

ESTA

THE WORLD OF EXTRACTION








— PRODUCT CATALOGUE —

2021




www.esta.com

Legend










Types of filter cleaning

	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 and after 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 during normal operation.		Product Specific Approvals For products with BG test characters with character added a special aspect was examined
	ATEX-compliant devices (ATmosphere 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.
			



Philipp Raunischke
Managing Director
ESTA Apparatebau GmbH & Co. KG

Dear Customers and Friends of ESTA,

Over 90 percent of our customers would recommend us to others – that is the result of our customer survey conducted at the beginning of 2021. This gives us great pleasure and provides us with an incentive to continue developing for you. On behalf of the entire ESTA team, I would like to thank you very much for your trust and praise!

Since the outbreak of the corona pandemic, we at ESTA have been working intensively on the filtration of aerosols. And for good reason: the scientific community agrees that good air hygiene is fundamental in ensuring infection-proof indoor environments. With almost 50 years of expertise in air purification, we therefore recommend the use of our **mobile air purifier VirBox®** to our customers. In combination with regular intermittent ventilation, this ensures a permanently infection-proof working environment and thus undisturbed operational processes. Thanks to its compact design, the virus filter can be integrated quickly and easily into your production areas, open-plan offices, conference rooms, showrooms and sales areas. In this way you will make an important contribution to protecting the health of your employees and customers and convey a sense of security.

All information on the VirBox® series can be found on page 50 onwards.

Incidentally, the devices are also ideally suited for the separation of flu and cold pathogens, and allergy sufferers also benefit from the lower levels of pollen and fine dust in the air.

Introducing the new AirBox family

True to the motto "clean air can be so simple", our new AirBox® family scores with its versatility for numerous applications and its extremely compact unit design.

In addition to an attractive purchase price, users benefit above all from the comparatively low operating costs thanks to the highly efficient EC drive technology.

The **mobile odour filter ActiveBox®** is suitable for stand-alone extraction wherever process-related, unpleasant odours arise. Thanks to activated carbon cartridges, the devices effectively reduce odour pollution in the workplace. Further information can be found on page 57.

Competent, personal & individual

Do you have any questions about our extraction solutions, or would you like advice on your individual application – also at your premises? A phone call or a short email is all it takes, and our experienced staff will be happy to help you, including digitally via video call, with any questions you may have about ESTA extraction technology.

Stay safe,

Yours

Philipp Raunischke

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Table of Contents

	Page
Your specialist for extraction technology	3
Dust Extractors	
Equipment overview by pollutants	5
Introduction and Product Overview	6
Mini Dust Collectors TK, TK-2.2, OM	9
Mobile Dust Extractors DUSTOMAT S-Series	11
Mobile Dust Extractors DUSTOMAT-10 and -16 M	12
Mobile Dust Extractors DUSTOMAT 4 / <i>eco</i> ⁺	14
Pre-separators for DUSTOMAT 4 / <i>eco</i> ⁺	16
High Vacuum Power Dust Extractor DUSTOVAC	17
Compact Dust Extractor ESTMAC D	18
Compact Dust Extractor MOBEX P / <i>eco</i> ⁺	19
Wet Separators NA-K	21
Wet Separators NA-500 / NA 1.1 / NA-2.2 SK	23
Modular Extractor DUSTMAC P	24
Modular Extractor DUSTMAC S	25
Cyclonic Pre-Separator ZA	26
High Vacuum Extraction Units	
Equipment overview by pollutants	28
Introduction and Product Overview	29
High Vacuum Extraction Units	
EUROSOG, DUROSOG, WHISPERSOG	30
Central Vacuum Cleaner CENTRASOG CVS 2.0	35
Wet and Dry Vacuum MULTISOG	36
Pre-Separator Systems for Industrial Vacuum Cleaners	37
Welding Fume Filters	
Introduction and Product Overview	39
Mobile Welding Fume Filter AirBox® NEW	40
Mobile Welding Fume Filters SRF K	41
Portable Welding Fume Filters SRF T	44
Mobile Welding Fume Filters DUSTOMAT 4	45
Stationary Welding Fume Filters MOBEX F / <i>eco</i> ⁺	46
Modular Welding Fume Filtrig Systems DUSTMAC F	48
Air Purifier NEW	
Room Air Cleaner VirBox®	50
Room Air Cleaning System TowerBox®	52
Oil Mist Separators	
Oil Mist Separators 800 through 3000	54
Carbon Filter	
Odour filter ActiveBox® NEW	57
Downdraft Tables	
Downdraft Table TableBox® Air NEW	59
Downdraft Table TableBox® Active NEW	60
Welding/Grinding Downdraft Tables A	61
360°-Suction Table	63
Plasma-cutting Table	64

Sound emission ratings according to DIN EN ISO 3744
We reserve the right to make technical changes

Extraction Fans

Introduction and Product Overview	66
Extraction Fans RG-100 to RG-800	67
Extraction Unit RG with Extraction Arm	68
RG with Ball-Joint Extraction Arm	69
Mobile Extraction Unit RG with Dust Filter Bag	70

Extraction Arms

Introduction and Product Overview	72
Extraction Arms with Flanged Hood	73
Extraction Arms with Efficiency Hood	74
Extraction Arms with Square Hood	75
Ball-Joint Extraction Arm	76
Laboratory Extraction Arm 50 D	77

FILTER Towers

FILTOWER	79
FILTOWER F – for fumes	80
FILTOWER D – for dusts	81
FILTOWER L – for oil- and emulsion mist	81
FILTOWER <i>eco</i> ⁺	82
FILTOWER 4.0	82
FILTOWER <i>ecotemp</i>	83

Central Extraction Systems

Introduction and Product Overview	87
Switch cabinets for every requirement	88
Side Channel Blowers	89
High and Medium Pressure Fans	90
Rotary Piston Blowers	91
Cyclonic Filtration Units	92
Modular Extractors DUSTMAC	93
Modular Welding Fume Filter System WELDEX	96
Hall ventilation systems	98
Extraction hoods	100
Soundproofed Cabins	101
References	102

Pipe Systems

Introduction and Product Overview	113
Spiral Seam Pipes and Formed Parts	114
Longitudinally welded pipes	115
Steel Pipes and Formed Parts	116

About us

What sets us apart	117
Energy-efficient extraction technology	120
Smart extraction technology	121
Quality from our own production	122
Innovation & Know-how	123
Clean the air – plant a tree	124
Original Equipment Manufacturer/OEM	125

Interesting information

Guidelines and regulations	126
What You Should Know About Dust	127
Fire protection and ATEX	129

You may already know?

