

# LAGUNA P|FLUX3 CYCLONE DUST COLLECTOR



## DESCRIPTION

The Laguna P|FLUX3 Cyclone Dust Extractor is a high-end cyclone equipped with HEPA Class filtration. This mobile unit is the perfect solution for those looking to minimise workshop dust to the lowest level.

The Laguna PFLUX3 Cyclone Dust Collector's octagonal collection drum is mounted on a set of castors to allow it to be rolled over to waste bin for emptying.

When the collection drum is locked into position, using the quick action lever, a rubber seal is engaged to make it airtight. These smart features mean faster drum emptying.

A 100mm (4") hose port is located on the end of the HEPA filter to allow automated emptying of the very fine dust collected in the chamber.

Connect the other end of the hose to the main inlet and run the cyclone which moves the fine dust into the collection drum.

## SUPPLIED WITH

- Remote start handset
- 1 collection bag for main drum
- 1.8m power cable with a fitted 32amp Industrial plug

This machine requires a 32amp supply and it's recommended that a C Type breaker is used.

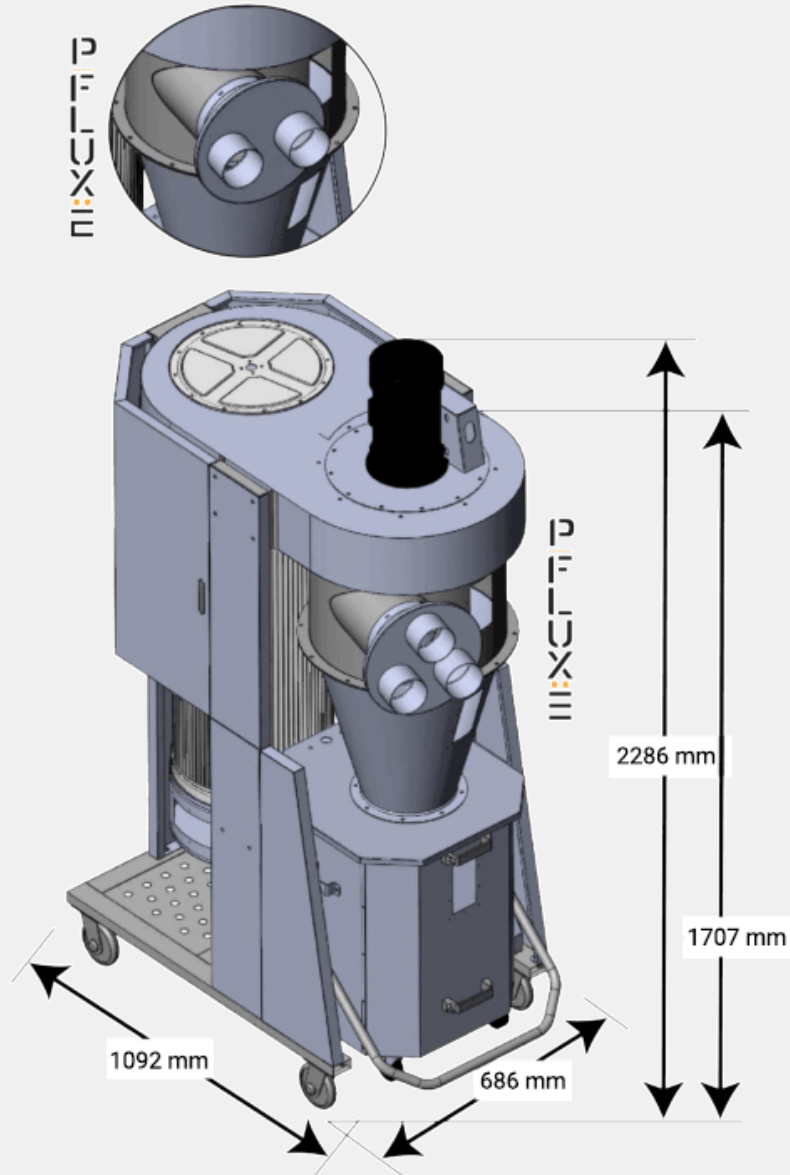
## TECHNICAL SPECIFICATION

Motor	2200 W 3.0 hp
Power Supply	220-240 V 50 Hz 1 phase
Recommended Breaker Size (MCB)	32 Amps (Type C)
Airflow	Traditional Method: 3831 m <sup>3</sup> /h Realistic Method: 2209 m <sup>3</sup> /h
Max Static Pressure	285 mm in water
Canister Filter Type	HEPA 100 % @ 1 micron
