

# — PRODUCT CATALOGUE —

2017

## Legend

## Types of filter cleaning

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Manual brush cleaning

The cartridge filter's folds are gently tapped by brushes. This effectively loosens especially coarse and free-flowing dusts. The brush axle turns in two directions in the middle of the cartridge (on the raw gas side). This cleaning comes in manual, motorized and automatic motorized versions.



Manual rotation filter cleaning

A compressed air connection on the hand-operated rotation nozzle ensures that the filter lamellas are blown uniformly clean.



Manual standard filter cleaning

Fast, effective filter cleaning with a hand-held compressed air pistol blows the filter lamellas clean inside and out. Smoke particles come loose from the filter material and fall into the filter housing's dust collection channel.



Manual bag filter cleaning

Filter bags fastened to a frame are freed of built-up shavings and dust particles using a hand crank. With an eccentric tappet, the crank shifts the frame by vibration, which shakes off the dirt and drops it into a collection container located below.



Fully automatic filter cleaning

In automatic cleaning, the filter is cleared after the fan stops. On devices with an IFA test certificate, an acoustic signal indicates the need for filter cleaning.



Pulse-jet filter cleaning

Pulse-jet cleaning clears the filter cartridges from the inside out (clean gas side). This loosens dust stuck to the exterior of the cartridges, and it falls into the collection container. The filter cartridges are automatically cleaned individually. Pulse-jet cleaning allows filter cleaning during suction operation with no need to shut off the extractor.

## Installation types



Stationary

Stationary dust extractors are installed next to the processing machine or at a central location in production halls.



Mobile

Mobile dust extractors can be installed for single-location or central extraction in production halls.



Portable

With their compact dimensions, these dust extractors can be transported quickly and easily.

## Certificates and Seal



Dust class M

Transmittance < 0.1%. Class M dusts are considered "moderately" toxic.



Tested Safety

Confirmation by an independent body that the product meets health and safety requirements.



Dust class H

Transmittance < 0.005%. Dusts of this class are considered "highly" toxic.



BG test characters

The BG testing and certification bodies awarded the BG test character (formerly BG characters). This certifies that the product complies with the relevant requirements of health and safety.



Zone 22

The area in which an explosive atmosphere is never or only briefly present present during normal operation.



**Product Specific Approvals** 

For products with BG test characters with character added a special aspect was examined, eg

 H3 residual dust content of 0.1 mg / m³ reliably observed (wood dust)



ATEX-compliant devices (ATmosphère EXplosive) for use in explosive areas.



Special guidelines apply when welding stainless steel. Depending on how high the chromium/nickel content of the stainless steel is, devices with an IFA W3 test certificate are needed if air is recirculated.

Filter Towers





Philipp Raunitschke
Managing Director
ESTA Apparatebau GmbH & Co. KG

#### Dear customers and friends of ESTA,

industrial manufacturing is constantly developing, day after day. More and more new technologies and innovations are changing the way in which we manufacture goods. This is happening at a relatively steady pace, sometimes with great advances being made. We would describe this as an industrial revolution.

Examples range from the development of steam-powered machines as steam engines during the first industrial revolution, up to and including the use of microelectronics in production. Today, we are on the verge of the fourth industrial revolution.

Industry 4.0 links human and machine together with digital information and communication technology. Robots and transport vehicles interact independently with each other. This facilitates a high level of flexibility, planning in real time, and ongoing error analysis.

Even we at ESTA are reaping the benefits of digitalisation and equipping our products with intelligent solutions. On page 94 of this catalogue, you will find our **FILTOWER hall ventilation system in the new version 4.0** with integrated reporting and network functions. Our service technicians can access the systems quickly and simply when needed, identify any errors, and give recommendations for a solution remotely. This helps to reduce potential breakdown risks and guarantees that the systems will operate reliably.

The integrated **eco+ modules** also ensure an energy-saving operating process. The filter towers from the 4.0 range are not always running at full capacity; rather, they are geared towards producing the air volume required at the time. These are constantly adjusted and regulated depending on use and demand, and in accordance with the current situation.

Do you have any questions about our devices, or would you like a consultation to discuss your own individual requirements? Just give us a call or send us a short email, and we will be happy to answer any questions you may have about extraction technology.



Philipp Raunitschke



## ESTA – The Company

You may already know?

#### ESTA is the acronym for "Elektro-Staub-Absauggeräte"

(Electric Dust Extraction Equipment).

For 45 years, we have offered a broad spectrum of innovative products and custom solutions in the field of extraction technology.

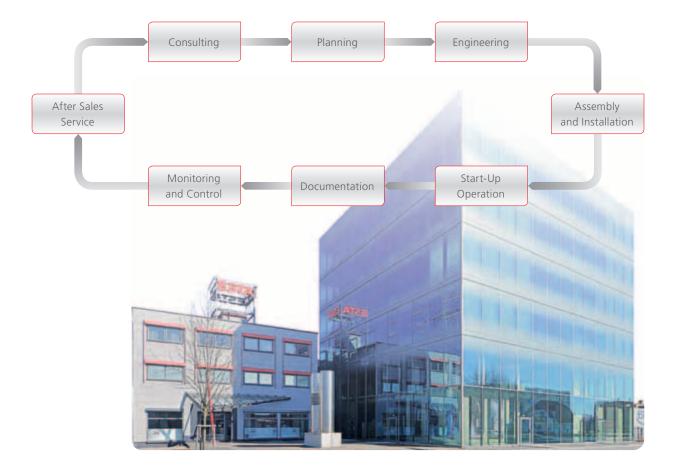
## The product range covers

- » Mobile Dust Extractors
- » Fixed Extraction Systems
- » High Vacuum Extraction Units
- »Welding Fume Filter
- »Oil Mist Separators
- »Odor Filters

- >> Extraction Tables/Fans
- » Extraction Arms
- »Central Extraction Systems
- » Filter Towers
- » Pipe Systems
- » Accessories

Every application has its own requirements. The quality of our products and consultation is based on decades of experience. Get all the benefits of ESTA 360° service:

- >> 45 years of expertise
- »An innovation leader engaged in continuous development
- »Advice and planning from the best-trained sales staff
- Short delivery times
- »Trouble-free device installation by our production staff and installation team
- »Comprehensive support throughout product life



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## The benefits to you:

Our stringent quality criteria make for clearly structured work procedures, process orientation and continuous development. This lets us keep pace with our customers' needs at all times. ESTA stands for an innovative spirit, a commitment to quality, and responsibility towards employees, society and the environment. Our commitment is reflected in numerous awards and certifications.





#### **Awards, Certificates and Memberships**

#### **Products and production**

- » ISO 9001:2008 certification certified quality management system per DIN EN ISO 9001:2008
- » Membership:
  - Blue Competence Verband Deutscher Maschinen- und Anlagenbau
  - Einkaufsbüro Deutscher Eisenhändler GmbH purchasing office
- » Manufacturing facility inspection certificate 2015 Industrial vacuum cleaners and dust extractors
- » Federal award for outstanding innovation in the industrial arts 1997 EUROSOG industrial vacuum cleaner
- » Federal award for outstanding innovation in the industrial arts 1995 SRF K welding fume filters

#### **Human resources / Personnel**

- » Member of the Initiative Fair Company 2016
- » Social Involvement 2014 Caritas and the Baden-Württemberg ministry of finance and business
- » Training Ace 2012 German youth business award
- » MAX Award "Training Company for 2010" in the Neu Ulm district
- » 2010 award for prevention achievement in health and occupational safety
- » Training Plus certificate 2015 volunteer inspectors at ESTA
- » Training partnership with WiSS (Senden Business School)

## **Cooperation partners**

- » Partner in the "Donau-Iller" sheltered workshop
- » Chamber of industry and commerce (IHK)
- » German Auslandshandelskammer (AHK)
- >> University of Ulm
- » Hochschule Neu-Ulm University of applied sciences
- >> University of Stuttgart
- » Steinbeis-Institut





















## Device overview according to harmful substances

	Dust Extractors	ESTA 70 / ESTA 100	TK4/TK6/TK2.2	OM	OMF	DUSTOMAT 100-S / 120-S / 140-S / 160-S	DUSTOMAT-10 / -16M	DUSTOMAT 4 / ecot	MOBEX B / DOC+	Wet separators NA-K	Wet separators NA	DUSTMAC P	DUSTMAC S	High Vacuum Extration Units	EUROSOG-W	EUROSOG-I-D	DUROSOG-W	DUROSOG-I-D	WHISPERSOG	SPÄNESOG	COMPASOG ST	CENTRASOG CVS	Welding Fume Filters	SRF K-10 / SRF K-15		SRF SK				DUSTMAC F	Oil Mist Extractors		Odor Filter	VACUMAT	Hall Ventilation Systems		FILTOWER-D / eco <sup>+</sup> / ecolight / ecotemp / 🕰	FILTOWER-L / eco <sup>+</sup> / ecolight / ecotemp / <b>4.0</b>
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Aluminum dust										•	•																											
Cotton fibres			•	•		•							•					•																				
Concrete dust							•		•			•			•	•			•																			
Chemical dust							•	•	•	•	•	•	•		•	•	•	•	•																			
CRP-/GRP-dusts							•	•	•			•	•		•	•			•																		•	
CRP-/GRP-shavings			•	•									•		•	•			•																			
Fumes																								•				•	•	•								•
Dental dusts									•			•			•	•																						
Pigments							•		•			•		п	•	•			•																		•	
Moist dusts										•	•																											
Flock dusts			•	•		•							•	п			•	•																				
Lint Foil tinsel			•	•		•							•	П			•	•																				
Odors				•									ľ				Ĭ	•																•				
Spice dust							•		•			•		П	•	•																						
Glass dust			•	•			•					•		п	•	•			•																			
Graphite powder			_				•					•		П	•	•																						
Rubber and														п																								
leather dust			•	•			•	- 1		•	•	•	•		•	•			•																			
Wood shavings							•									•		•																				
Wood dust							•	•								•		•			•																	
Plastic shavings			•	•			•		•				•		•	•			•																			
Plastic dusts			•	•			•	•	•			•	•		•	•			•			•															•	
Sticky dust						•				•	•			п			•	•																				
Chalk							•					•	•		•	•																					•	
Flour dust Metal shavings			_				•		•			•		п	•	•																						
_		•	•	•	•		•		•				•	П	•	•				•																		
Metal shavings (fraught emulsion)													•							•																		
Metal dusts		•	•	•	•		•	•		•	•	•	•		•	•	•	•	•	•	•	•																
Mineral dusts							•		•			•	•		•	•			•		•																	
Oil mist/aerosols																																•						•
Paper dust							•	•	•			•			•	•	•	•	•		•																	
Scraps of paper			•	•		•							•				•	•																				
Pharmaceutical dust			•	•			•		•	•	•	•	•		•	•			•																			
Soot												•	•																									
Welding Fume																								•	•	•	•	•	•	•						•		
Stone dust							•		•			•	•		•	•																						
Tabacco fibres							•	•	•								•	•																				
Textile fibres			•	•		•							•				•	•																				
Toner dust							•		•			•			•	•			•																			
Cement dust							•					•	•		•	•																						

This chart shows only the most common types of dust and is not complete. It is for orientation and for preselecting the right device. If your type of dust is not listed, just contact us. We'll find a solution to your dust problems too! Service Hotline: +49 7307 3409680-0

Filter Towers

# ESTA THE WORLD OF EXTRACTION

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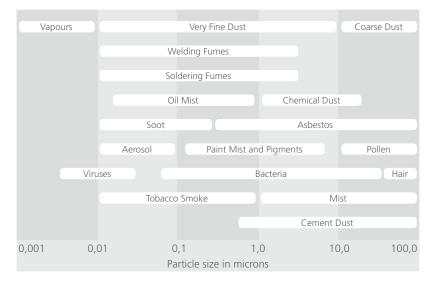
## What You Should Know About Dust

#### What is dust?

Dust consists of visible and invisible, floating and fallen particles of solid material. The larger the particles, the less they float (depending on type and properties). The particle's weight plays no role in this. If the particles are very small (such as with metal dusts), the dust stays in the air continuously and does not fall.

In assessing dust particles' toxicity, both the size and the chemical composition play a decisive role.

#### **Grain sizes in dust**



#### **Limit values**

The OEL (Occupational Exposure Limit) is defined as the maximum concentration of a contaminant in workplace air.

On page 7, you can find an overview of the most common types of dust along with their application categories (test certificates).

## Contact with dust can be a source of illness if

- >> the concentration is very high
- » the dust particles are small enough to penetrate through the trachea and bronchi deep into the lungs (alveoli)
- » particles' shape (such as fibres) promotes penetration
- >> the dust contains poisonous substances

#### Occupational limit value table

Suitable for dry, health hazardous, non-flammable dust types	Applicable dust classes per DIN DIN EN 60335-2-69 Anh. AA						
Since 01.01.2005	Dust Classification	Max. Transmittance					
With occupational limit value > 1 mg/m³	At least <b>L</b> (M, H)	< 1 %					
With occupational limit value ≥ 0,1 mg/m³	At least <b>M</b> (H)	< 0,1 %					
With occupational limit value < 0,1 mg/m <sup>3</sup>	Н	< 0,005 %					
Carcinogenic substances (GefStoffV § 11, TRGS 905 bzw. TRGS 906 – Regulation for Hazardous Substances)	Н	< 0,005 %					
Asbestos (TRGS 519 - Regulation for Hazardous Substances)	H + suitable for use in accordance with TRGS 519	< 0,005 %					
Also suitable for flammable dust types of all explosive dust classifications (with the exception of dust types with extremely low minimum ignition energy (MIE) ME < 1mJ)	At least L with Zone 22 (in addition)						

Further information at http://www.dguv.de/medien/ifa/de/pra/staubklassen/staubkl.pdf

General dust limit value*								
Breathable dust fraction	10 mg/m <sup>3</sup>							
Alveolar dust fraction	1,25 mg/m <sup>3</sup>							

<sup>\*</sup> for materials with no special toxic characteristics

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## Excerpt from the Table of Dust Types

Dust Types	MEL-Values (mg/m³)	DC*	Dust Types	MEL-Values (mg/m³)	DC*	Dust Types	MEL-Values (mg/m³)	DC*
Iron Oxide (FeO <sub>3</sub> ) Welding, Metalworking, in	from 3 to 6, depending	L	Dust containing silicic acid (SiO <sub>2</sub> )	0,15	M	<b>Gypsum</b> Gypsum production	<b>6, F</b> Date: 06/10	L
iron and ochre mines	on the task Date: 06/10		Quartz quarries, sandsto- ne, fire stone, quartzite, slate, foundries with sand	<b>4, F</b> if $SiO_2$ content is $> 4\%$	L	Talc (Magnesium dust silicate) Cosmetics industry, in many	<b>2, F</b> Date: **	L
Wood Woodworking industry, joineries, carpenter shops, parquet installers	5, G (all,with the exp. of oak + beech) 2 (oak and	H2	moulds, porcelain, sanitary and heat resistant ceramics, high temperature ovens, glass industry, sanding of	Date: 06/10		fabrication processes used as filler (caoutchouc, plastic, paper and textiles)		
Chrome (Cr)	beech) Date: ** from 0,1	Н	sand stone, construction industry, production of sili- con carbide			Fibreless Synthetic Zeolite Used in the laundry detergent industry as replace-	<b>6, F</b> <i>Date:</i> **	L
Corrosion resistant alloys (Ferrochrome), electrolytic chrome plating, production	to 0,03, G depending on the type of		Grain dust	4, G	L	ment for phosphate  Titan (Ti)	3, F	L
of chromate and bichro- mate for the textile indus- try, printing companies,	chrome and the processing method		Agriculture, bakeries, mills, work in silos	Date: **		Titan(IV)oxide  Metal	Date: 06/10 <b>6, F</b>	L
tanneries, dyeing plants, photography, paint, chrome alloys, (arc welding) carci- nogenic	Date: 02/09		Lead (Pb) Casting of lead and its alloys, production of ammu- nition and lead storage bat-	<b>0,1, G</b> Date: 02/07	Н	Oxide (smoke or corundum) polishing of metal, sand blasting with corundum	<b>6, F</b> <i>Date:</i> **	
Graphite (crystalline carbon) Fabrication of electrodes and heat resistant moulds	from 3 to 10 depending on the task Date: 06/10	L	teries, welding and cutting of metals containing lead and colours with a torch or arc welding, steel cable production, wire drawing, diamond grinding, shooting			Antimony (Sb) As alloy lead and copper mainly with pewter, lead and copper battery production, caoutchouc industry, textile industry, colours	<b>0,5, G</b> Date: 05/08	M
Nickel (Ni; Oxide) Electrolytic nickel plating,	from 0,01 to 0,1	Н	range  Cadmium (Cd)	from 0,03	Н	(pigments), ceramic and glass industry, electronic, production of matches		
batteries, coins and kitchen utensils, heat and corrosion resistant steel	Date: 02/09		Cadmium plating of metals, steel alloys, production of welding rods, colour pig- ments, welding and etching	to 0,015, G Date: **		Barium (Ba) Working with brass (copper and zinc) and diverse	<b>0,5, G</b> <i>Date:</i> **	M
Zinc (Zn; Oxide) Galvanizing, use of brass (copper and zinc), colours and colour pigments with	<b>5, F</b> <i>Date:</i> **	L	of cadmium alloys, produc- tion of solar cells, plastics industry (Cd as stabilizer) carcinogenic			alloys (with silver, cadmium, chrome, beryllium, nickel), electrical industry		
zinc or zinc oxides			Pewter (Sn)	2, G	L	Cobalt (Co) Special alloys, hardened metal industry, glass and	0,5, G Date: 05/08 Minimization	Н
Copper (smoke) Working with brass (copper and zinc) and diverse alloys (with silver, cadmium, chrome, beryllium, nickel), electrical industry	from 1 to 0,1 Date: **	M H	Organic and inorganic compounds pewter plating of metals, working with pewter alloys. Organic derivatives are used for the production of plastics and	<b>0,1, G</b> Date: **	Н	ceramics industry (enamel), cobalt plating of metals, grinding of surgical pros- theses, diamond grinding, carcinogenic	requirements	
Flour	<b>4</b> Date: **	L	pesticides  Manganese (Mn; smoke)	0,5, G	M	<b>Diatomite,</b> calcined and diatomite smoke	<b>0,3, F</b> Date: 06/10	M
Cement dust Cement plants	5 Date: 06/10	L	Iron-manganese-electrodes, metallurgy, dry batteries, colours for ceramic and	Date: 06/10		Diatomite, non-calcined	<b>4, G</b> Date: 06/10	L
Silicon carbide	3 Date: 08/08	L	glass (in the form of salt)  Molybdenum (Mo)	from 5 to 6	L	Quartz	<b>0,15</b> Date: **	Н
Marble Work in quarries	6 Date: **	L	Working with molybdenum alloys	depending on the task		Silver	<b>0,1</b> Date: 06/10	Н
Aluminum (as metal)	from 3 to 10 depending	L	Tobacco	Date: 05/08	L	<b>Silver compounds,</b> soluble	<b>0,01, G</b> <i>Date: 05/08</i>	Н
	on the task Date: 06/10		Cotton dust	Date: **	L	Quicksilver compounds carcinogenic	<b>0,1, G</b> Date: 06/10	Н
Aluminum oxide	<b>3</b> Date: 06/10	L	Beryllium	Date: 06/10	н	PVC (Polyvinyl chloride)	<b>3 F</b> Date: 06/10	L
Aluminum oxide-smoke	<b>6</b> Date: **	L	Grinding of Be-metal and alloys     otherwise carcinogenic	0,002 G 0,005 G Date: 05/08		<ul> <li>* = Dust Classification</li> <li>** no limit currently specifiedt</li> <li>F/G = Values referring to the breathable fraction</li> </ul>		

Additional information and occupational limit value can be found on the Internet under: www.dguv.de (Database for hazardous substances – GESTIS)

For ultimate flexibility in extracting and filtering dust laden air

ESTA 70 / ESTA 100

TK/TK-2.2

OM/OMF

**DUSTOMAT S** 

DUSTOMAT-10/16 M

DUSTOMAT 4 / eco+

**COMPEX** 

MOBEX P / eco+

NA-K/NA

DUSTMAC P and S

Cyclone ZA

## **Industry Applications**

- » Aircraft Industry
- » Automotive Repair Shops
- » Blasting Cabinets
- » Chemical Industry
- » Construction Industry
- » Dental Labs
- » Electronics Industry
- » Furniture Industry
- » Glass Production
- » Graphite Processing
- » Laboratories
- » Leather Processing
- » Machine Building Industry
- » Metalworking Industry
- » Model Building
- » Natural and Man Made Stone Processing (Stone Masons)
- » Paper Manufacturing
- » Pharmaceutical Industry
- » Plastics Processing
- » Precision Mechanical Work
- » Printing Industry
- » Recycling-Companies
- » Sandblasting Shops
- » Sawmills
- » Schools
- » Shoe Manufacturers
- » Steel Construction
- » Textile and Flocking Industry
- » Woodworking Companies



## **Test Certificates**













## THE WORLD OF

## Introduction and Product Overview

#### Introduction

Dust extractors play a crucial role near processing machines and in production halls. With the right type of filter, nearly all types of shavings and dusts can be separated. Dust extraction is done directly through the device's connection piece or through capture elements such as exhaust hoods or extraction arms.







#### **Product overview**

The ESTA 70 and ESTA 100 small dust extractors are designed for small dust quantities in tight spaces. They are intended for occasional use.

Small dust extractors in the **TK** and **OM series** have a manually cleanable bag filter. They are mainly placed under processing machines or workbenches.

Mobile dust extractors of the serie **DUSTOMAT** are more economical than a central system. They are recommended when extraction points frequently change. Their compact design makes them smooth-running and flexible to use. This class includes the **DUSTOMAT-10** and **16 M.** 

The mobile dust extractors **DUSTOMAT S** were specifically designed for the extraction of sticky and fibrous dust.

If several locations require extraction at the same time, but the flexibility of a mobile dust extractor is crucial, the powerful devices in the **DUSTO-**MAT 4 series are the ideal solution. These are now also available in the new, efficient eco+ version.



## Introduction and Product Overview

**COMPEX** and **MOBEX** compact dust extractors are developed for professional dust extraction. The devices have automatic filter cleaning and can be used in continuous operation. The MOBEX range is now also available in the new, more efficient **eco**+ version.

**NA-K / NA** wet separators are especially good for extracting flying sparks or sticky dusts. These devices perform filtration through a water bath. For extracting explosive aluminium dusts, we also offer wet separators in specially tested designs.

The **DUSTMAC** series contains high-performance dust extractors that can extract from several machines at the same time through a pipe system. **DUSTMAC** systems have a modular design, which allows later system expansion, if necessary.

The stationary **Cyclone Separator ZA** will be installed in front of the actual filter unit, for the pre-separation of dry, pourable dust.



## Easy to operate and maintain

What all these devices have in common is that they are easy to operate and maintain. This lets you focus on your work – not on extraction.

The detachable dust collection drawer and ESTA's tiltable filter housings guarantee trouble-free disposal of collected dust material.

Clear, ergonomically arranged control elements allow safe, simple handling.



# ESTA THE WORLD OF EXTRACTION

## Advantages that Pay Off



## Flexible use

Smooth-turning rollers help move ESTA mobile dust extractors to their desired location, ensuring flexible application. Mobile undercarriages are available for small and compact dust extractors. Various filter media and filter-cleaning systems allow use in nearly any application or industry. For adapting the devices optimally to local conditions, many versions are available:

- >> Custom voltages
- >> Capacitative sensors
- >> Exhaust outlet
- Activated carbon filters
- » Special filters
- >> Pre-separators
- >> Special paint treatments
- » ... and much more

## **Quality and expertise**

Air technology design based on decades of experience, the latest technical knowledge and scientific evaluation of empirical data are the reasons our dust extractors are ever more innovative. Investments in this area stand up to every audit.

## **Quality workmanship**

The high quality our customers demand ensures our dust extractors last a long time. We assure this quality standard through:

- » Highly qualified employees
- » Internal device inspection and final inspections
- » Audited production facilities
- » External device test certificates from DEKRA, IFA, etc.
- Production certified per DIN EN ISO 9001:2008



So that our dust extractors can be used effectively at any extraction point, we offer a complete range of accessories: Such as:

- » Cyclonic separators
- » Spark pre-separators
- » Pipe pre-separator
- » Hoods and extraction arms
- » Pipes, hoses and connectors



Cleanable permanent filter cartridges, precisely adapted cleaning methods and components made for continuous operation minimize failure, equipment and replacement part costs.

