

A●erity¹⁵ & A●erity¹⁰ Main/Sub

Oil mist filter



- World-class air filtration for industrial processes
- Long service intervals through EcoDrive® and Catch&Release®
- Connected for optimized performance and planned maintenance
- Upgradeable for changing process needs
- 8760 hours of maintenance-free operation

New powerful filter units from Absolent

The A●erity¹⁵ and A●erity¹⁰ are a series of powerful filter units for the purification of polluted air in industrial operations, guaranteeing clean air for at least 8,760 operating hours. Thanks to advanced filter technology, unplanned downtime is minimised so that the focus can be on operations instead. A●erity is built on carefully tested technology with solid expertise and can be smoothly integrated into production.

Function

A•erity 15 & 10 Main/Sub are multi-stage filter units that filters and cleans polluted air from industrial processes. The polluted air is sucked in through the inlet at the bottom and flows vertically through the first filter cassette. This captures most of the particles. Once the filter cassette is saturated, the liquid drains through the Absolent Catch & Release® system into the collection tank. A HEPA H13 filter cassette catches the remaining particles. Due to this, the cleaned air can be led back into the production hall.

Applications



Machining



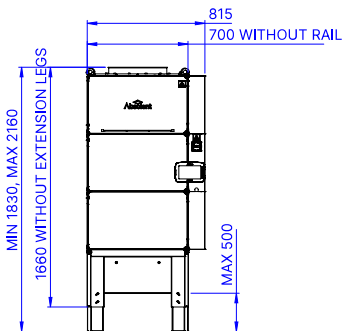
Grinding



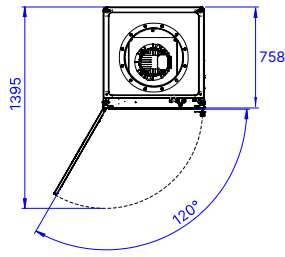
MQL

Dimensions

A•erity 15-10, 15-20, 10-30 Main

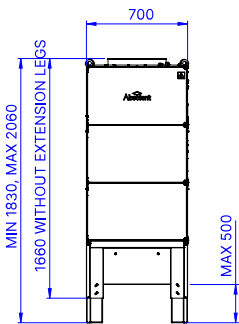


A•erity 15-10 Main
A•erity 15-20 Main
A•erity 10-30 Main

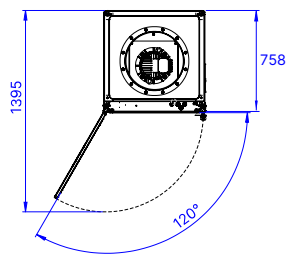


A•erity 15-10 Main
A•erity 15-20 Main
A•erity 10-30 Main

A•erity 15-10, 15-20, 10-30 Sub



A•erity 15-10 Sub
A•erity 15-20 Sub
A•erity 10-30 Sub



A•erity 15-10 Sub
A•erity 15-20 Sub
A•erity 10-30 Sub

Technical specifications

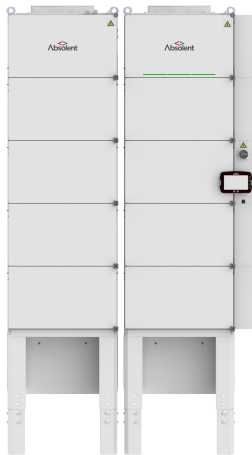
| | A•erity 15-10 Main/Sub Single | A•erity 15-20 Main/Sub Single | A•erity 10-30 Main/Sub Single |
|---|--|--|--|
| General | | | |
| Application | Machining, grinding | Machining, grinding | Machining, grinding, MQL |
| Nominal airflow | 1500 m ³ /h (880 cfm) | 1500 m ³ /h (880 cfm) | 1000 m ³ /h (590 cfm) |
| Particle load | 10 mg/m ³ | 20 mg/m ³ | 30 mg/m ³ |
| External pressure drop | 300 Pa (1.2 iwg) | 300 Pa (1.2 iwg) | 300 Pa (1.2 iwg) |
| Energy class | IE5 | IE5 | IE5 |
| Colour | RAL 7035 SK-3 | RAL 7035 SK-3 | RAL 7035 SK-3 |
| Connections | | | |
| Inlet type | S&W flanged pipe joint | S&W flanged pipe joint | S&W flanged pipe joint |
| Inlet diameter | 200 mm (7.87 in) | 200 mm (7.87 in) | 200 mm (7.87 in) |
| Inlet placement | Back (standard), optional left, right, front | Back (standard), optional left, right, front | Back (standard), optional left, right, front |
| Outlet type | Essential: Free flow. Professional, Advanced: S&W flanged pipe joint | Essential: Free flow. Professional, Advanced: S&W flanged pipe joint | Essential: Free flow. Professional, Advanced: S&W flanged pipe joint |
| Outlet diameter | 400 mm (15.75 in) | 400 mm (15.75 in) | 400 mm (15.75 in) |
