



VORTEX

COOLANT MIST COLLECTION SYSTEM

AF Series 10 • 20 • 30 • 40

Edge Technologies' Vortex AF Series is an extremely effective water-soluble coolant mist collection system specifically designed for machine tools performing wet machining operations.

The Vortex AF is the perfect synthesis of advanced centrifugal separation and HEPA air filtration, achieving high air purification efficiency with minimum maintenance and low cost.



VORTEX Mist Collectors

Why the Edge Technologies Vortex?

- Highly effective centrifugal impaction filtration
- 3-stage separation-filtration process
- 99.97% filtering efficiency as measured by MPPS method using a final stage E12 HEPA filter
- Minimal maintenance-filter changing
- Compact design
- Recycles coolant
- Low power consumption



Vortex Series Features

- Easy access for 1st-Stage filter removal
- Choice of mounts: machine, stand, or ceiling
- 220v 3-phase power
- Airflow capacities from 475 to 1700 CFM
- Designed for working envelopes from <215 to 1130 cubic feet
- Choice of independent or machine power supply

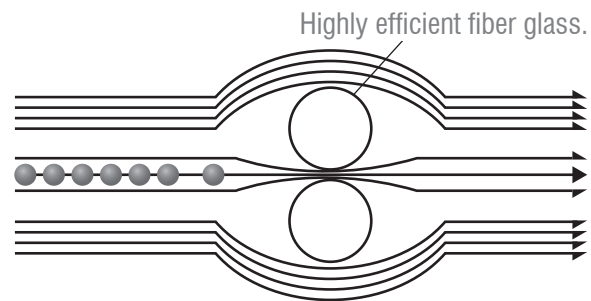
Effectively Removes

- Water-soluble coolant mist
- Fog
- Aerosols
- Smoke

Filtering coolant mist / water mist particle $\geq 2\mu\text{m}$

Intercepting Filtration Designed with multi-layer filtration to thoroughly capture fine particles. Interception capability is over $2\mu\text{m}$.

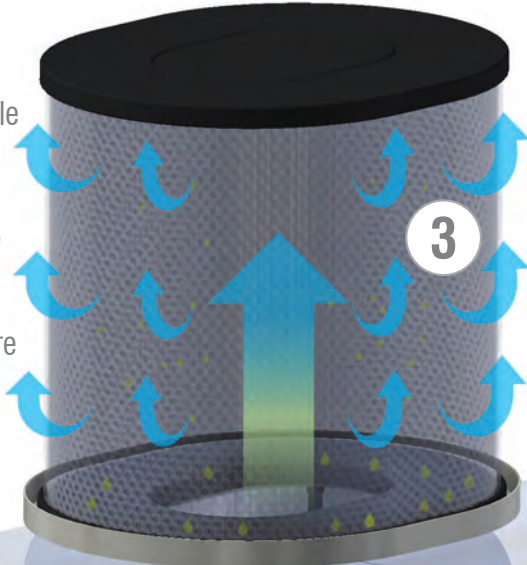
Unique Design Multi-layer stainless steel mesh filtration element is cleanable for re-use.



Technical Data								
Model	Suitable Cabin Size (CF Cubic Feet)	Air Flow (PER MIN)	Static Pressure	Sound Level (db) A	Power Supply	Power Consumption	Weight	Inlet Port
AF-10P	< 215 CF (<6 CM)	475 CF (13.5 CM)	.152 PSI (1.05 kPa)	68	220 V / 60 Hz	.27 HP (0.2 kW)	93 lb (42.1kg)	6" (150 mm)
AF-20P	< 425 CF (<12 CM)	725 CF (20.5 CM)	.200 PSI (1.38 kPa)	73	220 V / 60 Hz	.53 HP (0.4 kW)	104 lb (47.1kg)	6" (150 mm)
AF-30P	< 850 CF (<24 CM)	1150 CF (32.5 CM)	.239 PSI (1.65 kPa)	74	220 V / 60 Hz	1.00 HP (0.75 kW)	143 lb (64.8kg)	8" (200 mm)
AF-40PL	< 1130 CF (<32 CM)	1700 CF (48.5 CM)	.282 PSI (1.95 kPa)	75	220 V / 60 Hz	1.54 HP (1.15 kW)	176 lb (79.8kg)	10" (250 mm)