Productivity and economy both improve, and ESTA has one more satisfied customer.



From consultation to on-site installation. We design tailor-made solutions and build them, too – the customer gets one-stop shopping. Excellent project planning and implementation are the basis for reliable, well-functioning extraction systems.





# Mini Dust Collectors ESTA 70 / ESTA 100



## **Application Range**

- » Extraction of individual workstations in industry and trade
- » For occasional use in little amounts of dust
- » Grinding and buffing shops of precious stones
- » Mechanical workshops
- » Metalworking companies
- » Repair shops
- » Jewellery making shops





ESTA 100 connected to al belt sanding machine

### Special Versions

- » Filter material for fine dusts
- » Motors in three phase or alternating current
- » Custom paint finish

# STAPLUS

## Special Features

» Stationary but compact enough to move around if necessary

#### **Your Benefits**

- » Small space requirement due to compact design
- » Very easy to operate
- » Very low operating costs
- » Low maintenance

Data dependent on equipment type

### Technical Data

Model		ESTA 70	ESTA 100
Max. Airflow	m³/h	700	1.000
Intake diameter	mm	70	100
Max. negative pressure	Pa	1.000	1.000
Voltage	V	400	400
Motor	kW	0.55	0.55
Motor speed	1/min	2.800	2.800
Dimensions (L/W/H)	mm	320 × 320 × 660	420 × 420 × 850
Weight	kg	25	35
Sound emission	dB(A)	71	76
Order Number		11.071	11.101

# ESTA THE WORLD OF EXTRACTION

# Mini Dust Collectors *TK and TK 2.2*



## Application Range

- Extraction of individual workstations in industry and trade
- » For direct extraction of grinding, milling, and deburring
- » For occasional use in little amounts of dust
- » Mechanical workshops
- » Metalworking companies

## Special Versions

- » High efficiency filter materials for very fine dust
- » Motors in three phase or alternating current
- » Mobile unit with casters
- » Sound dampening muffler
- » Custom paint finish
- » Filtration unit only, without motor
- » Equipped with a turbine blower for applications requiring very high vacuum power (TK-2.2)



Ideal for

Metal dust

Metal shavings

Plastic shavings

Mini dust collector TK connected to a deburring machine

## Special Features

- » Cleanable, durable bag filter dust class M
- » Heavy duty dust collection drawer

### **Your Benefits**

- » Small space requirement due to compact design
- » Easy to handle
- » Low operating costs due cleanable filter bag
- » Low maintenance

Data dependent on equipment type

## Technical Data

Model		TK-4	TK-6	TK-2.2
Max. Airflow	m³/h	300	450	300
Intake diameter	mm	60	80	50
Max. negative pressure	Pa	1.400	1.400	21.000
Voltage	V	400	400	400
Motor	kW	0.55	0.55	2.2
Motor speed	1/min	2.800	2.800	2.800
Dimensions (L/W/H)	mm	400 × 400 × 590	400 × 400 × 590	830 × 460 × 655
Overall depth	mm	600	600	900
Weight	kg	45	30	106
Sound emission	dB(A)	68	68	75
Order Number		31.041	31.061	41.033

# Mini Dust Collectors OM



## **Application Range**

- » Intermittent or continuous duty use with moderate quantities of dust
- » Electronics industry
- » Metalworking industry
- » Surface finishing technology
- » Machine building

# Metal dust Metal shavings Plastic dust

## Special Versions

- » High efficiency filter material for very fine dust – also available with certification for dust classification M
- » Motors in three phase or alternating current
- » Custom paint finish
- » Water pre-separator for spark generating applications
- » Mobile unit with casters
- » Sound dampening muffler



OM-8 connected to a belt sanding machine

## » Cleana

## Special Features

- » Cleanable, durable bag filter
- » Heavy duty dust drawer

## **Your Benefits**

- » Suitable for nearly all types of dust
- » Versatile in its use
- » Cleanable long life filter
- » Low operating costs due cleanable filter bag
- » Small space requirement due to compact design

Data dependent on equipment type

## Technical Data

Model		OM-8	OM-10	OM-12
Max. Airflow	m³/h	500	600	800
Intake diameter	mm	80	100	150
Height of intake connection	mm	300	300	300
Max. negative pressure	Pa	1.600	1.500	1.800
Voltage	V	400	400	400
Motor	kW	0.55	0.55	1.10
Dimensions (L/W/H)	mm	550 × 550 × 1.120	550 × 550 × 1.120	550 × 550 × 1.120
Overall depth	mm	670	670	670
Weight	kg	65	65	70
Sound emission	dB(A)	65	66	72
Order Number		21.081	21.101	21.122

ESTA
THE WORLD OF EXTRACTION

# Mini Dust Collectors *OMF*



## Application Range

- » Continuous duty operation with moderate quantities of dust
- » For applications with flying sparks
- » Machine building
- » Electronics industry
- » Metalworking industry
- » Surface finishing technology



Ideal for

Metal dust

Metal shavings

Plastic dust



OMF on a belt grinding machine

## Special Features

- » Cleanable, durable bag filter
- » Integrated spark arrestor/ demisting insert

## **Your Benefits**

- » Suitable for most types of dust
- » A long filter service life through integrated spark trap
- » Low operating costs due cleanable filter bag
- » Compact design for small space requirement

Data dependent on equipment type

## Technical Data

Model		OMF-8	OMF-10	OMF-12
Max. Airflow	m³/h	500	600	800
Intake diameter	mm	80	100	150
Max. negative pressure	Pa	1.600	1.500	1.800
Voltage	V	400	400	400
Motor	kW	0.55	0.55	1.10
Dimensions (L/W/H)	mm	550 × 550 × 1.120	550 × 550 × 1.120	550 × 550 × 1.165
Overall depth	mm	670	670	670
Weight	kg	65	65	85
Sound emission	dB(A)	68	68	74
Order Number		21.308	21.310	21.312

Phone +49 73 07 3 40 96 80-0 Dust Extractors

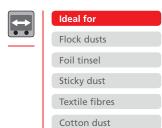
## Mobile Dust Extractors

## **DUSTOMAT S Series**



## Application Range

- » Specialized dust extractor for sticky dust and dust containing long fibres
- » Textile and flocking industry







DUSTOMAT 160-S in OEM-version for dust extraction on a manual flocking workstation

## Special Features

» Fabric filter element with primary paper filter bag

## **Your Benefits**

- » Compact design with high extraction performance
- » Easily replaceable paper filter bag to collect the dust

Data dependent on equipment type

## Technical Data

DUSTOMAT		100-S	120-S	140-S	160-S
Max. Airflow	m³/h	720	1.060	1.330	1.850
Intake diameter	mm	100	125	140	160
Max. negative pressure	Pa	2.800	3.250	3.800	4.600
Voltage	V	230/400	400	400	400
Motor	kW	1.3/1.1*	2.2	3.0	3.0
Filter surface	m²	0.75	1	1	1
Dust collection contained	rl	100	200	200	200
Dimensions (L/W/H)	mm	1.075 × 530 × 1.075	1.653 × 782 × 1.353	1.653 × 782 × 1.353	1.653 × 782 × 1.373
Weight	kg	70	190	200	200
Sound emission	dB(A)	71	68	69	73
Order Number					
Model	230 V	09.500	-	-	-
Model	400 V	09.497	09.502	09.504	09.506

<sup>\* 400</sup> V-model

## Mobile Dust Extractors

## DUSTOMAT-10 and -16 M



## Application Range

- » Dust extraction of individual machines and manual workstations
- » Pourable dust types including hazardous types of dust



## Ideal for

Metal shavings
Plastic dust



Wood shavings



Wood dust
Pigments



Tabacco fibres



Paper dust

Metal dust

Stone dust



DUSTOMAT-10 with accessories for floor clean up

## Special Features

- » Three filter cleaning methods:
  - brush cleaning method (manually)
- pulse jet cleaning method
- pneumatic filter cleaning
- » Cleanable long life cartridge filters (Dust classification M)
- » Test Certificate M (DUSTOMAT-16 M)

#### **Your Benefits**

- » Low operating costs resulting from cleanable long life filter cartridges
- » Mobility combined with high extraction performance
- » Tilt-back filter housings for easy dust disposal
- » Suitable for most types of dust Data dependent on equipment type

## Technical Data

DUSTOMAT-		10	16 M
Max. Airflow	m³/h	720	1.140
Intake diameter	mm	100	125
Max. negative pressure	Pa	2.800	2.000
Voltage	V	230/400	230/400
Motor	kW	1.3/1.1*	1.3/1.1*
Filter surface	m²	3.5	9.4
Dimensions (L/W/H)	mm	1.165 × 530 × 1.636	1.150 × 670 × 1.470
Weight	kg	120	110
Sound emission	dB(A)	73	73
Order Number			
Manual filter cleaning	(230 V)	09.201	-
Pneumatic filter cleaning	(230 V)	-	09.420**
Manual filter cleaning	(400 V)	09.215	-
Pneumatic filter cleaning	(400 V)	-	09.421**
Pulse jet filter cleaning	(400 V)	-	09.422

<sup>\* 400</sup> V-model / \*\* with Test certificate M

Phone +497307 3409680-0 Dust Extractors

## Mobile Dust Extractors

## DUSTOMAT-10 through -16 M

## **DUSTOMAT-16 M**

- specifically designed for the stone industry



DUSTOMAT-16 M is especially designed for extracting mineral dusts at changing workstations in the stone industry.

An ESTA extraction arm captures stone, graphite or concrete dust with pinpoint precision.

The DUSTOMAT-16 M mobile dust extractor comes with test certificate M for extraction of harmful dusts.



DUSTOMAT-16 M

– direct extraction of fine stone dust



DUSTOMAT-10 in a woodworking application

## Accessories

On pages 30 to 32, you will find special accessories for the DUSTOMAT line, such as extraction arms, floor cleaning sets, various nozzles, pre-separators, etc.





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# Mobile Dust Extractors DUSTOMAT 4

Now also available in eco<sup>+</sup> design!



#### Application Range

- » Dust extraction at individual or Removal of free flowing or dry dust in individual or multiple process applications and locations
- » Suitable for a wide range of industries
- » Direct extraction from processing machines or for connection to collection hoods, extraction arms and ductwork systems

#### Special Versions

- » Backup filter cassette for class H dusts
- » Optional: ATEX version
- » NEW Pre-separator for sparks, chips and dusts (optional)
- >> Version with frequency transformer
- » Stationary version
- » Custom paint finishes
- » Other versions on request



registered for

certification

Ideal for CFK/GFK-dust

Chemical dust

Wood dust

Metal dust

Plastic dust

Lint



The compact design and quiet operation of the dust extraction units allow them to be installed directly in the working or process area.

#### Special Features

- » Available in two power levels
  - » Integrated impact separator for pre-separating coarse material and heavy particles
- » Differential pressure controlled pulse jet filter cleaning system

## **Your Benefits**

- » Outstanding suction power combined with outstanding mobility
- » Innovative equipment design provides efficient air flow and high efficiency, therefore reducing operation and maintenance costs
- » Extremely quiet operation, can therefore be installed directly in the working or process area
- » Mobile dust collection drawer for easy disposal
- » New innovative cabinet design, therefore providing a small footprint
- Extremely easy to operate and maintain

## Technical Data

DUSTOMAT		4-10	4-24
Max. Airflow	m³/h	2.000	3.300
Intake diameter	mm	160	200
Max. negative pressure	Pa	2.600	3.600
Voltage	V	400	400
Motor	kW	2.2	4.0
Filter elements	Piece	2	2
Filter surface	m²	10	24
Dust collection container		90 (42*)	90 (42*)
Dimensions (L/W/H)	mm	1.400 × 840 × 1.440	1.600×840 ×1.640
Weight	kg	230	280
Sound emission	dB(A)	68	72
Order Number			
Standard version		09730	09760
Tested to dust class H		09731	09761
ATEX version		09732	09762
eco <sup>+</sup>		09740	09770

\* with disposal box

Phone +497307 3409680-0 Dust Extractors

## Mobile Dust Extractors

## DUSTOMAT4 eco+



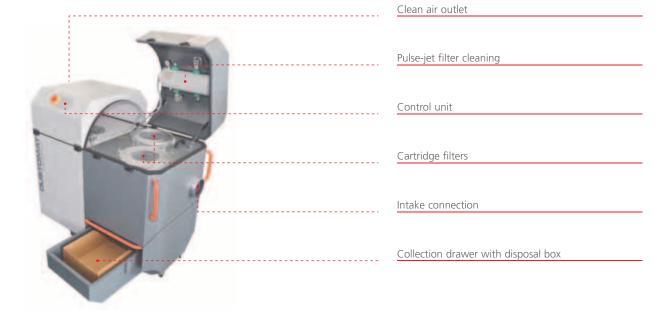
The eco<sup>+</sup> series combine outstanding extraction and filtration performance for maximum efficiency at low operating costs. All thanks to the new ESTA EasyControl device control with sophisticated sensor technology and the application of frequency converters.

## DUSTOMAT 4 eco+ design:

- >> ESTA EasyControl device control
- >> Frequency converter for fan motors
- » Programmable timer
- Dust sensors in the raw gas and clean air areas for performance control as well as residual dust and filter break monitoring
- >> Level measurement in collection container



**ESTA EasyControl** is a newly-developed device control that ensures energy-efficient device operation with state-of-the-art sensor technology. Power savings of up to 50% compared to conventional differential pressure controls are obtained through current volume flow measurement and the fully-automated regulation of the extraction performance based on the operating parameters.



THE WORLD OF



## Mobile Dust Extractors

## Pre-separator for DUSTOMAT 4



## **Spark pre-separators for DUSTOMAT 4**

- » The spark pre-separator is directly mounted onto the DUSTOMAT
- >> Spark separation is carried out with mesh filters
- » Simple maintenance and dust disposal via side opening panel

	Order no.
DUSTOMAT 4-10 H spark pre-separator	30125
DUSTOMAT 4-10 spark pre-separator	30160
DUSTOMAT 4-24 spark pre-separator	30200



## **Shavings pre-separators for DUSTOMAT 4**

- » Mobile 2001 collecting tank with collection sack
- » Cover with integrated baffle
- » Includes 1.5 m PU flexible inlet hose

	Order no.
DUSTOMAT 4-10 H shavings pre-separator	31125
DUSTOMAT 4-10 shavings pre-separator	31160
DUSTOMAT 4-24 shavings pre-separator	31200



## **Dust pre-separators for DUSTOMAT 4**

- » Mobile 2001 collecting tank with collection sack
- Cover with side inlet and cyclonic separator tube for pre-separation of coarse dust, including 1.5 m PU flexible inlet hose

	Order no.
DUSTOMAT 4-10 H dust pre-separator	32125
DUSTOMAT 4-10 dust pre-separator	32160
DUSTOMAT 4-24 dust pre-separator	32200



The sides of the spark pre-separator serve to dispose of residue.



The mobile 90 litre dust collection drawer can also be transported using a lift truck or fork lift.



The top of the filter module is hinged so as to provide convenient access for service and maintenance work.

# Compact Extractors COMPEX



## **Patented Fire Protection System**

The ESTA fire protection system with spark detection sensor prevents sparks that have been extracted from entering the filter chamber. If the sensor detects sparks the airflow will be cut off instantly thereby preventing the spark from entering the filter chamber.

#### Special Features

- » Pulse-jet filter cleaning system
- » Cleanable long life cartridge filters (Dust classification M)
- » Insertable disposal container in the drawer

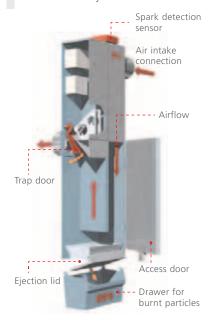
#### Your Benefits

- » Specifically designed for rubber. leather and plastic
- » High extraction performance
- » Cleanable long life cartridge filters
- » Low operating costs
- » Can be used in different locations as a mobile or stationary unit

Data dependent on equipment type

## **Application Range**

- » Continuous duty dust extraction on single and multiple workstations
- » Dental labs (with PTFE coated cartridge filters)
- » Plastics industry
- » Leather industry
- Shoe industry



Schematic illustration of the fire protection system



Plastic dust

## Special Versions

- » Special filter materials
- » Fire protection system
- » Fire extinguishing system
- » Pre-separator



COMPEX in the Shoe industry

#### Technical Data

COMPEX		S-6.2
Max. Airflow	m³/h	3.250
Intake diameter	mm	2×160
Max. negative pressure	Pa	2.900
Voltage	V	400
Motor	kW	4.0
Filter surface	m²	6.2
Dust collection container	1	180
Dimensions (L/W/H)	mm	1.264 × 804 × 2.220
Weight	kg	415
Type of filter		Hose
Sound emission	dB(A)	76
Order Number		21.145

Filter Towers

## ESTA THE WORLD OF EXTRACTION

# Compact Extractor MOBEX P

Now also available in eco<sup>+</sup> design!



## **Application Range**

- » Universal use for dusts and shavings in the metal and plastics industries and many others
- » Single- or multiple-location extraction at machines that produce dust or shavings, or at welding stations
- » Polishing workplaces, for example in the shoe industry, instrument making, etc.



Product-Vide

## Special Versions

- » Special filter materials
- » Special voltage
- » **NEW** Pipe pre-separator
- » Exhaust air connection
- » ATEX version
- » Test certificate H



The MOBEX-dust extractors can also be used in combination with an ESTA Extraction

## Special Features

- » Innovative sandwich-panel housing design
- » Pre-separation system with integrated impact separator on the raw gas inlet
- » Jet pulse cleaning
- » A new disposal system with lockable dust collection cartons (testet by the IFA)
- » Optional: Mobile version available

## **Your Benefits**

- » High suction performance
- » Low operating costs thanks to cleanable permanent filter
- » Long filter life due to a preseparation system
- » Low operating noise thanks to a sound-insulated housing
- » Small space requirement due to compact design
- » Easy, dust-free removal of collected material through a new disposal system

Data dependent on equipment type



MOBEX P-24 at a milling machine

Dust Extractors

## **NEW**

## Compact Extractor

## MOBEX P eco+

The eco+ series combine outstanding extraction and filtration performance for maximum efficiency at low operating costs. All thanks to the new ESTA EasyControl device control with sophisticated sensor technology and the application of frequency converters.

#### MOBEX eco+ design:

- >> ESTA EasyControl device control
- >> Frequency converter for fan motors
- >> Programmable timer
- Dust sensors in the raw gas and clean air areas for performance control as well as residual dust and filter break monitoring
- >> Level measurement in collection container

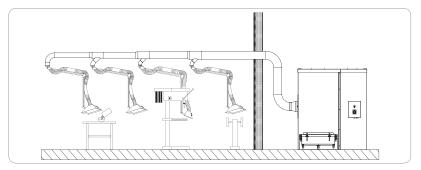
**ESTA EasyControl** is a newly-developed device control that ensures energy-efficient device operation with state-of-the-art sensor technol-



ogy. Power savings of up to 50% compared to conventional differential pressure controls are obtained through current volume flow measurement and the fully-automated regulation of the extraction performance based on the operating parameters.



The detachable dust collection drawer with lockable cartons ensures simple, dust-free disposal.



With pipelines, the MOBEX series can be used for simultaneous extraction at multiple work-stations.

#### Technical Data

MOBEX		P-24	P-36
Max. Airflow	m³/h	2.800	4.500
Intake diameter	mm	200	250
Max. negative pressure	Pa	3.400	3.400
Voltage	V	400	400
Motor	kW	3.0	4.0
Filter elements	Pieces	2	3
Filter surface	m²	24	36
Dust collection container	Ī	100 - 150 (2×38*)	100 - 150 (2×38*)
Dimensions (L/W/H)	mm	$1.910 \times 1.040 \times 2.030$	$2.030 \times 1.040 \times 2.030$
Weight	kg	310	350
Sound emission	dB(A)	71	74
Order Number			
Standard version		09.831	09.832
Tested to dust class H		09.833	09.834
ATEX version		09.840	09.841
eco⁺		09842	09843

<sup>\*</sup> with disposal box

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# ESTA THE WORLD OF EXTRACTION

## Wet Separators

## NA-K



## Application Range

- » Extraction of individual and multiple workstations with sticky and damp types of dust, especially metal dust
- » Central extraction system connected to a trunk line for dust extraction from multiple workstations
- » For applications where lots of spatter
- » Available with certification for extraction of aluminum dust



Ideal for

Moist dust Sticky dust

Metal shavings

Metal dust

Aluminum dust

Flammable dusts

# Special Versions » Special voltage

- » Muffler
- » ATEX version
- » Type examination for aluminum dust extraction (BGR 109)



NA-K in a tannery

## Special Feature

» Highly recommended for metal grinding applications

## **Your Benefits**

- » High extraction performance for sticky and damp types of dust
- » Ideal solution for applications with a high occurrence of sparks
- » Type approved versions save additional BG-spot verification
- » High filtration efficiency

Data dependent on equipment type

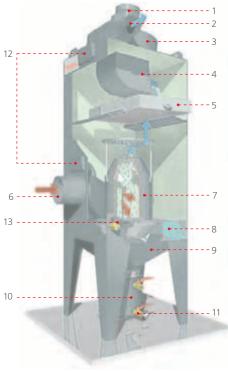
## Technical Data

NA-K		1800	3600	6000
Max. Airflow	m³/h	2.160	3.125	5.150
Intake/outlet diameter	mm	180/280	224/280	280/300
Max. negative pressure	Pa	4.300	3.500	3.600
Motor	kW	3.0	5.5	7.5
Water content	I	290	390	390
Sludge container	I	50	50	50
Water connection		G 3/4"	G 3/4"	G 3/4"
Dimensions (L/W/H)	mm	800 × 800 × 2.940	950 × 950 × 3.460	950 × 950 × 3.460
Weight (without Water)	kg	340	510	530
Sound emission	dB(A)	83	86	89
Order Number				
Standard version (without certificate)		45.183	45.363	45.603
NA-K B with design test cer	tificate	45.182	45.362	45.601
NA-K VA with design test certificate		45.180	45.360	45.600

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## Wet Separators

## NA-KB/NA-KVA



NA-K (schematic Illustration)

- 1. Motor
- 2. Clean air exhaust
- 3. Fan
- 4. Gas deflector
- 5. Mist collector
- 6. Dust laden air intake connection
- 7. Whirl chamber
- 8. Water
- 9. Tapered sludge collection area
- 10. Sludge container
- 11. Drain valve
- 12. Flapper valves
- 13. Magnetic valve with water connection for automatic filling



NA-K connected to a belt sanding machine

## Certified Pre-separator for the extraction of aluminum dust

### NA-K B

As opposed to standard version, the following stainless steel parts:

- **»** Fan (3)
- » Gas deflector (4)
- » Dust laden air intake connection (6)
- » Whirl chamber (7)
- » Sludge container (10)

Made of sheet steel:

» Housing outside (explosion-proof motor)

Interior coating based on epoxy resin

#### NA-K VA

As opposed to standard version, all metal parts are made of stainless steel

Filter Towers

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ESTA
THE WORLD OF EXTRACTION

## Wet Separators

## NA-500 / NA-1.1 / NA-2.2 SK



## **Application Range**

- Extraction of sticky substances and dusts
- » Spark generating production processes
- » Extraction of flammable, explosive and dry substances defined as "Zone22" types of dust (ATEX version)



Ideal for

Metal dust
Sticky dust

Flammable dusts



Tilt-back upper housing for easy access to the interior of the unit

## Special Versions

- » As a pre-separator for existing dust extractor (NA-500)
- » As vacuum unit (NA-2.2)
- » Stainless steel housing
- » ATEX-approved version
- » Magnetic valve for automatic water supply

## Special Features

- » Three different versions for mobile wet separation
- » Droplet separator and filter cartridge of dust classification M

#### **Your Benefits**

- » Tilt-back upper housing for easy dust disposal
- » Small space requirement due to compact design
- » Minimum water consumption

Data dependent on equipment type

#### Technical Data

NA		-500 Pre-Separator	-1.1 Dust Extractor	-2.2 Vacuum unit
Max. Airflow	m³/h	500	560	300
Intake/outlet diameter	mm	100/100	100/-	50/-
Max. negative pressure	Pa	_	1.700	21.000
Motor	kW	-	1.1	2.2
Water capacity	1	40	40	40
Collection container	1	100	100	100
Dimensions (L/W/H)	mm	1.260 × 630 × 1.560	1.310 × 530 × 1.560	1.260 × 630 × 1.560
Weight (without Water)	kg	80	120	130
Sound emission	dB(A)	_	78	68
Order Number				
Standard version		45.513	45.511	45.512
Stainless steel version		45.613	45.611	45.612
ATEX version		45.713	45.711	45.712

