



PL-Series PLASMA LASER FILTER UNITS

Technical Specifications:



PL-4000 Plasma Laser Filter Unit W3 Certified.



IFA-DGVV Germany
W3 certified.
Cert. No: IFA 1605032



PLUG-n-PLAY
Ready to operate!

Intended Use

- PL-Series filter units are specifically designed for extraction and dedusting of dust, fume and smoke generated during plasma, laser and OXY cutting operations.
- Plasma and laser cutting applications requires special design and unique features which cannot be satisfied by regular dust collectors because
 - Cutting fumes are essentially very fine particles of ave. 0,15 microns which may cause immediate filter clogging at regular dust collectors.
 - Filter cleaning and regeneration are very difficult to achieve for sustainable operation and reasonable spare filter replacement and maintenance intervals.
 - There is a very high risk of fire, due to smoldering hot particles that are generated during thermal cutting operation if proper precautions have not been held.
- VANTERM PL-Series filter units with W3 dedusting Class certification and filter elements average lifetime of 20 000 hours are proven their fitness for the job with thousands of applications all over the world.
- Thanks to the HEPA 14 filter quality of VANTERM Panel Filter Technology, PL Dust collectors separate the ultra-fine dust particles including as small as 0,12 microns with 99,997% filtration efficiency.

Operation Principle

- Dust laden air is extracted from cutting bench of laser, plasma or Oxy cutting unit. First, dust laden enters the pre-separator chamber where hot and big particles are separated from main stream aerodynamically. Afterwards, dust laden air is filtered at the panel pleated filters. Clean air is extracted through fan-silencer group and returned clean as VANTERM PL-Series are W3 certified.
- When K-type VANTERM filter cleaning system senses that filters are needed to clean, Jet-pulse filter cleaning is activated in order to clean panel pleated filters elements. A sudden burst of pressured air is released to clean filter by freeing the pores of the filter media and shaking of dust cake on the elements.

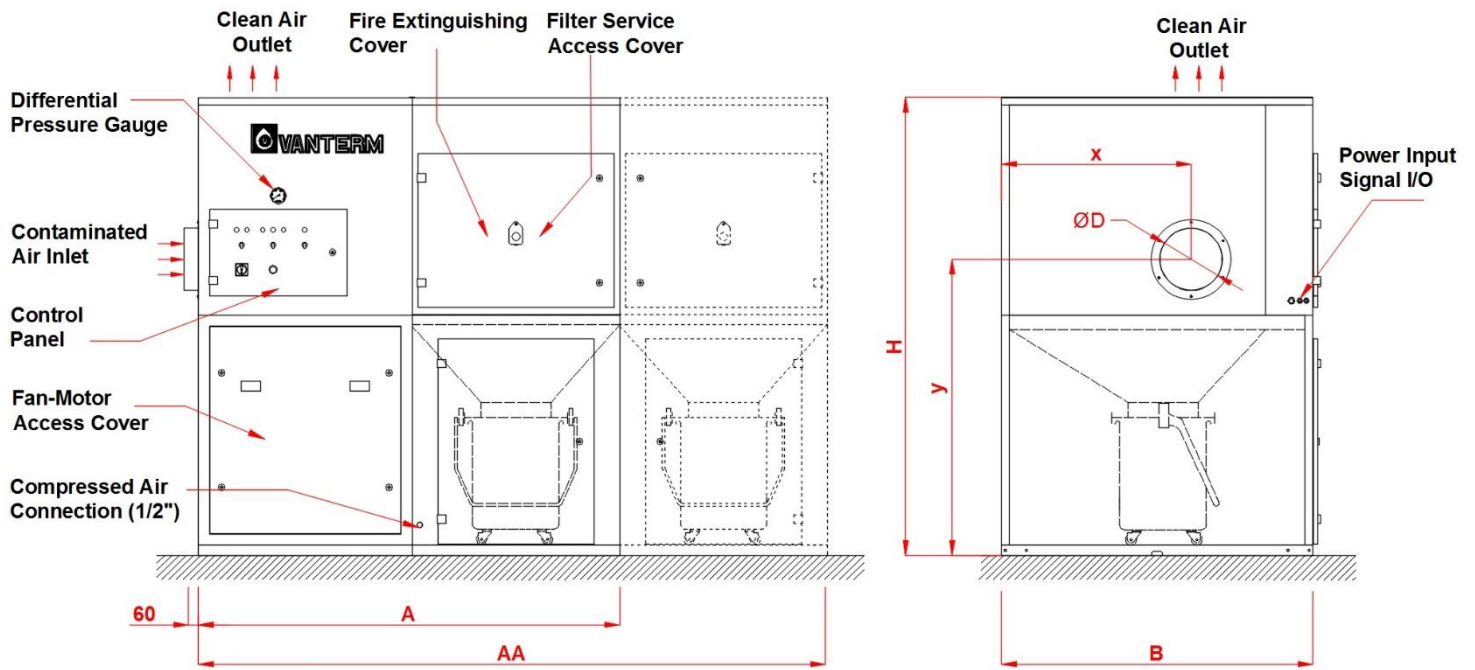
Standard Features

All PL-Series Filter Units are W3 Certified and delivered ready to operate as standard.

