Vortex

Automatic, self-cleaning air intake pre-cleaner

Vortex is a self-cleaning air intake pre-cleaner providing direct, continuous expulsion of dust, ash, sand, insect, sparks, snow and water, etc. It has the same function as a rain cap. Vortex cools the air intake, increases service life on a cost-efficient basis and increases the intervals between filter services.

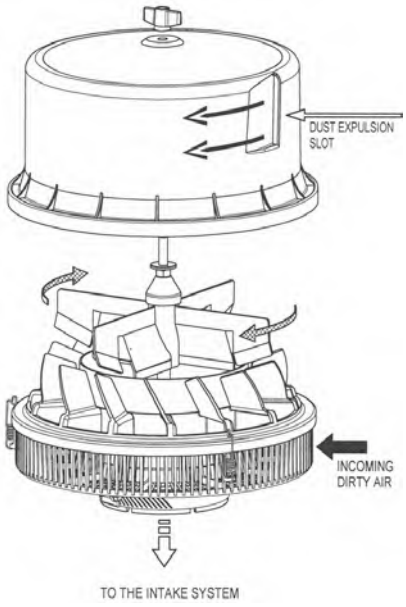
Vortex lengthens the filter life, reduces the fuel costs and extends the engine life.

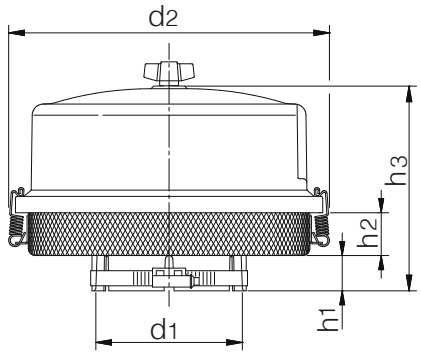
Properties:

- Removes more than 87.5% of SAE coarse dust
- Removes up to 99% of bigger airborne particles
- Only a slight loss of vacuum
- Better noise reduction than classic pre-cleaners
- Can be mounted directly on the air filter
- No installation restrictions operates in any position
- Designed for the harshest of working environments
- Compact dimensions
- Easy monitoring of functions
- For use with single and two-stage air cleaners
- The operating temperature of -40°C to +85°C with peaks of +100°C
- Volume flow range from 0.9 m^3/min to 56 m^3/min

Advantages:

- Increases filter life by up to 12 times
- Self-cleaning through direct, continuous dust expulsion
- No downtime for emptying dust bowls
- Savings on fuel and maintenance costs
- Easy retrofitting to existing applications
- No connection to the exhaust system required
- No increase in air intake temperature





After Vortex has been fitted on the air cleaner system, if no stroboscopic rpm-meter is available a simple test has to be followed when the engine is slow running. Insert talc or similar close to the air inlet area, the operator should visually be aware the talc being ejected from the lower side on the body of the pre-cleaner even if in small quantity. Anyway air should come out from the lower. Acceleration will increase the efficiency of the dust separation. However, when engine is slow running, the rotative speed of the fan inside the vortex should be at 1150 - 1500 rpm.

Vortex model selection must be based entirely on the airflow range used by the engine or compressor and not on the intake pipe diameter.

Important factors that should be taken under consideration when choosing Vortex automatic pre-cleaner:

- Airflow range of the engine or compressor
- Diameters of connection points between filter and pre-cleaner
- Air filter itself has to have from 15 to 30% more airflow capacity when automatic pre-cleaner is used as added pre-cleaner increases the airflow restriction
- RPM levels (acceleration will increase the efficiency of the dust separation, however when engine is slow-running the pre-cleaner fan speed should be at 1150 – 1500 RPM)
- Any additional extension or connection reduce the airflow of the air cleaner system
- Can be mounted in any position
- Efficiency of the chosen combination of parts (filter with a pre-cleaner) in a specific application should always be measured by a test of the air cleaner system in a real working conditions.

In order to choose the most effective pre-cleaning solution for the engine or compressor, based on its specification you can contact our sales department for expert assistance: sales@longday.com or +41 (0) 43 501 58 00.

Technical Data

Code	Air flow m^3/min	Dimensions in mm					Weight in kg
		d1	d2	h1	h2	h3	
CV-1548100	0,9 - 1,9	38	104	17	11	71	0,14
CV-1681800 [A]	0,9 - 2,2	45	104	17	11	77	0,14
CV-1547800	0,9 - 2,4	51	104	17	11	77	0,14
CV-1531800 [A]	1,7 - 3	51	170	17	14	117	0,39
CV-1527600	1,7 - 3,4	63,5	170	17	14	117	0,38
CV-1655600 [A]	2,5 - 4	70	170	17	14	117	0,39
CV-1525100	2,5 - 4,2	76	170	17	14	117	0,38
CV-1524000	3,5 - 7,2	76	255	26	36	160	0,76
CV-1692100	4,2 - 10	82,2	255	26	36	160	0,76
CV-1475000	4,2 - 8,5	96	255	26	36	160	0,76
CV-1477100 [B]	4,2 - 8,5	96	255	58	122	278	1,94
CV-1476700	4,2 -10,5	102	255	26	36	160	0,76
CV-1476900 [B]	4,2 -10,5	102	255	58	122	278	2,16
CV-1664000	8 - 19,5	110	300	31	37,5	214	1
CV-1477000	4,2 - 11	114	255	26	36	160	0,76
CV-1477500 [B]	4,2 - 11	114	255	58	122	278	2,28
CV-1580200 [A]	8,4 -19,5	114	300	31	37,5	214	1
CV-1549700	5 - 11,7	127	255	61	36	193	0,9
CV-1561600	9,5 - 20,8	127	300	31	37,5	214	1
CV-1730000 [B]	9,5 - 20,8	127	300	59	119	320	-
CV-1593300	7,5 - 19,8	152	300	31	37,5	214	1
CV-1562000	11,6 - 27,2	152	300	31	37,5	214	1
CV-1592200	16 - 30	178	380	25	55	207	3,94
CV-1622100	17 - 33,3	203	380	66	55	248	4,4
CV-1748200 [A, C]	20 - 53	203	465	36	42	202	5,66
CV-1740800 [C]	26 - 56	228	465	36	42	202	5,12
CV-1741000 [C]	45 - 56	255	465	36	42	202	5,2

[A] d1 with reduction

[B] With high protection net (h2-h3)

[C] With metal cover