

# DE Electrostatic Precipitators

Industrial & Commercial Kitchens



**despel**

Brand of **MORZON** Technology Co.

[www.despel.com](http://www.despel.com)

**despel**



## GENERAL DESCRIPTION

Electronic air cleaners for industrial air purification

Our filtration units for commercial cooking applications are designed to treat oil, grease, smoke and odor emissions from exhaust ducts in compliance with national and local codes.

Ready to say "good riddance" to air pollutants in your plant? Invest in your workers' health and safety with the Despel DE Series.

- Constant and consistent airflow
- High collection efficiency on sub-micron particles
- Reusable filter components
- Cheaper life-cycle cost
- Hinged side access door
- Power supply mounted out of airstream

### How clean is the air in your industrial plant?

If you need to remove harmful air pollutants like smoke, fumes, oil/coolant smoke, and mist, our electronic air cleaners will have you breathing easier in no time. The DE-Series cleans contaminated indoor air and recirculates it back to the work area, reducing energy costs by not having to exhaust conditioned air to the outside.

These units work well for air with a high concentration of particles, like that of a kitchen hood exhaust system. Kitchen air quality can easily be reduced from the smoke, grease, and odors of cooking. But electrostatic precipitators keep airflow constant, meaning they are continually cleaning and refreshing the air. An electrostatic precipitator in your kitchen exhaust system will give you the best kitchen environment possible.

Our range of electrostatic air cleaners are designed to combat indoor pollutants with efficient energy consumption.



**Cleaner,  
Greener  
and  
More  
Sustainable**

## STUDY PURPOSE

- Filtering oil particulates
- Smoke and soot filtration

## AS A RESULT

- Customer happiness
- Clean environment
- Clean kitchens
- Profitable business

## List of Kitchens Generally Needed



Commercial  
cafeterias



Hotel  
kitchens



Food factory  
kitchens



Restaurants



Dining areas in  
shopping centers

# LONG MACHINE LIFE

Suitable for industrial construction and heavy duty

- 10 years parts warranty
- Max. Onsite service within 48 hours
- Continuous warranty with maintenance contract
- Filtering efficiency up to 99%\*
- Unit diversity according to cooking types
- Special construction for heavy oiled and intensive kitchens
- Easy to maintain plate electrostatic filters
- Wide range with 4 kinds of standard flow rate