| Outlet placement | Top | Top | Top |
| Drainage connection type | Threaded male (DN25) | Threaded male (DN25) | Threaded male (DN25) |
| Drainage connection dimension | 1 " | 1 " | 1 " |
| Number of drainage connections | 1 pcs | 1 pcs | 1 pcs |
| Drainage connection placement | Back right | Back right | Back right |
| Filter | | | |
| Number of filter stages per filter unit | 2 pcs | 2 pcs | 2 pcs |
| Number of filter cassettes per filter unit | 2 pcs | 2 pcs | 2 pcs |
| Filter cassette Stage 4 | - | - | - |
| Filter cassette Stage 3 | - | - | - |
| Filter cassette Stage 2 | 92120600 (HEPA H13) | 92120600 (HEPA H13) | 92120600 (HEPA H13) |
| Filter cassette Stage 1 | 92110603 | 92110604 | 92110606 |
| Prefilter | Yes, as option | Yes, as option | Yes, as option |
| Fan | | | |
| Fan motor type | EC | EC | EC |
| Number of fans | 1 pcs | 1 pcs | 1 pcs |
| Voltage | 3x380-480 + N & PE V | 3x380-480 + N & PE V | 3x380-480 + N & PE V |
| Frequency | 50/60 Hz | 50/60 Hz | 50/60 Hz |
| Fan motor power | 0,55 kW (0.74 hp) | 0,55 kW (0.74 hp) | 0,55 kW (0.74 hp) |
| Rated current | 1,1 A | 1,1 A | 1,1 A |
| Maximum cable cross-section | 6 mm ² | 6 mm ² | 6 mm ² |
| Rotational speed fan motor maximum | 3000 rpm | 3000 rpm | 3000 rpm |
| Physical properties | | | |
| Width without accessories/options | 700 mm (27.56 in) | 700 mm (27.56 in) | 700 mm (27.56 in) |
| Width with accessories/options | 815 mm (32.09 in) | 815 mm (32.09 in) | 815 mm (32.09 in) |
| Height with extension legs | 1770 mm (69.69 in) | 1770 mm (69.69 in) | 1770 mm (69.69 in) |
| Height with extension legs | 1940-2170 mm (76.38-85.43 in) | 1940-2170 mm (76.38-85.43 in) | 1940-2170 mm (76.38-85.43 in) |
| Depth | 758 mm (29.84 in) | 758 mm (29.84 in) | 758 mm (29.84 in) |
| Weight with empty filter cassettes | 200 kg (441 lbs) | 200 kg (441 lbs) | 200 kg (441 lbs) |
| Weight with full filter cassettes | 215 kg (474 lbs) | 215 kg (474 lbs) | 215 kg (474 lbs) |
| Weight without filter cassettes | 169 kg (373 lbs) | 169 kg (373 lbs) | 169 kg (373 lbs) |
| Sound level | | | |
| Sound level Advanced 75% (normal operation)* | 64 db(A) | 64 db(A) | 64 db(A) |
| Sound level Professional 75% (normal operation)* | 64 db(A) | 64 db(A) | 64 db(A) |
| Sound level Essential 75% (normal operation)* | 71 db(A) | 71 db(A) | 71 db(A) |
| Sound level Advanced 100% | 70 db(A) | 70 db(A) | 70 db(A) |
| Sound level Professional 100% | 70 db(A) | 70 db(A) | 70 db(A) |
| Sound level Essential 100% | 80 db(A) | 80 db(A) | 80 db(A) |
| * The sound level is measured 1 m from the filter unit free field, hemispherical propagation. For sound calculation on specific room; contact Absolent or reseller/distributor. | | | |

Description of the concept

The A•erity concept consists of units made up of several modules stacked on top of each other. A standard set consists of a bottom module, two to four filter modules and a fan module. The filter cassettes are placed in the filter modules and the set is customised to the nature of the application. Each filter unit creates an airflow and, if necessary, several filter units are connected together to create a system.