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## Modular Dust Extractors

## DUSTMAC P (Cartridge Filters)



## Application Range

- » Central extraction of multiple dust generating machines
- » Suitable for dry, pourable types of dust





The DUSTMAC series is also suitable for outdoor installation

## Special Versions

- » Special filter materials
- » Custom paint finish
- » Fan with various capacities
- » Coating for outdoor installation
- » **NEW** Pipe pre-separator
- » Pre-separator
- » ATEX version

# STAPLUS

## Special Features

- » Pulse-jet filter cleaning system
- » Integrated Pre-separator
- » Cleanable long life cartridge filters (Dust classification M)

## Your Benefits

- » Suitable for most types of dust
- » Low operating costs due cleanable filter cartridges
- » Modular design (expandable)
- » Customer specific design

Data dependent on equipment type

## Technical Data

DUSTMAC		P-20	P-40	P-60	P-90
Max. Airflow	m³/h	ca. 2.600	ca. 4.500	ca. 7.800	ca. 9.700
Intake/outlet diameter	mm	160/280	224/355	280/300	355/450
Max. negative pressure	Pa	2.000	3.200	3.800	3.800
Voltage	V	400	400	400	400
Motor	kW	2.2	4.0	5.5	7.5
Filter surface	m²	20	40	60	90
Filter elements	Pieces	2	4	6	9
Dust collection containe	r I	100	100	100	100
Dimensions (L/W/H)	mm	1.310 × 1.055 × 3.250	1.310 × 1.300 × 3.295	1.750 × 1.300 × 3.740	1.900 × 1.880 × 3.770
Sound emission	dB(A)	67	73	78	83
Order Number		661.020	661.040	661.060	661.090

ESTA

## Modular Extractors

## DUSTMAC S (Tubular Bag Filters)



## Application Range

- » Central extraction of multiple industrial dust generating workstations or machines
- » Suitable for fine, fibrous and sticky types of dust





- » Special filter materials
- » Custom paint finish
- » Fan with various capacities
- » Coating for outdoor installation
- » Pre-Separator
- » ATEX-approved version optional



Central extraction systems with two DUSTMAC S filter modules each

#### Special Features

- » Pulse-jet filter cleaning system
- » Cleanable long life tubular bag filters for dust classification M

#### **Your Benefits**

- » Low operating costs due cleanable filter cartridges
- » Modular design (expandable)
- » Customer specific design

Data dependent on equipment type

## Technical Data

DUSTMAC		S-5	S-10	S-17	S-25	S-33
Max. Airflow	m³/h	ca. 2.600	ca. 3.500	ca. 4.500	ca. 5.400	ca. 9.700
Intake/outlet diameter	mm	160/280	200/300	224/355	280/400	355/400
Max. negative pressure	Pa	2.000	2.600	3.200	3.200	3.800
Voltage	V	400	400	400	400	400
Motor	kW	2.2	3.0	4.0	5.5	7.5
Filter surface	m²	5	10.5	17	25	33
Hoses	Pieces	13	20	32	48	48
Dust collection container	.	50	50	50	50	50
Dimensions (L/W/H)	mm	1.400 × 1.055 × 3.465	1.400 × 1.310 × 3.470	1.820 × 1.310 × 3.875	1.820 × 1.750 × 3.990	1.880 × 1.750 × 4.400
Sound emission	dB(A)	67	69	74	76	82
Order Number		662.005	662.010	662.017	662.025	662.033

Additional informations about the modular extractor DUSTMAC can be found beginning on page 97

Phone +4973 07 3 4 0 9 6 8 0 - 0 Dust Extractors

## Cyclone Pre-Separators

## ZA



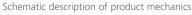
### Application Range

- » Can be used as primary filtration unit or pre-separator unit
- » For dry, pourable types of dust

Because we at ESTA are convinced of the effectiveness of our cyclone geometry, we issue an "extraction guarantee declaration".









Cyclone pre-separator ZA-160 application photo

## Special Features

- » Dust collection container available in different sizes
- » Different discharge methods (sluices, rotary valve)
- » As steel, stainless steel or aluminum version available
- » Coating for outdoor installation

## **Your Benefits**

- » Optimal solution for extracting medium sized and coarse dust
- Can be combined ideally with other ESTA dust extractors
- » Extraction guarantee declaration for your type of dust

Data dependent on equipment type

## Technical Data

Cyclone pre-separator	Intake connection	Airflow volume	Collection container	Height of cyclone	Order Number
	mm	Intervall m³/h	Liter	mm	
ZA 50	50	-200	50	1.458	20820050
ZA 100	100	-800	100	2.280	20821100
ZA 125	125	-1.100	100	2.596	20821125
ZA 140	140	-1.200	100	2.578	20821140
ZA 160	160	-2.000	100	2.924	20821160
ZA 200	200	-2.500	100	3.166	20821200
ZA 225	225	-3.700	200	4.128	20822225
ZA 250	250	-4.500	200	4.399	20822250
ZA 280	280	-6.000	200	4.823	20822280
ZA 300	300	-6.500	200	5.086	20822300
ZA 315	315	-7.500	200	5.278	20822315
ZA 355	355	-9.300	200	5.735	20822355
ZA 450	450	-12.500	200	6.449	20822450

The sound level rating depends on the type of fan installed in the equipment

# THE WORLD OF

DUSTOVAC 5.5 pulse-jet **DUSTOVAC 7.5 manuel** 

DUSTOVAC

## Accessories & Attachments

### **Your Benefits** » Large selection of accessories & attachments » Highest quality **DUSTOMAT 4-10/4-24** DUSTOMAT P-10/P-20 DUSTOMAT T-5/T-10 » Superior workmanship 160-5 120-5 **DUSTOMAT 100-S DUSTOMAT 140-S** » Tailor made for ESTA products DUSTOMAT DUSTOMAT **Product Description** Order Number **Dust Collection Bags** Plastic collection bag Approximately 100 Litre capacity, (1 Set = 10 pieces) 91.015 Plastic collection bag Approximately 200 Litre capacity, (1 Set = 10 pieces) 91.017 Plastic collection bag 91.018 Approximately 200 Litre capacity, (1 Set = 10 pieces) Paper filter bag (1 Set = 10 pieces) 5017 Paper filter bag (1 Set = 5 pieces) 9017 **Dust Collection Container Dust Collection Container** (1 Set = 8 pieces) 30008311 **Control Unit External Control** With floating contact installed in the unit 700002 **DUSTMASTER 6/3** Control unit for the dust extractor in connection with a max. of 3 shutter valves and 6 processing machines 250.002 **DUSTMASTER 12/7** Control unit for the dust extractor in connection with a max. of 7 shutter valves and 12 processing machines 250.001

## **Chip Deflectors**

Malfunction radio transmitter



Chip deflector, small, complete	97.012	 •	
Chip deflector, large, complete	97.011		

Please inquire

Cone Insert								
Cone insert, small	15000092	•	•		•			
Cone insert, large	15000091							

## Accessories & Attachments

			DUSTOMAT-10	DUSTOMAT-15	DUSTOMAT-16	DUSTOMAT T-5/T-10	DUSTOMAT P-10/P-20	DUSTOIMAT 100-5	DUSTOMAT 120-S	DUSTOMAT 160-S	DUSTOVAC 5.5 manuel	DUSTOVAC 5.5 pulse-jet	DUSTOVAC 7.5 manuel	DUSTOVAC 13.0 manuel	13.
	Product Description	Order Number													
1	Extraction Arms  Extraction Arms* Incl. 1.5 m PU- connection hose														
	Length: 1.5 m	101529	•	•		Δ	Δ	•							
940	Length: 2.0 m	102029	•	•		Δ	Δ								
	Length: 2.0 m	122029			•	Δ	Δ		•					П	
	Length: 2.0 m	142029				Δ	Δ		٠					П	
	Length: 2.0 m	162029				Δ	Δ			•					
	Length: 3.0 m	123029			•	Δ	Δ		•						
	Length: 3.0 m	143029				Δ	Δ		•						
	Length: 3.0 m	163029				Δ	Δ			•					
		·													

 $<sup>\</sup>Delta$  Optional depending on application. / \* All extraction arms are available with wall mount bracket or swivel base for attachment to the equipment. Please specify the type of mounting when placing your order.

	Miscellaneous										
1	Floor cleaning kit For use with a vacuum hose of Ø 100 mm, including a detachable floor tool 400 x 40 mm with two guide wheels, angled floor wand with handle, electrically conductive	91.023	•	•	•						
	Floor cleaning kit including vacuum hose Including a detachable 400 x 40mm floor tool with two guide wheels, angled floor wand with handle and 2 m PU-hose Ø 100mm	91.025									
0	Angled nozzle Connection Ø 100 mm	96.101	•		•						
	Wide nozzle Connection Ø 63 mm	96.163	•	•	•						
-	Crevice tool Connection Ø 63 mm	96.263	•	•							
	<b>Dust collection hood</b> Connection Ø 100 mm	94.712	•	•	•						
0	Mounting clamp	93.150	•		•	•	• •	•	•	• (	•



## Accessories & Attachments

Pre-separator Pre-separator, 200 Litres Ind. 1.5m connection hose and pressure balance hose. Connection Ø 100 mm 95.105 Connection Ø 125 mm 95.125 Connection Ø 140 mm 95.140 Connection Ø 160 mm 95.160  Water Pre-separator, 100 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5m PU-connection hose Connection Ø 100 mm 90.100  Water Pre-separator, 200 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5m PU-connection hose Connection Ø 100 mm 90.100  Vater Pre-separator, 200 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5m PU-connection hose Connection Ø 125 mm 90.125 Connection Ø 160 mm 90.140 Connection Ø 160 mm 90.160  PIEW Pipe pre-separator RVA 250 2.800 to 3.500 m½h 98.250 RVA 450 9.200 to 11.200 m½h 98.355 RVA 450 9.200 to 11.200 m½h 98.450 RVA 450 13.500 to 17.100 m½h 98.560  Cyclonic Pre-separator, 100 Litres For use with a dust extractor, cyclone for separating light shavings and dust Connection Ø 100 mm 20821100				DUSTOMAT-10	DUSTOMAT-15	DUSTOMAT-16	DUSTOMAT 4-10H	DUSTOMAT 4-10	DUSTOMAT T-5/T-10	DUSTOMAT P-10/P-20	DUSTOMAT 100-S	DUSTOMAT 120-S	DUSTOMAT 140-S	DUSTOMAT 160-S		DUSTOVAC 5.5 pulse-jet DUSTOVAC 7.5 manuel	DUSTOVAC 7.5 pulse-jet	13.0	POSTOVAC 13.0 pulse-jet
Pre-separator, 200 Litres Incl. 1.5m connection hose and pressure balance hose.  Connection Ø 100 mm		Product Description	Order Number				_			L							Ш		1
Connection Ø 125 mm		Pre-separator, 200 Litres																	
Connection Ø 140 mm  Connection Ø 160 mm  95.160  Water Pre-separator, 100 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5 m PU-connection hose Connection Ø 100 mm  90.100  Water Pre-separator, 200 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5 m PU-connection hose Connection Ø 125 mm  90.125  Connection Ø 125 mm  90.140  Connection Ø 160 mm  90.160  NEW Pipe pre-separator RVA 250  2.800 to 3.500 m³/h  98355 RVA 450  9.200 to 11.200 m²/h  98450 RVA 560  13.500 to 17.100 m³/h  98560  Cyclonic Pre-separator, 100 Litres For use with a dust extractor, cyclone for separating light shavings and dust Connection Ø 100 mm  Connection Ø 105 mm  Connection Ø 105 mm  Connection Ø 105 mm  Connection Ø 125 mm  20821100  • • • • • • • • • • • • • • • • • •		Connection Ø 100 mm	95.100	•	٠						•								$\perp$
Water Pre-separator, 100 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5 m PU-connection hose Connection Ø 100 mm  Water Pre-separator, 200 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5 m PU-connection hose Connection Ø 125 mm  90.125  Connection Ø 126 mm  90.140  Connection Ø 160 mm  90.160  NEW Pipe pre-separator RVA 250 2.800 to 3.500 m³/h 98250 RVA 355 5.500 to 7.000 m³/h 98355 RVA 450 9.200 to 11.200 m³/h 98450 RVA 560 13.500 to 17.100 m³/h 98560  Cyclonic Pre-separator, 100 Litres For use with a dust extractor, cyclone for separating light shavings and dust Connection Ø 100 mm  Connection Ø 105 mm  Connection Ø 105 mm  Connection Ø 125 mm  Connection Ø 140 mm  20821100  • • • • • • • • • • • • • • • • • •	m.					•	_					•					Ш		4
Water Pre-separator, 100 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5m PU-connection hose Connection Ø 100mm  90.100  Water Pre-separator, 200 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5m PU-connection hose  Connection Ø 125 mm  90.125  Connection Ø 140 mm  90.140  Connection Ø 160 mm  90.160   NEW  Pipe pre-separator  RVA 250  2.800 to 3.500 m³/h  98250  RVA 355  5.500 to 7.000 m³/h  98355  RVA 450  9.200 to 11.200 m³/h  98450  RVA 560  13.500 to 17.100 m³/h  98560   Cyclonic Pre-separator, 100 Litres For use with a dust extractor, cyclone for separating light shavings and dust  Connection Ø 105 mm  20821100  Connection Ø 105 mm  20821125  • • • • • • • • • • • • • • • • • • •							-			Н			•	_	_	_	Н		+
For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5m PU-connection hose Connection Ø 100mm 90.100  Water Pre-separator, 200 Litres For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5m PU-connection hose  Connection Ø 125 mm 90.140  Connection Ø 140 mm 90.140  Connection Ø 160 mm 90.160  NEW  Pipe pre-separator  RVA 250 2.800 to 3.500 m³/h 98250  RVA 355 5.500 to 7.000 m³/h 98355  RVA 450 9.200 to 11.200 m³/h 98450  RVA 560 13.500 to 17.100 m³/h 98560  Cyclonic Pre-separator, 100 Litres For use with a dust extractor, cyclone for separating light shavings and dust  Connection Ø 100 mm 20821100  Connection Ø 125 mm 20821125  Connection Ø 125 mm 20821125  Connection Ø 140 mm 20821140																			
Connection Ø 125 mm       90.125       •       •         Connection Ø 140 mm       90.140       •       •         Connection Ø 160 mm       90.160       •       •         Pipe pre-separator         RVA 250       2.800 to 3.500 m³/h       98250         RVA 355       5.500 to 7.000 m³/h       98355         RVA 450       9.200 to 11.200 m³/h       98450         RVA 560       13.500 to 17.100 m³/h       98560     Cyclonic Pre-separator, 100 Litres  For use with a dust extractor, cyclone for separating light shavings and dust  Connection Ø 100 mm  Connection Ø 100 mm  20821100  • • • • • • • • • • • • • • • • • •		For applications with flying sparks, steel container with baffle plate and cover, incl. 1.5 m PU-connection hose Connection Ø 100 mm  Water Pre-separator, 200 Litres For applications with flying sparks, steel container with	90.100	٠	•						•								
Connection Ø 140 mm   90.140   • • • • • • • • • • • • • • • • • •	3	Connection Ø 125 mm	90.125			•													
NEW           Pipe pre-separator         RVA 250         2.800 to 3.500 m³/h         98250           RVA 355         5.500 to 7.000 m³/h         98355           RVA 450         9.200 to 11.200 m³/h         98450           RVA 560         13.500 to 17.100 m³/h         98560           Cyclonic Pre-separator, 100 Litres           For use with a dust extractor, cyclone for separating light shavings and dust           Connection Ø 100 mm         20821100         •         •         •           Connection Ø 125 mm         20821125         •         •         •           Connection Ø 140 mm         20821140         •         •         •			90.140										•				П		Ť
Pipe pre-separator         RVA 250       2.800 to 3.500 m³/h       98250         RVA 355       5.500 to 7.000 m³/h       98355         RVA 450       9.200 to 11.200 m³/h       98450         RVA 560       13.500 to 17.100 m³/h       98560             Cyclonic Pre-separator, 100 Litres         For use with a dust extractor, cyclone for separating light shavings and dust       Connection Ø 100 mm       20821100       • • •         Connection Ø 125 mm       20821125       • • • •       • •         Connection Ø 140 mm       20821140       • • •		Connection Ø 160 mm	90.160				4		٠	٠				•			П		1
RVA 355 5.500 to 7.000 m³/h 98355 RVA 450 9.200 to 11.200 m³/h 98450 RVA 560 13.500 to 17.100 m³/h 98560  Cyclonic Pre-separator, 100 Litres For use with a dust extractor, cyclone for separating light shavings and dust Connection Ø 100 mm 20821100 • • • • • Connection Ø 125 mm 20821125 • • • • Connection Ø 140 mm 20821140	Ø,																		
RVA 450         9.200 to 11.200 m³/h         98450           RVA 560         13.500 to 17.100 m³/h         98560    Cyclonic Pre-separator, 100 Litres  For use with a dust extractor, cyclone for separating light shavings and dust  Connection Ø 100 mm  Connection Ø 100 mm  20821100  Connection Ø 125 mm  20821125  Connection Ø 140 mm  20821140  • • • • • • • • • • • • • • • • • • •		=	98250																
Cyclonic Pre-separator, 100 Litres For use with a dust extractor, cyclone for separating light shavings and dust  Connection Ø 100 mm  Connection Ø 125 mm  Connection Ø 140 mm  20821140																	ш		1
Cyclonic Pre-separator, 100 Litres  For use with a dust extractor, cyclone for separating light shavings and dust  Connection Ø 100 mm  Connection Ø 125 mm  20821125  Connection Ø 140 mm  20821140							+	-	+	Н				$\dashv$			Н		-
Connection Ø 100 mm         20821100         •         •         •           Connection Ø 125 mm         20821125         •         •         •           Connection Ø 140 mm         20821140         •         •		Cyclonic Pre-separator, 100 Litres	98560																
Connection Ø 125 mm         20821125         •         •         •           Connection Ø 140 mm         20821140         •         •	1	light shavings and dust																	
Connection Ø 140 mm <b>20821140</b> •	7	- <del> </del>		•	٠		_				•					•	٠		4
(I)	/	Connection Ø 125 mm				•	-			-		•		$\dashv$				• •	4
		Connection (X 140 mm)												- 1					- 1

## Accessories & Attachments

			DUSTOMAT-10	DUSTOMAT-15	DUSTOMAT-16	DUSTOMAT 4-10	DUSTOMAT 4-24	DUSTOMAT T-5/T-10	DUSTOMAT 100-S	DUSTOMAT 120-S	DUSTOMAT 140-S	DUSTOVAC 5.5 manuell	DUSTOVAC 5.5 Jet	DUSTOVAC 7.5 manuell	DUSTOVAC 13.0 manuell	
	Product Description	Order Number														
	Pre-separator Spark pre-separator for connection to DUSTOMAT 4															
-	Connection Ø 125 mm	30125				,	-			_		+				_
The last	Connection Ø 160 mm	30160				•										-
2	Connection Ø 200 mm	30200					•			т		+			_	
	Chip pre-separator for connection to DUSTOMAT 4															
	Connection Ø 125 mm	31125			•	_	Н			_		$\perp$		_		_
	Connection Ø 160 mm	31160				•	-									-
	Connection Ø 200 mm  Dust pre-separator for connection to DUSTOMAT 4	31200					•									
100	Connection Ø 125 mm	32125			•											
1	Connection Ø 160 mm	32160				•										
	Connection Ø 200 mm	32200					•									

Filter Towers

35

For Heavy Duty Clean-Up of Machines, Floors and Workstations

EUROSOG-W / -I-D

DUROSOG-W / -I-D

WHISPERSOG

SPÄNESOG-S / -SB

**COMPASOG ST** 

CENTRASOG CVS 2.0 **NEW** 

MULTISOG-1, -2, -4

PRETTYBOY 309

ESTA FURNACE VACUUM



#### Application Range

- » Automotive Repair Shops
- » Carpenters
- » Chemical Industry
- » Construction Industry
- » Craftsmen's Workshops
- » Flocking Industry
- » Janitorial Services
- » Machine Building Industry
- » Natural and Man-made Stone Processing (Stone Masons)
- » Paper Industry
- » Printing Industry
- » Textile Industry
- » Transportation Businesses
- » Warehouses and Industrial Plants

#### **Test Certification:**











# **High Vacuum Extraction Units**

#### Introduction and Product overview

#### Introduction

ESTA's range of industrial vacuum cleaners are highly versatile and ideally suited for cleaning machines, floors and working areas. All products are notable for their strong suction performance and high quality workmanship. Tilting filter housing (patented by ESTA), such as in the EUROSOG and WHISPERSOG appliances, guarantees the effortless disposal of dust and debris.

#### **Product overview**

The **EUROSOG** is a powerful industrial vacuum cleaner for dry dusts. It comes in both AC and DC versions. **DUROSOG** machines are very good for sticky dusts and textile lint. The optionally insertable piggyback preseparator allows these mobile designs also to extract fluid-laden shavings. The WHISPERSOG is a very quiet but powerful vacuum especially designed for continuous operation.

The **SPÄNESOG** is used for extracting metal and emulsion-coated shavings. The stationary dust extraction systems **COMPASOG ST** and **CENTRASOG CVS 2.0** can be connected up to 3 or 15 suction points via pipe. The **MULTISOG** models can be used as wet or dry vacuum cleaners. The series is rounded out by the handy **PRETTYBOY 309** and **ESTA OFEN-SAUGER** industrial vacuum cleaners.

#### Mobile and powerful

ESTA's industrial vacuum cleaners are powerful yet flexible. They are just as suited for occasional use as they are for continuous operation. They boast compact construction and are highly manoeuvrable and mobile thanks to their smooth-running fixed and swivel castors.

#### Quality of workmanship

ESTA industrial vacuum cleaners stand for quality. This is ensured by:

- » Internal device inspection and final inspections
- » Audited production facilities
- » External device test certificates from DEKRA, IFA, etc.
- » "Made in Germany"

#### Comprehensive range of accessories

Effective suction technology requires efficient accessories. To ensure the best possible results, we offer a wide range of accessories for our industrial vacuum cleaners:

- » Pre-separation systems
- » Suction nozzles
- » Pipes and connectors
- » and much more

#### **Custom models**

We can also supply many of our appliances to custom specifications, according to your individual requirements:

- » Special voltages
- » Special filters
- » Special finishes
- » More customisation options on request







36 High Vacuum Extraction Units www.esta.com

# ESTA THE WORLD OF EXTRACTION

#### Industrial Vacuum Cleaner

# **EUROSOG-W**



#### **Application Range**

- » Clean up work of coarse and fine dust
- » Cleaning of machines in factories and workshops
- » AC version for occasional use



#### Ideal for

Cotton dust

Wood dust Metal dust

Mineral dust

Paper dust

Tabacco fibres

# ESTA EUROSOG

Thanks to the diagonal tube nozzle, even places that are difficult to access can be freed of dust and dirt.

