

SOLID TECH

VIBRATION MEASUREMENT & VIBRATION ANALYSIS.

Equipment:	Vibration sensor:	Geophone, Texas
Instruments:	Vibration sensor:	VTI Hamlin
Audio Generator:	GW Instrument	
Data-logger:	PC-CARD-DAS16/16AO, Measurement Computing	
Software:	DASY Lab	
Room description:	Wooden Floor (spruce) 27,5m2	
Temperature:	18°C	
Sound pressure:	70-80db	
Sound measurement:	Cel-573	

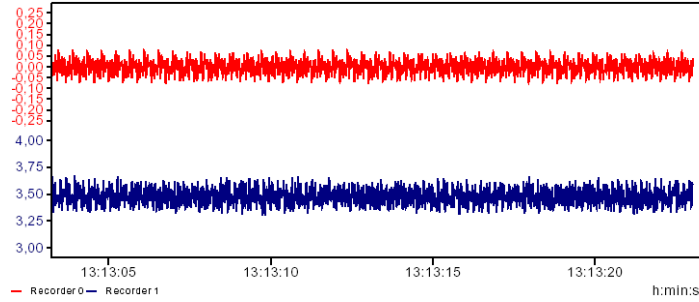
Object 1: Discs of Silence, permanently mounted on the Radius racks' base-corner-pillars, loaded at 50% of its working span.

Object 2: IsoClear placed on the floor, loaded at 50% of its working span

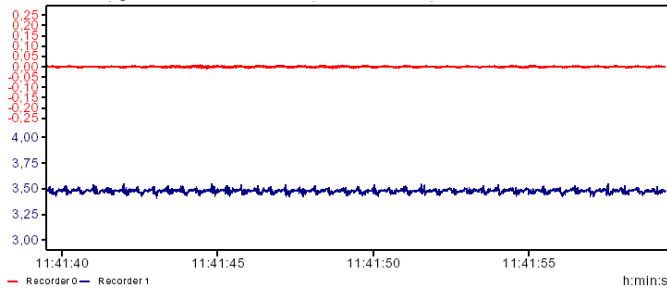
Red Curve = Z direction (the up and down movement)

Blue Curve = X-Y direction (lateral movement – left, right)

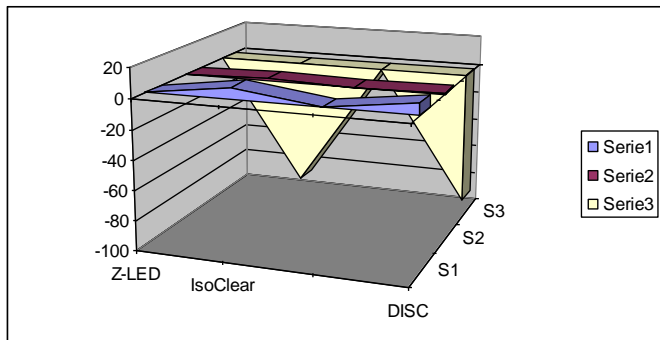
20Hz, sensors (accelerometers) placed on the floor



20Hz, IsoClear, placed on the floor, sensors placed on the object.



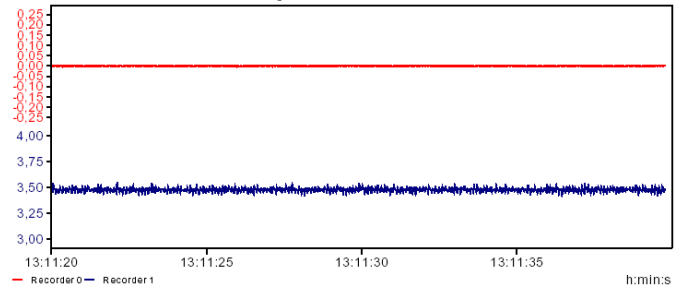
Measurement analysis 20Hz, Z direction.



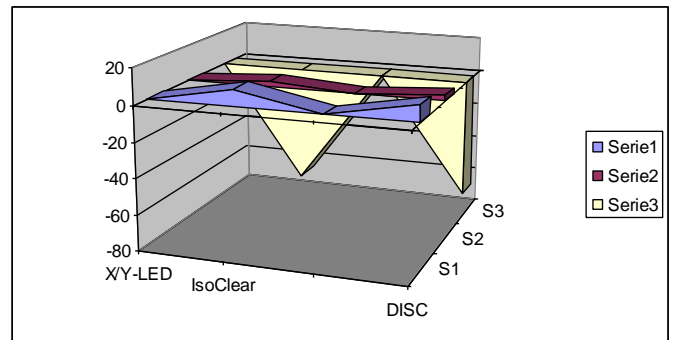
- Serie 1 = Vibrations on the floor.
- Serie 2 = Vibrations on Isoclear (left column).
- Discs of Silence equipped Radius rack (right column).
- Serie 3 = Reduction of vibrations in %

Isoclear = 84,64% reduction at 20Hz
 Discs of Silence equipped Radius rack = 88,48% reduction on the shelf at 20Hz.

