvement obtained with the 3.60 dynamic balancing system in complex seating positions

Biomechanical Parameter		% (maximum)	Explanation of results	
<b>Overall Improvement</b>		<b>12.9%</b>	The 3.60 dynamic balancing system improves the user's comfort level by up to 12.9% regarding contact comfort and lumbar spine deformation in complex seating positions.	
<b>Pressure</b>	15.4%	<b>Seat</b>	10.6%	The 3.60 dynamic balancing system improves the contact comfort on the seat by up to 10.6%, <b>reducing the average pressures by 4.8 mmHg and the maximum pressures by 19.2 mmHg.</b>
		<b>Backrest</b>	23.1%	The 3.60 dynamic balancing system improves the contact comfort on the backrest by up to 23.1%, <b>reducing the average pressures by 0.9 mmHg and the maximum pressures by 26 mmHg.</b>
<b>Spine</b>	7.8%	<b>Lumbar</b>	7.8%	The 3.60 dynamic balancing system improves the spinal comfort on the lower back by 7.8%, <b>reducing the angle deformations by 2° in the associated vertebral units.</b>

Description of the analysed complex seating positions		
Posture 1	Posture 2	Posture 3
Centred and symmetric position on the seat, with crossed legs resting on the table and both forearms on the armrests, while looking down at a mobile phone or tablet.	Centred and symmetric position on the seat, with crossed legs and one foot resting on the floor, and one forearm resting on the corresponding armrest, while looking down at a mobile phone or tablet.	Sideways and asymmetric position on the seat, with crossed legs and one foot resting on the floor, and one forearm resting on the corresponding armrest, while looking down at a mobile phone or tablet.
		

Posture type	Biomechanical improvement (%) with the 3.60 dynamic balancing system	Biomechanical evaluation of the 3.60 chair [0-10]
Posture 1	3.8%	6.20
Posture 2	4.9%	6.20
Posture 3	12.9%	5.93
<b>AVERAGE</b>	<b>7.2%</b>	<b>6.11</b>

Evaluation scale [0-10]	
Very good	>8
Good	6.5-8
Satisfactory	5-6.5
Average	2.5-5
Poor	<2.5