

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) 27,5m ² | |
| Temperature: | 18°C | |
| Sound pressure: | 70-80db | |
| Sound measurement: | Cel-573 | |

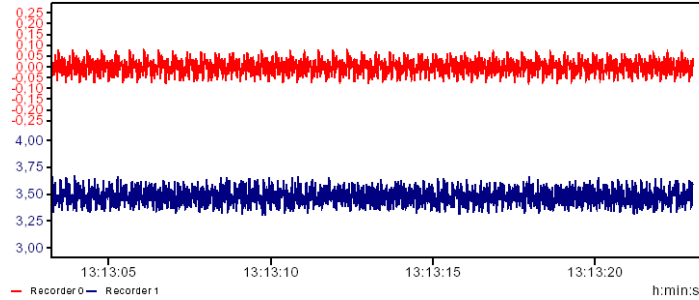
Object 1: Discs of Silence, permanently mounted on the Radius racks' base-corner-pillars, loaded at 50% of its working span.

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

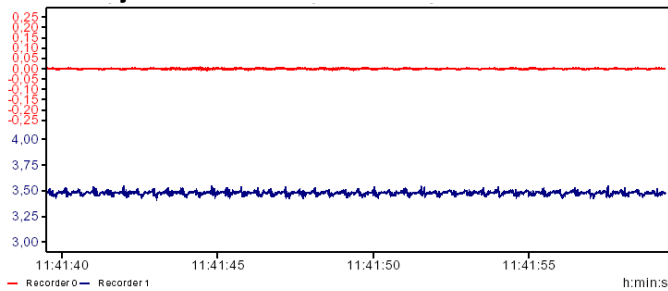
Red Curve = Z direction (the up and down movement)

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

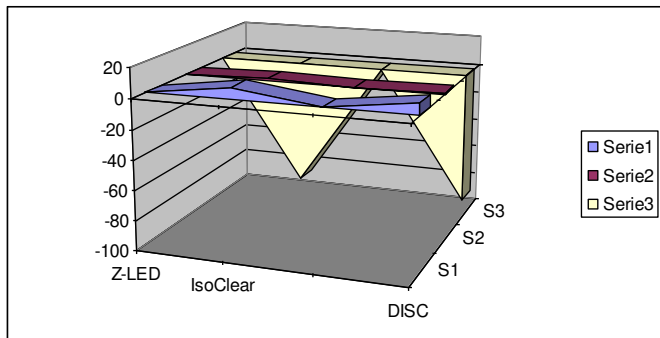
20Hz, sensors (accelerometers) placed on the floor



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



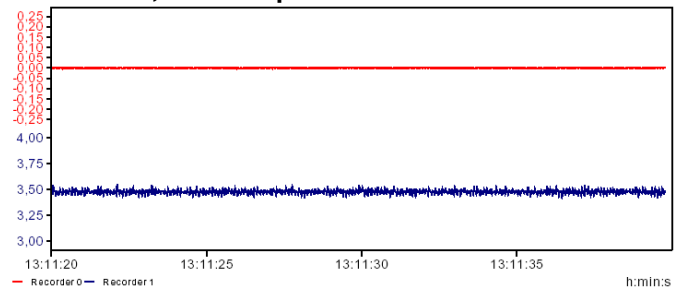
Measurement analysis 20Hz, Z direction.



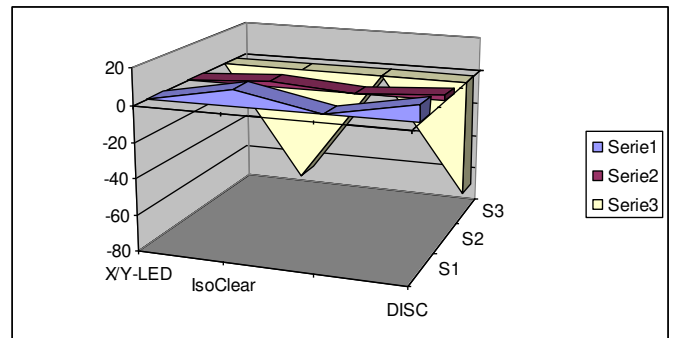
- Serie 1 = Vibrations on the floor.
- Serie 2 = Vibrations on Isoclear (left column).
- Discs of Silence equipped Radius rack (right column).
- Serie 3 = Reduction of vibrations in %

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.



