

Summary of testing:
 C18; QHS450 are identical, only the types are different.
 Vibration for no-load condition with and without cutting means is not required by EN 60745-2-22.
 It's only according to client's special requirement.

Location of testing and Environmental condition:

Location:	Noise lab of DEKRA Testing and Certification (Shanghai) Ltd.
Address:	No. 1050, Xingxian Road, Shanghai, China
Background noise:	31,8 dB(A)
Dimension:	3,95m*2,8m*2,4m
Air temperature:	30°C
Relative humidity:	36%
Barometric pressure:	101,1kPa
Wind velocity:	0m/s

Test equipment list:

Equipment	Type	Serial number	Manufacturer	Calibration due date
Soundmeter	2250	3025106	Brüel & Kjær	2020/02/24
Pulse	3050-A-060	3050-112000	Brüel & Kjær	2020/02/27
Calibrator	4231	3022391	Brüel & Kjær	2020/02/24
Accelerometer	4535B001	32675	Brüel & Kjær	2020/02/27
Accelerometer	4535B001	32674	Brüel & Kjær	2020/02/27

Part 1 Noise test

1.1 Test standards

EN 60745-1:2009+A11:2010; EN 60745-2-22:2011+A11:2013

1.2 Description of the hand-held tool

Product: Concrete Saw

Model: C18

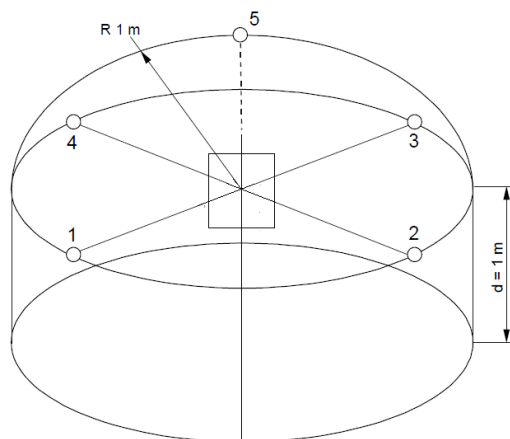
Technical data: 480 V; 3~

1.3 Description of mounting and operation conditions

Mounting: The machine was held by the operator.

Operating conditions: Cutting concrete slab.

1.4 Microphone positions:



1.5 Measurement data

cycle \ point	1	2	3	4	5
1	103,2	104,0	102,2	103,5	100,8
2	103,1	103,8	102,2	103,2	101,0
3	103,5	104,2	102,4	103,5	101,2
4	103,2	104,1	102,1	103,3	101,1
5	102,9	103,7	102,5	103,6	101,2

1.6 Test result

sound power level: $L_{WA} = 113,9dB(A)$

Emission sound pressure level: $L_{pA} = 102,9dB(A)$

Part 2 Vibration test

2.1 Mode "Cutting concrete slab"

2.1.1 Test standards

EN 60745-1:2009+A11:2010; EN 60745-2-22:2011+A11:2013

2.1.2 Description of the hand-held tool

Product: Concrete Saw

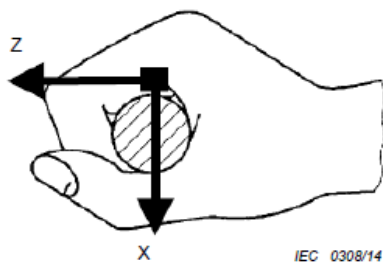
Model: C18

Technical data: 480 V; 3~

2.1.3 Description of operating and testing conditions

Testing conditions: Cutting concrete slab.

2.1.4 Measurement direction



2.1.5 Measurement data

Main handle:

Operator A				
Direction \ No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,198	3,643	1,522	4,126
2	1,389	4,081	1,502	4,565
3	1,177	3,682	1,410	4,114
4	1,464	3,870	1,582	4,429
5	1,432	4,434	1,493	4,893
the arithmetic mean total vibration				4,426

Operator B				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,444	4,082	1,368	4,541
2	1,375	4,098	1,402	4,544
3	1,368	3,858	1,435	4,337
4	1,168	4,071	1,646	4,544
5	1,028	4,320	1,832	4,804
the arithmetic mean total vibration				4,554

Operator C				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,168	4,052	1,848	4,604
2	1,279	4,305	1,662	4,788
3	1,109	4,147	1,737	4,631
4	1,061	4,109	1,681	4,564
5	1,223	4,586	1,841	5,091
the arithmetic mean total vibration				4,736

Auxiliary handle:

Operator A				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,226	4,086	1,616	4,925
2	2,212	3,640	1,878	4,655
3	2,341	4,019	1,787	4,982
4	2,773	4,355	1,925	5,510
5	2,375	4,408	1,666	5,277
the arithmetic mean total vibration				5,070

Operator B				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,654	3,678	1,647	4,826
2	2,465	3,655	1,572	4,681
3	2,689	3,985	1,683	5,094
4	2,661	3,761	1,645	4,892
5	2,660	4,479	1,934	5,557
the arithmetic mean total vibration				5,010

Operator C				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,738	3,777	1,726	4,974
2	2,560	4,188	1,744	5,209
3	2,289	4,408	1,773	5,274
4	2,713	3,793	1,885	5,030
5	2,320	3,867	1,530	4,762
the arithmetic mean total vibration				5,050