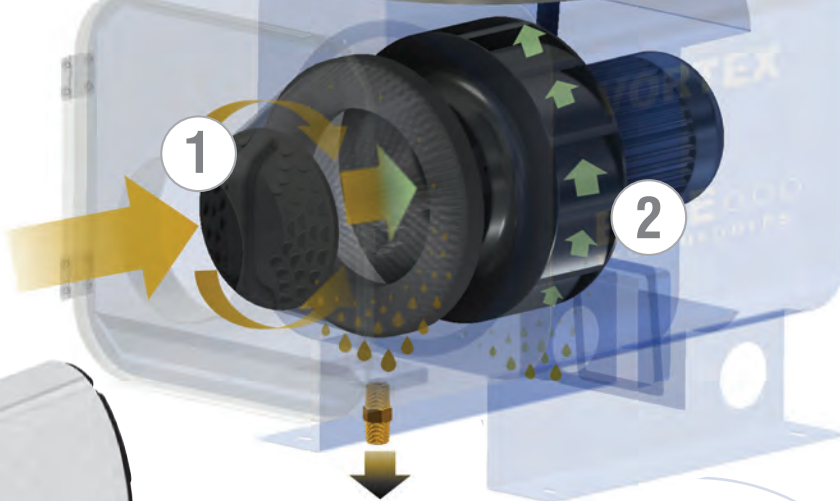
1st-Stage Separation: The coolant mist airstream initially collides with the fish scale profile coalescing the mist into larger droplets. Then, through a wind shear effect with the 70-degree, self-draining mesh filter, additional smoke and particles greater than 2 microns ($2\mu\text{m}$) are captured.



3rd-Stage E12 HEPA After-Filter: Finishes the air purification to a 99.97% filtering efficiency by capturing all particles greater than .3 microns ($.3\mu\text{m}$) before releasing the purified air back into the plant.



2nd-Stage Separation: The efficient centrifugal impeller fan located in the 2nd chamber provides highly efficient system airflow at low running noise and continues the separation process.



Coolant Drain Outlet: Precipitated droplets are collected and returned to the coolant tank.

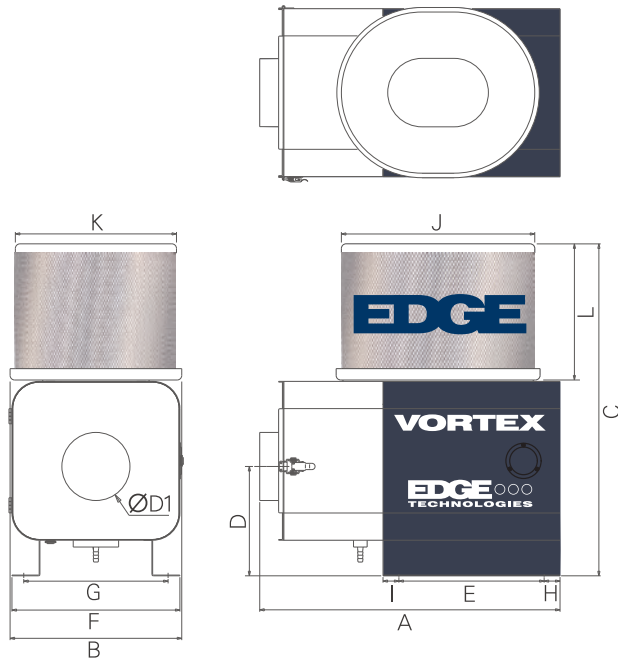


1st-Stage Filter: Patented 70-degree conical mesh filter featuring an innovative fish scale profile on the leading edge and a synthetic mesh overlay. A built-in handle makes maintenance easy on this washable element.



Easy-to-Read Gauge: Indicates normal operation and when filter elements need maintenance.