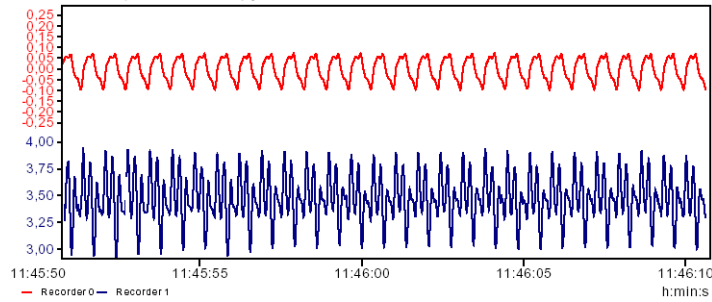
Measurement analysis 20Hz, X/Y direction.



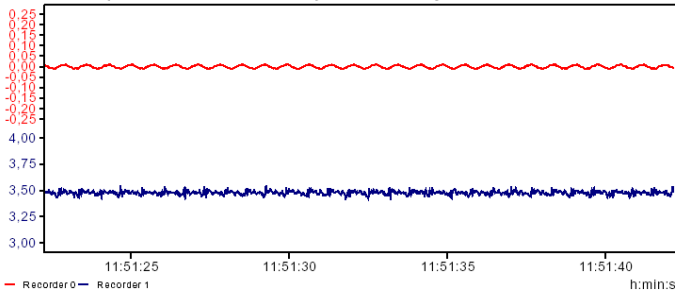
- Serie 1 = Vibrations on the floor.
- Serie 2 = Vibrations on the Isoclear (left column).
- Discs of Silence equipped Radius rack (right column)
- Serie 3 = Reduction of vibrations in %

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

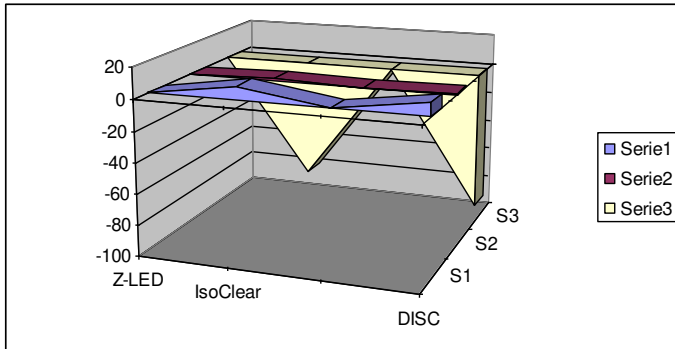
50Hz, sensors (accelerometers) placed on the floor.



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



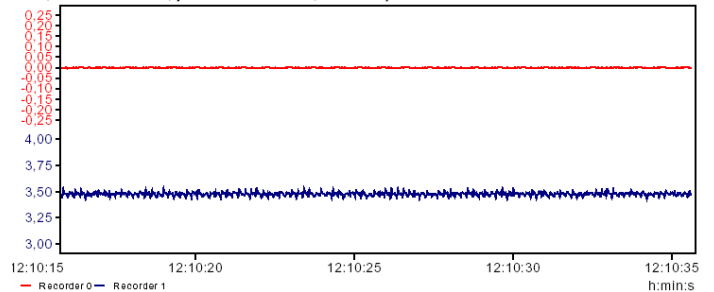
Measurement analysis 50Hz, Z direction.



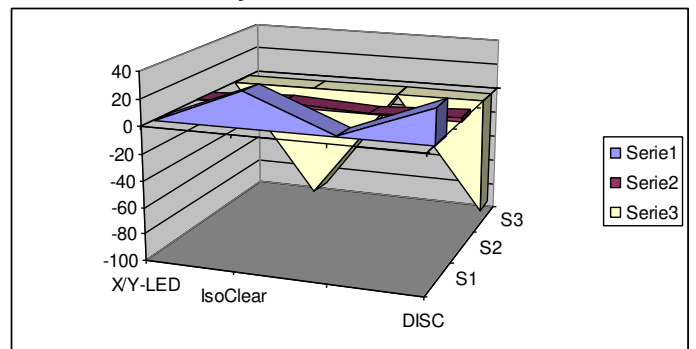
Serie 1 = Vibrations on the floor.
 Serie 2 = Vibrations on Isoclear (left column).
 Discs of Silence equipped Radius rack (right column).
 Serie 3 = Reduction of vibrations in %