ESTA is the acronym for “Elektro-Staub-Absauggeräte” (Electric Dust Extraction Equipment).

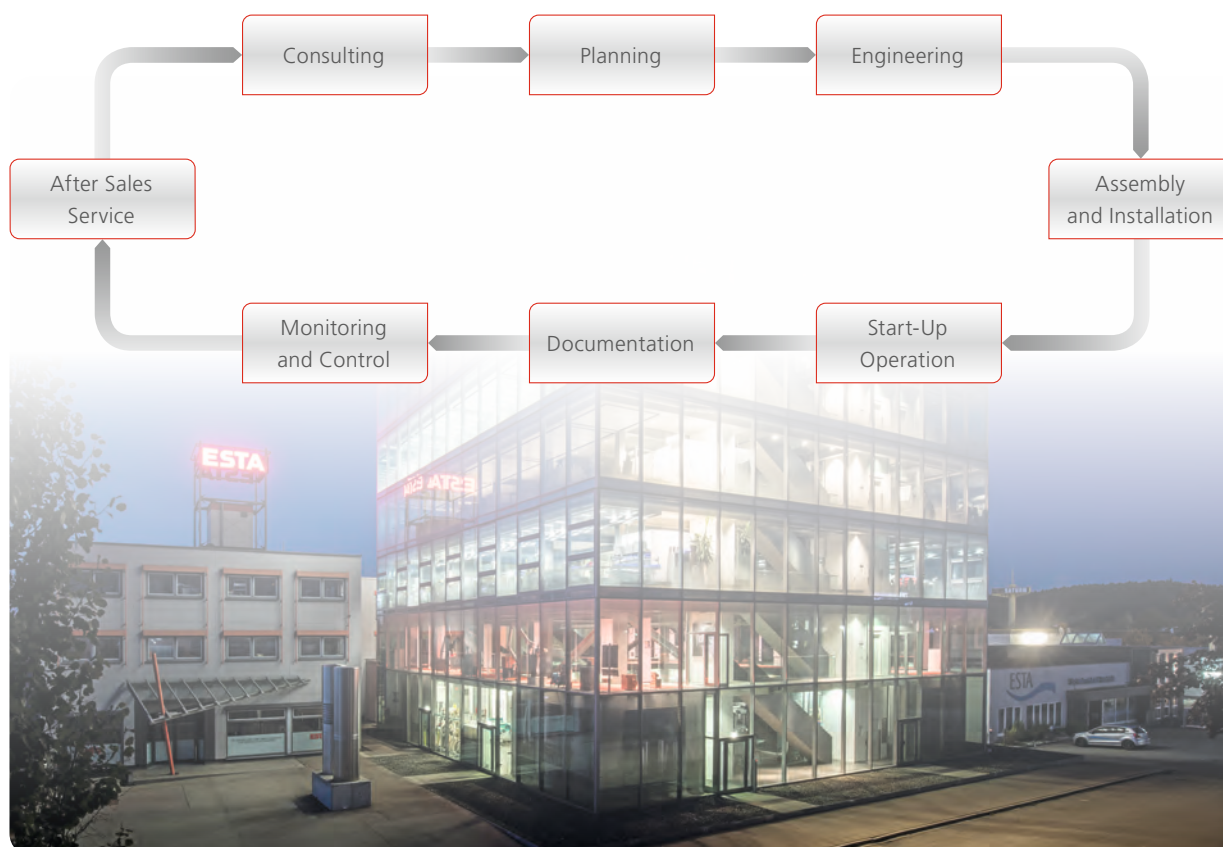
For over 45 years, we have offered a broad spectrum of innovative products and custom solutions in the field of extraction technology.

The product range covers

- » Mobile Dust Extractors
- » Fixed Extraction Systems
- » High Vacuum Extraction Units
- » Welding Fume Filter
- » Air Purifier
- » 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:

- » Over 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
- » Own switch cabinet construction
- » Large high-bay storage