#### Special Features

- » AC version for occasional use (AC powered model with three suction fans)
- » Manual brush cleaning mechanism for cleaning of the cartridge filter
- » Availability of cleanable cartridge filters for dust classifications M and H
- » Test certificates M and H available

#### **Your Benefits**

- » High suction force in dry dust
- » Low operating costs through the use of cleanable long life cartridge filters
- » Tilt-back filter housings for easy dust disposal
- » Small space requirement due to compact design
- » High mobility by smooth turning castors

#### Technical Data

EUROSOG		-W
Max. Airflow	m³/h	360
Intake diameter	mm	50
Max. negative pressure	Pa	18.600
Voltage	V	230
Motor	kW	3 × 1.0
Filter surface	m²	2/5
Dust collection container	1	80
Dimensions (L/W/H)	mm	932 × 660 × 1.140
Weight	kg	76
Sound emission	dB(A)	74
Order Number		
EUROSOG-W – Standard model		80.198
EUROSOG-W/H with TÜV-certificate for dust classification H		80.299
EUROSOG-W/M with TÜV-certificate for dust classification M		80.399

Phone +49 73 07 3 40 96 80-0 High Vacuum Extraction Units

# High Vacuum Extraction Units

#### Industrial Vacuum Cleaner

# EUROSOG-I-D



#### Application Range

» Recommended for clean up work of coarse and fine dust









Paper dust Tabacco fibres





standing innovative achievements. EUROSOG-I-D with floor nozzle

for cleaning the shop

#### Special Features

- » For continuous operation (DC version)
- » Manual brush cleaning mechanism for cleaning of the cartridge
- » Availability of cleanable cartridge filters for dust classifications M and H
- » Test certificatess M. H and B22 available
- » Optionally available as ATEX version

#### **Your Benefits**

- » High suction force in dry dust
- » Low operating costs through the use of cleanable long life cartridge filters
- » Tilt-back filter housings for easy dust disposal
- » Small space requirement due to compact design
- » High mobility by smooth turning

#### Technical Data

EUROSOG		-I-D
Max. Airflow	m³/h	260
Intake diameter	mm	50
Max. negative pressure	Pa	19.500
Voltage	V	400
Motor	kW	2,2
Filter surface	m²	2/5
Dust collection container		80
Dimensions (L/W/H)	mm	1.030 × 670 × 1.240
Weight	kg	81
Sound emission	dB(A)	77
Order Number		
EUROSOG-I-D/N (standard model)		81.198
EUROSOG-I-D/M with TÜV-test certificate for dust classification M		81.399
EUROSOG-I-D/H with TÜV-test certificate for dust classification H		81.299
EUROSOG-I-D/M/B22 with TÜV-test certificate for dust classification M and additional test certification B22*		81.397
EUROSOG-I-D/H/B22 with TÜV-test certificate for dust classification H and additional test certification B22*		81.297
EUROSOG-I-D ATEX version		81.200

<sup>\*</sup>Suitable for vacuuming dry and flammable types of dust in zone 22

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#### Industrial Vacuum Cleaner

# **DUROSOG-W**



#### Application Range

- » For sticky substances and dust that tends to clump
- » Cleaning of machines in factories and workshops
- » AC version for occasional use





Sticky dust

Metal dust

Paper dust

Tabacco fibres



DUROSOG-W for cleaning machines



The pre-separator container can be removed with one easy step. This is where the coarser dust and debris will be collected.

Easy disposal of the dust with a disposable paper filter bag.

#### Special Features

- » AC version for occasional use
- » Integrated pre-separator for rough dirt
- » Disposable paper filter bag
- Test certificates for dust classification M and H available

#### **Your Benefits**

- With the use of special filtration technology this model is suitable for dry dust, sticky dust and dust that tends to clump
- Convenient dust disposal in a paper filter bag
- » Small space requirement due to compact design
- » High mobility by smooth turning castors

#### Technical Data

DUROSOG		-W
Max. Airflow	m³/h	350
Intake diameter	mm	50
Max. negative pressure	Pa	22.000
Voltage	V	230
Motor	kW	3 × 1.0
Filter surface*	m²	3
Dust filter bag		70
Dimensions (L/W/H)	mm	660 × 660 × 950
Weight	kg	41
Sound emission	dB(A)	74
Order Number		
DUROSOG-W/N (Standard model)		8024 N
DUROSOG-W/M (Dust classification M)		8024 M
DUROSOG-W/H (Dust classification H)		8024 H

<sup>\*</sup> Filter only with certified model

Phone +497307 3409680-0 High Vacuum Extraction Units

# High Vacuum Extraction Units

#### Industrial Vacuum Cleaner

# DUROSOG-I-D



#### Application Range

- » Three-phase powered industrial vacuum cleaner for defined continuous duty applications – ideal for sticky substances and dust that tends to clump
- » Fibres and shavings

#### Ideal for

Chemical dust

Metal shavings
Paper dust

Tabacco fibres







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#### Special Features

- » For continuous operation (DC version)
- » Integrated pre-separator for rough dirt
- » Disposable paper filter bag
- Test certificates for dust classification M, H and B22\*\* available

#### **Your Benefits**

- » With the use of special filtration technology this model is suitable for sticky dust and material that tends to clump
- » Convenient dust disposal in a paper filter bag
- » Small space requirement due to compact design
- » High mobility by smooth turning castors

#### Technical Data

DUROSOG		-I-D
Max. Airflow	m³/h	275
Intake diameter	mm	50
Max. negative pressure	Pa	22.000
Voltage	V	400
Motor	kW	2.2
Filter surface*	m²	3
Dust filter bag	I	70
Dimensions (L/W/H)	mm	850 × 630 × 950
Weight	kg	80
Sound emission	dB(A)	72

#### **Order Number**

DUROSOG-I-D/N (Standard model)	8120 N
DUROSOG-I-D/M (Dust classification M)	8120 M
DUROSOG-I-D/H (Dust classification H)	8120 H
DUROSOG-I-D/M/B22 (Dust classification M, Test certificate B22)	8121 B
DUROSOG-I-D/H/B22 (Dust classification H, Test certificate B22)	8122 B

<sup>\*</sup> Filter only with certified model

High Vacuum Extraction Units www.esta.com

<sup>\*\*</sup> Suitable for vacuuming dry and flammable types of dust in zone 22

# THE WORLD OF

#### Industrial Vacuum Cleaners

# WHISPERSOG



#### Application Range

- » Clean up work of coarse, fine and pourable types of dust
- » Direct extraction from manual processing machines and those in continuous operation
- » Connection to pipelines





Cotton dust

Plastic dust Mineral dust

Paper dust

Tabacco fibres





The WHISPERSOG is suitable for many applications

#### Special Features

- » For continuous operation (DC version)
- » Manual brush cleaning mechanism, pneumatic filter cleaning system or pulse-jet filter cleaning system
- » Cleanable long life cartridge filters (Dust classification M)

#### **Your Benefits**

- » Low-noise, high-performance vacuum cleaners for dry dust
- » Low operating costs through the use of cleanable long life cartridge filters
- » Tilt-back filter housings for easy dust disposal
- » Small space requirement due to compact design
- » High mobility by smooth turning castors

#### Technical Data

Technical Data			
WHISPERSOG		2,2	3,0
Max. Airflow	m³/h	300	216
Intake diameter	mm	50	50
Max. negative pressure	Pa	21.000	31.500
Voltage	V	400	400
Motor	kW	2.2	3.0
Filter surface	m²	2	2
Dust collection container	I	80	80
Dimensions (L/W/H) (Manual filter cleaning)	mm	1.300 × 640 × 1.250	1.300 × 640 × 1.250
Weight	kg	105	120
Sound emission	dB(A)	73	75
Order Number		`	`
Manual filter cleaning system		83.101	83.102
Pneumatic filter cleaning system		83.201	83.202
Pulse-iet-cleaning		83.113	_

Phone +497307 3409680-0 High Vacuum Extraction Units

# High Vacuum Extraction Units

# Metal Shavings and Emulsion Vacuum Cleaner SPÄNESOG-S



#### Application Range

- » Suction of Metal shavings (e.g. brass and copper shavings) and emulsion-afflicted media
- » Cleaning of CNC milling and drilling machines

#### Ideal for

Metal shavings

Metal shavings (fraught emulsion)



SPÄNESOG-S cleaning a drill

# STAPLU

#### Special Features

» Washable oil and water resistant long life cartridge filter

#### **Your Benefits**

- » Specialized industrial vacuum cleaner for Metal shavings and emulsion coated materials
- » Compact and user friendly design
- » Long filter service life by several times washable filter cartridge

#### Technical Data

SPÄNESOG		S
Max. Airflow	m³/h	300
Intake diameter	mm	50
Max. negative pressure	Pa	20.000
Voltage	$\vee$	400
Motor	kW	2.2
Filter surface	m²	4.2
Dust collection container		100
Dimensions (L/W/H)	mm	850 × 600 × 1.280
Weight	kg	90
Sound emission	dB(A)	73
Order Number		8150

High Vacuum Extraction Units www.esta.com

# ESTA THE WORLD OF EXTRACTION

# Metal Shavings and Emulsion Vacuum Cleaner SPÄNESOG-SB



#### Application Range

- » Machine cleanup on drill presses
- » Removal of Metal shavings with coolants
- » Cleaning of CNC milling and boring centres

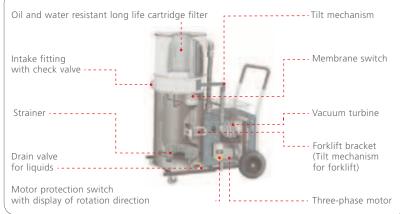
#### Ideal for

Metal shavings

Metal shavings (fraught emulsion)



Removal of brass shavings and coolants at a CNC milling station



#### Special features

- » Blower for effectively cleaning and pumping away vacuumed emulsion
- » Optional: specially equipped collection container with bracket for handling with a forklift

#### Your Benefits

- » Recirculation of extracted emulsions and coolants
- » Small space requirement due to compact design
- » Long filter service life by several times washable filter cartridge

#### Technical Data

SPÄNESOG		SB
Max. Airflow	m³/h	300
Intake diameter	mm	50
Max. negative pressure	Pa	20.000
Voltage	V	400
Motor	kW	2.2
Filter surface	m²	4.2
Dust collection container		100
Dimensions (L/W/H)	mm	850 × 600 × 1.280
Weight	kg	105
Sound emission	dB(A)	73
Order Number	·	8151

Phone +49 73 07 3 40 96 80-0 High Vacuum Extraction Units

# High Vacuum Extraction Units

#### Central Vacuum Cleaner

# COMPASOG ST



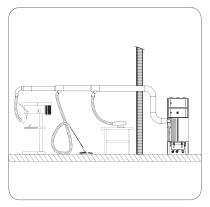
#### Application Range

- » Central system for direct extraction of metal dust and free-flowing dust
- » Connection to a pipe system (Ø 50, Ø 76 and Ø 108 mm) with three extraction points Ø 50 mm simultaneously

# Plastic dust Metal dust Mineral dust Paper dust

#### Special Versions

With backup filter cassette (Dust class H)



Example of the various connection options



The detachable dust collection drawer makes for easy disposal of a dust

# STAPLUS

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#### Special Features

- » Integrated cyclone separator
- » Pulse-jet filter cleaning
- » Cleanable permanent filter cartridges (Dust Class M)
- » Brushless suction turbines (for continuous operation)

#### **Your Benefits**

- » Low operating costs with cleanable long life filter cartridges
- The mobile dust collection drawer for easy dust disposal
- » Compact and user friendly design
- » Suitable for dry dusts

#### Technical Data

COMPASOG		ST
Max. Airflow	m³/h	980
Intake diameter	mm	108
Max. negative pressure	Pa	22.000
Voltage	V	400
Motor	kW	3×1.8
Filter elements	Pieces	1
Filter surface	m²	8.6
Dust collection container	Ī	40
Dimensions (L/W/H)	mm	840×670×1.800
Weight	kg	310
Sound emission	dB(A)	72
Order Number		83.400

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# NEW

# Central Vacuum Cleaner

# CENTRASOG CVS 2.0





#### Application Range

- » Central high vacuum dust extraction system for industrial and handicraft enterprises
- » Machines and workplace cleaning
- » Connecting of portable hand held machine tools
- » In special design as a central vacuum system for car interior cleaning at car wash

#### Special Versions

- » Custom paint finish
- » Variation for car interior cleaning
- » Weather-resistant housing for outdoor installation



Ideal for

Plastic dust



Simple car interior cleaning at multiple extraction points



Connecting of hand-held machines



Weather-resistant housing for outdoor installation

CENTRASOG CVS 2.0 at a central conduit

#### Special Features

- » High performance side channel blowers – for maximum suction capacity
- » Fully assembled, immediately ready for use
- » Two-stage filter system with integrated cyclone pre-separator and filter cartridge of dust class M

#### **Your Benefits**

- » Low operating costs with cleanable long life filter cartridges
- » Compact and user friendly design
- » Low operating noise through sound-insulated housing

#### Technical Data

CENTRASOG CVS 2.0		8	12	15
Max. Airflow	m³/h	700	1.000	1.950
Intake diameter	mm	160	160	160
Max. negative pressure	Pa	19.000	18.000	13.000
Voltage	V	400	400	400
Motor	kW	8.5	12.5	15.0
Max sucking station	Ø36/50 mm	6/3	10/6	15/9
Filter surface	m²	16.0	16.0	16.0
Dust collection container	I	200	200	200
Dimensions (L/W/H)	mm	2.170×1.078×2.433		433
Weight	kg	840	900	950
Sound emission	dB(A)	78	78	78
Order Number		87.500	87.600	87.700

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#### Wet and dry vacuum

# MULTISOG-1, -2 and -4



#### **Application Range**

- » Clean up work in office and work areas
- » Suitable for dust, dirt and liquids



Ideal for
Dust

Dirt Liquids







MULTISOG-4 for clean up at a drill press

# STAPLUS

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#### Special Features

- » Three power levels, depending on the application
- » Paper filter bags
- » Fabric filter
- » Mechanical liquid shut off device
- » Stainless steel boiler (Multisog-4)

#### **Your Benefits**

- » Suitable for dust, dirt and liquids
- » Small space requirement due to compact design
- » Easy disposal of the collected dust

#### Technical Data

MULTISOG		-1	-2	-4
Max. Airflow	m³/h	215	380	250
Intake diameter	mm	36	50	50
Max. negative pressure	Pa	21.000	20.000	20.500
Voltage	V	230	230	230
Motor	kW	1.2	2×1.0	1.5
Dust collection container	1	35	58	35
Dimensions (L/W/H)	mm	500 × 500 × 840	610 × 520 × 920	600 × 500 × 900
Weight	kg	13	20	25
Sound emission	dB(A)	67	66	62
Order Number		4622	4722	4533

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#### Pre-separator Systems for Industrial Vacuum Cleaners and/or mobile Extractors



Piggy-back-pre-separator for DUROSOG models

#### Specialized pre-separator for DUROSOG models

The piggy-back pre-separator can be added to any DUROSOG model because each unit comes standard with the brackets al-ready attached to the collection tank.

#### **Function Description**

Metal shavings that are soaked in cutting fluid are vacuumed into the pre-separator container in which a vertically positioned mesh partition separates the Metal shavings from the fluid. While the Metal shavings and solids remain on one side the liquid fills up on the other side. When it reaches the maximum fill level a float valve will shut off the suction.



#### Which pre-separator should be used for which application?

#### Dry

Heavy, coarse substances and larger quantities of dust.

Wet

Materials that are soaked in liquid (Metal shavings and coarse particles, etc.) will be collected in a strainer basket, while the liquid drains down into a collection container that can be emptied through a drain valve.

#### Scope of delievery

Wheel base, pre-separator container and strainer basket, cover with float valve and intake and outlet

connection to the vacuum.

#### Pre-separator NA 1 with 100 liter container

Order-Number: 1102

Pre-separator NA 2 with 200 liter container Order-Number: 1202

#### Scope of delievery

**Light material and dust** 

disposable paper filter bag.

Large quantities of light materials

and dust should be collected in a

Wheel base, pre-separator container with hose connection on the side, filter cage and cloth filter bag for inserting disposable paper filter bags and connection to the vacuum cleaner.

#### Pre-separator ST 1 with 100 liter container Order-Number: 1103

Pre-separator ST 2 with 200 liter container Order-Number: 1203

#### Pre-separator TR 1 with 100 liter container Order-Number: 1100

Scope of delievery

to the vacuum.

Wheel base, pre-separator con-

tainer with plastic bag insert, cover

with intake and outlet connection

Pre-separator TR 2

with 200 liter container Order-Number: 1200

#### **Your Benefits**

» The ideal complement for industrial vacuums for applications With solid dry and wet dust types as well as large quantities of shavings

Data dependent on equipment type

Phone +497307 3409680-0 High Vacuum Extraction Units

# High Vacuum Extraction Units

#### Office Vacuum Cleaner

# PRETTYBOY 309 / ESTA FURNACE VACUUM

#### Office Vacuum Cleaner PRETTYBOY 309



The PRETTY BOY is a light, easily manageable vacuum cleaner with a fine mesh filter. With 1000 watts and a suction power of 130 m³ per hour, it is the ideal vacuum cleaner for the office. It is supplied with the standard range of accessories: guide tube, suction hose, floor nozzle and diagonal tube nozzle.

Order No. 5309

O

Included Accessories

#### **ESTA FURNACE VACUUM**



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The ESTA FURNACE VACUUM is a small, powerful and easy to transport vacuum cleaner that is made from stainless steel. It is favoured by heating engineers and caretakers for cleaning furnaces, but can also be deployed to great effect for the general cleaning of industrial premises and offices. It is supplied with the complete range of standard accessories, eg guide tube, suction hose, floor nozzle and diagonal tube nozzle.

Order No. 5305



Included Accessories

#### Standard Accessories for Industrial Vacuum Cleaners



High Vacuum Extraction Units www.esta.com

# THE WORLD OF EXTRACTION

#### Accessories & Attachments

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Your Be	nefits																							
» Highes	t quality																							
» Superio	or workmanship								B22	322							322			2 FM	FA	Jet	FΜ	Ā
» Tailor r	nade for ESTA products		DUROSOG-W/N	DUROSOG-W/M	DUROSOG-W/H	DUROSOG-I-D/N	DUROSOG-I-D/M	DUROSOG-I-D/H	DUROSOG-I-D/M/	DUROSOG-I-D/H/B22	EUROSOG-W/N	EUROSOG-W/M	EUROSOG-W/H	EUROSOG-I-D/N	EUROSOG-I-D/M	EUROSOG-I-D/H	EUROSOG-I-D/M/B22	SPÄNESOG-S	SPÄNESOG-SB	WHISPERSOG 2.2 I	WHISPERSOG 2.2 FA	WHISPERSOG 2.2 Jet	WHISPERSOG 3.0 FIV	WHISPERSOG 3.01
	Product Description	Order Number				L																		
	Pre-separator																							
	<b>Piggy-back pre-separator</b> for industrial vacuums DUROSOG-W and -I-D	1104	•		•		•		•															
	Pre-separator TR 1, Ø 50 mm, 100Litre collection container, wheel base, collection container with plastic bag insert, cover with intake connection and outlet connection to the vacuum	1100	•		•		•	•			•	•	•	•	•	•					•	•	•	•
	Pre-separator TR 2, Ø 100 mm, 200Litre collection container, wheel base, collection container with plastic bag insert, cover with intake connection and outlet connection to the vacuum	1200	•		•		•				•	•	•	•	•	•				•	•	•	•	•
	Pre-separator NA 1, Ø 50 mm, 100Litre collection container, wheel base, collection container with strainer basket, cover with intake connection, float valve and outlet connection to the vacuum	1102	•		•	•	•	•			•	•	•	•	•	•				•	•	•	•	•
	<b>Pre-separator NA2,</b> Ø100 mm, 200 Litre collection container, wheel base, collection container with strainer basket, cover with intake connection, float valve and outlet connection to the vacuum	1202	•		•	•	•				•	•	•	•	•	•				•	•	•	•	•
	Pre-separator ST 1, Ø 50 mm, 100 Litre collection container, wheel base, collection container with hose connection on the side, filter cage and cloth filter for insertion of disposable paper filter bags, outlet connection to the vacuum	1103	•		•		•				•	•	•	•	•	•				•	•	•	•	•
	Pre-separator ST 2, Ø 100 mm, 200Litre collection container, wheel base, collection container with hose connection on the side, filter cage and cloth filter for insertion of disposable paper filter bags, outlet connection to the vacuum	. 1203	•		•		•				•	•	•	•	•						•	•	•	•

# Welding Fume Filters

For precise capture and extraction of welding smoke

SRF K-10 / K-15

SRF T-2/T-4

SRF SK-2.2 - SK-13.0

KAF 70 / 100

MOBEX F /



COMPASOG SR

DUSTMAC F



#### Application Range

#### Welding of:

- » Aluminum
- » Construction steel
- » Coated sheet metal
- » Galvanized parts Stainless steel (Chrome-Nickel, etc.)
- » Direct extraction at the welding torch
- » Soldering
- » Workplace ventilation
- » etc.

#### Test certificates











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#### Introduction

Welding produces toxic fumes that can be captured and effectively eliminated by a welding fume filter.

Filtering is done directly through a nozzle or extraction hood. The filtered air is routed back into the work area or outdoors through a pipeline.

For extracting welding fumes, ESTA offers mobile, portable and stationary extraction solutions custom made to the application. For extracting welding fumes from high-alloy steels, ESTA welding fume filters are optionally available with IFA W2 and W3 certificates.

#### **Product overview**

**SRF K** series devices are good for mobile welding fume extraction at one or two workstations. Their compact design makes them easy to transport to their place of use. High suction performance allows welding fume extraction over a long distance, making work easier.

**ESTA extraction arms** with specially designed extraction hoods are used to capture the fumes.

The **SRF T** appliances are compact, portable welding fume filters that capture welding fumes directly at source, ie from welding torches.



The high vacuum welding fume filters of the **SRF SK** series can extract fumes from several welding torches simultaneously.

The central high vacuum welding fume filters of the **COMPASOG SR** are likewise used for directly extracting fumes from welding torches. The extraction unit can also be used as an industrial vacuum cleaner, for cleaning floors and machines.

The **KAF** series is especially suited for the extraction of soldering fumes or fine dust.

For optimum fume capturing at up to four extraction points, or for small welding booths, ESTA offers the stationary welding fume filters in the **MOBEX F** series. The 'entry-level' models in the stationary series are suitable for use with airflows of up to 4500 m³ per hour.

#### Mobile Welding Fume Filter

# **SRF K-10**



#### **Application Range**

- » Extraction during welding of all metals
- » Intermittent and continuous duty operation
- » Optional: soldering fume extraction















SRF K-10 in operation

#### Special Versions

- » IFA Test Certificate W3 for high-alloy metals
- » Special voltage
- » Activated carbon filter

#### Special Features

- » Cleanable long life cartridge filters (Dust classification M)
- » Filter cleaning with compressed air gun (manually) or fully automatic
- » Dust-free disposal of separated smoke particles

#### **Your Benefits**

- » Powerful capturing of the weld-
- » Mobile for versatile use and suitable for continuous duty applications
- » Compact and user friendly design
- » Low operating costs through the use of cleanable long life cartridge filters
- » Convenient disposal of the dust Data dependent on equipment type

#### Technical Data

rearmear Bata		
Welding fume filter model SRF		K-10
Max. Airflow	m³/h	950
Intake diameter	mm	140
Max. negative pressure	Pa	2.800
Motor Power	V/kW	230 / 1.3
Filter surface	m²	10
Dimensions (L/W/H)	mm	946 × 761 × 1.361
Weight	kg	69
Sound emission	dB(A)	72
Order Number		

Standard	55.203
Standard with IFA "W3" Test. Cert.	55.235
Man. operated rotating filter cleaning	70 268 130
Autom. filter cleaning system	70 268 115
Autom. filter cleaning system. IFA*)-test	70 272 115

IFA\*) = German Institute for Occupational Health and Safety

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# Mobile Welding Fume Filter

# SRF K-15



#### Application Range

- » Extraction during welding of all metals
- » Intermittent and continuous duty operation
- » A mobile device for two extraction points or for connection to pipe systems
- » Optional: soldering fume extraction











#### Special Versions

- » IFA Test Certificate W3 for high-alloy metals
- » Special voltage
- » Activated carbon filter
- » Auto-start through welding arc possible
- » Exhaust air connection



SRF K-15 with pipe system

#### Special Features

- » Filter cleaning with compressed air gun (manually) or fully automatic
- » Cleanable long life cartridge filters (Dust classification M)

#### **Your Benefits**

- » High performance smoke capture at two extraction locations
- » Mobile for versatile use and suitable for continuous duty applications
- » Compact and user friendly design
- » Low operating costs through cleanable cartridge filters
- » Easy disposal of the collected dust

Data dependent on equipment type

#### Technical Data

Welding fume filter model SI	RF	K-15			
Max. Airflow	m³/h	1.600			
Intake diameter	mm	2 × 140			
Max. negative pressure Pa		2.800			
Motor Power V/kW		400 / 2.2			
Filter surface	m²	15			
Dimensions (L/W/H)	mm	946 × 761 × 1.361			
Weight	kg	74			
Sound emission dB(A)		77			
Order Number	·				
Standard		55.212			
Standard with IFA "W3" Test. ce	rt.	55.229			
Man. operated rotating filter cle	eaning	70 269 130			
Autom. filter cleaning system		70 269 114			
Autom. filter cleaning system, IF	A*)-test	70 273 114			

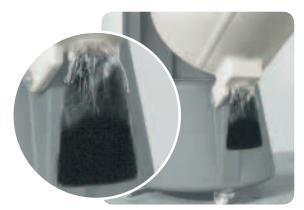
IFA\*) = German Institute for Occupational Health and Safety

Phone +497307 3409680-0 Welding Fume Filters

# Mobile Welding Fume Filter SRF K-10 / SRF K-15



Patented ESTA tilt mechanism



Convenient disposal of the dust

#### Accessories and Attachments SRF K-10 / SRF K-15

#### **Sensor Activated Auto-Start**



With the help of an optical sensor the welding fume filter starts automatically when the welding arc is ignited.