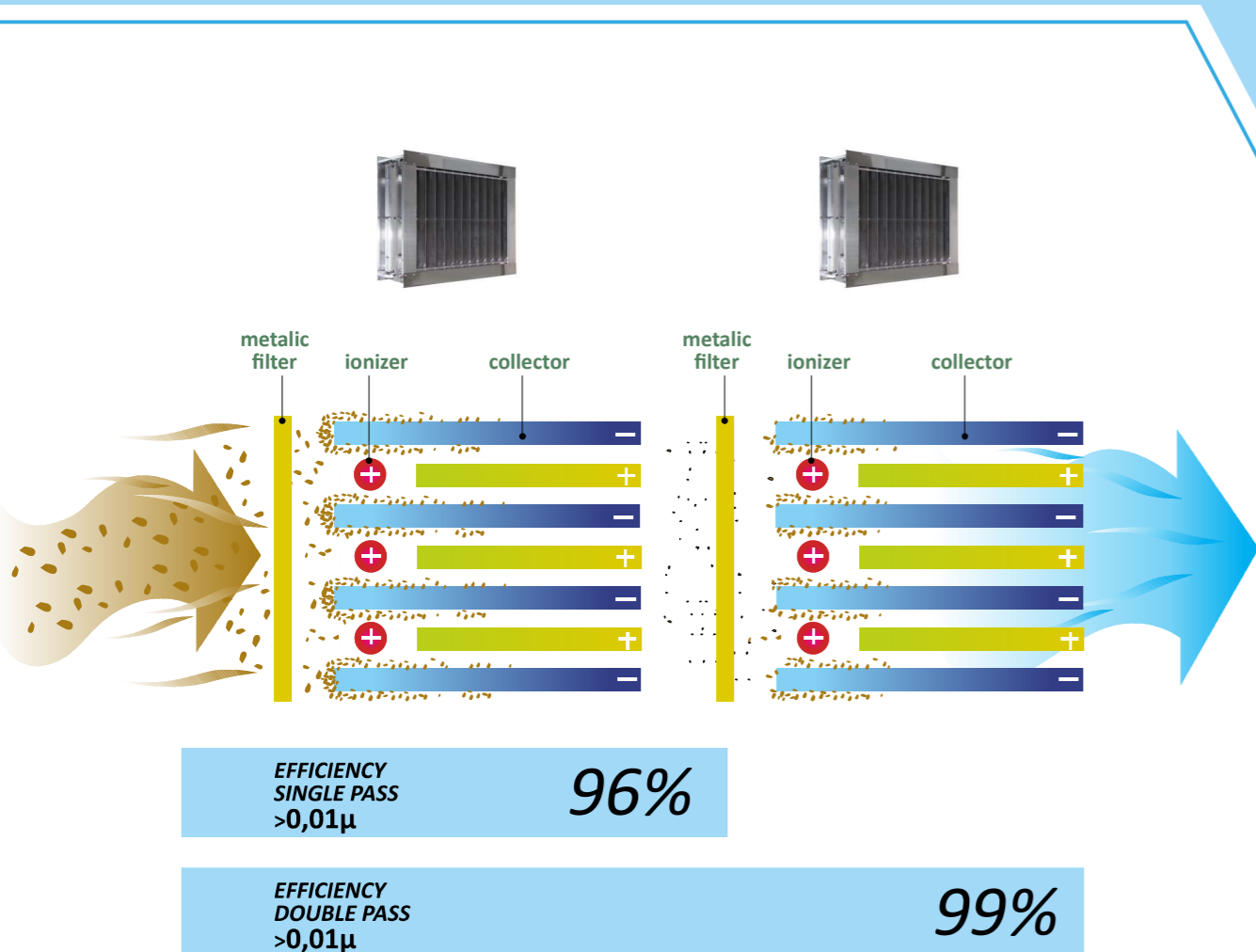


Our ESP units fit in-line with the kitchen ducting and can be configured modularly to cope with all extract volume requirements.

\*on Double Pass

# Electrostatic Filters

Electrostatic filters (ESP) pass the oil particles contained in the exhaust air through the high-voltage ionizer into negative charged ions, through which they pass through the collector cell consisting of positive and negative row plates and these oil particles are retained by positively charged plates. Thus, exhaust hood exhaust air is discharged to the environment at a rate of approximately 99% (in double pass) to the nature free of cooking oil, smoke and soot.



- Leading Electrostatic Technology for highly effective grease and smoke filtration from kitchen ventilation extract systems
- Inline filtration system for the removal of grease and smoke as part of the DEFRA Guidance pollution control requirements
- Single Pass Option – Up to 96% Efficient Grease and Smoke Removal
- Double Pass Option – Up to 99% Efficient Grease and Smoke Removal
- Low Resistance / pressure drop
- Includes a grease drain point in the base of the unit
- Requires periodic maintenance to keep system effective and efficient
- Excellent for high volume / high grease catering establishments

# QUALITY

## doesn't have to be complicated!

Don't need complexity. You need answers. At Despel, we do the hard work for you. Everything we do from engineering to aftermarket service is designed to make it easy for you to succeed.



The most problematic part of ecology units is cleaning and maintenance. Leave all maintenance work with our technical service maintenance contract, you focus on your business. During cooking in industrial kitchens, unwanted factors such as steam, smoke, soot and bad odor that occur in cookers such as grills, ovens, barbecues and cookers may adversely affect the personnel working in our kitchens and cause disturbances in the surrounding areas and thus the formation of complaints. It serves. As a result of these complaints to the competent authorities, most businesses have to stop their activities. For this reason, esp filters are used in order to protect the environment, people and your business, and not to cause loss of prestige and money.

ESP is used in the collection of wet and dry particulates like dust, oil mist, cooking fumes and various pollutants. Dirty air is drawn by the motor blower through a washable pre-filter which traps large dust particles. The remaining particles, some as small as 0,01 microns, pass into a strong electrical field (ionizing section) where the particulate receives an electrical charge. The charged particles then pass into a collector plate section made up of a series of equally spaced parallel plates. The particles are held in these plates.