20Hz, Discs of Silence equipped Radius rack placed on the floor, sensors placed on the shelf.



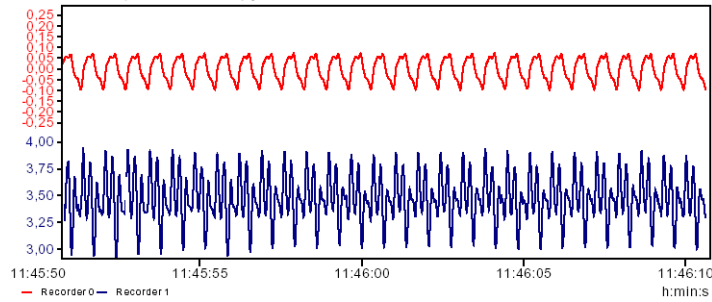
Measurement analysis 20Hz, X/Y direction.



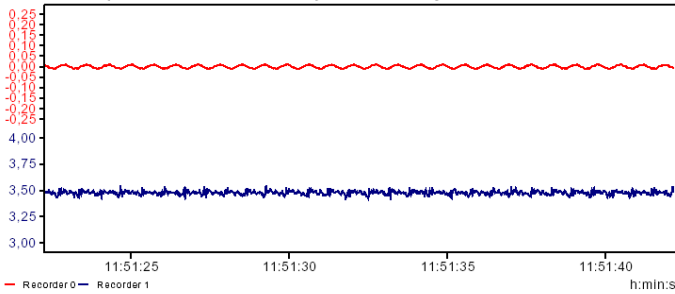
- Serie 1 = Vibrations on the floor.
- Serie 2 = Vibrations on the Isoclear (left column).
- Discs of Silence equipped Radius rack (right column)
- Serie 3 = Reduction of vibrations in %

Isoclear = 65,23% reduction at 20Hz
 Discs of Silence equipped Radius rack = 66,22% reduction on the shelf at 20Hz,

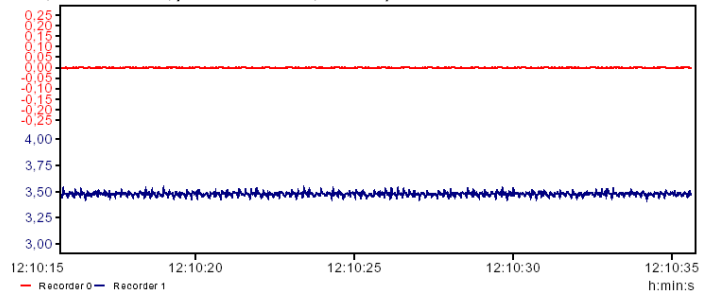
50Hz, sensors (accelerometers) placed on the floor.



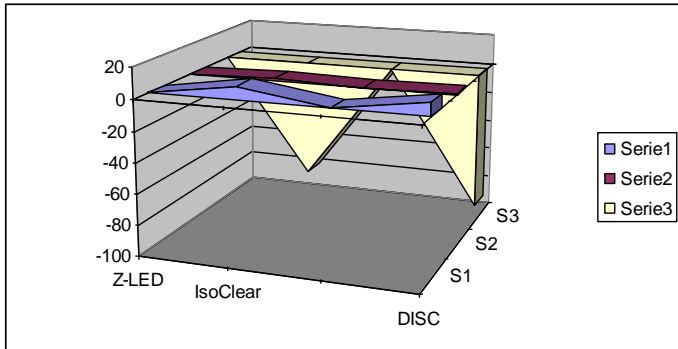
50Hz, IsoClear, placed on the floor, sensors placed on the object.



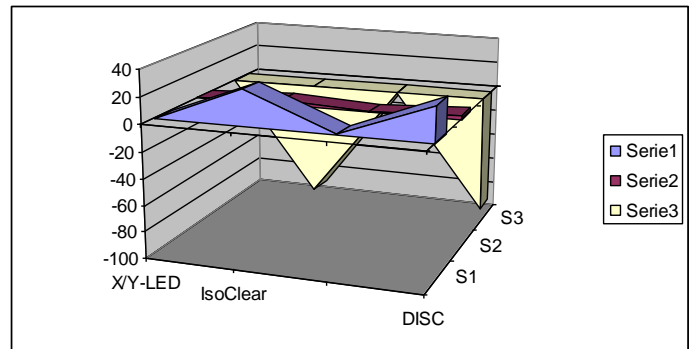
50Hz, Discs of Silence, equipped Radius rack placed on the floor, sensors placed on the shelf.