	Order Number
SRF K-10	70268127
SRF K-15	70269127

#### **Extraction Hood with Integrated Lighting**



An integrated halogen lamp inside the extraction hood provides optimal illumination of the welding area.

	Order Number
SRF K-10	15430

#### **Wall Console**



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Metal bracket for wall mounting of the welding fume filter.

	Order Number
SRF K-10	60400001
SRF K-15	60400001

Welding Fume Filters www.esta.com

# ESTA THE WORLD OF EXTRACTION

#### Portable Welding Fume Filter

# SRF T-2 / SRF T-4



Portable welding fume filter SRF T-2

#### Application Range

- » For the direct extraction at the welding torch
- » Outside work, assembly or construction sites
- » Non-alloy steels and steel with low alloy content













SRF T-4, a mobile device for two extraction points or for connection to pipe systems

#### Special Versions

- » Exhaust air connection
- » Special voltage
- » IFA Test Certificates W3 (SRF T-2) for high-alloy metals
- » Activated carbon filter
- » Custom paint finish



SRF T-2, direct extraction from one welding torch

#### Accessories



Slotted nozzle. Order Number 94.741



Cone shaped nozzle. Order Number 94.740

#### Special Features

- » Powerful suction turbine
- » Integrated compressed air cleaning nozzle
- » Cleanable long life cartridge filters (Dust classification M)
- » Direct extraction of welding torches or nozzles

#### **Your Benefits**

- » High performance direct extraction of welding torches or nozzles
- » Portable units that can be used in any location
- » Compact and functional design
- » Low operating costs with cleanable long life cartridge filters

Data dependent on equipment type

#### Technical Data

Welding fume filter model SRF		T-2*	T-4
Max. Airflow	m³/h	200	400
Intake diameter	mm	50	2 × 50
Max. negative pressure	Pa	19.000	19.000
Voltage	V	230	230
Motor	kW	1.1	2.2
Filter surface	m <sup>2</sup>	0,8	1,6
Dimensions (L/W/H)	mm	390 × 210 × 500	490 × 400 × 560
Weight	kg	15	27
Sound emission	dB(A)	66	78
Order Number		55.101	55.102

<sup>\*</sup> available in W3-tested Version

Phone +497307 3409680-0 Welding Fume Filters

# Mobile High Vacuum Welding Fume Filters SRF SK-2.2 through SK-13.0



#### **Application Range**

- » For the direct extraction at the welding torch
- » Intermittent use and continuous duty applications
- » Non-alloy steels and steel with low alloy content
- » Connection to piping











SRF SK-2.2 unit in operation

#### Special Versions

- » Special voltage
- » Exhaust air connection
- » Custom paint finish

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#### Special Features

- » High vacuum welding fume filter with side channel blower for high suction power in several places
- » Filter cleaning with compressed air gun, pneumatic or pulse-jet cleaning system
- » Cleanable long life cartridge filters (Dust classification M)

#### **Your Benefits**

- » Simultaneous extraction from up to eleven workstations possible
- » Rated for continuous duty opera-
- » Low operating costs with cleanable long life cartridge filters
- » Low operation noise

Data dependent on equipment type

#### Technical Data

Welding fume filter mo	del SRF	SK-2.2	SK-5.5	SK-7.5	SK-13.0
Max. Airflow	m³/h	300	480	850	1.100
Intake diameter	mm	50	70	100	125
Max. negative pressure	Pa	21.000	24.500	25.000	22.000
Voltage	V	400	400	400	400
Motor	kW	2.2	5.5	7.5	13.0
Filter surface	m²	10	15	15	15
Dimensions (L/W/H)	mm	1.320 × 530 × 1.190	1.680 × 780 × 1.300	1.690 × 780 × 1.300	1.690 × 780 × 1.300
Weight	kg	150	230	230	230
Sound emission	dB(A)	73	74	76	82
Order Number					
Manual filter cleaning (compressed air)		55.146	55.161	55.147	55.148
Pneumatic filter cleaning		55.149	55.162	55.150	55.151
Pulse jet filter cleaning		_	55.163	55.152	55.153

Welding Fume Filters www.esta.com

**Filter Towers** 

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# THE WORLD OF

#### Mobile Soldering Fume Filters

# KAF-70 / KAF-100



#### **Application Range**

- » Extraction of single and multiple workstations in laboratories and precision mechanical workplaces
- » For soldering fume (L)
- » For fine dust (S)

#### Special Versions/Accessories

- » Filter cassette with actived carbon
- » Special voltage
- » Laboratory extraction arm 50 D



Articulated extraction arms 50 D



KAF-70 can be positioned under a work

#### Special Features

» Manual standard filter cleaning

#### **Your Benefits**

- » Especially recommended for the extraction of soldering fumes
- » Compact and functional design
- » Mobile for versatile use
- » Odor reduction through optional activated carbon filter
- » Low operation noise

Data dependent on equipment type

#### Technical Data

KAF		-70	-100
Max. Airflow	m³/h	500	700
Intake diameter	mm	50	2 × 50 or 1 × 100
Max. negative pressure	Pa	1.100	1.100
Voltage	V	230	230
Motor	kW	0.55	0.55
Dimensions (L/W/H)	mm	385 × 465 × 735	485 × 485 × 920
Weight	kg	30	42
Sound emission	dB(A)	65	68
Order Number		07.071 L/S	07.101 L/S

Phone +497307 3409680-0 Welding Fume Filters

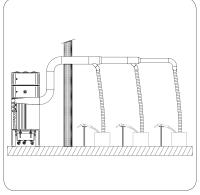
#### High Vacuum Power Welding Fume Filter

# COMPASOG SR



Application Range

» Central system for direct extraction at welding torches in industry and skilled trades



The COMPASOG SR can be used via pipelines for extraction at several workplaces







The detachable dust collection drawer makes for easy disposal of a dust

# STAPLUS

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#### Special Features

- » Can be used as a central dust extractor for cleaning
- » Pulse-jet filter cleaning
- » Integrated cyclone separator for pre-separation and fire protection
- » Cleanable permanent filter cartridges (Dust Class M)
- » Brushless suction turbines (for continuous operation)

#### **Your Benefits**

- » High performance central plant for direct extraction at welding torch
- » Low operating costs with cleanable long life filter cartridges
- » The detachable dust collection drawer makes for easy disposal of a dust
- » Compact and user friendly design

#### Special Versions

With backup filter cassette (Dust class H)



Three connecting branch on the front

#### Technical Data

COMPASOG		SR
Max. Airflow	m³/h	980
Intake diameter	mm	3×50
Max. negative pressure	Pa	22.000
Voltage	V	400
Motor	kW	3×1.8
Filter elements	Pieces	1
Filter surface	m²	8.6
Dust collection container		40
Dimensions (L/W/H)	mm	840×670×1.800
Weight	kg	310
Sound emission	dB(A)	72
Order Number		55.400

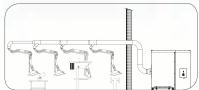
\_ Welding Fume Filters www.esta.com

# THE WORLD OF

#### Stationary Welding Fume Filters

# MOBEX F





With a pipe system or a hose, the MOBEX series can be connected to processing machines for direct extraction

#### Application Range

- » Single- or multi-extraction of welding fumes
- » Welding of all metals
- » Extraction of robot welding







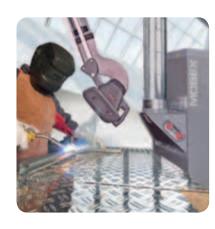




Product-Video

#### Special Versions/Accessories

- » Available in a IFA-W3-tested version for extracting welding fumes from high-alloy steel
- » Special voltage
- » Exhaust air connection
- » **NEW** Pipe pre-separator
- » Spark pre-separator
- » Extinguishing device



MOBEX F-40 with extraction arm

#### Technical Data

MOBEX		F-40	F-60
Max. Airflow	m³/h	2.800	4.500
Intake diameter	mm	224	280
Max. negative pressure	Pa	3.400	3.400
Voltage	V	400	400
Motor	kW	3.0	4.0
Filter elements	Pieces	2	3
Filter surface	m²	40	60
Dust collection container		2×38	2×38
Dimensions (L/W/H)	mm	1.910×1.040×2.030*	2.030×1.040×2.030*
Weight	kg	310	350
Sound emission	dB(A)	71	74
Order Number			
Standard		09.837	09.838
With spark pre-separator		09.837FA	09.838FA
With test certificate W3		09.835	09.836
eco <sup>+</sup>		09.848	09.849

<sup>\*</sup> without spark pre-separator

» A new sandwich-panel housing » Pulse-jet filter cleaning

**Your Benefits** 

design

Special Features

» Low operating costs thanks to cleanable permanent filter (Dust classification M)

» Integrated impact separator

- » Long filter life due to a pre-sepration system
- » Low operating noise thanks to a sound-insulated housing
- » Minimal space requirements
- » Easy, dust-free removal of collected material through a new disposal system

Phone +497307 3409680-0 Welding Fume Filters

# Welding Fume Filters

# **NEW**

#### Stationary Welding Fume Filters

# MOBEX Feco+



60

The eco<sup>+</sup> series combine outstanding extraction and filtration performance for maximum efficiency at low operating costs. All thanks to the new ESTA EasyControl device control with sophisticated sensor technology and the application of frequency converters.

#### MOBEX Feco+ design:

- >> ESTA EasyControl device control
- >> Frequency converter for fan motors
- >> Programmable timer
- Dust sensors in the raw gas and clean air areas for performance control as well as residual dust and filter break monitoring
- » Level measurement in collection container



**ESTA EasyControl** is a newly-developed device control that ensures energy-efficient device operation with state-of-the-art sensor technology. Power savings of up to 50% compared to conventional differential pressure controls are obtained through current volume flow measurement and the fully-automated regulation of the extraction performance based on the operating parameters.

Welding Fume Filters www.esta.com

# Modular Welding Fume Filtring Systems

# WELDEX F-50 to F-150



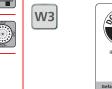
WELDEX F-150 (Image with sound insulation hood)

#### Application Range

- » Central systems with multiple extraction locations
- » Large extraction hoods or cells, e.g. robotic welding stations
- » Extraction in multilayer or continuous operation







#### Special Versions

- » Custom paint finish
- » Custom designed performance
- » **NEW** Pipe pre-separator
- » Various filter materials
- » Extinguishing system
- » Available in a W3-tested version for extracting welding fumes from high-alloy steel



Several WELDEX F-100 filter modules for a central extraction system. Extinguishing system as an optional accessory

#### Special Features

- » Pulse-jet filter cleaning system
- » Integrated impact separator
- » Cleanable long life cartridge filters (Dust classification M)

#### **Your Benefits**

- » High performance welding fume extraction from multiple locations, from welding cells or from large extraction hoods
- » Modular for future expansion
- » Low operating costs with cleanable long life filter cartridges
- » Compact design, minimal space requirement

#### Technical Data

WELDEX		F-50	F-100	F-150
Max. Airflow	m³/h	5.000	10.000	15.000
Intake/outlet diameter	mm	300/315	355/400	500/710
Max. negative pressure	Pa	2.700	3.300	4.500
Voltage	V	400	400	400
Motor	kW	5.5	11.0	15.0
Filter surface	m²	50.0	100.0	150.0
Filter elements	Pieces	2	4	4
Dust collection container	1	60	60	60
Dimensions (L/W/H)	mm	1.600 × 1.000 × 3.130	1.600 × 1.000 × 3.320	1.600 × 1.000 × 3.320
Weight	kg	655	725	755
Sound emission	dB(A)	80	80	80
Order Number				
Standard (without control cabin	iet)	665.050	665.100	665.150
Komfort (with motor control)		665.051	665.101	665.151

Phone +497307 3409680-0 Welding Fume Filters

# Welding Fume Filters

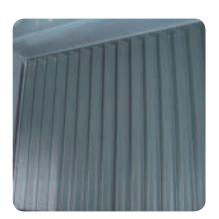


The separated contaminants are effortlessly removed through the dust collection drawer. An optionally inserted collection bag makes for dust-free disposal.



The premium dust class "M" filter cartridges are specially designed for separating welding particles.

#### ESTA Fire protection element



The integrated ESTA impact separator is a part of the comprehensive ESTA fire protection concept that takes protective measures throughout the entire welding process for greater safety in your production facilities. In collaboration with universities and fire protection experts, this design was developed to reduce fire risks significantly during the welding and separation process.

Ask us! We'll be happy to advice you on the right protection measures.

The newly designed impact separator separates coarse particles and sparks that may be sucked in, from fine dust particles, and keeps them from contacting the filter cartridges. This greatly reduces the risk of filter fires that can always happen when extracting during welding, thermal separation, etc.

Welding Fume Filters www.esta.com

# ESTA THE WORLD OF EXTRACTION

#### Modular Welding Fume Filter Unit

#### WELDEX FE



ESTA WELDEX FE-300 Two filter modules FE-150 with separately placed fans.

#### Application Range

- » Modular construction of a welding fume central extraction system
- » WELDEX FE filter units for connection to a fan and pipe system for multiple extraction points
- **»** Extraction in cutting installations, welding fume booths, etc.





A sample representation of an ESTA WEL-DEX FE-600 system consisting of 4 filter modules FE-150 and a ventilator

#### Special Versions

- » Available in a W3-tested version for high-alloy steels
- » **NEW** Pipe pre-separator
- » Control cabinet series
  Basic / Comfort / Special versions
- » Custom paint finish
- » Custom designed performance
- » Sound and/or weather-insulated housing
- » Filter units for outdoor installation



Attachment for welding fume extraction in three production halls at a car manufacturer. Several WELDEX FE cyclone filters, pre-separators and fans

#### Special Feature

» Component design for customer or application specific extraction systems

#### **Your Benefits**

- » Modular filter units for a wide range of air volumes
- » Powerful welding fume extraction at multiple locations, from booths or wide hoods
- » Modular for future expansion
- » Low operating costs with cleanable long life filter cartridges
- » Compact design, minimal space requirement

#### Technical Data

Filtration unit WELDEX		FE-50	FE-100	FE-150
Filter surface	m²	50	100	150
Filter elements	Pieces	2	4	4
Dust collection container		60	60	60
Dimensions (L/W/H)	ca.mm	1.600 × 1.000 × 2.460	1.600 × 1.000 × 2.460	1.600 × 1.000 × 2.460
Weight	ca. kg	480	540	540
Order Number		666.050	666.100	666.150

Phone +497307 3409680-0 Welding Fume Filters

# Modular Welding Fume Extraction System DUSTMAC F



#### **Application Range**

- » Central systems with multiple extraction locations
- » Large extraction hoods or cells, e.g. robotic welding stations
- » All types of steel











#### Special Versions

- » IFA-Test Certificate W3 for high-alloy metals
- » **NEW** Pipe pre-separator
- » Control cabinet series Basic / Comfort / Special versions
- » Custom paint finish



Central welding fume extraction system DUSTMAC F in the chemical industry

#### Special Features

- » Pulse-jet filter cleaning system
- » Cleanable long life cartridge filters (Dust classification M)

#### **Your Benefits**

- » High performance welding fume extraction from multiple locations, from welding cells or from large extraction hoods
- Customer specific design of the system
- » Modular for future expansion
- » Low operating costs with cleanable long life filter cartridges

Data dependent on equipment type

#### Technical Data

DUSTMAC		F-42	F-84	F-84	F-126	F-189
Max. Airflow	m³/h	3.500	7.800	9.700	10.300	14.000
Intake/outlet diameter	mm	224/300	280/400	315/450	355/500	450/560
Max. negative pressure	Pa	2.600	3.800	3.800	4.400	4.800
Voltage	V	400	400	400	400	400
Motor	kW	3.0	5.5	7.5	11.0	15.0
Filter surface	m²	42	84	84	126	189
Filter elements	Pieces	2	4	4	6	9
Dust collection container	I	50	50	50	50	50
Dimensions (L/W/H)	mm	1.300 × 1.039 × 3.250	1.400 × 1.350 × 3.410	1.400 × 1.350 × 3.410	1.820 × 1.450 × 3.860	1.850 × 1.900 × 3.910
Weight	kg	440	540	540	740	880
Order Number		663.042	663.084	663.085	663.126	663.189

64 Welding Fume Filters www.esta.com

# ESTA THE WORLD OF EXTRACTION

#### Accessories & Attachments

ESTAPLUS

#### **Your Benefits**

- » Designed for the ESTA product range
- » Can accommodate most customer requirements
- » High quality and durability

			SRF K-10	SRF K-15	SRF T-2	SRF T-4	SRF SK-2.2	SRF SK-5.5	SRF SK-7.5	SRF SK-13.0	KAF-70	KAF-100T	MOBEX F	WELDEX F-50	WELDEX FE DUSTMAC F
	Product Description	Order-No.													
	Extraction Arms														
P	Extraction arm with square hood design, Ø 140 mm, length 2.0 m	14.204	•	•											
	Extraction arm with square hood design, Ø 140mm, length 3.0m	14.304	•	•											
1	Extraction arm with specialized square hood (600 x 600 mm), Ø 140 mm, length 2.0 m	14.203	•	•											
	Extraction arm with specialized square hood (600 x 600 mm), Ø 140 mm, length 3.0 m	14.303	•	•											
-	Pipe pre-separator														
	RVA 250 2.800 to 3.500 m <sup>3</sup> /h	98250			L		L						•	•	• •
	RVA 355 5.500 to 7.000 m <sup>3</sup> /h	98355			L		L						•	•	• •
	RVA 450 9.200 to 11.200 m <sup>3</sup> /h	98450			L							_	•	•	• •
	RVA 560 13.500 to 17.100 m³/h	98560											•	•	• •
	Hoods/Nozzles														
	Plastic moulded hood square design, Ø 140 mm	030.00.201	•	•											
	Specialized square hood made of metal, square design (600 x 600 mm), Ø 140 mm	94.222	•	•											
1	Funnel shaped nozzle flexible, with magnetic mounting foot	94.740			•	•	•	•	٠	•					
1	Slotted nozzle 200 mm wide, with magnetic mounting foot	94.741			•	•	•	•	•	•					
1	Laboratory extraction arm 50 D overall ext. 900 mm, with angled extraction Opening	50.080									•	•			

Welding Fume Filters

#### Accessories & Attachments

66

			SRF K-10	SRF K-15	SRF T-2	SRF T-4	SRF SK-2.2	SRF SK-5.5	SRF SK-7.5	SRF SK-13.0	KAF-70 KAF-100
	Product Description	Order-No.									
N/A	Miscellaneous										
	<b>Lighting kit</b> installed in the extraction hood	15.430	•	•							
	Optical sensor installed in the extraction hood, for auto-start of the welding fume filter unit	702.68.127 702.69.127	•	•							
	On/off switch integrated in the extraction hood	702.68.128 702.69.128	•	•							
	Extraction hose length 5.0 m, including connector cuff	45.500			•	•	•	•	•	•	
	Extraction hose sold by the meter	45.501			•	•	•	•	•	•	
	Wall mount bracket for wall mounting of the welding fume filter	604.00.001	•	•							
	Activated carbon filter additional filter to eliminate odours	702.68.129 702.69.129	•	•							
	Extraction air outlet for extracting the filtered air outside, Ø 180 mm for extracting the filtered air outside, Ø 280 mm	702.68.111 702.69.111	•	•							

Welding Fume Filters www.esta.com

Extraction of Oil and Emulsion Mist

OILMAC 400

OILMAC 800

OILMAC 1600

OILMAC 3000



#### Application Range

- » Aircraft construction
- » Machine building industry
- » Metal construction and processing industry
- » Shipbuilding industry
- » Vehicle construction

# Oil Mist Separators OILMAC



#### **Application Range**

- » Extraction of oil and emulsion mist, minimal lubircant mist and smoke
- » For set-up and attachment to CNC machines

#### Special features/Accessories

- » Special voltage
- » Exhaust air outlet
- » Special painting
- » Chassis (OILMAC 800/1600)



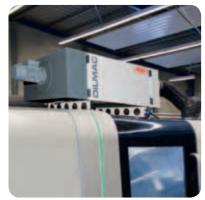
Pivoting inlet module







Product-Video



OILMAC 800 on a universal lathe

# **IAPLUS**

#### Special Features

Pivoting fan module

- » Patented housing design allows filter replacement without tools
- » Manual cleaning
- » Mechanical filtration
- » Also available as a filter unit, without fan

#### **Your Benefits**

- » Easy attachment to the machine
- » Available in four performance levels
- » Compact shape
- » Multiple filter system for high filtration efficiency
- » Filter replacement and maintenance without tools

#### Technical Data

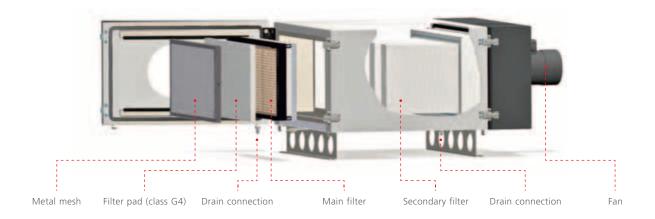
OILMAC		400	800	1600	3000
Max. Airflow	m³/h	420	840	1800	3300
Intake diameter	mm	150	200	250	300
Voltage	V	230	400	400	400
Motor	kW	0,24	0.55	1.1	2.2
Dimensions (L/W/H)	mm	640 × 650 × 510	1.140 × 685 × 475	1.270 × 685 × 805	1.790 × 650 × 1.265
Weight	kg	50	80	130	220
Sound emission	dB(A)	66	69	71	74
Order Number					
Design with HEPA-filter		56.200	56.201	56.202	56.203
Design with Backup filter made of metal mesh	er	-	56.211	56.212	56.213
Filter unit without fan		-	56.221	56.222	56.223

All devices include a 5.0 m siphon hose

68 Oil Mist Separators www.esta.com



#### How the three-stage filter system works



#### **Pre-separator**

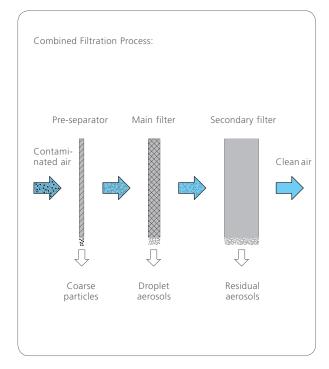
A wear-free separator made of metal mesh, and a class G4 filter pad, separate coarse and solid particles.

#### Main separator

The washable main separator redirects the air stream to separate the aerosols. Gravity then directs these down through the siphon connection, where they can be discharged.

#### **Backup filter**

A HEPA H13 filter extracts the remaining aerosols with 99.95% efficiency. Alternatively, a combination mesh separator can also be used.