Dust Extractors

For ultimate flexibility in extracting and filtering dust laden air

TK/TK-2.2

OM

DUSTOMAT S

DUSTOMAT-10/16 M

DUSTOMAT 4 / *eco*⁺

DUSTOVAC

ESTMAC D

MOBEX P/*eco*⁺

NA-K/NA

DUSTMAC P and S

Zyklone 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



Device overview according to harmful substances

	Dust Extractors												
	TK 4 / TK 6 / TK 2.2	OM	DUSTOMAT 100-S – 160-S	DUSTOMAT-10 / -16M	DUSTOMAT 4 / eco ⁺	DUSTOVAC	ESTMAC D	MOBEX P / eco ⁺	Wet separator NA-K	Wet separator NA	DUSTMAC P	DUSTMAC S	Cyclonic pre-separator ZA
Page	9	10	11	12	14	17	18	19	21	23	24	25	26
Aluminum dust									•	•			
Cotton fibres	•	•	•									•	
Concrete dust				•		•		•			•		
Chemical dust				•	•			•	•	•	•	•	•
CRP-/GRP-shavings	•	•										•	
Dental dusts						•							
Pigments				•		•		•					
Moist dusts									•	•			
Flock dusts	•	•	•									•	
Lint			•									•	
Foil tinsel	•	•	•									•	
Odors													
Spice dust				•		•		•			•		
Glass dust	•	•		•		•		•			•		
Graphite powder				•		•		•			•		
Rubber and leather dust	•	•		•		•		•	•	•	•	•	•
Plastic shavings	•	•		•		•	•	•				•	•
Plastic dusts	•	•		•	•	•	•	•			•	•	
Sticky dust			•						•	•			
Chalk				•		•		•				•	
Flour dust				•		•		•			•		
Metal shavings	•	•		•		•	•	•				•	•
Metal shavings (fraught emulsion)												•	
Metal dusts	•	•		•	•	•	•	•	•	•	•	•	
Mineral dusts				•		•		•			•	•	
Oil mist/aerosols													
Paper dust				•	•	•		•			•		
Scraps of paper	•	•	•									•	
Soot						•					•	•	
Welding Fume													
Stone dust				•		•		•			•	•	
Tabacco fibres				•									
Textile fibres	•	•	•									•	
Toner dust				•				•					
Cement dust				•		•		•			•	•	

This table lists only the best-known types of dust and does not claim to be complete. It serves for orientation and pre-selection of the suitable device. Before final purchase, however, you should contact the experts at ESTA, as this pre-selection should be checked again on the basis of a number of factors such as process, grain size or characteristics of the material. Service Hotline: **+49 7307 3409680-0**

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

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



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 **DUSTOMAT 4 series** are the ideal solution. These are now also available in the new, efficient **eco+** version.

Introduction and Product Overview

The dry dust extractors of the **ESTMAC D-series** are suitable as compact and inexpensive extraction solutions for the lower to medium performance segment. The units extract dry and free-flowing dust and offer a wide range of applications for many industries.

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.



Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

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
- » Sensors and actuators
- » 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
- » Production certified per DIN EN ISO 9001:2008 from DEKRA, IFA, etc.



A comprehensive range of accessories

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

Operating costs

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.

On-site installation

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 TK and TK 2.2



Mini dust collector TK

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

ESTAPLUS

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 to cleanable filter bag
- » Low maintenance

Data dependent on equipment type

Technical Data

Model		TK-4	TK-6	TK-2.2
Max. Airflow	m ³ /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 x 400 x 590	400 x 400 x 590	830 x 460 x 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

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Mini Dust Collectors OM



Mini dust collector OM

Application Range

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



Ideal for

- 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

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 to 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	m ³ /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

Mobile Dust Extractors

DUSTOMAT S Series



DUSTOMAT S

Application Range

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



Ideal for

- Flock dusts
- Foil tinsel
- Sticky dust
- Textile fibres
- Cotton dust



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

ESTA PLUS

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	m ³ /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	m ²	0.75	1	1	1
Dust collection container	l	100	200	200	200
Dimensions (L/W/H)	mm	1.075 x 530 x 1.075	1.653 x 782 x 1.353	1.653 x 782 x 1.353	1.653 x 782 x 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

* 400V-model

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Dust Extractors

Mobile Dust Extractors

DUSTOMAT-10 and -16 M



DUSTOMAT-10

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

ESTAPLUS

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	77
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

* 400V-model / ** with Test certificate M

Mobile Dust Extractors

DUSTOMAT-10 through -16 M

DUSTOMAT-16 M –

specifically designed for the stone industry



DUSTOMAT-16 M with extraction arm



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.

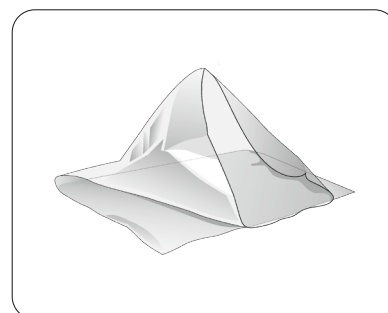
The DUSTOMAT-16 M mobile dust extractor comes with test certificate M for extraction of harmful dusts.



DUSTOMAT-16 M
– direct extraction of fine stone dust

Accessories

Special accessories for the DUSTOMAT series, such as extraction arms, floor cleaning set, various nozzles, pre-separators, etc. for the DUSTOMAT series can be found in our accessories catalogue.



Dust Extractors

Mobile Dust Extractors *DUSTOMAT 4*

Now also
available in
eco+ design!



DUSTOMAT 4

ESTAPLUS

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

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

Technical Data

DUSTOMAT		4-10	4-24	4-24 <i>ecopower</i>
Max. Airflow	m³/h	2.000	3.300	3.500
Intake diameter	mm	160	200	200
Max. negative pressure	Pa	2.600	3.600	5.000
Voltage	V	400	400	400
Motor	kW	2,2	4,0	5,5
Filter elements	Piece	2	2	2
Filter surface	m²	10	24	24
Dust collection container l		90 (42*)	90 (42*)	90 (42*)
Dimensions (L/W/H)	mm	1.460 × 935 × 1.440	1.660 × 935 × 1.640	1.660 × 935 × 1.640
Weight	kg	230	280	310
Sound emission	dB(A)	68	70	70
Order Number				
Standard		09730	09760	—
Tested to dust class H		09731	09761	09781
ATEX version		09732	09762	On request
<i>eco+</i>		09740	09770	09780

* with disposal box



Ideal for

- CFK/GFK-dust
- Chemical dust
- Metal dust
- Plastic dust
- Lint



* registered for certification



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

Mobile Dust Extractors

DUSTOMAT 4 *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.

DUSTOMAT 4 *eco*⁺ design:

- » ESTA EasyControl device control
- » Frequency converter for fan motors
- » Programmable timer



ESTA EasyControl is a newly-developed device control that ensures energy-efficient device operation. **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.