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

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



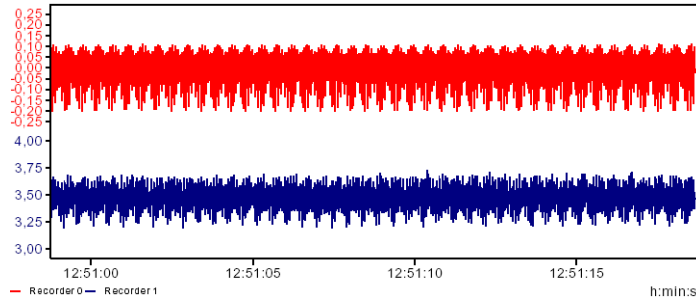
Measurement analysis 50Hz, X/Y direction.



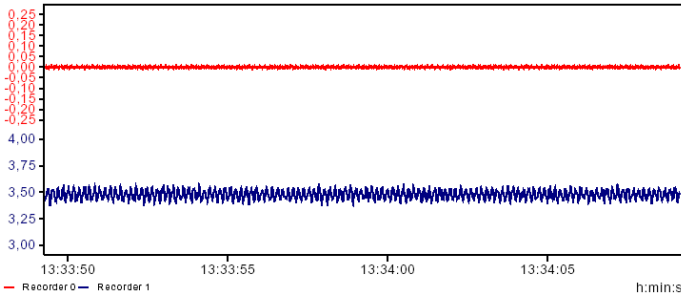
Serie 1 = Vibrations on the floor.
 Serie 2 = Vibrations on the Isoclear (left column).
 Discs of Silence equipped Radius rack (right column)
 Serie 3 = Reduction of vibrations in %

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

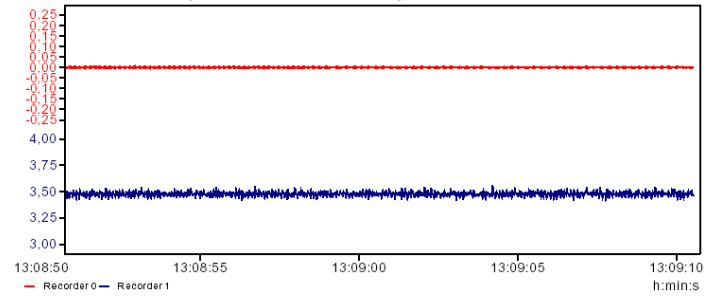
70Hz, sensors (accelerometers) placed on the floor.



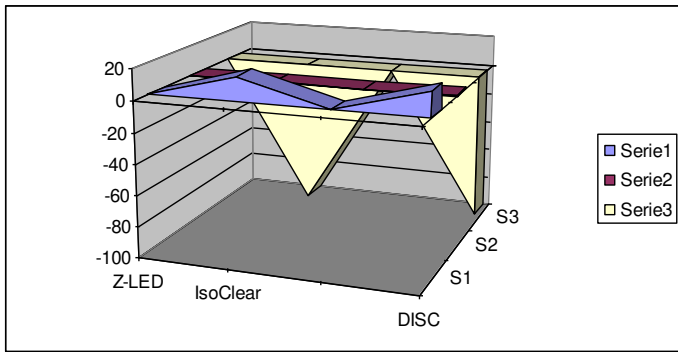
70Hz, IsoClear, placed on the floor, sensors placed on the object.



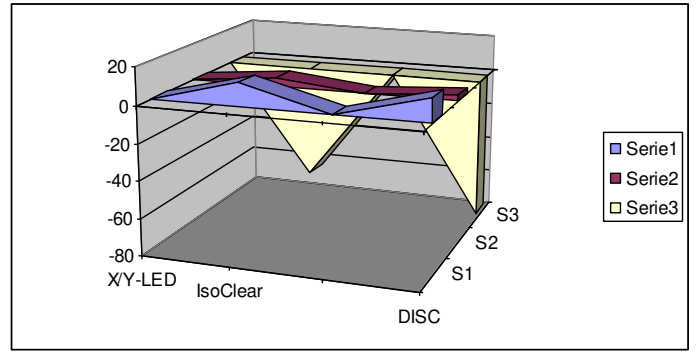
70Hz, Discs of Silence, equipped Radius rack placed on the floor, sensors placed on the shelf.