OILMAC 1600 on a processing machine

Phone +49 73 07 3 40 96 80-0 Oil Mist Separators

# Carbon Filters

Compact device for filtering odors and slight chemical exposure

VACUMAT **NEW** 

70



#### Application

- » Metal processing industry
- » Plastics industry
- » Chemical industry
- » Pharmaceutical industry
- » Automotive industry
- » Textile, leather and clothing industry

Odor Filters www.esta.com





## NEW Carbon Filter VACUMAT



## Areas of application

- » Improving indoor air quality by reducing or removing unpleasant odours
- » Adsorption of gaseous environmental pollutants
- » For single and multi-location separation



### **Ideal for**

Gaseous odors and pollutants

Slight chemical



Control panel with operating hour meter



Active charcoal filter



VACUMAT for aspiration at a workplace

## **ESTA**

## Special features

- » Effective pre-filter system for separating coarse particles for a long filter service life spans of the main filter
- » Active charcoal filter cell with active charcoal granulate for effective odour filtering
- » For connection to extraction arm, cover or pipe
- » Mobile and space-saving design

## Your benefits

- » High-performance 2-level filter system
- » Low operating noise
- » Low operating costs
- » Operating hour counter for monitoring filter service life

## Technical Data

VACUMAT		1000	2200
Max. Airflow	m³/h	1.010	2.250
Max. negative pressure	Pa	1.250	2.550
Intake diameter	mm	150	200
Voltage	V	400	400
Motor	kW	1.1	2.2
Mass of active charcoal	kg	25	25
Dimensions (L/W/H)	mm	1.050 × 800 × 1.330	1.050 × 800 × 1.330
Weight	kg	215	218
Sound emission	dB(A)	62	71
Order Number		07100	07220

## **Downdraft Tables**

Welding/Grinding Downdraft Tables for connection to a mobile or stationary extraction system

A 880 to A 2080

AV 880 to AV 2080



## Application Range

- » Aircraft construction
- » Automobile industry
- » Machine building industry
- » Metal industry
- » Plastics industry
- » Shipbuilding industry
- » Stone Industry
- » Vehicle construction

Extraction Tables www.esta.com

## ESTA THE WORLD OF EXTRACTION

## Welding/Grinding Downdraft Tables Series A



### Application Range

- » For connection to ventilator or extraction system
- » Working table for welding, grinding, deburring of all types of metals
- » Also suitable for other applications (e.g. plastics processing, gluing processes)

### Ideal for

Metal dust

Welding fume

Plastic shavings

Fumes

CRP-/GRP-dusts

Stone dust



Integrated coarse dirt collecting drawer

## Special Versions/Accessories

- » Side panels
- » Rear wall extraction
- » Lid for optimal airflow
- » Lighting installed in the cover
- » Mobile unit on casters
- » Version with steel T-grate, fiberglass or wood slat grate
- » Customer specific dimensions available
- » Rotary disk for placement on grate
- » Reinforcement plate for fastening a vice



Multiple ESTA welding tables connected to an extraction and filtration system

## Special Features

- » Galvanized grid
- » Height adjustable (± 100 mm)
- » Drawer for coarse dirt
- » Variable connection piece (right or left)

### **Your Benefits**

- » Extraction directly at the workstation
- » Compact solution
- » Plenty of knee and leg room
- » A stable steel plate housing
- » For variable use
- » Easy disposal of coarse dirt

## Technical Data

Welding and Grinding Table without extraction fan		A 880	A 1280	A 1680	A 2080
Working surface (L/W)	mm	800 × 700	1.200× 700	1.600× 700	2.000× 700
Intake diameter	mm	160	160	200	200
Dimensions (L/W/H) (Standard-Model)	mm	880 × 840 × 800	1.280× 840× 800	1.680× 840× 800	2.080× 840× 800
Dimensions (L/W/H) (with side panels/ back wall extraction)	mm	880 × 840 × 1.600	1.280 × 840 × 1.600	1.680 × 840 × 1.600	2.080 × 840 × 1.600
Order Number					
Standard		44.010	44.020	44.030	44.040
with side panels		44.011	44.021	44.031	44.041
with side panels and		44 012	44 022	44 032	44 042

Phone +497307 3409680-0 Extraction Tables

## Welding/Grinding Downdraft Tables Series AV



## Application Range

- » Work table with integrated ventilator for extraction mode
- » Welding, grinding, deburring of all types of metals
- » Also suitable for other applications (e.g. plastics processing, gluing processes)







## Special Versions/Accessories

- » Hinged side housing
- » Rear wall extraction
- » Lid for optimal airflow
- » Mobile unit on casters
- » Lighting installed in the cover
- » Version with steel T-grate, fiberglass or wood slat grate
- » Customer specific dimensions available
- » Rotary disk for placement on grate
- » Reinforcement plate for fastening a vice



Side panel swung back for larger work pieces

## Special Features

- » With ventilator for forwarding the exhaust air into the open air
- » Galvanized grid
- » Height adjustable (± 100 mm)
- » Drawers for coarse dirt
- » Variable extraction nozzle (right or left)

### **Your Benefits**

- » Operate independently from a central extraction system
- » Extraction directly at the workstation
- » Compact solution
- » For variable use
- » Easy disposal of coarse dirt
- » A stable steel plate housing
- » Plenty of knee and leg room

### Technical Data

reclinical Bata									
Welding and Grinding Table with extraction fan		AV 880	AV 1280	AV 1680	AV 2080				
Working surface (L/W)	mm	800× 700	1.200× 700	1.600× 700	2.000× 700				
Intake diameter	mm	160	160	200	200				
Dimensions (L/W/H) (Standard-Model)	mm	880× 840× 800	1.280× 840× 800	1.680× 840× 800	2.080 × 840 × 800				
Dimensions (L/W/H) (with side panels/ back wall extraction)	mm	880 × 840 × 1.600	1.280× 840× 1.600	1.680× 840× 1.600	2.080 × 840 × 1.600				
Order Number									
Standard		44.110	44.120	44.130	44.140				
with side panels		44.111	44.121	44.131	44.141				
with side panels and		44 112	44 122	44 132	44 142				

For the technical data of the RG-200 (extraction fan) see page 75

74 **Extraction Tables** www.esta.com

Filter Towers

For Easy and High Volume Extraction of Dust and Fumes

RG-100 - RG-800

RG with extraction arm

RG mobile

**STYROSOG** 



## Application Range

- » Automotive Repair Shops
- » Chemical Industry
- » Construction Industry
- » Flocking Industry
- » Janitorial Cleaning Services
- » Joinery and Carpentry Shops
- » Machine Building Industry
- » Natural and Man Made
- » Paper Industry
- » Printing Industry
- » Stone Processing (Stone Masons)
- » Textile Industry
- » Transportation Businesses
- » Warehouses
- » Work Shops of Skilled Trades

Phone +497307 3409680-0 Extraction Fans

## Introduction and Product Overview

### Introduction

The extractor fans in the **RG series** comprise medium pressure fans that are designed for a range of air extraction and circulation uses.

### **Product overview**

ESTA extractor fans **RG-100 to RG-800**, with their radial design, take care of airflow and negative pressure in the medium pressure range. They extract smoke-laden air from the extraction point via a suction line to a filter unit, which then separates the particles. Alternatively, the filtering process can be bypassed so that the air is released into the open.

**RG** extraction fans with extraction arm are an effective, economical means of extraction. A fan helps the extraction arm capture the dust or smoke and guide it unfiltered to the desired location (usually outdoors). The idea is to transport the exhaust air to another location inside or outside the building.

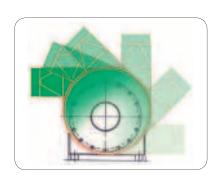
The **RG extraction unit with ball joint extraction arm** has a fastening console for wall or ceiling installation. The extraction arm has an oval hood and is two to three metres long.

**RG mobile extraction units** offer a simple, effective, economical solution for dust extraction at changing workstations. The devices are available in three performance levels with filter bag or cartridge filter for recirculation mode.

For extracting styrofoam chips from packing boxes, **STYROSOG** devices are the best choice. The chips are collected in a large plastic bag and can then be reused.







The exhaust outlet of the extracting fans can be adjusted to the desired position (up to and including model RG 300)

Filter Towers

THE WORLD OF EXTRACTION

## **Extraction Fans**

## RG-100 to RG-800





## Application Range

- » Extraction of individual and multiple workstations in industrial and skilled trade applications
- » In combination with filter units
- For the extraction mode without filtration
- » For connection to extraction hoods

## Special features

- » AC current for RG-100 and RG-200
- » Stainless steel (V2A) for the food industry
- » Motor mounted on the left hand side
- » Adjustable exhaust air outlet
- » Explosion proof for extraction of highly flammable substances





RG-300 in separate room

## Technical Data

RG		100	200	300
Max. Airflow	m³/h	1.000	2.000	3.000
Intake/outlet diameter	mm	100	150	180
Max. negative pressure	Pa	1.400	1.600	2.300
Voltage	V	400	400	400
Motor	kW	0.55	1.1	2.2
Dimensions (L/W/H)	mm	535×450×480	595×520×555	640×535×610
Sound emission	dB(A)	60	70	72
Order Number		01.011	01.021	01.031

## Your Benefits

- » High performance
- » Heavy duty construction
- » Low operating costs
- » Wide range of applications
- » Small space requirement due to compact design

For other sizes/performance ratings please inquire with us. All equipment will be supplied without motor protection switch.

### Technical Data

RG		400	500	600	700	800
Max. Airflow	m³/h	3.200	4.000	5.500	7.000	8.000
Intake/outlet diameter	mm	250/315	250/315	315/355	315/400	355/400
Max. negative pressure	Pa	3.150	3.400	3.500	3.400	3.950
Voltage	V	400	400	400	400	400
Motor	kW	3.0	4.0	5.5	5.5	7.5
Dimensions RG (L/W/H)	mm	711 × 700 ×1.012	711 × 700 ×1.012	737 × 700 × 1.062	762 × 700 ×1.062	820 ×1.000 ×1.198
Sound emission	dB(A)	84	84	84	83	84
Order Number		01.441	01.451	01.461	01.471	01.481

Phone +497307 3409680-0 Extraction Fans

## **Extraction Unit**

## RG with Extraction Arm







Extraction unit RG-200 with 3.0 m extraction arm

### Extraction unit RG-300/extraction arms

## Special Feature

» AC current for RG-100 and RG-200 (optional special order models)

## **Your Benefits**

- » Complete solution made up of an RG extraction gan and extraction arm
- » Source capture with high extraction performance
- » Simple and efficient
- » Different blower sizes
- » Small space requirement due to compact design

## Technical Data

Extraction unit (RG with ext	RG-100	RG-200	RG-300	
Max. Airflow	m³/h	1.000	2.000	3.000
Intake diameter	mm	100	150	180
Max. negative pressure	Pa	1.400	1.600	2.300
Voltage	V	400	400	400
Motor	kW	0.55	1.1	2.2
Dimensions RG (L/W/H)	mm	400 × 550 × 500	490 × 600 × 550	540 × 630 × 600
Sound emission	dB(A)	61	71	72
Order Number				
with extraction arm, 2.0 m		01.111	01.123	-
with extraction arm, 3.0 m		-	01.121	01.131
with extraction arm, 4.0 m		-	01.122	-

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## **Extraction Unit**

## RG with Ball-Joint Extraction Arm







RG-200 with ball joint extraction arm

## Special Features

» AC current for RG-100 and RG-200 (optional special order models)

The installation bracket for ceiling mounting or wall mounting will be included in the scope of supply

## **Your Benefits**

- » Complete solution made up of an RG extraction fan and ball-joint extraction arm
- » Source capture with high extraction performance
- » Small space requirement due to compact design
- » Easy handling

## Technical Data

Extraction unit (RG with extrac	RG-200	
Max. Airflow	m³/h	2.000
Intake diameter	mm	150
Max. negative pressure	Pa	1.600
Voltage	V	230/400
Motor	kW	1.1
Dimensions RG (L/W/H)	mm	400 × 600 × 550
Sound emission	dB(A)	71
Order Number		
with extraction arm, 3.0 m		01.121D
with extraction arm, 4.0 m		01.122D

Phone +49 73 07 3 40 96 80-0 Extraction Fans

## Mobile Extraction Unit

## RG with Dust Filter Bag



## Application Range

- » Mobile filter system for dust
- » Connection to processing machines
- » Extraction of individual and multiple workstations in industrial and skilled trade applications





Wall-mount bracket with cyclone

## Special features

- » AC current for RG-100 and RG-200
- » Wall-mount bracket



Mobile extraction unit with cartridge filter

## Special Feature

» Available with dust filter bag or Ing life cartridge

## **Your Benefits**

- » Simple and effective filter system
- » Mobile device for flexible use
- » Universal and versatile use

### Technical Data

recnnicai Data				
Extraction unit, mobile		RG-100	RG-200	RG-300
Max. Airflow	m³/h	1.000	2.000	3.000
Intake diameter	mm	100	150	180
Max. negative pressure	Pa	1.400	1.600	2.300
Voltage	V	400	400	400
Motor	kW	0.55	1.1	2.2
Dimensions (L/W/H)	mm	400 × 550 × 500	490 × 600 × 550	540 × 630 × 600
Sound emission	dB(A)	61	71	72
Order Number				
with filter bag		04.011	04.021	04.031
with cartridge filter		04.111	04.121	04.131
Wall mount bracket				
with filter bag		08.011	08.021	08.031
with cartridge filter		08.111	08.121	08.131

All extraction units are supplied with an extraction hose of 3.0 m length

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## ESTA THE WORLD OF EXTRACTION

## Packing Chips Vacuum Cleaner

## **STYROSOG**



## Application Range

- » Extracting styrofoam packing chips
- » Warehouse and packaging areas



Ideal for



An ideal combination: Chip separator and STYROSOG 1000



STYROSOG 1000 for extracting packing chips

## Your Benefits

- » Easy handling
- » Cost efficient through reuse of the Styrofoam packaging chips

## Technical Data

STYROSOG		1000	2000
Max. Airflow	m³/h	1.000	2.000
Intake diameter	mm	100	125
Max. negative pressure	Pa	1.300	1.800
Voltage	V	230	230
Motor	kW	0.55	1.3
Dimensions (L/W/H)	mm	400 × 550 × 500	400 × 600 × 550
Sound emission	dB(A)	72	74
Order Number			
with extraction hose 2.5 m, ext and extraction nozzle made of		03.011	-
with extraction hose 3.0 m, ext and extraction nozzle made of		-	03.021

Phone +497307 3409680-0 Extraction Fans

## Accessories & Attachments

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N	

## () Your Benefits

- » Best Quality
- » Solid workmanship

Solid work Tight fit w	rith ESTA products									( 7
			RG-100	RG-200	RG-300	RG-400	RG-500	RG-600	RG-700	RG-800 STYROSOG
	Product Description	Order Number								
	Muffler flexible	30.000.702 30.000.703 30.000.704 30.000.705 30.000.706 30.000.707 30.000.708 30.000.709	•	•	•	•	٠	•	•	•
	Clamping ring for filter bag	90.211 90.221 90.231	•	•	•					
	Quick clamping device for filter bag for cartridge filter for filter bag for cartridge filter	90.411 90.412 90.421 90.431	•		•					
	<b>Filter bag</b> paper filter bag to be inserted in the fabric filter bag	90.017	•	•	•					
	<b>Filter bag</b> fabric filter bag	90.311 90.321	•		•					
	Collection bag made of plastic (1 Set = 10 pieces)	90.116 90.117	•		•					•
	Filling funnel with spring loaded door for exact dosing of the desired filling quantity	91.301								
	Rubber band for secure attachment of the collection bag to the funnel	91.303								•
	Bag hanging bracket grips the folds on the side of the bag	91.305								•
	<b>Pulley with rope</b> for filtering small parts	91.307								•
1 2	Chip pre-separator for STYROSOG 1000 for filtering small parts	91.302								•

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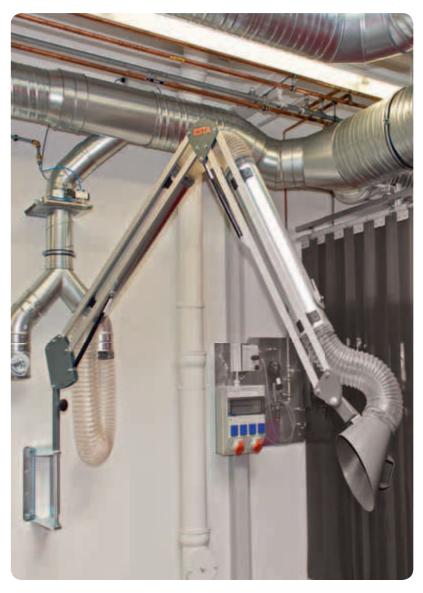
Effective and Targeted Source Capture of Dust and Fumes

With oval hood

With square hood

Ball-joint extraction arms

Laboratory extraction arm



## Application Range

- » Automotive Repair Shops
- » Chemical Industry
- » Construction Industry
- » Flocking Industry
- » Joinery and Carpentry Shops
- » Janitorial Cleaning Services
- » Machine Building Industry
- » Metal Industry
- » Natural and Man Made
- » Paper Industry
- » Plastic Industry
- » Printing Industry
- » Stone Processing (Stone Masons)
- » Textile Industry
- » Transportation Businesses
- » Warehouses
- » Work Shops of Skilled Trades

## **Test Certification:**



## Introduction and Product Overview



## Introduction

ESTA extraction arms are the best solution for the precise, flexible capturing of dusts, vapor and fumes. The ESTA extraction arm's hood can easily be moved to any extraction point and held there reliably. This ensures that your extraction device's suction performance is directed to the exact place where it is needed. Because even the most powerful extraction system is useless if the dust-laden air does not get to the device.

This makes ESTA extraction arms ideal wherever manual work is done or where machines without pipe connections are used. The extraction arm and extraction system must be matched for air performance. For this purpose, ESTA offers a broad selection of extraction arms of various diameters and lengths.

Their great flexibility, easy handling and exterior support structure frame offer the best possible efficiency. Furthermore, premium workmanship gives ESTA extraction arms a long service life.

A wide range of suitable extraction hoods and ATEX versions or high-alloy designs are also available.









Extraction Arms www.esta.com

## Extraction Arms Oval Hood







Extraction arm at a welding station

# 

- A Wall-mount console (standard model)
- B Standpipe (for positioning in a suitable holding device at a machine or at the extraction equipment)
- C Floor standpipe, height: 1.000 mm, for extraction arm with standpipe

## Special Features

- » External beam construction
- » Unobstructed air flow inside the extraction arm
- » Gas springs for easy adjustment
- » Optional: reducer and gate valves available for regulating the airflow
- » Optional: installation of lighting
- » Optional: ATEX version

## **Your Benefits**

- » Large selection of diameters and sizes
- » High flexibility
- » Easy handling
- » Targeted extraction

### Technical Data

Extractio	Extraction arms with oval hood											
	Ø 50	Ø 70	Ø 80	Ø 100	Ø 125	Ø 140	Ø 150	Ø 160	Ø 180	Ø 200		
Length / Order Number												
1.500 mm	50.152	70.152	80.152	10.152	12.152	14.152	15.152	16.152	18.152	-		
2.000 mm	50.202	70.202	80.202	10.202	12.202	14.202	15.202	16.202	18.202	20.202		
3.000 mm	50.302	70.302	80.302	10.302	12.302	14.302	15.302	16.302	18.302	20.302		
4.000 mm	-	-	-	10.4024	12.4024	14.4024	15.4024	16.4024	-	-		
4.000 mm <sup>1)</sup>	-	-	-	10.402	12.402	14.402	15.402	16.402	18.402	20.402		
5.000 mm <sup>1)</sup>	-	-	-	10.502	12.502	14.502	15.502	16.502	18.502	20.502		
6.000 mm <sup>2)</sup>	-	-	-	10.602	12.602	14.602	15.602	16.602	18.602	20.602		
8.000 mm <sup>3)</sup>	-	-	-	10.8024	12.8024	14.8024	15.8024	16.8024	-	_		

 $^{1)}$ inkl. 2.0 m extension boom /  $^{2)}$ inkl. 3.0 m extension boom /  $^{3)}$ inkl. 4.0 m extension boom

Phone +497307 3409680-0 Extraction Arms

## Extraction Arms Square Hood







Square hood with baffle plate at a weighing station

## Special Features

- » External beam construction
- » Unobstructed air flow inside the extraction arm
- » Gas springs for easy adjustment
- » Optional: reducer and gate valves available for regulating the airflow
- » Optional: ATEX version

## **Your Benefits**

- » Large capturing area
- » Easy handling
- » High Flexibility

### Technical Data

Technical Data								
Extraction arms with square hood								
	Ø 100	Ø 125	Ø 140	Ø 150	Ø 160	Ø 180		
Hood: 500 x 500 mm	✓	✓	-	-	-	_		
Hood: 600 x 600 mm	-	-	✓	✓	$\checkmark$	$\checkmark$		
Length/Order Number								
1.500 mm	10.153	12.153	14.153	15.153	16.153	18.153		
2.000 mm	10.203	12.203	14.203	15.203	16.203	18.203		
3.000 mm	10.303	12.303	14.303	15.303	16.303	18.303		
4.000 mm	10.4034	12.4034	14.4034	15.4034	16.4034	-		
4.000 mm <sup>1)</sup>	10.403	12.403	14.403	15.403	16.403	18.403		
5.000 mm <sup>1)</sup>	10.503	12.503	14.503	15.503	16.503	18.503		
6.000 mm <sup>2)</sup>	10.603	12.603	14.603	15.603	16.603	18.603		
8.000 mm <sup>3)</sup>	10.8034	12.8034	14.8034	15.8034	16.8034	_		

 $<sup>^{1)}</sup>$  incl. 2.0 m extension boom /  $^{2)}$  incl. 3.0 m extension boom /  $^{3)}$  incl. 4.0 m extension boom

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## ESTA

## Ball-Joint Extraction Arms





Ideal for

Welding fume

Vapors



Ball-joint-extraction arm in use

- » Swivel range:
  - ceiling mounted unit 360°
  - wall mounted unit 180°
- » External beam construction
- » Unobstructed air flow inside the extraction arm
- » Gas springs for easy adjustment
- » Optional reducer and gate valves available for regulating the airflow
- » Optional installation of lighting
- » Optional ATEX version

## **Your Benefits**

- » Low maintenance
- » For ceiling and wall mounting
- » Easy handling
- » Can accommodate large work areas

## Technical Data

Ball-joint extraction arm with oval hood								
	Ø 80	Ø 100	Ø 125	Ø 140	Ø 150	Ø 160	Ø 180	
Length / Order Number								
2.000 mm	80.202D	10.202D	12.202D	14.202D	15.202D	16.202D	18.202D	
3.000 mm	80.302D	10.302D	12.302D	14.302D	15.302D	16.302D	18.302D	
4.000 mm	-	10.402D	12.402D	14.402D	15.402D	16.402D	18.402D	
Ball-joint extraction	arm wit	h square	hood					
Length / Order Nun	nber							
2.000 mm	-	10.203D	12.203D	14.203D	15.203D	16.203D	18.203D	
3.000 mm	-	10.303D	12.303D	14.303D	15.303D	16.303D	18.303D	
4.000 mm	-	10.403D	12.403D	14.403D	15.403D	16.403D	18.403D	

Phone +49 73 07 3 40 96 80-0 Extraction Arms

## Laboratory Extraction Arm 50 D



Ideal for
Soldering fumes
Dusts
Odorants
Vapors



Multiple extraction units for the extraction of solder fumes

## STAPLUS

## Special Features

- » Airflow control valve
- Wall mounting, table mounting or clamping fixture
- » Ceiling mounting is possible with a special bracket
- » Choice of six different types of extraction hoods
- » Optional integrated lighting
- » Optional ATEX version

## **Your Benefits**

- » Precise sensing
- » Space saving
- Extraction hood for any application
- » Easy handling



Extraction hood with round orifice and integrated lightinga



Airflow valve to regulate the extraction volume

### Technical Data

Laboratory extraction arm incl. table mounting device	50 D
Total extension mm	900
Order Number	50.080

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 $FILTOWER\ F\ -\ for\ fumes$ 

FILTOWER D - for dusts

 $FILTOWER\ L\ -\ for\ oil-\ and\ emulsion\ mist$ 

FILTOWER eco+/ecolight/ecotemp/4.0



## **Application Range**

- » Aircraft construction
- » Automobile industry
- » Chemical industry
- » Food industry
- » Machine building industry
- » Metal industry
- » Plastics industry
- » Shipbuilding industry
- » Stone Industry
- » Vehicle construction

## FILTOWER-F



Different Applications Different Sizes FILTOWER-F - Welding Fume

FILTOWER-D - Dust

FILTOWER-L - Oil- & Emulsion Mist

FILTOWER-100 - 10.000 m³/h FILTOWER-160 - 15.000 m³/h FILTOWER-200 - 20.000 m³/h

## Up to 70% Heating cost savings!

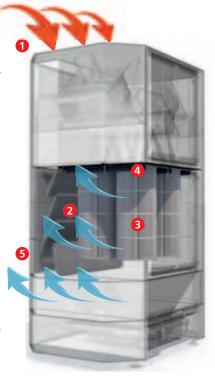
## Special Features

- » Two parallel-connected fans, separately switchable
- » Three power stages suitable for each application
- » New, patented filter change system for low-dust filter exchange
- » Highly effective pre-separation system
- » Low-impulse air leakage
- » Mobile dust collection drawer with disposal box and with collection insert for FILTOWER L

### **Your Benefits**

- » Best air quality in the workplace
- » Plug & Play: Position, connect electricity and compressed air done!
- » Powerful and low-noise suction
- Can be placed in the work area (no pipe installation)
- » Flexible deployment; easy to move with forklift or crane
- » Low operating costs thanks to cleanable permanent filter cartridges

Data dependent on equipment type



- 1 Extraction of contaminated air
- 2 Pre-separation system (calculated separation efficiency >80% for particles ≥50 μm) serves as a spark pre-separation system and filters coarse partic-
- 3 Filtration of residual dust particles through long life cartridge filters with nanofibers of dust class M (99.9% separation efficiency)
- Easy filter change of highlyeffective long life cartridge filters hanks to the newlydeveloped, patented ESTA QuickChange
  - filter change system
- 5 Low-draft recirculation via outlets on side
  - \* Patent pending



Movable dust collection drawer



Intuitive device control

Filter Towers

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## FILTOWER-F



## For welding fume

## Application Range

- » Supplementary solution for maintaining dust limits, where extraction at certain points alone will not suffice
- » For welding processes, for which suction at specific points is impractical
- » For supporting direct extraction
- » For improving room air quality









## Special Versions

- » With IFA test certificate "W3" for extraction during welding of high-alloy steel
- » Optionally with activated carbon applications for the filtration of gases and odorous substances
- With frequency converter for regulating extraction performance
- » Special voltage
- » Special paint



## FILTOWER-D und FILTOWER-L



For dusts

## Ideal for Fine, floating particulate matter Plastic dust Chemical dust Bulk material applications

## **Application Range**

- » Supplementary solution for maintaining dust limits, where extraction at certain points alone will not suffice
- » For improving room air quality

## Special Versions

- » Optionally with activated carbon applications for the filtration of gases and odorous substances
- » With frequency converter for regulating extraction performance
- » Special voltage
- » Special paint



For Oil- and emulsion mist



## **Application Range**

- » Supplementary solution for maintaining limits
- » For supporting direct extraction on cutting
- » Production machinery (CNC-processing)
- » For improving room air quality

## Special Versions

- » Optionally with activated carbon applications for the filtration of gases and odorous substances
- » With frequency converter for regulating extraction performance
- » Special voltage
- » Special paint

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## FILTOWER eco+ und FILTOWER ecolight



The FILTOWER **eco**<sup>+</sup> series combine outstanding extraction and filtration performance for maximum efficiency at low operating costs. All thanks to the new ESTA EasyControl device control with sophisticated sensor technology and the application of frequency converters.