Main- and Sub units

There are two types of filter units in the A•erity concept: Main and Sub units. The main unit controls all fans in the system.



Sub & Main

Fan with EC motor

The A•erity series filter units are equipped with EC (Electronically Commutated Motor) driven fans. The EC motor is IE5 classified and offers high energy efficiency, precise speed control and reduced noise compared to traditional AC (Alternating Current) motors.

Filter cassette set

Industrial processes generate particles of various sizes and concentrations. Absolent's filter cassettes are available in several different designs, specially developed to cope with the variance of particles. Depending on the application, several types of filter cassettes with unique properties are combined in different numbers of stages to effectively filter the resulting contaminants. Tougher contaminants require more number of filter stages.



A•erity 15-10 Main/Sub Single

Particle load: 10 mg/m³

Nominal airflow: 1500 m³/h (880 cfm)

Number of filter stages per filter unit: 2 pcs

Number of filter cassettes per filter unit: 2 pcs



A•erity 15-20 Main/Sub Single

Particle load: 20 mg/m³

Nominal airflow: 1500 m³/h (880 cfm)

Number of filter stages per filter unit: 2 pcs

Number of filter cassettes per filter unit: 2 pcs



A•erity 10-30 Main/Sub Single

Particle load: 30 mg/m³

Nominal airflow: 1000 m³/h (590 cfm)

Number of filter stages per filter unit: 2 pcs

Number of filter cassettes per filter unit: 2 pcs

Equipment levels

A comparison for the different equipment levels Essential, Professional and Advanced. The different versions offer different degrees of configurability.



Comparison Equipment levels

A comparison for the different equipment levels Essential, Professional and Advanced. The different versions offer different degrees of configurability.

| | Essential | Professional | Advanced |
|--|-----------|--------------|----------|
| Design | | | |
| Visual alarm indicator | On UI | On UI | On UI |
| Integrated cable/hose rail | | ● | ● |
| Ease of exterior cleaning | | ● | ● |
| Hose protection | | ● | ● |
| Door opening | Left | Left | Left |
| Control unit | | | |
| On/off handling fan | ● | ● | ● |
| Visual filter alarms | ● | ● | ● |
| Running indicator | ● | ● | ● |
| Local/remote handling | ● | ● | ● |
| Visual pressure drop | | ● | |
| Visual thresholds | | ● | ● |
| Visual alarm details | | ● | ● |
| Visual target pressure | | ● | ● |
| Visual current pressure | | ● | ● |
| Total running hours | | ● | ● |
| Calibration pressure | | ● | ● |
| Adjustment of target 1 | | ● | ● |
| Adjustment of target 2/3 | | ● | ● |
| Configuration running parameter P, I, min, max | | | ● |
| Configuration digital in | | | ● |
| Configuration relay out | | | ● |
| Thresholds adjustments | | | ● |
| Individual filter hours | | | ● |
| Configure number of filter stages | | | ● |
| Factory reset | | | ● |
| Parameter backup | | | ● |
| Features | | | |
| Dashboard | No | Prepared | Yes |
| Modbus TCP/IP | ● | ● | ● |
| 0-10V output | ● | ● | ● |
| Visual pressure drop, once every hour | | | ● |
| Visual thresholds | | | ● |
| Thresholds adjustments | | | ● |
| Visual filter alarms | | | ● |
| Visual alarm details | | | ● |
| Running indicator | | | ● |
| Visual target pressure | | | ● |
| Adjustment of target 1 | | | ● |
| Adjustment of target 2/3 | | | ● |
| Visual current pressure, once every hour | | | ● |
| Configuration running parameter P, I, min, max | | | ● |
| Configuration digital in | | | ● |
| Configuration relay out | | | ● |
| Total running hours | | | ● |
| Individual filter hours | | | ● |
| Calibration pressure | | | ● |
| Configure number of filter stages | | | ● |