Measurement analysis 70Hz, Z direction.



Measurement analysis 70Hz, X/Y direction.



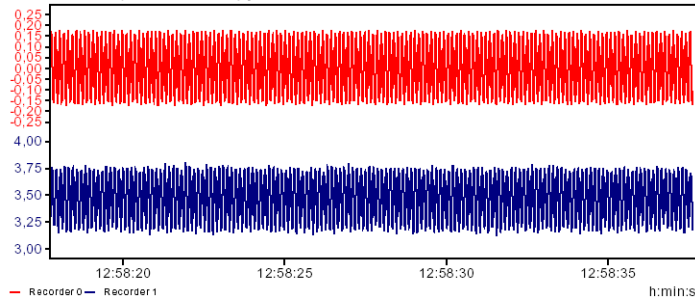
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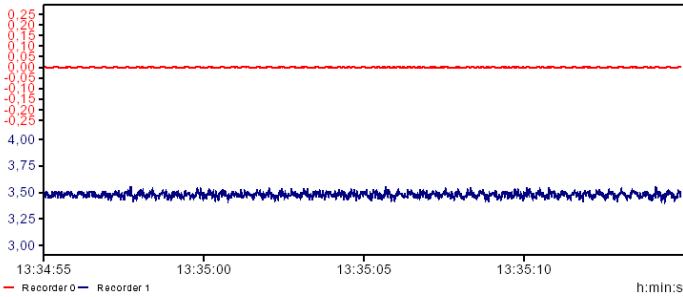
Isoclear = 94,07% reduction at 70HZ
 Discs of Silence equipped Radius rack = 94,39% reduction on the shelf at 70Hz.

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

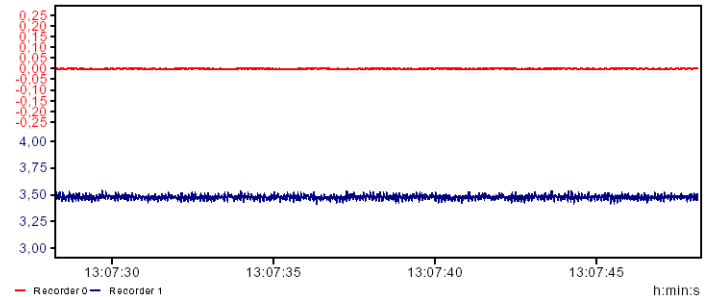
150Hz, sensors (accelerometers) placed on the floor.



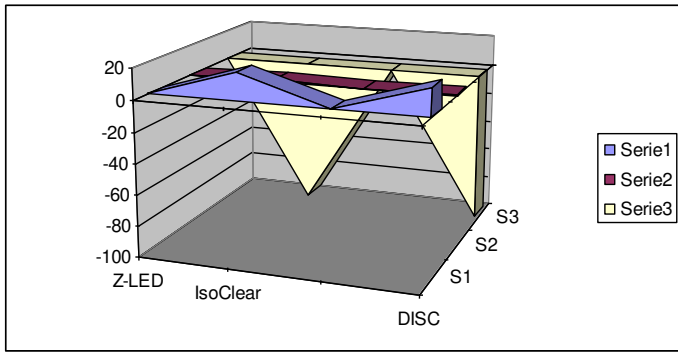
150Hz, IsoClear, placed on the floor, sensors placed on the object.



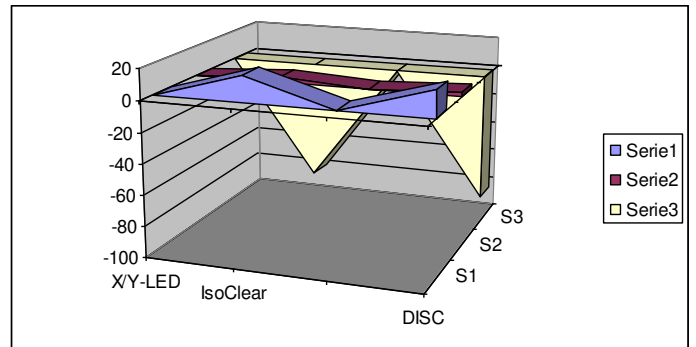
150Hz, Discs of Silence, equipped Radius rack placed on the floor, sensors placed on the shelf.



Measurement analysis 150Hz, Z direction.



Measurement analysis 150Hz, X/Y direction.



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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.