### FILTOWER eco+ design:

- >> ESTA EasyControl device control
- » Frequency converter for fan motors
- >> Programmable timer
- Dust sensors in the raw gas and clean air areas for performance control as well as residual dust and filter break monitoring
- >> Level measurement in collection container



FILTOWER ecolight

The **ecolight** design ensures that the FILTOWER's extraction performance can be adjusted manually as appropriate during operation, which raises the level of efficiency and optimises operating costs.

This is made possible by the new **ESTA EasyControl** controller and the use of frequency converters to regulate the air volume flow.

## FILTOWER ecolight design:

- >> ESTA EasyControl device control
- » Frequency converter
- » Adjustable timer



**ESTA EasyControl** is a newly-developed device control that ensures energy-efficient device operation with state-of-the-art sensor technology. Power savings of up to 50% compared to conventional differential pressure controls are obtained through current volume flow measurement and the fully-automated regulation of the extraction performance based on the operating parameters.

## **NEW**

## FILTOWER ecotemp und FILTOWER 4.0



In addition to the outstanding extraction and filtration abilities, the filter towers in the **ecotemp** range also create a comfortable working climate in the working area.

### FILTOWER ecotemp design:

- » Cooling or heating possible by two slatted heat exchangers
- » Continuous adjustment of the desired temperature
- » Environmentally friendly (water quantity: 4 m³/h / Connection: 1¼ inch)
- » Low maintenance costs through clean gas side installation
- » Drain taps for condensation
- >> Stainless steel drip tray
- » Low loss of pressure through large vector surface



Intelligently connected and energy-saving: the FILTOWER models have integrated protocol and network functions. Measurement and operating data can be processed quickly and easily in digital form. In addition to the ESTA EasyControl device control, frequency converters ensure efficient operation.

### FILTOWER design:

- » Protocol and network functions via customer's LAN network
- » Digital installation support
- >> ESTA EasyControl device control
- >> Frequency converter for fan motors
- >> Programmable timer
- Dust sensors in the raw gas and clean air areas for performance control as well as residual dust and filter break monitoring
- » Level measurement in collection container



**ESTA EasyControl** is a newly-developed device control that ensures energy-efficient device operation with state-of-the-art sensor technology. Power savings of up to 50% compared to conventional differential pressure controls are obtained through current volume flow measurement and the fully-automated regulation of the extraction performance based on the operating parameters.

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## FILTOWER-Series at a glance

	Standard	eco⁺	ecolight	4.0
ESTA QuickChange filter changing system	•	•	•	•
Jet pulse filter cleaning	•	•	•	•
Fans with IE3 motor drive	•	•	•	•
ESTA Easy Control controller	×	•	•	•
Frequency converter	0	•	•	•
Simple volumetric flow control	×	•	•	•
Timer	×	0	0	0
Automatic control of the suction power using dust sensors	×	×	•	•
Residual dust and filter monitoring	×	×	•	•
Level measurement in the dust collection vessel	×	×	•	•
Digital erection aid	×	×	0	•
Recording of the operational data	×	×	0	•
Remote maintenance and control via LAN/WiFi	×	×	×	•
ecotemp	0	0	0	0

= included O = optional x = not included

## OPTIONS AND SPECIAL VERSIONS - ACCOMODATING INDIVIDUALITY

- >> Fire sensor with extinguishing system
- >> Ecotemp design with heating and/or cooling module\*
- » Activated carbon inserts for filtering gases and odorous substances
- » Special coating in RAL colour
- »IFA test certificate W3 for extraction when welding high-alloy steels\*\*





<sup>\*</sup> Only available as a new purchase

<sup>\*\*</sup> FILTOWER F

## *FILTOWER*

## Technical Data

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reenmear Data				
FILTOWER		100	160	200
Max. Airflow	m³/h	10.000	15.000	20.000
Max. negative pressure	Pa	2.800	2.800	2.800
Voltage	V	400	400	400
Motor	kW	2×3.0	2×4.0	2×7.5
Filter surface	m²	100	160	200
Filter elements	Piece	4	4	4
Dust collection container	.	150	150	150
Dimensions (L/W/H)	mm	2.060×1.510×2.950	2.060×1.510×3.350	2.060×1.510×3.850
Weight	kg	1.100	1.200	1.500
Sound emission	dB(A)	71	75	77

Order Number	100	100 ecotemp	160	160 ecotemp	200	200 ecotemp
FILTOWER F Standard	667100	690100	667160	690160	667200	690200
With test certificate W3	664100	-	664160	-	664200	-
eco⁺	670100	696100	670160	696160	670200	696200
ecolight	680100	699100	680160	699160	680200	699200
4.0	673100	691100	673160	691160	673200	691200
FILTOWER D Standard	663100	694100	663160	694160	663200	694200
eco⁺	671100	698100	671160	698160	671200	698200
ecolight	676100	701100	676160	701160	676200	701200
4.0	674100	695100	674160	695160	674200	695200
FILTOWER L Standard	660100	692100	660160	692160	660200	692200
eco⁺	672100	697100	672160	697160	672200	697200
ecolight	677100	700100	677160	700160	677200	700200
4,0	675100	693100	675160	693160	675200	693200



Hall Ventilation Systems www.esta.com

Filter Towers

## Central Extraction Systems Tailored to Your Application

Side Channel Blowers

High and Medium Pressure Fans

Rotary Piston Blowers Filter Cyclones

Modular Filter Systems

Ventilation of Production Facilities

**Extraction Hoods** 

Soundproofed Cabins



## Application Range

- » Agricultural Processing
- » Aircraft Industry
- » Automotive Repair Shops
- » Automotive Supplier Industry
- » Construction Industry
- » Electronics Industry
- » Engine Manufacturing Plants
- » File Shredding
- » Food Processing Industry
- » Machine Building Industry
- » Metalworking Industry
- » Mills
- » Paper Industry
- » Pharmaceutical Industry
- » Plastics Processing Plants
- » Precision Mechanical Industry
- » Printing Industry
- » Processing Facilities
- » Recycling and Waste
- » Research and Development
- » Ship Building Industry
- » Shoe Manufacturing Plants
- » Tobacco Companies
- » Vacuum Systems
- » Vehicle and Auto Body Plants
- » Welding Facilities

Phone +497307 3409680-0 Central Extraction Systems

## Central Extraction Systems

## Introduction and Product Overview



### Introduction

Central extraction systems can extract dust simultaneously from multiple nozzles or machines through a suitable pipe system. Whether you need to extract coarse or fine dust, wet or dry, vapours or smoke - ESTA extraction systems can be adapted to the requirements of each specific application. The modular design of ESTA central dust extraction systems makes it possible to offer systems that are customized to your specific application. Our sales engineers will configure the optimal system including a suitable pipe system, filtration unit and a central vacuum generator.

## ESTA central extraction systems offer many advantages:

- » Very high efficiency of the vacuum generator
- » Quiet operation through sound insulation and if necessary special sound dampening enclosures
- » Wear resistant and maintenance free design
- » Low operating costs through cleanable long life filters and high energy efficiency of the systems
- » Modern control cabinets in all variants NEW
- » Complete service from design through installation to start-up operation and maintenance

Benefit from our 45 years of experience with extraction technology.





- 5 5 1 2 3 4a
- 1 **Central Vacuum Producer**Side channel blowers, fans, rotary piston blowers, high and medium pressure fans
- 2 **Filtration Unit**Cyclone, Modular filtration units
- 3 Electric Control Unit
- 4 **Pipe System** Flapper valves (4a)
- 5 **Extraction Devices**Extraction hoods,
  extraction arms and nozzles

Central Extration Systems www.esta.com

## Side Channel Blowers



Schematic illustration of a side channel blower with direct drive

ESTA side channel blowers are assemblies used when strong suction power is needed. This includes central dust extraction systems in production areas, power plants, trash incinerators, manufacturing areas, etc.

The compressors are also available in an ATEX-compliant design.



Central vacuum unit equipped with two side channel blowers

## Application Range

- » Extraction from multiple workstations in industrial manufacturing and processing
- » Multi-shift operation possible
- » Optional: ATEX version

## Your Benefits

- » High negative pressure
- » Quiet operation through sound insulation and suitable positioning
- Wear and maintenance free design
- » Low operating costs through high energy efficiency

## Technical Data

Side Channel Blowers		TDS- 13	TDS- 18.5	TDS- 22	TDP- 11	TDP- 18.5	TDP- 22	TDP- 26
Max. Airflow	m³/h	1.140	1.140	1.140	790	2.100	2.100	2.100
Intake diameter	mm	140	140	140	100	180	180	180
Max. negative pressure	Pa	23.500	38.000	40.500	30.000	23.500	27.000	31.500
Voltage	V	400	400	400	400	400	400	400
Motor	kW	13.0	18.5	22.0	11.0	18.5	22.0	26.0
Motor speed	1/min	3.000	3.000	3.000	3.000	3.000	3.000	3.000
Dimensions (W×H×D)	mm	nm 990 × 1.730 × 1.200						
Sound emission	dB(A)	78	96	90	85	93	88	93
Order Number		301.101	301.103	301.105	301.100	301.102	301.104	301.106

Please inquire with us about additional units

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## High and Medium Pressure Fans





Schematic illustration of a direct drive high pressure ESTA fan

ESTA fans are designed and built to the latest flow standards. This guarantees high performance with low energy consumption.

They can be used as vacuum generators in extraction systems or as blowers for extracting welding fumes, dusts and shavings.



High pressure fans combined with ESTA filter cyclones

## Application Range

- » High-pressure fans for multi-user extraction
- » Ideal component for a central extraction system
- » Supply and extraction fan (e.g. for cooling)
- » Central welding fume extraction
- » Applications in which a very constant negative pressure is required at a high air flow rate

### **Your Benefits**

- » Constant high airflow volume
- » Quiet operation through sound insulation and remote positioning
- » Industrial strength and maintenance free design
- » Low operating costs through high energy efficiency

### Technical Data

reemmean Bata							
High and Medium pressure fans	m	MDV- 7,5	MDV- 15	HDV- 11	HDV- 18,5	HDV- 22	HDV- 30
Max. Airflow	m³/h	3.400	6.700	2.000	3.000	3.800	6.000
Intake diameter*	mm	280	355	260	250	280	355
Max. negative pressure	Pa	4.400	4.500	8.200	10.300	10.400	10.300
Voltage	V	400	400	400	400	400	400
Motor	kW	7.5	15.0	11.0	18.5	22.0	30.0
Motor speed	1/min	3.000	3.000	3.000	3.000	3.000	3.000
Dimensions $(W \times H \times D)$	mm	1.310 × 1.676 × 1.600					
Sound emission	dB(A)	69	73	73	73	76	79
Order Number		301.000	301.001	301.002	301.003	301.004	301.005

Please inquire with us about additional units

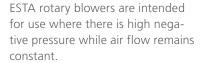
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<sup>\* =</sup> Depending on the type of application

## ESTA THE WORLD OF EXTRACTION

## Rotary Piston Blowers





Their combination with the ESTA FZ cyclone filter is the core of a reliable high-vacuum extraction system.

Especially for process extraction systems, or for long, wide-branching pipeline systems, rotary blowers are the right choice.



Rotary piston blower application photo

## Application Range

- » Extraction from multiple workstations in industrial manufacturing and processing
- » Applications where constant negative pressure is required

### Your Benefits

- » Extremely constant negative pressure
- » Quiet operation through sound insulation and remote positioning
- » Industrial strength and maintenance free design
- » Low operating costs through high energy efficiency

### Technical Data

Rotary piston blowers		DKG-11	DKG-15	DKG-37	DKG-75
Max. Airflow	m³/h	510	840	1.860	3.720
Intake diameter	mm	80	100	150	200
Max. negative pressure	Pa	40.000	40.000	40.000	40.000
Voltage	$\vee$	400	400	400	400
Motor	kW	11.0	15.0	37.0	75.0
Motor speed	1/min	2.915	2.925	2.945	2.970
Dimensions $(W \times H \times D)$	mm	1.230 × 1.306 × 1.200	1.230 × 1.306 × 1.200	1.655 × 1.820 × 1.600	2.110 × 2.330 × 1.750
Weight	kg	550	600	1.180	2.500
Sound emission	dB(A)	71	72	78	85
Order Number		302.101	302.102	302.103	302.104

Please inquire with us about additional units

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## Cyclonic Filtration Units



## Application Range

- » Extraction from multiple workstations in industrial manufacturing and processing
- » As a filter for high-vacuum extraction
- » For the deposition of dust, shavings and fumes



## Ideal for Metal dust Plastic dust Shavings of all kinds CRP-/GRP-dusts CRP-/GRP-shavings

... and much more

## Special Version

» ATEX version



Two cyclonic filters as part of an extraction system

## STAPLU

## Special Features

- » Compact design
- » Suitable for continuous operation

## Your Benefits

- » The dual filter system is suitable for coarse and fine dust
- » Quiet operation through sound insulation and remote positioning
- » Industrial duty and maintenance free design
- » Low operating costs through cleanable filters and high energy efficiency
- » Suitable for applications requiring high negative pressure

## Technical Data

Cyclonic filtration Cartridge filter (dia		<b>FZ-1003</b> 150/660	<b>FZ-1503</b> 150/1.000	<b>FZ-3003</b> 325/600	<b>FZ-5003</b> 325/1.000		<b>FZ-11003</b> 325/1.000
Intake diameter*	mm	159	159	355	355	400	400
Filter elements	Pieces	4	4	3	3	7	7
Filter surface per cartridge	m²	2.5	3.6	10	16.7	10	16.7
Filter surface	m²	10	14.4	30	50	70	117
Dust collection container	I	100	100	100	100	200	200
Dimensions (dia./H)	mm	674 / 2.280	674 / 2.580	1.335 / 3.120	1.335 / 3.450	1.915 / 3.866	1.915 / 4.270
Diameter	mm	600	600	1.259	1.259	1.800	1.800
Order Number		300.027	300.031	300.032	300.033	300.034	300.035

Please inquire with us about additional units

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<sup>\*</sup> Depending on the type of application

## Modular Extractors DUSTMAC



## **Application Range**

- » Extraction from multiple workstations in industrial manufacturing and processing
- » As a filter unit for medium pressure systems up to 15,000 Pascal





DUSTMAC F-144 in the metalworking industry

## Special Features

- » Highly efficient filter cleaning process during operation of the system
- » The modular design makes it possible to adapt the system to each specific application
- » Special design features make use of pre-separation principles
- » Supplied with cartridge or tubular bag filter

## **Your Benefits**

- » Modular design (expandable as your production expands)
- » Adaptable to "Your" particular type of dust
- » Customer specific system configuration
- » Low operating costs due cleanable filter media
- » Small space requirement due to compact design

Data dependent on equipment type



DUSTMAC P (with cartridge filters)



DUSTMAC S (with tubular bag filters)

## Technical Data

	Page
<b>DUSTMAC P</b> with cartridge filters – Complete system	28
<b>DUSTMAC S</b> with tubular bag filters – Complete system	29
<b>DUSTMAC F</b> for welding fume – Complete system	64
<b>DUSTMAC X</b> for custom configurations	104

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## Custom Configurations DUSTMAC X

With DUSTMAC-series modular filter units, individual system designs can be created for central multi-user extraction – for nearly any type of dust and almost any industry.

Based on the type, volume and amount of dust, an appropriate filter is used in the system housing. Even a suitable fan (such as MDV or RG) can be integrated into the system design based on specific requirements. Then a pipe system can connect the system to any number of extraction points.



Individual plant concept with DUSTMAC filter units in the shoe industry

### **Dust Removal**

Collection and removal of the extracted dust – with three different methods depending on your application. For additional collection and removal options kindly contact us.



Mobile dust collection container

104



Removal through rotary valve



Directly into a container

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Filter Towers

105



## Cyclonic Filtration Units

The modular design of the ESTA DUSTMAC model series makes it possible to adapt these central extraction systems to the individual applications and conditions at the customer's production facilities. This guarantees that our customers receive the most suitable extraction system for their particular situation.

On pages 106 through 108 you will find a selection of possible system combinations. Our sales engineers are always available for a personal consultation at your company to determine the best possible configuration of your extraction system.



### **Extraction Fans**

Generally there are two types of extraction fans – high and medium pressure fans. Medium pressure fans are characterized by high airflow volumes to ensure the most complete extraction of the dust or fumes to be captured.

High pressure fans produce high air velocity to capture dust or fumes at the source. Fans with an output of up to 15 kW are usually mounted on the filtration unit. Larger fans will be positioned as stand alone units next to the filtration units (see Page 99).

### Filtration Unit

The filtration unit(s) is (are) the "heart" of the central extraction system. Depending on the type of dust, quantity of dust and its composition the filtration units will be equipped with different types of filters. During and after operation the filters will automatically be cleaned with a pulse-jet cleaning system. The geometry of the filter housing is a key factor for a long filter life and for effective filter cleaning. It ensures the ventilation technologically correct airflow conditions inside the filter housing.

### **Dust Removal**

There are several methods available to collect the material that has been filtered out. In most cases the dust will be collected in a drum that is positioned at the tapered bottom of the filtration units.

For this purpose we have drums of 50, 100 or 200 Litres capacity available. Other methods are rotary valves for continuous removal, high capacity containers, shuttle valves or pinch valves.

## **Central Extraction Systems**

## Modular Filtration Unit DUSTMAC

## **Tubular Bag Filters**

Tubular bag filters are used for dust types, which due to their temperature, humidity and hygroscopic characteristics have the tendency to clog the filter media.

The tubular bag filters used by ESTA can be adapted

in their design (materials and special coating) to the specific conditions of different applications. The table on page 108 illustrates the possible combinations of the individual modules of a tubular bag filter system DUSTMAC S.

## Cartridge Filters

Cartridge filters have a very large filter surface with a very compact space requirement. Therefore they are particularly well suited for the extraction of dry and pourable types of dust.

The cartridge filters utilized by company ESTA can be

adapted to specific applications with the use of different materials, geometries and coatings.

**Filter cartridges with pleat corrugation** for a very long filter life even under high load and continuous duty applications.

## Possible Combinations (see page 107)

The red illustrated fan models can be mounted flat on their side on the associated filter units.

The violet field shows the available filtration units with the number of filters per filtration unit.

The yellow shaded field shows the possible combinations of the dust removal options.

For the technical data of the components please see

the data sheet of the individual modules on page 108. This illustration merely clarifies the principle of the modular system design and the possible combinations. There are of course many more possibilities of system configurations.

Our sales engineers will be happy to make recommendations. Give us a call:

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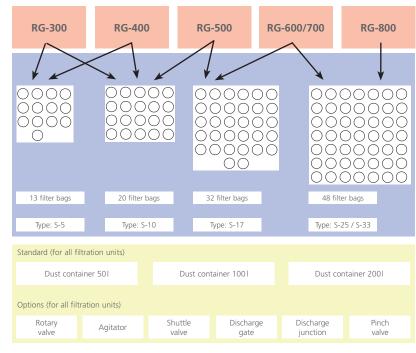
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### Modular Extraction & Filtration Unit DUSTMAC

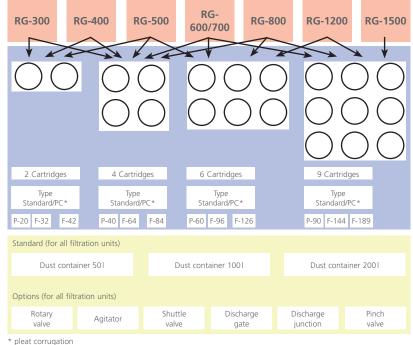
### **Tubular Bag Filters**





### **Cartridge Filters**





<sup>\*</sup> pleat corrugation

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### Modular Extraction & Filtration Unit DUSTMAC

The following table describes the technical data of the individual modules that can be combined in a central ESTA extraction and filtration system.

The possible combinations can be found on pages 106 and 107.

Other combinations for central extraction systems of other designs with higher airflow volumes or larger filter areas are possible as well.

#### **Individual Modules**

Fan		RG-300	RG-400	RG-500	RG-600	RG-700	RG-800	RG-1200	RG-1500
Voltage	V	400	400	400	400	400	400	400	400
Motor	kW	2,2	3,0	4,0	5,5	5,5	7,5	11,0	15,0
Max. airflow	m³/h	3.000	3.200	4.000	5.500	7.000	8.000	12.000	15.000
Max. negative pressure	Pa	2300	3.150	3.400	3.500	3.400	3.950	4.180	5.050
Exhaust air outlet Ø	mm	180	315	315	355	400	400	450	560
Order Number		30002054	30009765	30009767	30009769	30009771	30009997	30009998	30010002

Tubular Bag Filters		S-5	S-10	S-17	S-25	S-33	S-50	S-66
Intake connection	Ø	280	300	355	400	450	2 x 450	2 x 450
Number of filter bags		13	20	32	48	48	96	96
Filter surface	m²	5	10,5	17	25	33	50	66
Order Number		66700510	66701010	66701710	66702510	66703310	66705010	66706610
Cartridge Filter (Pow	der)	P-20	P-40	P-60	P-80	P-90	P-120	P-180
Intake connection	Ø	280	355	400	2 x 355	450	2 x 355	2 x 450
Number of cartridges		2	4	6	8	9	12	18
Filter surface	m²	20	40	60	80	90	120	180
Order Number		66402010	66404010	66406010	66408010	66409010	66412010	66418010
Cartridge Filter (Fum	e)	F-32	F-42*	F-64	F-84*	F-96	F-126*	F-144
Intake connection	Ø	280	280	355	355	355	355	450
Number of cartridges		2	2	4	4	6	6	9
Filter surface	m²	32	42	64	84	96	126	144
Order Number		66503210	66604210	66506410	66608410	66509610	66612610	66514410
Cartridge Filter (PC*)		F-168	F-189*	F-192	F-252*	F-288	F-378*	Order num
3								unit with 1
Intake connection	Ø	2 x 355	450	2 x 355	2 x 355	2 x 450	2 x 450	combination

 Cartridge Filter (PC\*)
 F-168
 F-189\*
 F-192
 F-252\*
 F-288
 F-378\*

 Intake connection
 Ø
 2 x 355
 450
 2 x 355
 2 x 355
 2 x 450
 2 x 450

 Number of cartridges
 8
 9
 12
 12
 18
 18

 Filter surface
 m²
 168
 189
 192
 252
 288
 378

 Order Number
 66616810
 66618910
 66519210
 66625210
 66528810
 66637810

Order number for filter unit with 100I collection container. For other combinations please inquire with us.