2.1.6 Test result

Main handle: The average vibration total value a_h : 4,572 m/s²

Auxiliary handle: The average vibration total value a_h : 5,043 m/s²

2.2 Mode “No load with saw blade”

2.2.1 Test standards

EN 60745-1:2009+A11:2010; EN 60745-2-22:2011+A11:2013

2.2.2 Description of the hand-held tool

Product: Concrete Saw

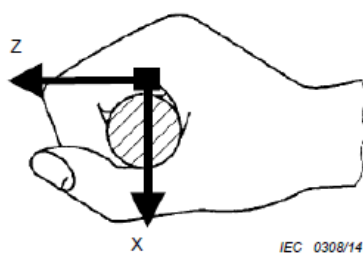
Model: C18

Technical data: 480 V; 3~

2.2.3 Description of operating and testing conditions

Testing conditions: No load/max.speed

2.2.4 Measurement direction



2.2.5 Measurement data

Main handle:

Operator A				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,581	4,009	1,183	4,469
2	1,270	4,505	1,516	4,920
3	1,270	4,279	1,224	4,628
4	1,423	4,356	1,068	4,705
5	1,299	4,631	1,526	5,045
the arithmetic mean total vibration				4,754

Operator B				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,369	4,453	1,036	4,772
2	1,227	4,310	1,278	4,660
3	1,210	4,687	1,111	4,967
4	1,274	4,638	1,403	5,010
5	1,202	4,702	1,187	4,997
the arithmetic mean total vibration				4,881

Operator C				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,340	4,266	1,030	4,589
2	1,218	4,050	1,091	4,367
3	1,315	4,603	1,081	4,908
4	1,539	4,251	1,171	4,670
5	1,528	4,388	1,555	4,900
the arithmetic mean total vibration				4,687

Auxiliary handle:

Operator A				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,660	3,143	1,455	4,367
2	2,795	3,396	1,997	4,830
3	2,741	3,231	1,845	4,622
4	2,596	2,753	2,000	4,280
5	2,524	2,661	1,763	4,070
the arithmetic mean total vibration				4,434

Operator B				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,973	2,700	1,602	4,324
2	2,318	3,227	1,410	4,216
3	2,589	2,676	1,522	4,023
4	2,937	3,264	1,948	4,804
5	2,998	2,763	1,416	4,316
the arithmetic mean total vibration				4,336

Operator C				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,308	2,556	1,736	3,856
2	2,349	2,629	1,506	3,834
3	2,615	2,554	1,764	4,059
4	2,946	2,500	1,601	4,182
5	2,593	2,720	1,988	4,251
the arithmetic mean total vibration				4,036

2.2.6 Test result

Main handle: The average vibration total value a_h : 4,774 m/s²

Auxiliary handle: The average vibration total value a_h : 4,269 m/s²

2.3 Mode "No load without saw blade"

2.3.1 Test standards

EN 60745-1:2009+A11:2010; EN 60745-2-22:2011+A11:2013

2.3.2 Description of the hand-held tool

Product: Concrete Saw

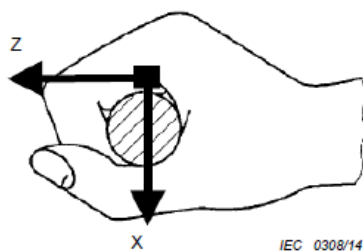
Model: C18

Technical data: 480 V; 3~

2.3.3 Description of operating and testing conditions

Testing conditions: No load/max.speed

2.3.4 Measurement direction



2.3.5 Measurement data

Main handle:

Operator A				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,008	1,223	1,275	2,034
2	1,169	1,413	1,481	2,357
3	0,952	1,756	1,322	2,396
4	0,971	1,997	1,314	2,580
5	1,040	1,472	1,304	2,225
the arithmetic mean total vibration				2,318

Operator B				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	0,983	1,853	1,025	2,334
2	0,918	1,908	1,197	2,433
3	1,071	1,332	1,049	2,005
4	1,026	1,445	1,427	2,276
5	1,008	1,322	1,100	1,993
the arithmetic mean total vibration				2,208

Operator C				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	0,970	1,518	1,394	2,278
2	1,091	1,429	1,330	2,236
3	1,074	1,421	1,472	2,311
4	0,972	1,866	1,139	2,392
5	1,042	1,254	1,377	2,134
the arithmetic mean total vibration				2,270

Auxiliary handle:

Operator A				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	1,993	1,386	1,123	2,675
2	2,348	1,338	0,936	2,859
3	1,906	1,006	1,085	2,413
4	2,090	1,229	1,191	2,701
5	1,947	1,269	0,973	2,519
the arithmetic mean total vibration				2,634

Operator B				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,007	1,323	1,184	2,679
2	1,921	1,186	0,923	2,439
3	1,940	1,084	1,039	2,453
4	2,323	1,466	1,177	2,989
5	2,134	1,416	0,954	2,733
the arithmetic mean total vibration				2,659

Operator C				
Direction No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	2,102	1,406	1,176	2,789
2	1,938	1,484	0,964	2,624
3	1,958	1,164	1,063	2,514
4	2,141	1,320	1,196	2,785
5	2,081	1,015	1,068	2,550
the arithmetic mean total vibration				2,653

2.3.6 Test result

Main handle: The average vibration total value a_h : 2,266 m/s^2

Auxiliary handle: The average vibration total value a_h : 2,648 m/s^2

The test results shown in this report relate only to the tests performed according to the test program. The test object has not been submitted to a full test program.

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