# DE Series CHEF'S Choice

Engineered to Work  
Built to Last

# Technical Specifications



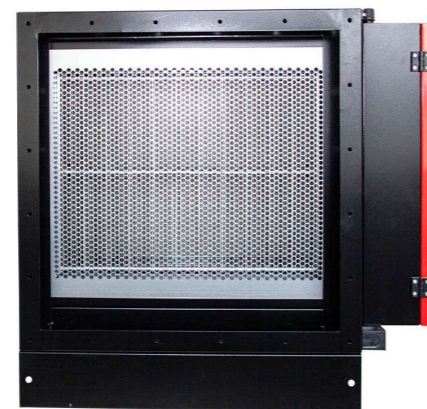
### Efficiency @%89

Model	Airflow m <sup>3</sup> /h
ECO-DE 30	5000
ECO-DE 60	10000
ECO-DE 80	12500
ECO-DE 100	15000



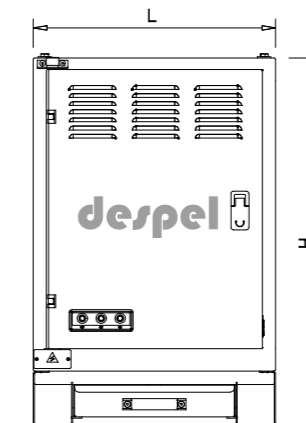
### Efficiency @%93

Model	Airflow m <sup>3</sup> /h
MED-DE 30	4000
MED-DE 60	8000
MED-DE 80	10000
MED-DE 100	12000

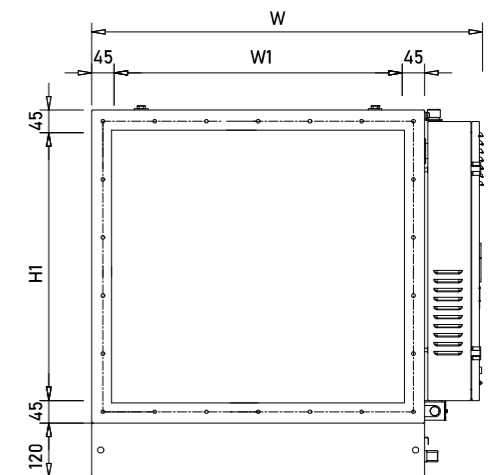


### Efficiency @%96

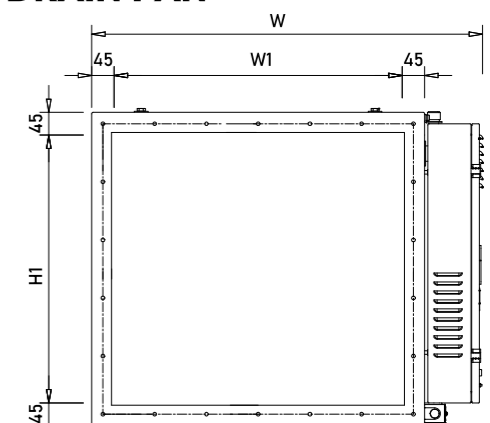
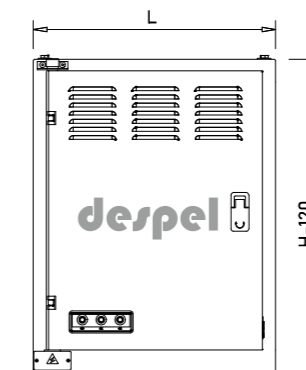
Model	Airflow m <sup>3</sup> /h
PRO-DE 30	3300
PRO-DE 60	6600
PRO-DE 80	8300
PRO-DE 100	10000



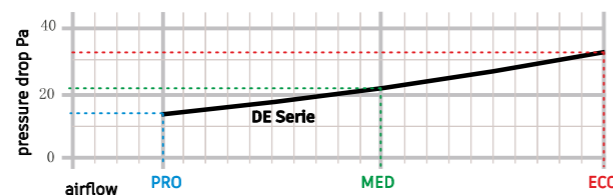
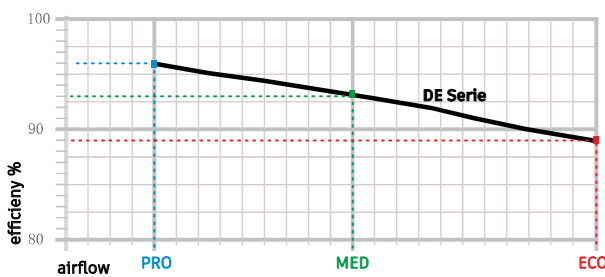
### WITH DRAIN PAN