Collection Container	50	100	200	
Content	1	50	100	200

Control Cabinet		Standard	Standard	Standard	Comfort	Comfort	Comfort
Output	KW	3,0 - 4,0	5,5 - 7,5	11,0 - 15,0	3,0 - 4,0	5,5 - 7,5	11,0 - 15,0
Order Number		302110	302310	302510	302210	302410	302610

For other system control units please inquire with us.

<sup>\*</sup> pleat corrugation



### Ventilation of Production Facilities

In some production areas or manufacturing processes, particle size or other production conditions make it impossible to extract fumes directly. For this, ESTA offers various concepts for hall ventilation.

Here all the air in these spaces is cleaned of smoke and dust particles to comply with applicable regulations and to create a pleasant environment in the hall.

The core of this concept is the WELDEX series. Its modular design handles any volume of air and allows combination with additional devices, such as heat exchangers, heating and cooling registers, etc.

The ESTA FILTOWER series filter tower works as a freestanding system to clean the air in the hall without a pipeline connection.

This allows the system to be moved anywhere within the hall, at any time, and at no cost.

#### **Ideal for**

Cleaning the hall's air of welding fumes, oil mist and airborne dusts through thermal ventilation.



#### Your Benefits

- » Reduction of the operating costs through energy efficient designs including heat reclamation
- » Flexibility in the work area (no changes in the pipe systems are required in the event of machine layout changes)
- » Constantly optimised fresh air quality
- » Minimal life cycle costs with ESTA filter cleaning service







ESTA Upstream Stratification Ventilation

### ESTA Upstream Stratification Ventilation

- » Building ceiling height > 7,5 m
- » High thermal loads, welding rod consumption > 10 tons per year
- » Fresh air supply vents near the floor to generate a layer of cool air
- Sensors for continuous temperature measuring and fully automated control of the fresh air volume
- » Low air flow rates sufficient
- » Suitable for cooling

### ESTA Push Pull Mixing Ventilation

- » Building ceiling height < 7,5 m
- » Low thermal loads, welding rod consumption < 10 tons per year</p>
- » Special long-range air jets
- » Two pipe systems located opposite of each other
- » Suitable for heating and cooling

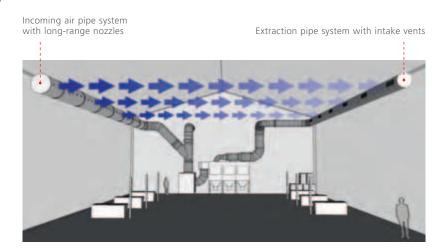
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### Ventilation of Production Facilities

#### **ESTA Push Pull Mixing Ventilation**

#### **Operating Principle:**

- » Fresh air supply and contaminated room air are mixed vigorously
- » Temperature and contaminant concentration are equally distributed in the work area
- » A stream of air is blown into the room from the wall on one side - horizontally to the room and then extracted at the wall on the opposite side of the room
- » The filtered air can be returned and summer/winter operation is possible through an air handling unit with optional heat reclamation, heating and cooling





Product-Video

#### **ESTA Upstream Stratification Ventilation**

#### **Operating Principle:**

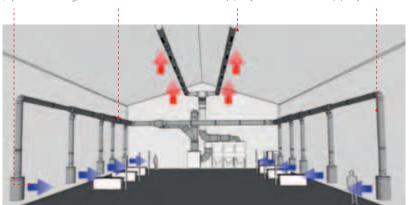
- » The plume generated at the welding location transports heat and contaminants to the upper area of the manufacturing facility
- » At the floor level of the plant the flow volume generated by the updraft is replaced by a cooler low flow air supply
- » Consequently two separate layers of air are forming in the production facility – one with fresh air in the work area and one with contaminated air in the upper part of the facility
- » Return of filtered air and summer/ winter switchover through an air handling unit with optional heat reclamation, heating and cooling
- » Fully automated control of the fresh air volume via temperature sensors

Low flow air supply into the plant with Fresh air intake room temperature (Optional: Cooling) <4° C at air inleat

Extraction pipe system Air supply pipe system

#### **Your Benefits**

- » ESTA layout planning according to VDI/DVS guideline 6005 and TRGS regulation 528/560
- » Software supported customised consulting at the customer's premises
- » Visualisation of the ventilation system prior to the installation



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ESTA
THE WORLD OF EXTRACTION

### **NEW**





- » For welding fume extraction for air volumes up to150,000 m³/h
- » Compactly combined into one compact system thanks to modular design – only minimal power losses as a result

#### Your Benefits

- » Short assembly times on-site due to precisely fitting pre-assembled system components
- » All components integrated in weatherproof housing
- » Patented ESTA QuickChange filter replacement system for fast and dust-free filter replacement
- » Easy access to all system components
- » Wide range of control options including ESTAeco<sup>+</sup> controller for minimal energy consumption

#### Application areas

- » Ventilation during welding work, push-pull method and layer ventilation
- » Welding fume extraction on hoods and extraction arms
- » Booth extraction
- » Extraction in robot welding and at automated production lines
- » Extraction from thermal, plasma and laser cutting tables

#### **Technical Data** (1 Modul)

Filter unit WELDEX		F225
Filter surface	$m^2$	225
Filter elements	Piece	9
Dimensions (L/W/H)	ca.mm	$2.090 \times 1.450 \times 3.850$
Weight	ca. kg	1.500

Technical data per filter unit

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### **NEW**

Modular Welding Fume Filter System

### WELDEX

#### 1 Raw gas inlet

The extracted welding fumes are led into the filter unit by a piping system.

#### 2 Filter chamber

The pre-separation system effectively filters coarse particles and sparks. 99.9% of fine particles are separated by filter cartridges with automatic dedusting.

#### **3** Air recirculation

The fan unit feeds the cleaned air back into the production hall or into the atmosphere. A police filter can optionally be used.

### Fresh air modul (optional)

The fresh air module ensures the supply of fresh outdoor air in the production hall. The summer and winter switchover of the system is possible without the functional principle of the layer or push-pull extraction being impaired.

### **5** Dust discharge

Spacious dust collectors with rollers ensure ergonomic and lowdust disposal. Other discharge options are also available.



3

### Designs and variants

Raw gas

- » Also available in eco+-version
- » Combination with air handling unit for supply air mode or air-conditioning with heat recovery/cooling

Ambient air Exhaust air Circulating air Supply air (return air)

- » Modular expandable up to 6 filter units
- » Filter materials suitable for the particular application
- » IFA test certificate W3 for air return for high-alloyed materials (submitted for testing)
- » Pre-separator and extinguishing systems to minimize the risk of fire in the event of flying sparks
- » Dust discharge through lock gates/screw conveyors into BigBag (optional)
- » Different control variants available
- » Special coating

#### **Application examples**



1 filter unit + 1 fan unit



3 filter units + 1 fan unit

Many other designs/combinations possible.

### Extraction Hoods



Extraction hood with compressed air injection

#### Ideal for

All manufacturing processes in which dust, shavings, fumes and smoke gases to be detected and derived



Extraction at a robotic workstation

### **Application Examples**



Slotted extraction hoods in the automotive industry



Extraction wall with perforated metal insert



Large surface extraction hood in the concrete industry



Oval hood in the cosmetic industry



Specialized hood 120 x 30 cm



Extraction of aluminium shavings

#### Special Features

- » Wide range of standard hoods
- » Individual calculation of the extraction hoods according to ventilation technologically optimised principles
- » **NEW** Pipe pre-separator
- » Recommended for the best possible extraction of dust and fumes-Maßgeschneiderte Haube

### Your Benefits

- » Tailor-made hoods for almost any application
- » Wear resistant and low maintenance designs

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### Acoustic Booths



In many processes, the entire or part of housing of machines, robots or work is required.

ESTA provides purpose-dusting and aerodynamically optimized cabins as standard or special design. Ideal in combination with an ESTA extraction or connection to an existing extraction system.

#### Ideal for

Machine or robot enclosures

Work booths

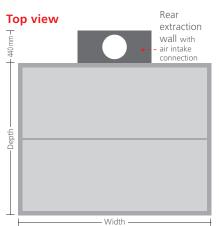
Grinding workstations

Welding fumes / dust



Mobile extraction booth for rotor blade production

## Front view Rear extraction wall Coarse dirt drawer Lamella (Curtain)





4-grinding cabin with roll-up doors

### Special Features

- » Standard selection and customer-specific designs
- » Additional options available, such as lighting, windows, dollies, etc.
- » **NEW** Pipe pre-separator
- » For welding fumes or dusts

#### **Your Benefits**

- » Optimal smoke and dust extraction
- » Sound-attenuated suction booths

#### Technical Data

Width mm*	Height mm*	Depth mm*	Mounting surface ca. m²	<b>Volume</b> ca. m³			Portal with support midway Quantity	Order- Number
2.000	2.500	2.000	4,0	10,0	3.500	1	-	30008500
2.500	2.800	2.500	6,5	18,5	4.375	1	_	30008502
3.000	2.800	3.000	9,5	27,0	5.250	1	_	30008505
4.000	2.800	4.000	16,5	47,0	7.000	2	_	30008510
5.000	2.800	4.000	20,5	58,5	8.750	2	1	30008514
6.000	3.000	4.000	25,0	76,5	10.500	3	1	30008518

<sup>\* =</sup> Interior dimensions (Wall thickness = 60 mm)

<sup>\*\* =</sup> Rear extraction (Width x height x depth) 1.000 x 1.000 x 500 mm, with coarse dirt drawer, integrated in the 60 mm thick rear extraction wall, air intake connection DN 315 mm

Filter Towers

### References

### Holz Carwash Systems – Senden, Germany

ESTA Sales and Distribution Partner



## Dust extraction system for cleaning car interiors at car washes, filling stations and auto dealers

Central vacuum systems are gaining increasing popularity for commercial use in cleaning the interior of vehicles.

Theoretically an unlimited number of vacuum stations can be set up whereby the vacuum performance remains constant.

Central vacuum systems make much more efficient use of your property (number of possible vehicle vacuum stations) compared to solutions with individual vacuum systems.



Central Car Cleaning System for outdoor installation



Inner workings of the CENTRAL CAR CLEANING SYSTEM



Dust extraction at multiple vacuum locations



With crevice tool for easy cleaning of the interior space



The mobile dust collection container with an inserted plastic bag allows easy, dust-free disposal of extracted dirt



A rigid pipe installation connects the vacuum locations with the cyclonic filter



Contact us for a brochure with more detailed information.

Central Extraction Systems

### References

### Daimler Research Centre, Ulm

Research and Development (Automotive Industry)

Direct extraction of dust and shavings in model building applications and from different machines



Research centre, Ulm Germany



Extraction system with custom paint finish positioned outside

High vacuum extraction system with a 13 kW side channel blower and cyclonic filter FZ-1500 for general clean-up purposes and for direct extraction from different machines

Medium pressure system with 7.5 kW fan unit and cyclonic filter FZ-5000 for direct extraction of dust and shavings in model building

### Philip Morris, Berlin

Tobacco Industry

Extraction of tobacco particles at several extraction locations and on several production levels



Pipe system for exhaust air with integrated cooling system

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Filter system with dust removal through rotary valves and parallel operating rotary piston blowers

Two separate systems with 86 and 65 extraction locations (flapper valves where hoses can be plugged in) on five and three production levels

Simultaneous operation of up to eight extraction locations at each production level

Operating Point: Appr. 4,200 m3/h at 220 mbar

Five rotary vane vacuum pumps DKG 18.5 kW

Two cyclonic filters FZ-5000

ESTA
THE WORLD OF EXTRACTION

### References

### Weckerle - Peißenberg and Le Locle - Switzerland

Cosmetics Industry

Pigment extraction at a mixer n the production of cosmetics



Source capture with two extraction arms



Filtration unit with separate fan unit

Filtration unit DUSTMAC XP-90

Medium pressure fan MDV-11kW

Control unit 11 kW

Pipe system and extraction arms

### PERI GmbH – Weißenhorn

Shuttering · Formwork · Engineering

Welding fumes are extracted from the air in the production hall with the extraction system attached to the roof. Hall extraction system for 23 welding workstations (ESTA upstream stratification ventilation).



Hall ventilation system on the roof of the production hall

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DUSTMAC F-945 filter unit

ATEX design

Two medium-pressure fans MDV-45 kW (75.000 m³/h bei 3.500 Pa)

Heat recovery

Pipe system with return air grille

Discharge through screw conveyor

Central Extraction Systems

### References

### Stegherr – Jettingen, Germany

Plastics Industry

Extraction of shavings during plastics profiling



Pipe system with connection for extraction hoses



Extraction system DUSTMAC XS-17 with fan mounted on top

Filtration unit DUSTMAC XS-17

Medium pressure fan MDV-4kW

Motor protection switch

Muffler Ø 300-900 mm

Pipe system

### Allgaier Werke – Uhingen, Germany

**Automotive Supplier** 

Metal grinding dust from processing automotive parts is vacuumed by an extraction wall in a grinding booth



Extraction hood inside a sanding cabinet



Filtration unit DUSTMAC XF-64

DUSTMAC XF-64 with discharge cone

Medium pressure fan MDV-7.5 kW (3,400 m3/h at 3,000 Pa)

Control cabinet standard

Extraction hood 3,000 x 800 x 350 mm

Sound insulated housing, 9,000 x 5,000 x 4,090 mm, with slid-

ing doors and power supply unit

Pipe system

Extraction accessories

Filter Towers

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ESTA THE WORLD DE EXTRACTION

### References

### IVECO MAGIRUS – Ulm, Germany

Automotive Manufacturer

Extraction of plastic dust from glass fibre reinforced materials used in manufacturing automotive components



Downdraft table with wood lattice grate work surface and extraction arm



Extraction unit DUSTMAC-F-64

Filtration unit DUSTMAC F-64 (7.300 m3/h at 3.800 Pa)

Downdraft table A 2080 with wood work surface

Pipe system and Extraction arm

### Robert Bosch – Stuttgart, Germany

**Automotive Supplier** 

Residual dust extraction during the cleaning of the production line



Control unit with monitoring lamps



Cyclonic filter FZ-1003 with 100 Litre collection container

Cyclonic filter FZ-1003 with fill level monitoring

Side channel blower TDP-22 kW (2,100 m3/h at 27,000 Pa)

Control unit Comfort

Pipe system

Vacuum accessories

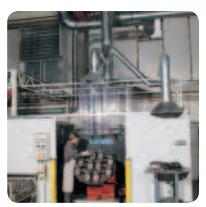
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### References

### SAF - Wörth am Main

Auto Body Production

Extraction of welding fumes and grinding dust from nine workstations and two welding robots



Extraction at a robotic welding station



Modular filtration unit

Filtration unit DUSTMAC-XF 432

Medium pressure fan MDV-45 kW (22,000 m3/h at 2,800 Pa)

Pipe system
Nine extraction arms,
Total length of the pipe system:
90 m

### FAIST Anlagenbau GmbH – Krumbach (Schwaben), Germany

System design

Hall ventilation system for welding fumes (ESTA Push Pull mixing ventilation)



Production hall with 24 welding workplaces

120



DUSTMAC Filtration unit with Extraction fan and Supply air fan

Filtration unit DUSTMAC F-567

Extraction fan 75 kW (45.000 m³/h bei 3.800 Pa)

Supply air fan 11 kW (13.500 m³/h bei 1.500 Pa)

Control unit with frequency converter

Pipe system with return air grille

ESTA
THE WORLD OF EXTRACTION

### References

### SAF-Holland GmbH

Vehicle construction

Welding fume extraction at manual workstations and robotic systems







Acoustic-protection booth

Filter unit DUSTMAC-F 567 2 × WELDEX F-150

Medium-pressure fan MDV-75 kW 2 × medium-pressure fan MDV-15 kW

15 hoods at robotic workstations 30 extraction arms at welding stations

### Groß Rotorblattfertigung GmbH

Wind energy sector

Extraction of GRP / CFRP dust created during the sanding of rotor blades



Mobile sanding station



DUSTMAC filter unit on sanding station

Filter unit DUSTMAC-F 144 with police filter H 13

Medium-pressure fan MDV 15 kW ex-model in device group II, zone 22 (non-conductive dust), category 3D, temperature class T3, added to filter unit in accordance with explosion-protection directive 94/9/EG (Atex)

50m mobile sanding station, soundproof, in torsion-resistant design with static proof

Dust-free removal with PVC bag

### References

### AWS Abfall Wirtschafts Service GmbhH

Recycling

Extraction of dust created during slag processing



Extraction unit DUSTMAC S-66 and medium-pressure fan



Extraction hoods over conveyor belts

DUSTMAC S-66 including burst disc and coarse separator

Medium-pressure fan MDV 22 kW

Comfort switchgear cabinet

Discharge via 2 rotary valves in big bags

### ALUTECH - Poland

Metal processing industry

Extraction of aluminium dust in grinding processes



Pipeline system in the production hall

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DUSTMAC F-567 filter unit

Filter unit DUSTMAC-F 567

Medium-pressure fan MDV 55 kW

Comfort control unit

Jacob pipe system

Discharge via screw conveyor in customer container

### References

### RIMAC Mauer, Germany

Mechanical engineering

Extraction of cement dust during the production of concrete (Concrete Plant)



Special design extraction hood



Tubular bag filter unit with separate extraction fan unit

Cyclone pre-separator with rotary valve and spout

Filtration unit DUSTMAC XS-66

High pressure fan HDV 22 kW (11,000 m3/h at 4,280 Pa)

Custom designed hood

Pipe system

Water spray injector in the extraction pipe

### Sunseeker – Rostock, Germany

Ship Building

Extraction of glass fibre reinforced plastic dust, in the ship building industry



Dust extraction with an application specific pipe system



Filtration unit with explosion protection

Cyclonic filter FZ-5003

Side channel blower with Housing TDP-18.5 (2,100 m3/h at 15,000 Pa)

Control cabinet Comfort

Pipe system with 100 flapper valves

Explosion protection

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### References

### Additional References



Schwenk, Ulm, Germany



Braas, Altheim, Germany



Uhlmann, Laupheim, Germany



Thyssen Krupp Nirosta, Düsseldorf, Germany



OWB, Kisslegg, Germany



Sofragraf, Saint Ame, France

### **Schwenk – Ulm**Cement Industry

#### **Braas – Altheim** Tile Manufacturing Plant

### **Uhlmann – Laupheim** Packaging Systems

### Thyssen Krupp Nirosta – Düsseldorf

#### Metal Production Plant

### **OWB – Kisslegg** Metalworking Industry

### Sofragraf – Saint Ame – Frankreich

#### Metalworking Industry

### ZI-Jena, Jena

#### Metalworking Industry

### Solidschuhwerk – Tuttlingen HAIX – Mainburg GABOR – Rosenheim

#### Shoe Industry

### Wacker Siltronic – Burghausen

### Chemical and Semiconductor Industry

### **EADS Deutschland – Augsburg**

### Aerospace Industry

#### Liebherr-Aerospace – Lindenberg

### Aerospace Industry

#### Wieland Werke – Ulm Metalworking Industry

### H. C. Starck – Hermesdorf

### Metalworking Industry

#### **Daimler – Bremen** Automotive Industry

#### Lamilux - Rehau

Plastics Industry

Spiral Seam Pipes

Steel pipes









### Application Range

- » Agricultural Businesses
- » Aircraft Industry
- » Automotive Repair Shops
- » Automotive Supplier Industry
- » Construction Industry
- » Engine Manufacturing Plants
- » Electronics Industry
- » File Shredding
- » Food Processing Industry
- » Machine Building Industry
- » Metalworking Industry
- » Mills
- » Paper Industry
- » Pharmaceutical Industry
- » Precision Mechanical Industry
- » Printing Industry
- » Plastics Processing Plants
- » Recycling and Waste Processing Facilities
- » Research and Development
- » Ship Building Industry
- » Shoe Manufacturing Plants
- » Tobacco Industry
- » Vehicle and Auto Body Plants
- » Welding Plants

Phone +49 73 07 3 40 96 80-0 Pipe Systems

### Introduction and Product Overview

#### Introduction

Even the best engineered extraction system is of little use if the design of the pipe system is not optimised. We use only high quality parts and materials for our pipe systems. In addition, our engineers calculate a ventilation technologically ideal design of the pipe system to ensure the best possible extraction performance of our equipment.

This type of care and thoroughness forms the basis of the "professional dust extraction" that customers expect from company ESTA.

For medium-pressure applications, ESTA offers a comprehensive selection of spiral seam ducts and moulded parts.



Extract air pipe with deflector hood

Steel pipes are used in high-vacuum extraction systems. Here also, ESTA offers all the pipes and moulded parts required for a complete solution to your system needs.



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Pipe Systems www.esta.com

### Spiral Seam Pipes

Pipeline systems are connected to the dust or smoke source for optimal flow to the extraction system. ESTA has a comprehensive selection of spiral seam ducts whose robust, premium workmanship and flexibility make them excellent for your specific requirements.

Correct design is important to achieving maximum suction, because a tight network of pipelines ensures an economical system.

This is why all ESTA moulded parts have a double-lipped seal. ESTA also has the connectors and fasteners you need.



# STAPLUS

#### **Application Range**

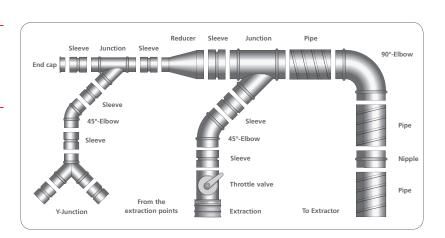
- » Pipe system in the medium pressure range
- » Suction or pressure side

#### **Features**

- » Galvanised sheet metal according to DIN \*) standard 24145
- » Standard length up to 3.0 m
- » Ø 71 mm 450 mm in stock \*\*)
- » Sheet metal thickness from 0.4 mm to 1.2 mm depending on pipe diameters

#### **Your Benefits**

- » Extensive range of parts
- » Ventilation technologically optimised
- » Heavy duty workmanship
- » Easy installation
  - \*) DIN = German Industry Standard
    \*\*) Larger diameters are available on short notice





Phone +49 73 07 3 40 96 80-0 Pipe Systems

### Steel Pipes

In contrast to spiral seam ducts, steel pipes are used for extraction systems in the high vacuum range. Whether moulded parts, gate valves or flap valves, ESTA offers a diverse range of products for custom-rolled steel pipes.

The steel pipe components are precisely adapted to one another to make air leaks almost impossible. Both their robust workmanship and their optimal flow characteristics get maximum performance from your extraction system.





Pipe system

### Application Range

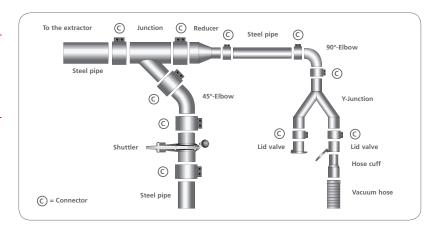
- » Pipe system in the high pressure range
- » Suction or pressure side

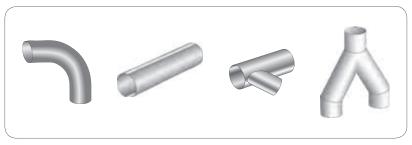
#### **Features**

- » Standard length up to 6.0 m
- » Outside diameters Ø 50 up to 159 mm available from stock
- » Patented pipe connector for potential equalization

#### **Your Benefits**

- » Extensive range of parts
- » Ventilation technologically optimised
- » Heavy duty workmanship
- » Easy installation





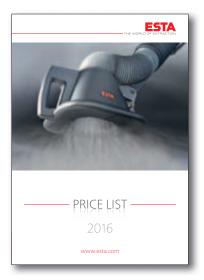
Steel pipes

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ESTA Price list



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ESTA eco+-Series



ESTA Maintenance Service

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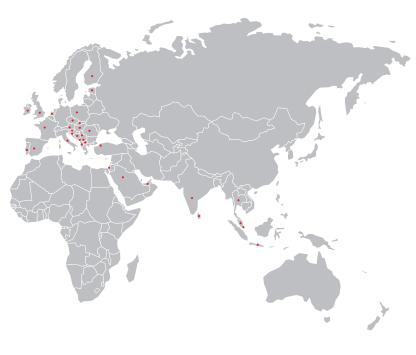
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- » Mobile Dust Extractors
- **»** Stationary Dust Extractors
- » High Vacuum Extraction Units
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- » Oil Mist Separators
- » Carbon Filters
- » Downdraft Tables
- » Extraction Fans
- » Extraction Arms
- » Hall Ventilation Systems
- » Central Extraction Systems
- » Pipe Systems

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- » USA

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