Filtration Efficiency	99.2 % @ 0.4 micron
Control Panel	Anodised aluminium
Hand Held Remote Control	High frequency
Inlet Diameters	1 x 200 mm or 3 x 100 mm
Impeller Fan Type	390 mm Steel radial fin (Balanced ISO 1940)
Impeller Fan Speed	2800 rpm
Collection Drum Full Signal	LED warning light
Collection Drum Capacity	175 litre octagonal drum
Collection Drum Bag (Layflat Dimensions)	960 x 1200 mm
Collection Bag Hold Down	Metal insert frame
Canister Requires Cleaning Signal	LED warning light
Filter Canister Cleaning	Fully automated paddle cleaning
Filter Canister Emptying	4" hose connection (re-circulate until empty)
Sound Level	76 db(A) @ 3 m
Power Cable with plug	1.8 m 3 wire
Assembled Dimensions (W x D x H)	1092 x 686 x 2286 mm
Shipping Dimensions (W x D x H)	1250 x 810 x 1310 mm
Weight (Net/Ship)	160 kg/210 kg
Manufacturers Warranty	1 year
Assembly Time	5 1/2 hours (requires 2 people)

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## LAGUNA P|FLUX3 DIMENSIONS

### DIMENSIONAL DIAGRAM



### SPARE PARTS

Item	Part Code
Polythene collection bags (pack of 10)	FLUX3DB2

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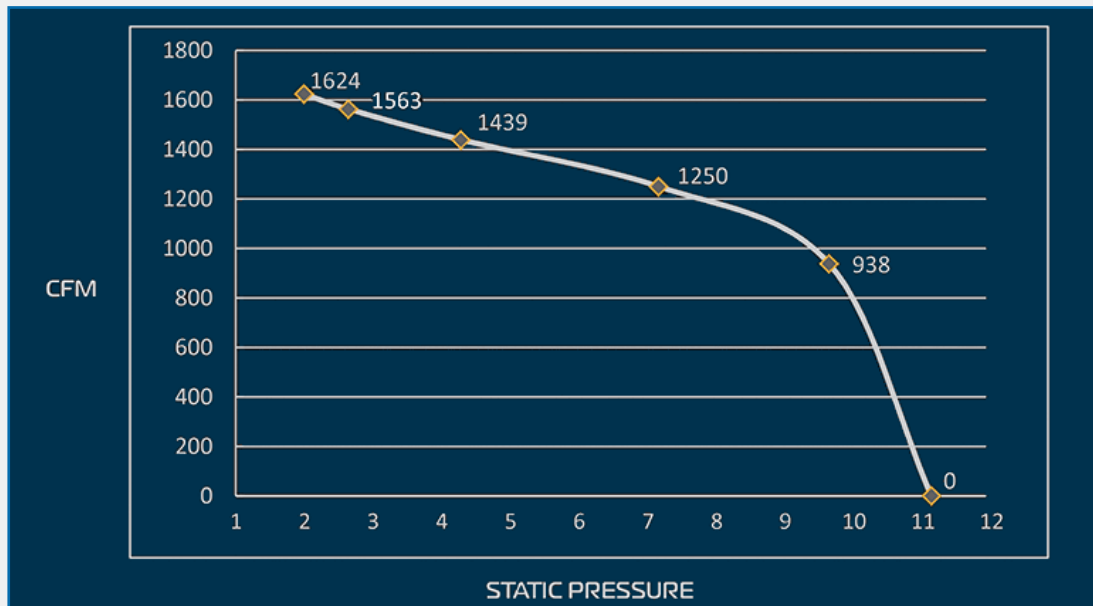
## LAGUNA P|FLUX3 PERFORMANCE DATA

### PERFORMANCE DATA - P|FLUX 3

MAX STATIC PRESSURE	MAX AIRFLOW	MOTOR POWER	VOLTS	Hz	IMPELLER	INLET
2790 Pa (11.2 inch/H <sup>2</sup> O)	2760 m <sup>3</sup> /h (1624 CFM)	2.2 kW (3 HP)	220 V	60Hz	Ø 394 mm (Ø15.5")	Ø 203 mm (Ø8")