### WITHOUT DRAIN PAN

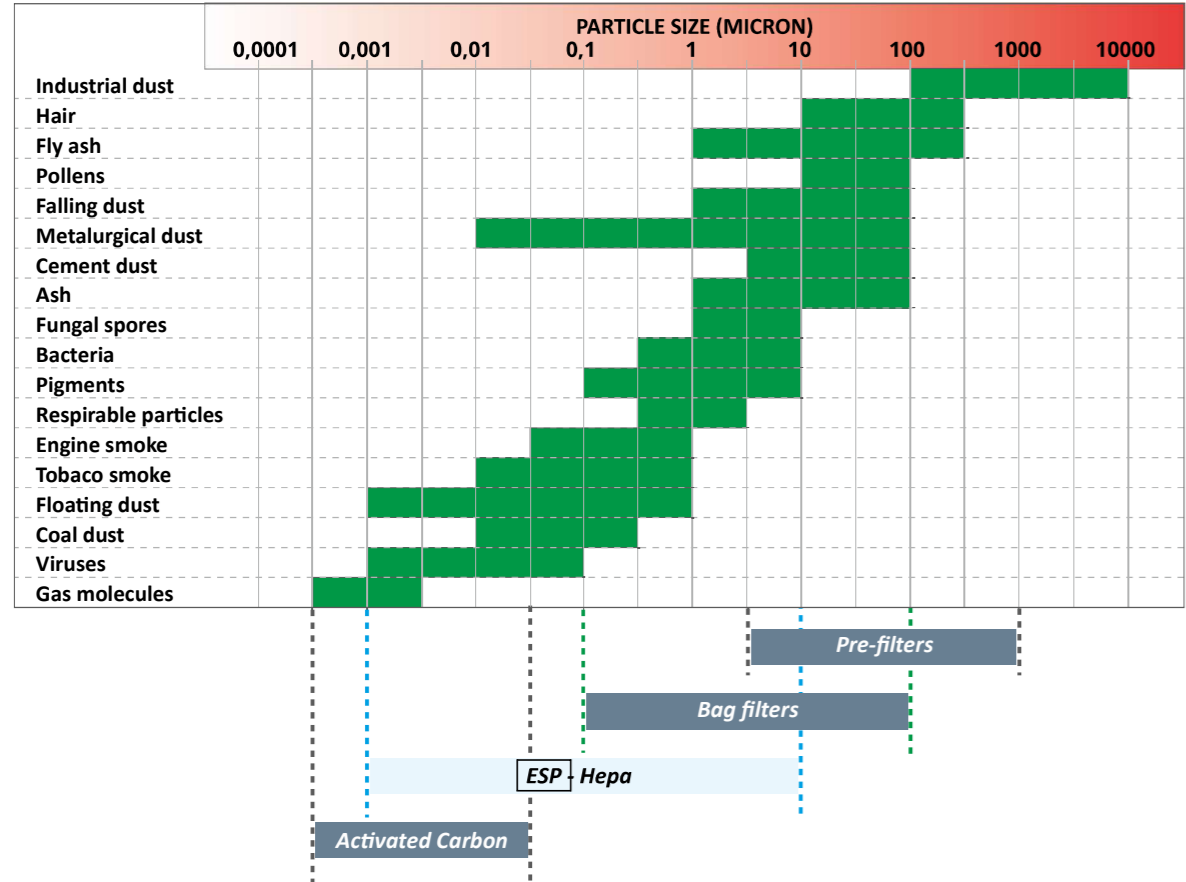


MODELS	Cell Quantity	Input Power (V)	Power Rating (W)	Weight (kg)	Measurement (mm) L x W x H	Flange (mm) W1 x H1
DE 30	1	220V-50Hz	77	73	538x815x815	600x606
DE 60	2	220V-50Hz	154	119	538x1490x815	1276x606
DE 80	2	220V-50Hz	182	129	538x1595x815	1380x606
DE 100	3	220V-50Hz	231	165	538x2170x815	1955x606



# SELECTION criterias of ESP units

Filter selection table according to particle size



Grease characteristics arising from a range of commercial kitchens

GREASE CONTENT			
moderate	high	very high	
✓			Pizza Restaurant
✓			Pita / Lahmacun
✓			French
✓			Italian
✓			Most Pubs
	✓		Chinese
	✓		Japanese
		✓	Kebab Houses
		✓	Steakhouses
		✓	Fried Chicken
		✓	Fish
		✓	Fast Food Burger

# Some References

