

TECHNICAL SHEET

SAM 50 - Finixa pneum eccentric sand. machine Ø 150mm-2.5mm deviation

Test Report

Part 1: Vibration

The test has been carried out in accordance with ISO 28927-3, Hand-held portable power tools – Test method for evaluation of vibration emission-

Part 3: Polishers and rotary, orbital and random orbital sanders

Measuring equipment :

Vibration instrumentation: Transducers (manufacturer, type, positioning, fastening method, photos, mechanical filters if used):

1. Modular sound level meter – B&K Type 2231
2. Human-vibration unit – B&K Type 2522
3. Hand-arm Transducer Set – B&K Type UA 0891
4. Accelerometers – B&K Type 4374 L

Operating and test conditions and results

Test conditions (types and mas of pad and/or abrasive material, work piece):

Time of test run: 16 seconds

Test condition: Loaded

Type of paper: 240 grit aluminum

Measured feed force: 30 ± 5N

Power supply (air pressure): 90 psi

Test Date: Mar. 17,2016			Machine type: Random Orbital Sander				Serial number:			Measured blow frequency/rotational speed:						
Test	Operator	Test run	Main handle (hand position1)				Support handle (hand position2)									
			\bar{a}_{hx} (m/s ²)	\bar{a}_{hy} (m/s ²)	\bar{a}_{hz} (m/s ²)	\bar{a}_{hv} (m/s ²)	Statistics for operator			Statistics for operator						
							\bar{a}_{hw}	S_{w-1}	C_w	\bar{a}_{hw} (m/s ²)	\bar{a}_{hw} (m/s ²)	\bar{a}_{hw} (m/s ²)	\bar{a}_{hw} (m/s ²)	\bar{a}_{hw}	S_{w-1}	C_w
1	1	1	0.35	1.64	0.86	1.88										
2	1	2	0.34	1.70	0.99	2.00										
3	1	3	0.36	1.72	1.11	2.08	2.03	0.09	0.05							
4	1	4	0.33	1.70	1.19	2.10										
5	1	5	0.31	1.69	1.20	2.10										
6	2	1	0.32	1.71	1.23	2.13										
7	2	2	0.34	1.77	1.31	2.23										
8	2	3	0.33	1.72	1.34	2.21	2.18	0.04	0.02							
9	2	4	0.32	1.70	1.28	2.15										
10	2	5	0.33	1.72	1.32	2.19										
11	3	1	0.35	1.77	1.34	2.25										
12	3	2	0.34	1.79	1.37	2.28										
13	3	3	0.35	1.74	1.32	2.21	2.21	0.06	0.03							
14	3	4	0.39	1.72	1.28	2.18										
15	3	5	0.39	1.70	1.20	2.12										
			\bar{a}_h (m/s ²) for hand position 1:				2,14			\bar{a}_h (m/s ²) for hand position 2:						
			s_{R1} (m/s ²) for hand position 1:				0,43			s_{R2} (m/s ²) for hand position 2:						
NOTE The \bar{a}_{hw} and \bar{a}_{hv} values are calculated according to 6.4 and 9.2, S_{w-1} and C_w are calculated according to 9.1, and s_{R1} is calculated according to Annex B.																

$$a) \quad s_{R1} = \sqrt{s_{rec}^2 + s_{op}^2} = 0.12$$

or

$$b) \quad s_{R1} = 0,06s_{hd} + 0,3 = 0.43$$

Part 2: Noise

The noise test is carried in accordance with BS EN ISO15744:2008

Hand-held non-electric power tools – Noise measurement code – Engineering method (grade 2) and BS EN ISO 11203:2009

Acoustics-Noise emitted by machinery and equipment – Determination of emission sound pressure levels at a work station and other specified positions from the sound power level.

Test conditions

Operation condition: Loaded

Ambient temperature: 22°C

Time of test run: 16 seconds

Measuring equipment

1: Microphone: B&K Type 4189

2: Modular Sound Level Meter: B&K Type 2231

3: Sound Level Calibrator: B&K Type 4230

4: Wind Screen: B&K UA 0237

Test arrangement

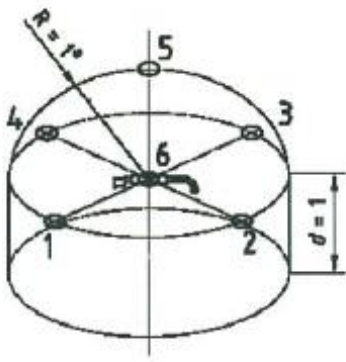
Area of measurement surface: 12.6 m²

Test above reflecting plane: 1 m

Test environment

The test is performed outdoors over a reflecting plane and there are no reflecting obstacle within a distance larger than 6m from the tool to the obstacle in each direction. It is recommended to carry out measurements in an anechoic test room over a reflecting plane. In this situation the background noise correction K1A and the environmental correction K2A are negligible.

Background noise: 55.2 dBA



Sound pressure at the operator's position

Equivalent continuous A-weighted sound pressure level measured at the operator's position (with microphone position near the operator's ear where above the ground plane $1,55\text{m} \pm 0,075\text{m}$ and point to the tool tested) = 81,0 dBA (for manufacturer reference)

	Test 1	Test 2	Test 3	Test 4	Test 5	Average
Sound pressure level (dBA)	81.0	81.2	81.0	80.9	80.8	81.0

Emission sound pressure level determined according to BS EN ISO 11203 at the operator's position = 79,0 dBA ($L_{pA} = L_{WA-11}$) to be declared

Calculation of sound power level

Measurements of A-weighted sound pressure level at five different microphone locations and by 3 persons.

	Microphone position	Test 1	Test 2	Test 3	Average
1	1	78.5	78.3	78.6	78.5
	2	76.7	76.8	76.6	76.7
	3	78.5	78.3	78.2	78.3
	4	80.2	80.5	80.0	80.2
	5	79.5	80.2	80.3	80.0
2	1	78.7	78.4	78.2	78.4
	2	76.3	76.2	76.5	76.3
	3	78.7	78.3	78.1	78.4
	4	80.1	80.4	80.3	80.3
	5	79.7	80.0	80.1	79.7
3	1	78.6	78.5	78.3	78.5
	2	76.1	76.3	76.2	76.2
	3	78.3	78.6	78.2	78.4
	4	80.5	80.8	80.7	80.7
	5	80.2	79.9	79.7	79.9
A-weighted surface sound pressure level on the surface = 78.9					

Measurement surface as $10 \log(S/S_0)$: 11 dBA

Results

Emission sound pressure level (operator's position) = 79,0 dBA

Measurement uncertainty KpA = 0,45 dBA

Sound power level = 79,0 + 11 = 90,0 dBA

Measurement uncertainty KwA = 0,18 dBA

Note: Measurement uncertainty = $2 \sigma_{\text{tot}} = 2 \sqrt{\sigma_{R0}^2 + \sigma_{\text{omc}}^2}$

The above information is given in good faith, but the user should assure himself that the performance of the product is sufficient for his application. The quoted values are average and should not be taken as maximum or minimum values for specific purposes. Chemicar Europe cannot be held responsible for product failure unless full testing has been carried out. The client has to decide on the products suitability for their own applications.