Dust Extractors

Mobile Dust Extractors

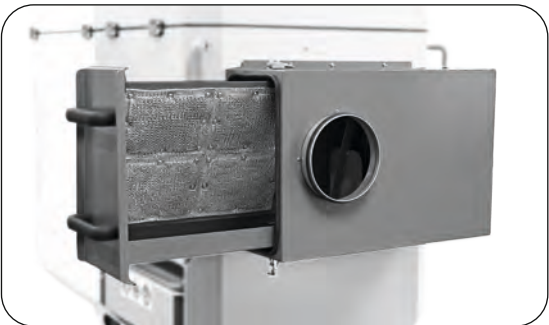
Pre-separator for *DUSTOMAT 4*



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

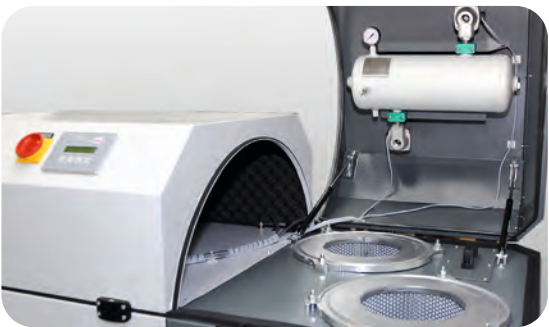
	Order no.
DUSTOMAT 4-10 H spark pre-separator	30125
DUSTOMAT 4-10 spark pre-separator	30160
DUSTOMAT 4-24 spark pre-separator	30200



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.

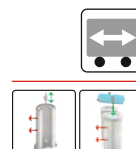
High vacuum dust extractor *DUSTOVAC*



DUSTOVAC

Application Range

- » Single and multiple-placedust-extraction in industry and trade
- » Free-flowing dust
- » Dry chips



Ideal for

- Concrete dust
- CFRP / GFRP dust
- Colour pigments
- Plastic chips
- Plastic dust
- Metal chips
- Metal dust
- Mineral dust
- Stone dust



Applying DUSTOVAC

Special features

- » Two filter cleaning methods: manual and jet-cleaning
- » Cleanable permanent filter-cartridges (dust class M)

Your benefits

- » High suction power for point-exact extraction with handheldpowertools
- » Low operating costs
- » Low-noise and usable in multi-layer operations
- » Patented tiltable filter housing for easy disposal of grouped goods
- » Suitable for almost all kinds of dust
- » Dust collection container 200 litres

Data dependent on equipment type

Technical Data

DUSTOVAC		5.5	7.5	13.0
Max. Airflow	m³/h	480	850	1.100
Intake diameter	mm	70	100	125
Max. negative pressure	Pa	24.500	25.000	22.000
Voltage	V	400	400	400
Motor	kW	5.5	7.5	13.0
Filter surface	m²	9.6	9.6	9.6
Dimensions (L/W/H)	mm	1.830 × 782 × 2.040	1.830 × 782 × 2.040	1.830 × 782 × 2.040
Weight	kg	230	334	390
Sound emission	dB(A)	68	77	79

Order Number

Manual filter cleaning	83.109	83.103	83.104
Pulse-jet filter cleaning	83.112	83.107	83.108

Dust Extractors

Compact dust extractor *ESTMAC D*



Application Range

- » Single and multi-user extraction of free-flowing and dry dust
- » Suitable for many applications
- » For direct suction on processing machines
- » For connection to collection hoods, extraction arms and smaller pipe systems



Ideal for

- Cuttings
- Metal dust
- Plastic dust
- Chipped plastics
- Dirt and chips

Special versions/accessories

- » Afterfilter cassette (dust class H)
- » Pre-separator for sparks, chips and dust
- » Activated carbon filter
- » Mobile version
- » Special enamel

Special features

- » Available in two power levels
- » Integrated impact separator for pre-separation of coarse and heavy particles
- » Cleaning by means of manual rotation nozzle

Benefits for you

- » Strong suction power in combination with compact utility space
- » Innovative device design ensures efficient air flow guidance, thus low operating and follow-up costs
- » Low operating noise; can, therefore, be installed directly in the working area
- » Mobile dust collection drawer for easy disposal
- » Robust processing of steel sheet for a long service life
- » High operating and maintenance friendliness

Data depending on model version

Technical Data

ESTMAC D		1500	1800
Max. Airflow	m³/h	1.500	1.800
Intake diameter	mm	160	160
Max. negative pressure	Pa	2.040	2.650
Voltage	V	400	400
Motor	kW	1.1	2.2
Filter surface	m²	7.5	15
Filter elements	Piece	1	2
Dust collection container	l	40	40
Dimensions (L/W/H)	mm	710 × 850 × 1.490	710 × 850 × 1.490
Weight	kg	170	180
Sound emission	dB(A)	71,3	73,3
Order Number		099.150	099.180

Compact Extractor *MOBEX P*

Now also
available in
eco⁺ design!



MOBEX P-24

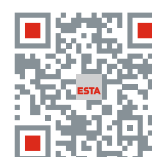
Application Range

- » 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.