Measurement analysis 50Hz, Z direction.



Measurement analysis 50Hz, X/Y direction.



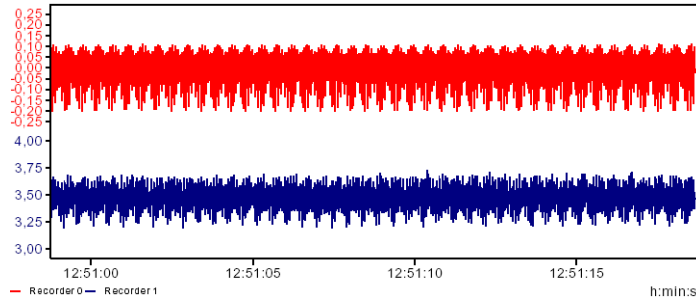
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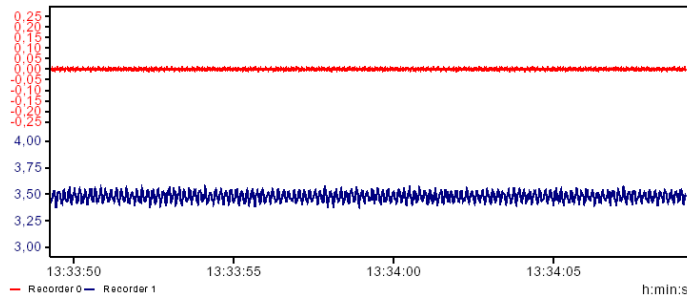
Isoclear = 77,73% reduction at 50Hz
 Discs of Silence equipped Radius rack = 89,22% reduction
 on the shelf at 50Hz.

Isoclear = 87,18% reduction at 50Hz
 Discs of Silence equipped Radius rack = 88,44%
 reduction on the shelf at 50Hz,

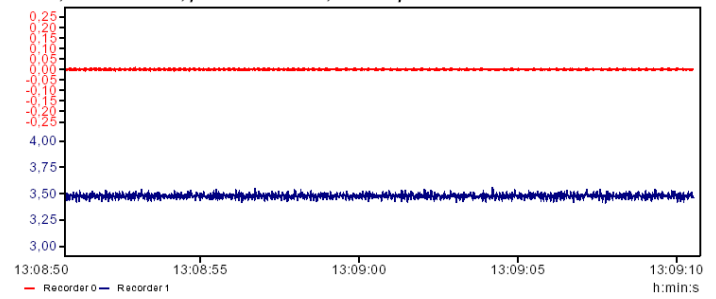
70Hz, sensors (accelerometers) placed on the floor.



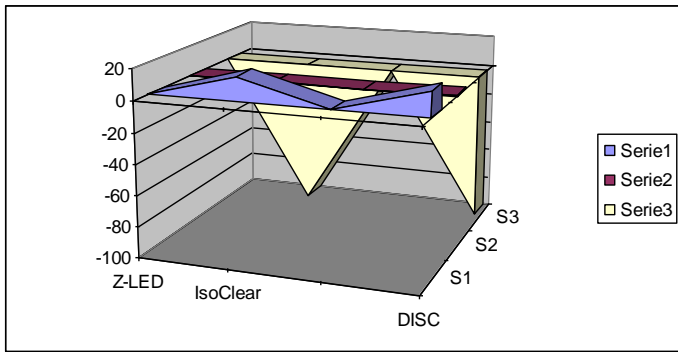
70Hz, IsoClear, placed on the floor, sensors placed on the object.



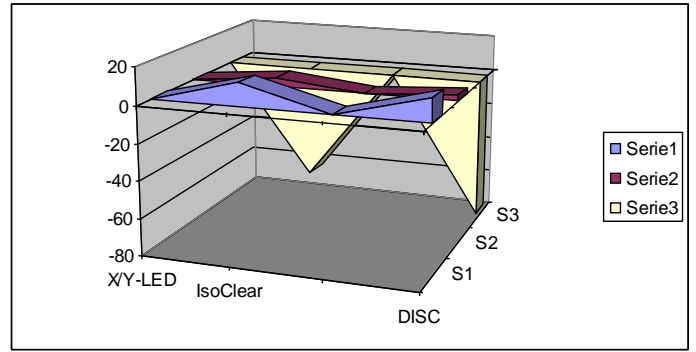
70Hz, Discs of Silence, equipped Radius rack placed on the floor, sensors placed on the shelf.



Measurement analysis 70Hz, Z direction.



Measurement analysis 70Hz, X/Y direction.