RESTRICTOR PLATE	DIA. 8" (Ø203 mm)	DIA. 7" (Ø178 mm)	DIA. 6" (Ø152 mm)	DIA. 5" (Ø127 mm)	DIA. 4" (Ø100 mm)	DIA. 0" (Ø0 mm)
STATIC PRESSURE	2 inch/H <sup>2</sup> O	2.65 inch/H <sup>2</sup> O	4.3 inch/H <sup>2</sup> O	7.2 inch/H <sup>2</sup> O	9.7 inch/H <sup>2</sup> O	11.2 inch/H <sup>2</sup> O
AIRFLOW	2760 m <sup>3</sup> /h (1624 CFM)	2655 m <sup>3</sup> /h (1563 CFM)	2445 m <sup>3</sup> /h (1439 CFM)	2125 m <sup>3</sup> /h (1250 CFM)	1595 m <sup>3</sup> /h (938 CFM)	0 m <sup>3</sup> /h (0 CFM)
VELOCITY	1.35	1.25	1.06	0.8	0.45	0

### PERFORMANCE CURVE - P|FLUX 3



#### How results were obtained

- Testing based on new, clean filter. Results will vary depending on use.
- The inlet on p|flux:3 is 8" (≈ 203 mm)
- A flex hose 16 X longer than inlet diameter is attached 8 x 16 = 128"
- Air pressure meter measures the velocity & static pressure is inserted into this hose at halfway point = 64"
- The Air Pressure Meter measures in Inches of Water
- The CFM is measured with 8" opening at end of hose, no restrictions, 64" from inlet
- The Max. Static pressure is measured when the restrictor plate at end of hose is closed (0) 64" from inlet
- Air pressure meter measures the velocity and static pressure in inches of water
- CFM is calculated in the following manner:
- Square root of Velocity in inches of water x cross sectional area of cyclonic inlet in square feet x 4005
- Calculate cross sectional area of cyclonic inlet in square feet:
- $8"/12 = 0.66\text{ft}$   $0.66/2 = 0.33\text{ft}$   $0.33 \times 0.33 \times 3.1416 = 0.3491 \text{ft}^2$
- Formula:  $\sqrt{1.35 \text{ inch of water} \times 0.349^2 \text{ft}^2 \times 4005} = 1624\text{CFM}$  (website states 1624CFM; this calculated value will slightly vary due to the rounded off values derived from the above formula)

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# LAGUNA P|FLUX3 HEPA FILTER CERTIFICATION

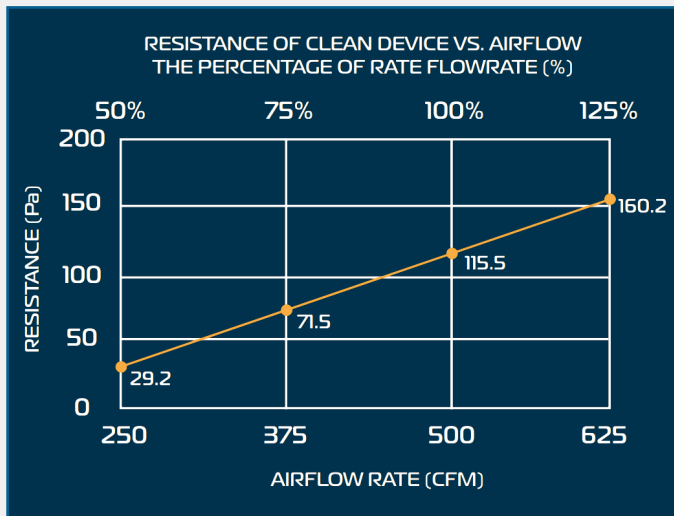
## HEPA FILTER TESTING REPORT

- FILTER NAME : HEPA CARTRIDGE FILTER TEST SAMPLE
- FILTER NUMBER : 350 x 660 HEPA CARTRIDGE
- FILTER AREA : 10.2 m<sup>2</sup>
- FILTER PLEAT : 162
- MEDIA MATERIAL : SYNTHETIC FIBER
- MEDIA COLOR : GRAY