- Dedusting Class:** W3 according to EN ISO 15012-1
- Power Input:** 400V ~ 3P PE - 50 Hz.
- Pre-Separator:** Aerodynamic Spark and Big particle separation in order to minimize fire risk.
- Fan:** Aluminum High Efficiency Radial Backward Curved G2.5 balanced with Direct Coupling following ERP 2015.
- Filter Type:** Panel Pleated Surface Filtration Dust Class M and H14 ePTFE membrane Polyester Non-woven.
- Filter Efficiency:** HEPA14 certified acc. To EN 1822 standard – Filter Efficiency Over 99,997% of 0,12 micron particles.
- Filter Life time:** Average 20 000 h state-of-the-art filter lifetime above industry standards with cutting edge filter design, media and cleaning system.
- Filter Cleaning:** VANTERM K-type fully automatic Differential Pressure (ΔP) controlled with high efficiency solo jet-pulse cleaning.
- Pressured Air Input:** min.6 bar (Reduced to 4,5 bar internally with built-in regulator)
- Sound level:** Extreme Low sound level below ≤ 69 dB(A) with built-in silencer after fan.
- Operation Mode:** Panel Operation and slave mod (with NO relay connection from parent) as standard.
- Output Signals:** Digital Motor Fault, Normal Operation and Low Air Flow Signals
- Dust Bin:** Easy to Handle locking mechanism 80 to 160-liter capacity.

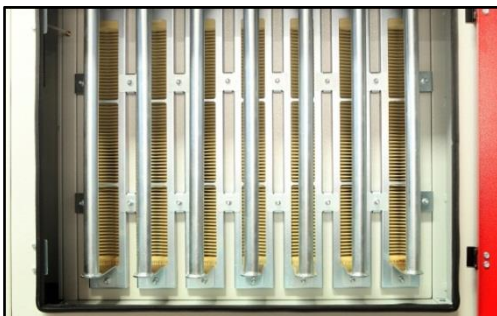
Optional Features

- Any three phase Voltage and frequency (ex.480V ~ 3P PE - 60 Hz) configuration is available upon request.



TYPE	CAPACITY (m ³ /h)	MOTOR (kW)	FAN PRESSURE (Pa)	FILTER AREA (m ²)	A (mm)	AA (mm)	B (mm)	H (mm)	ØD (mm)	DUST BIN (liter)	X (mm)	y (mm)	WEIGHT (kg.)
PL-1000	1 000	1,5	3 000	20,0	1844	-	1260	1840	150	80	756	1200	450
PL-1500	1 500	2,2	2 950	25,0	1844	-	1260	1840	160	80	756	1200	470
PL-2000	2 000	3,0	3 000	35,0	1958	-	1260	1840	200	80	756	1232	490
PL-2500	2 500	4,0	3 300	40,0	2084	-	1260	1840	220	80	756	1232	525
PL-3000	3 000	4,0	2 900	57,0	1888	-	1514	2190	250	80	901	1419	575
PL-4000	4 000	5,5	3 100	66,5	2012	-	1514	2190	300	80	901	1419	602
PL-5000	5 000	5,5	2 750	85,0	2260	-	1514	2190	300	80	901	1419	698
PL-6000	6 000	7,5	2 950	95,0	2384	-	1514	2190	350	80	901	1419	795
PL-8000	8 000	7,5	2 300	133,0	-	3004	1514	2190	400	160	901	1419	925
PL-10000	10 000	11,0	2 600	152,0	-	3382	1514	2190	450	160	901	1419	1020
PL-12000	12 000	15,0	2 850	171,0	-	3630	1514	2190	450	160	901	1419	1160

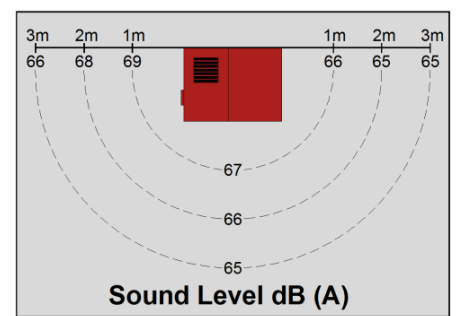
*Ongoing product development may subject the technical specifications to alteration without notice.



Jet-pulse Cleaned Panel Filters are H14 certified.



Easy Dust Bin Mechanism



Low Sound Level with Silencer

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