Ideal for

- Metal dust
- Metal shavings
- Plastic shavings
- Plastic dust



Product-Video

Special Versions

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

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 (tested 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 pre-separation 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



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



MOBEX P-24 at a milling machine

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:

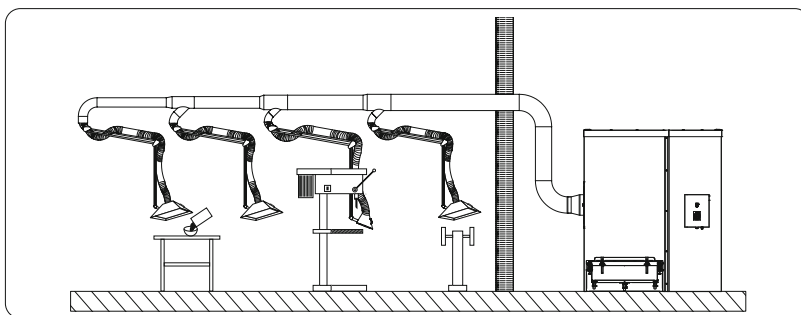
- » ESTA EasyControl device control
- » Frequency converter for fan motors
- » Programmable timer

ESTA EasyControl is the specially developed device control that ensures energy-efficient device operation. **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 workstations.

Technical Data

MOBEX		P-24	P-36	P-50
Max. Airflow	m³/h	2.800	4.500	5.600
Intake diameter	mm	200	250	300
Max. negative pressure	Pa	3.400	3.400	3.300
Voltage	V	400	400	400
Motor	kW	3.0	4.0	4.0*
Filter elements	Piece	2	3	4
Filter surface	m²	24	36	48
Dust collection container	l	100–150 (2 × 38**)	100–150 (2 × 38**)	100–150 (2 × 38**)
Dimensions (L/W/H)	mm	1.910 × 1.040 × 2.030***	2.030 × 1.040 × 2.030***	2.030 × 1.040 × 2.030***
Weight	kg	310	350	415
Sound emission	dB(A)	71	74	75
Order Number				
Standard		09.831	09.832	–
Tested to dust class H		09.833	09.834	–
ATEX version		09.840	09.841	–
eco⁺		09.842	09.843	09.852

* Different impeller ** with dust collection box *** without spark trap

Wet Separators NA-K



Wet Separator 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

Special Versions

- » Special voltage
- » Muffler
- » ATEX version
- » Type examination for aluminum dust extraction



Ideal for

- Moist dust
- Sticky dust
- Metal shavings
- Metal dust
- Aluminum dust
- Flammable dusts



NA-K in a tannery

ESTAPLUS

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	l	290	390	390
Sludge container	l	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 certificate	45.182	45.362	45.601
NA-K VA with design test certificate	45.180	45.360	45.600

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

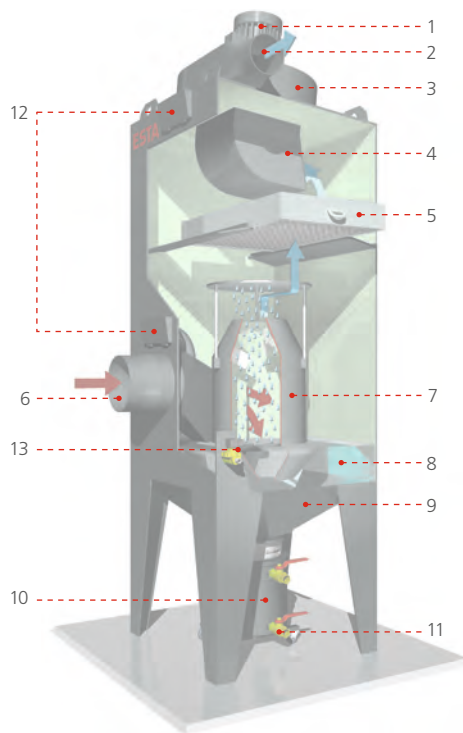
About us

Interesting
Information

Dust Extractors

Wet Separators

NA-K B / NA-K VA



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



Wet Separators

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



Wet Separator NA-500

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

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



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

ESTA PLUS

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	l	40	40	40
Collection container	l	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	–	45.712

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Dust Extractors

Modular Dust Extractors

DUSTMAC P (Cartridge Filters)



DUSTMAC P (with cartridge filters)

Application Range

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



Ideal for

- Chemical dust
- CRP-/GRP-dusts
- CRP-/GRP-shavings
- Metal dust
- Mineral dust
- Stone dust

Special Versions

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



The DUSTMAC series is also suitable for outdoor installation

ESTA PLUS

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 container l		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

Modular Extractors

DUSTMAC S (Tubular Bag Filters)



DUSTMAC S (with tubular bag filters)

Application Range

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



Ideal for

- Cotton dust
- Chemical dust
- CRP-/GRP-dusts
- Flock dust
- Plastic dust
- Chalk
- Metal shavings
- Paper strips
- Soot
- Cement dust

Special Versions

- » 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 to 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	m ³ /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	m ²	5	10.5	17	25	33
Hoses	Pieces	13	20	32	48	48
Dust collection container l		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 93

Cyclone Pre-Separators ZA



Cyclone Pre-Separator ZA

Application Range

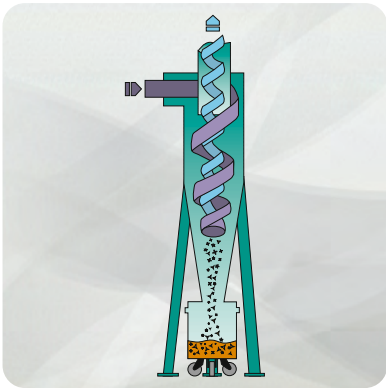
- » Can be used as primary filtration unit or pre-separator unit
- » For dry, pourable types of dust

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



Ideal for

- CRP-/GRP-dusts
- Chemical dust
- Rubber and leather dust
- Wood shavings
- Plastic shavings
- Metal shavings



Schematic description of product mechanics



Cyclone pre-separator ZA-160 application photo

ESTAPLUS

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 mm	Airflow volume Intervall m³/h	Collection container Liter	Height of cyclone mm	Order Number
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