## TEST CONDITIONS

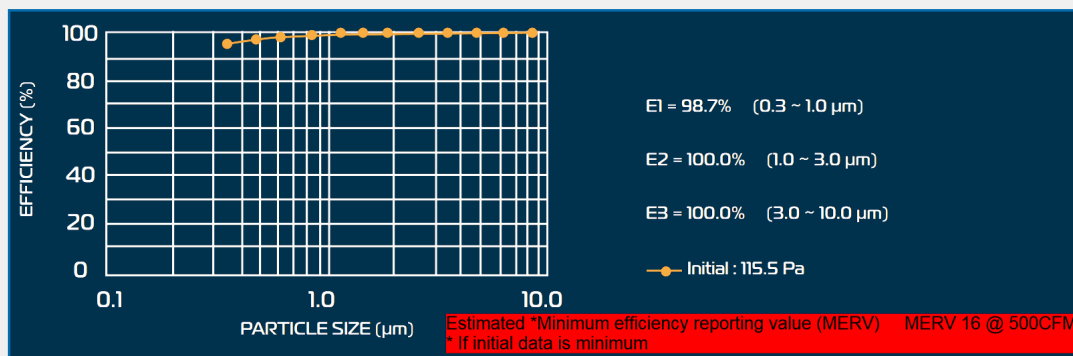
- TEST METHOD : ASHRAE 52.2:2012
- VOLUME AIRFLOW RATE : 500 CFM
- TEMPERATURE : 25±2°C
- HUMIDITY : 45±5%
- AEROSOL TYPE : KCI

## MEASUREMENT OF PRESSURE DROP VS, AIRFLOW



AIRFLOW RATE IN % OF RATED AIRFLOW	AIRFLOW RATE		RESISTANCE	
	CFM	M <sup>3</sup> /H	Pa	in. H <sub>2</sub> O
50%	250	425	29.2	0.12
75%	375	640	71.5	0.29
100%	500	850	115.5	0.46
125%	625	1235	160.2	0.64

## INITIAL EFFICIENCY



Particle Size (µm)	0.3 ~ 0.4	0.4 ~ 0.5	0.5 ~ 0.7	0.7 ~ 1.0	1.0 ~ 1.3	1.3 ~ 1.6	1.6 ~ 2.2	2.2 ~ 3.0	3.0 ~ 4.0	4.0 ~ 5.5	5.5 ~ 7.0	7.0 ~ 10.0
Electric Mean Particle Size (µm)	0.35	0.45	0.59	0.84	1.14	1.44	1.88	2.57	3.46	4.69	6.20	8.37
Initial 115.5 Pa	96.7	98.5	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## AIRFLOW READINGS

Laguna quote the traditional method, for comparison against other brands, as well as a more realistic method which gives a 'real world' result. At Laguna Tools measurements are taken based on applicable dust collection scenarios. Instead of measuring at the port of the machine, measurements are taken in the front half of a 12.5-foot testing hose. While this is a bigger size than the standard 10-foot tube, it helps provide a more accurate measurement of the actual CFM. Different air inlet sizes are also tested to arrive at an even more precise measurement for buyer convenience.

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## LAGUNA P|FLUX3 FEATURES

### HEPA FILTRATION



The HEPA Filtration removes 99.2% of particles down to 0.4 micron.

### DUST COLLECTION CHAMBER



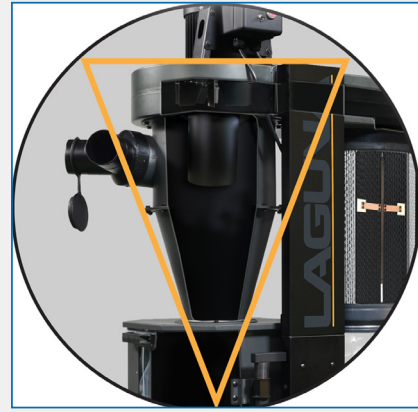
This cyclone is equipped with a viewing window which allows the user to check when emptying is needed.

### SMART SENSORS



Smart Sensors - LED Warning Light when the collection drum is full. LED warning light when the HEPA filter needs cleaning.

### THE GOLDEN TRIANGLE



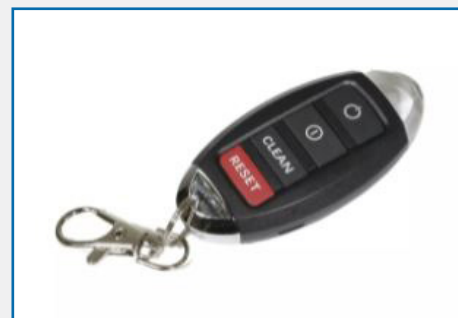
The Golden Triangle: Cyclones are designed to put the maximum amount of dust directly into the drum, without passing the fan.

### HOSE PORT - SEMI AUTOMATIC EMPTYING



HEPA Fine Dust Chamber Hose Port for the Semi Automatic emptying of the cyclone unit.

### HOSE PORT - SEMI AUTOMATIC EMPTYING



Supplied with remote control stop/start handset.

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