

ISO 5011:2000-12 (E)

Inlet air cleaning equipment for internal combustion engines and compressors - Performance testing

Contents		Page
Foreword		v
1	Scope	1
2	Normative references	1
3	Terms, definitions, symbols and units	1
3.1	Terms and definitions	1
3.2	Symbols and units	3
4	Measurement accuracy and standard conditions	4
4.1	Measurement accuracy	4
4.2	Standard conditions	4
5	Test materials and test conditions	4
5.1	Test dust	4
5.2	Test oil for oil bath air cleaners	5
5.3	Absolute filter materials	5
5.4	Absolute filter mass	6
5.5	Temperature and humidity	6
6	Test procedure for dry-type air cleaners for automotive applications	6
6.1	General	6
6.2	Test equipment	6
6.3	Restriction and differential pressure test	8
6.4	Efficiency test	8
6.5	Capacity test	10
6.6	Filter element pressure collapse test	10
6.7	Variable air flow test	11
6.8	Presentation of data	11
7	Test procedure for dry-type air cleaners for industrial applications	12
7.1	General	12
7.2	Test equipment	12
7.3	Restriction and differential pressure test	13
7.4	Initial efficiency test procedure -- Absolute filter method	13
7.5	Full-life efficiency and capacity test	14
7.6	Presentation of data	15
7.7	Scavenged air cleaner performance test	16
7.8	Precleaner performance test	17
7.9	Secondary element test procedure	18
8	Test procedure for industrial applications of oil bath air cleaners	19
8.1	General	19
8.2	Test equipment and conditions	19
8.3	Restriction and differential pressure test	20
8.4	Oil carry-over test	20
8.5	Full life efficiency and capacity test	21
8.6	Recovery test	21
8.7	Presentation of data	21

Annex A (normative) Explanation of restriction, differential pressure and pressure loss of an air cleaner	22
Annex B (normative) Test equipment	24
Annex C (informative) Report sheet on performance testing of air cleaner equipment according to Annex D (informative) Report sheet on performance testing of air cleaner equipment according to Annex E (informative) Presentation of results -- Air cleaner restriction/differential pressure versus flow	35
Annex F (informative) Presentation of results -- Air cleaner capacity	36
Annex G (normative) Airflow and resistance corrections to standard conditions	37
Bibliography	39