

DIN EN 16589-1:2023-03 (E)

Laboratory local exhaust devices - Part 1: General requirements and type test methods for articulated extractions arms

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	Test room and general test conditions	10
4.1	Dimension and construction of the test room	10
4.2	Test room conditions	10
4.3	Articulated extract arm installation	10
4.4	Test conditions	10
4.4.1	General	10
4.4.2	Setting extract air volume flow rate	10
4.4.3	Tracer gas	10
5	Type test methods	11
5.1	General	11
5.2	Capture zone measurement	11
5.2.1	General	11
5.2.2	Test Equipment	11
5.2.3	Test Principle	11
5.2.4	Test procedure	12
5.3	Capture efficiency and robustness test	13
5.3.1	Test equipment	13
5.3.2	Test principle	13
5.3.3	Test method	14
5.3.4	Test procedure	14
5.3.5	Data analysis and results	16
6	Technical performance	17
6.1	General	17
6.2	Pressure measurement	18
6.3	Sound pressure level	18
6.4	Sound power level	18
6.5	Reachable workspace	18
7	Alarms and indicators	18
7.1	Airflow alarms	18
7.2	Capture zone indicator	18
7.3	Measuring point for airflow control	19
8	Marking and labelling	19
9	Product manual	19
10	Test report	21
Annex A (informative) Guidance on selection and use of AEA's		23
Annex B (informative) Recommendations for commissioning and validation on-site		28
Bibliography		29