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

EUROSOG-W / -I-D

DUROSOG-W / -I-D

WHISPERSOG

CENTRASOG
CVS 2.0

MULTISOG-1 and 4



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

Device overview according to harmful substances

	High vacuum extraction units						
		EUROSOG-W	EUROSOG-I-D	DUROSOG-W	DUROSOG-I-D	WHISPERSOG	CENTRASOG CVS 2.0
Page		30	31	32	33	34	35
Aluminum dust							
Cotton fibres					•		
Concrete dust		•	•			•	
Chemical dust		•	•	•	•	•	
CRP-/GRP-shavings		•	•			•	
Dental dusts		•	•				
Pigments							
Moist dusts							
Flock dusts				•	•		
Lint				•	•		
Foil tinsel				•	•		
Odors							
Spice dust		•	•				
Glass dust		•	•			•	
Graphite powder		•	•				
Rubber and leather dust		•	•				
Plastic shavings		•	•			•	
Plastic dusts		•	•			•	•
Sticky dust				•	•		
Chalk		•	•				
Flour dust							
Metal shavings		•	•				
Metal shavings (fraught emulsion)							
Metal dusts		•	•	•	•	•	•
Mineral dusts		•	•			•	
Oil mist/aerosols							
Paper dust		•	•	•	•	•	
Scraps of paper				•	•		
Soot							
Welding Fume							
Stone dust		•	•				
Tabacco fibres				•	•		
Textile fibres				•	•		
Toner dust						•	
Cement dust		•	•				

This table lists only the best-known types of dust and does not claim to be complete. It serves for orientation and pre-selection of the suitable device. Before final purchase, however, you should contact the experts at ESTA, as this pre-selection should be checked again on the basis of a number of factors such as process, grain size or characteristics of the material. Service Hotline: **+49 7307 3409680-0**

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 pre-separator 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 stationary dust extraction system **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** industrial vacuum cleaner.

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



High Vacuum Extraction Units

Industrial Vacuum Cleaner *EUROSOG-W*



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



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	m ³ /h	360
Intake diameter	mm	50
Max. negative pressure	Pa	18.600
Voltage	V	230
Motor	kW	3 × 1.0
Filter surface	m ²	2/5
Dust collection container	l	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

ESTAPLUS

Industrial Vacuum Cleaner *EUROSOG-I-D*



EUROSOG-I-D

Application Range

- » Recommended for clean up work of coarse and fine dust



Ideal for

- Cotton dust
- Wood shavings
- Wood dust
- Metal dust
- Mineral dust
- Paper dust
- Tabacco fibres

Gold Medal Award recipient from the Secretary of Economics for outstanding innovative achievements.



EUROSOG-I-D with floor nozzle for cleaning the shop

ESTAPLUS

Special Features

- » For continuous operation (DC version)
- » Manual brush cleaning mechanism for cleaning of the cartridge filter
- » Availability of cleanable cartridge filters for dust classifications M and H
- » Test certificates M, H and Zone 22 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 castors

Technical Data

EUROSOG		-I-D
Max. Airflow	m ³ /h	260
Intake diameter	mm	50
Max. negative pressure	Pa	19.500
Voltage	V	400
Motor	kW	2,2
Filter surface	m ²	2/5
Dust collection container	l	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/Zone 22 with TÜV-test certificate for dust classification M and additional test certification Zone 22*	81.397
EUROSOG-I-D/H/Zone 22 with TÜV-test certificate for dust classification H and additional test certification Zone 22*	81.297
EUROSOG-I-D ATEX version	81.200

*Suitable for vacuuming dry and flammable types of dust in zone 22

High Vacuum Extraction Units

Industrial Vacuum Cleaner *DUROSOG-W*



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



Ideal for

- Chemical dust
- 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.

ESTA PLUS

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	l	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

* Filter only with certified model

Industrial Vacuum Cleaner *DUROSOG-I-D*



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

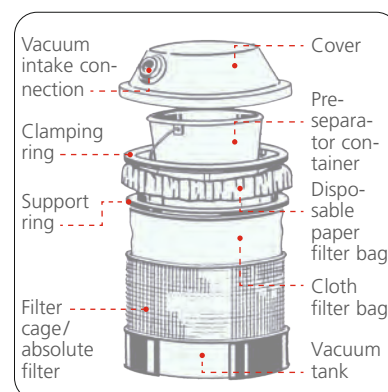


Ideal for

- Chemical dust
- Metal shavings
- Paper dust
- Tabacco fibres



DUROSOG-I-D in operation



ESTA PLUS

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 Zone 22** 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	m ³ /h	275
Intake diameter	mm	50
Max. negative pressure	Pa	22.000
Voltage	V	400
Motor	kW	2.2
Filter surface*	m ²	3
Dust filter bag	l	70
Dimensions (L/W/H)	mm	850 x 630 x 950
Weight	kg	80
Sound emission	dB(A)	72

Order Number

DUROSOG-I-D/N (Standard model)	8120N
DUROSOG-I-D/M (Dust classification M)	8120M
DUROSOG-I-D/H (Dust classification H)	8120H
DUROSOG-I-D/M/Zone 22 (Dust classification M, Test certificate Zone 22)	8121B
DUROSOG-I-D/H/Zone 22 (Dust classification H, Test certificate Zone 22)	8122B

* Filter only with certified model

** Suitable for vacuuming dry and flammable types of dust in zone 22

High Vacuum Extraction Units

Industrial Vacuum Cleaners

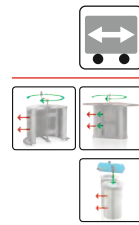
WHISPERSOG



High vacuum 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



Ideal for

- Cotton dust
- Plastic dust
- Mineral dust
- Paper dust
- Tabacco fibres



The WHISPERSOG is suitable for many applications



ESTA PLUS

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

WHISPERSOG		2,2	3,0
Max. Airflow	m ³ /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	m ²	2	2
Dust collection container	l	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-jet-cleaning	83.113	–