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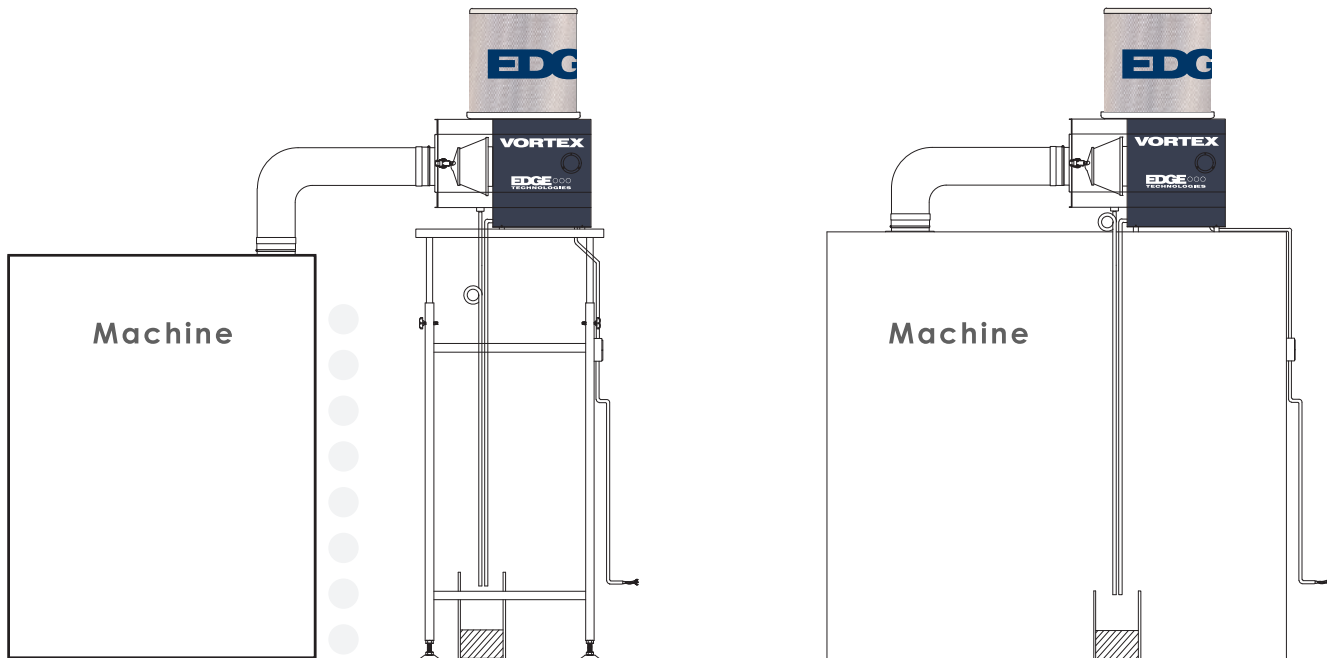


Dimensions - Inches (mm)

Model	A	B	C	D	E	F
AF-10P	24.2" (615)	14.9" (379)	32.7" (831)	10.3" (236)	11.8" (300)	13.2" (335)
AF-20P	25.6" (652)	14.9" (379)	33.5" (851)	9.2" (234)	12.6" (320)	13.8" (350)
AF-30P	30.1" (765)	17" (432)	35.7" (908)	11.8" (299)	15.3" (388)	16.5" (420)
AF-40PL	31.2" (792)	19.3" (490)	45.4" (1153)	12.4" (316)	15.3" (388)	18.9" (480)

Model	G	H	I	J	K	L
AF-10P	11.1" (283)	1.0" (25)	1.0" (25)	16.7" (426)	14" (355)	16.2" (413)
AF-20P	11.7" (298)	1.0" (25)	1.0" (25)	16.7" (426)	14" (355)	16.2" (413)
AF-30P	14.5" (368)	1.0" (25)	1.0" (25)	19.4" (492)	16.1" (408)	16.2" (413)
AF-40PL	16.8" (428)	1.3" (33.5)	1.3" (33.5)	21.2" (540)	16.9" (430)	24.1" (613)

Configuration Options



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