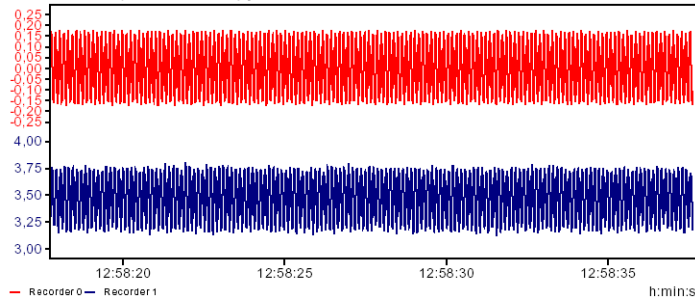
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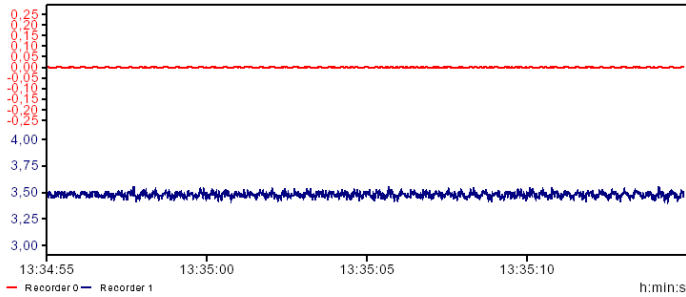
Isoclear = 94,07% reduction at 70HZ
 Discs of Silence equipped Radius rack = 94,39% reduction on the shelf at 70Hz.

Isoclear = 61,98% reduction at 70HZ
 Discs of Silence equipped Radius rack = 76,37% reduction on the shelf at 70Hz.

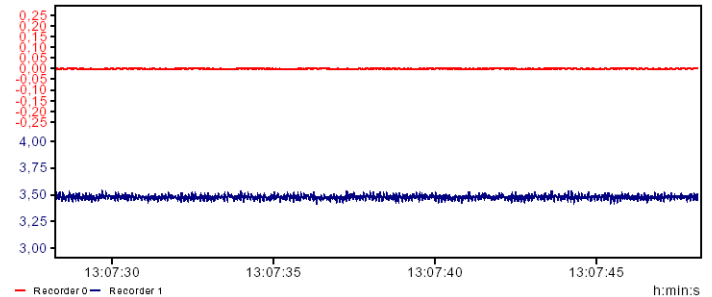
150Hz, sensors (accelerometers) placed on the floor.



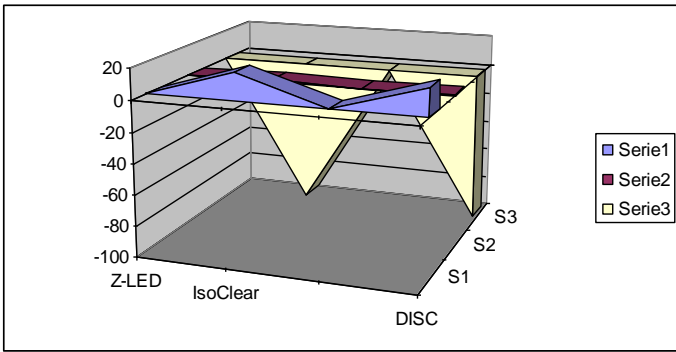
150Hz, IsoClear, placed on the floor, sensors placed on the object.



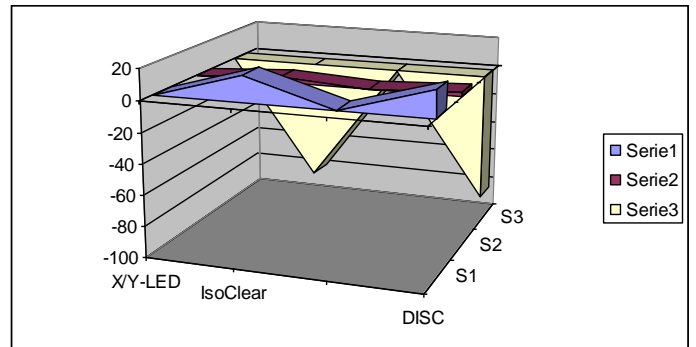
150Hz, Discs of Silence, equipped Radius rack placed on the floor, sensors placed on the shelf.



Measurement analysis 150Hz, Z direction.



Measurement analysis 150Hz, X/Y direction.



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- Serie 3 = Reduction of vibrations in %

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Isoclear = 93,81% reduction at 150HZ
 Discs of Silence equipped Radius rack = 95,87% reduction on the shelf at 150Hz.

Isoclear = 77,56% reduction at 150HZ
 Discs of Silence equipped Radius rack = 82,76% reduction on the shelf at 150Hz.