Central Vacuum Cleaner *CENTRASOG CVS 2.0*

NEW



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



Connecting of hand-held machines



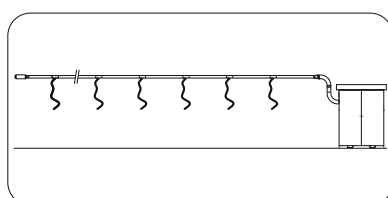
Ideal for

- Plastic dust
- Metal dust
- Dirt and shavings



Simultaneous car interior cleaning at multiple extraction points

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	Ø 36/50 mm	6/3	10/6	15/9
Filter surface	m²	16.0	16.0	16.0
Dust collection container	l	200	200	200
Dimensions (L/W/H)	mm	2.170 x 1.078 x 2.433		
Weight	kg	840	900	950
Sound emission	dB(A)	78	78	78
Order Number		87.500	87.600	87.700

ESTAPLUS

High Vacuum Extraction Units

Wet and dry vacuum

MULTISOG-1 and -4



MULTISOG-1



MULTISOG-4

Application Range

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



Ideal for

Dust

Dirt

Liquids



ESTA PLUS

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	-4
Max. Airflow	m³/h	215	250
Intake diameter	mm	36	50
Max. negative pressure	Pa	21.000	20.500
Voltage	V	230	230
Motor	kW	1.2	1.5
Dust collection container	l	35	35
Dimensions (L/W/H)	mm	500 x 500 x 840	600 x 500 x 900
Weight	kg	13	25
Sound emission	dB(A)	67	62
Order Number		4622	4533

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

Which pre-separator should be used for which application?

Dry	Wet	Light material and dust
Heavy, coarse substances and larger quantities of dust.	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.	Large quantities of light materials and dust should be collected in a disposable paper filter bag.
Scope of delivery	Scope of delivery	Scope of delivery
Wheel base, pre-separator container with plastic bag insert, cover with intake and outlet connection to the vacuum.	Wheel base, pre-separator container and strainer basket, cover with float valve and intake and outlet connection to the vacuum.	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 TR 1 with 100 liter container Order-Number: 1100	Pre-separator NA 1 with 100 liter container Order-Number: 1102	Pre-separator ST 1 with 100 liter container Order-Number: 1103
Pre-separator TR 2 with 200 liter container Order-Number: 1200	Pre-separator NA 2 with 200 liter container Order-Number: 1202	Pre-separator ST 2 with 200 liter container Order-Number: 1203

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

Welding Fume Filters

For precise capture and extraction of welding smoke

AIRBOX **NEW**

MOBEX F / *eco*⁺

SRF K-10/K-15

DUSTOMAT 4

SRF T-2/T-4

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





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

The welding fume filter **AirBox®** is a robust filter unit with suctionarms for low to medium smoke and dust quantities. The rotating and swivelling suction arm enables an operating radius of 360° and can thus be brought into any desired position.

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.



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.

Welding Fume Filters

NEW

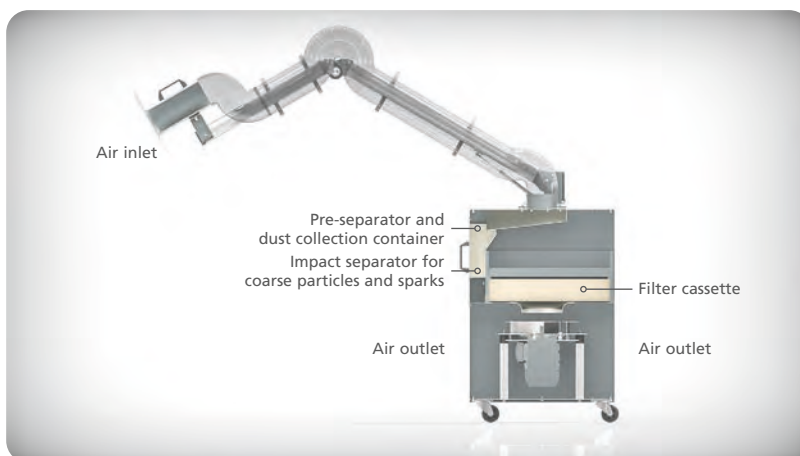
Mobile Welding Fume Filter

AirBox®



Application range

- » Stand-alone extraction with at-source collection in industry and trade
- » Suitable for welding fumes, free-flowing and dry dusts



ESTAPLUS

Special Features

- » Rotatable, flexible extraction arm for mounting on the device
- » A extraction hood with optimised flow technology and small size
- » Operating hours counter

Your Benefits

- » At-source fumes and dust collection
- » Suitable for continuous operation
- » Compact and handy design
- » For use at different, changing workplaces
- » Simple and dust-free disposal of the collected material through a drawer
- » Dust class M filter cartridge
- » Quiet and energy-saving operation thanks to EC technology

Data dependent on equipment type

Technical Data

		AirBox®
Max. Airflow	cfm	950
Intake diameter	mm	140
Voltage	V	230
Nominal frequency	Hz	50/60
Nominal current	A	2,2
Pre-fuse	A	16
Motor	HP	0.51
Filter surface	m²	13,57
Filter elements	Piece	3
Dimensions (L/W/H)	mm	692 × 660 × 959 ¹⁾ 2,262 × 660 × 1,976 ²⁾
Weight	kg (ca.)	100
Sound emission	dB(A)	68.5

Order Number

Standard	555.03
----------	---------------

¹⁾ Without extraction arm / ²⁾ With extraction arm

Mobile Welding Fume Filter *SRF K-10*



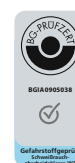
Mobile welding fume filter SRF K-10

Application Range

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



Test certificates (optional)



Special Versions

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



SRF K-10 in operation

Special Features

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

Your Benefits

- » Powerful capturing of the welding fumes
- » 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

Welding fume filter model SRF		K-10
Max. Airflow	m ³ /h	950
Intake diameter	mm	140
Max. negative pressure	Pa	2.800
Motor Power	V/kW	230 / 1.3
Filter surface	m ²	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

IFA*) = German Institute for Occupational Health and Safety

Welding Fume Filters

Mobile Welding Fume Filter SRF K-15



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



Test certificates (optional)



SRF K-15 with pipe system

ESTAPLUS

Special Features

- » Filter cleaning with compressed air gun (manually)
- » 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 SRF		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. cert.	55.229
Man. operated rotating filter cleaning	70 269 130

IFA*) = German Institute for Occupational Health and Safety

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

Wall Console



Metal bracket for wall mounting of the welding fume filter.

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

Welding Fume Filters

Portable Welding Fume Filter

SRF T-2 / SRF T-4



Portable welding fume filter SRF T-2



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

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



Test certificates (optional)

W3



SRFT-2

Gefahrstoffgeprüft
Schweißrauch-
abscheideklasse W3

Special Versions

- » Exhaust air connection
- » Special voltage
- » IFA Test Certificates W3 (SRF T-2) for high-alloy metals
- » 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	m ³ /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 ²	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

* available in W3-tested Version

Mobile welding fume filter *DUSTOMAT 4*



DUSTOMAT 4



Areas of application

- » Single and multiple extraction points in industry and crafts
- » Dry, free-flowing, non-combustible welding fumes
- » For extraction of fume from steel with alloy content of e. g. nickel and chrome $\leq 30\%$ and high-alloy steels (according to DIN EN ISO 15012-1-2005)

Special models

- » ATEX version
- » Spark pre-separator (optional)
- » Version with frequencyconverter
- » Stationary design
- » Special enamel
- » Also available as an untested variant for welding fumes
- » Other models on request

Special features

- » Integrated impact separator for pre-separation of coarse and heavy particles
- » Sensor technology for volume flowmonitoring and output-control

Benefits for you

- » Strong suction power in combination with high mobility
- » Innovative device design guarantees efficient air currentguidance, thus low operating costs
- » Very low operatingnoise; can, therefore, be installed directly in the working area
- » Mobile dust collectordrawer for easy disposal
- » New housing design, ensures small utility space
- » High operating and maintenance-friendliness

Data depending on model version

Technical Data

DUSTOMAT		4-10 W3	4-24 W3	4-24 W3 <i>ecopower</i>
Max. Airflow	m ³ /h	2.000	3.300	3.500
Intake diameter	mm	160	200	200
Max. negative pressure	Pa	2.600	3.600	5.000
Voltage	V	400	400	400
Motor	kW	2.2	4.0	5.5
Filter elements	Piece	2	2	2
Filter surface	m ²	10	24	24
Dust collection container l		90 (42*)	90 (42*)	90 (42*)
Dimensions (L/W/H)	mm	1.460 × 935 × 1.440	1.660 × 935 × 1.640	1.660 × 935 × 1.640
Weight	kg	230	260	280
Sound emission	dB(A)	68	70	70
Order Number				
Standard		09.733	09.763	–
With HEPA 14 filter		On request	–	–
<i>eco+</i>		09.739	09.769	09.782

* With disposal box / Extraction arm available separately

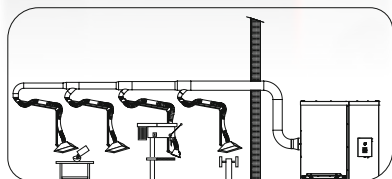
Welding Fume Filters

Stationary Welding Fume Filters

MOBEX F



MOBEX F-60



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

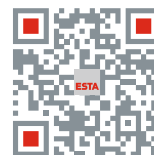
Application Range

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



Test certificates (optional)

W3



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
- » Pipe pre-separator
- » Spark pre-separator
- » Extinguishing device



MOBEX F-40 with extraction arm

Technical Data

MOBEX		F-40	F-60	F-80
Max. Airflow	m³/h	2.800	4.500	5.600
Intake diameter	mm	224	280	300
Max. negative pressure	Pa	3.400	3.400	3.300
Voltage	V	400	400	400
Motor	kW	3,0	4,0	4,0*
Filter elements	Piece	2	3	4
Filter surface	m²	28	42	56
Dust collection container	l	100 – 150 (2 x 38**)	100 – 150 (2 x 38**)	100 – 150 (2 x 38**)
Dimensions (L/W/H)	mm	1.910 x 1.040 x 2.030***	2.030 x 1.040 x 2.030***	2.030 x 1.040 x 2.030***
Weight	kg	310	350	415
Sound emission	dB(A)	71	74	77
Order Number				
Standard		09.837	09.838	–
With spark pre-separator		09.837 FA	09.838 FA	09.853 FA
With test certificate W3		09.835	09.836	–
eco+		09.848	09.849	09.853

* Other impeller ** with dust collection box *** without spark trap

ESTAPLUS

Special Features

- » A new sandwich-panel housing design
- » Pulse-jet filter cleaning
- » Integrated impact separator

Your Benefits

- » Low operating costs thanks to cleanable permanent filter (Dust classification M)
- » Long filter life due to a pre-separation 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

Stationary Welding Fume Filters

MOBEX F *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 F *eco*⁺ design:

- » ESTA EasyControl device control
- » Frequency converter for fan motors
- » Programmable 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.

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Welding Fume Filters

Modular Welding Fume Extraction System

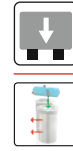
DUSTMAC F



DUSTMAC F

Application Range

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



Test certificates (optional)

W3



Special Versions

- » IFA-Test Certificate W3 for high-alloy metals
- » Pipe pre-separator
- » ATEX-version
- » **Special Control cabinet series**
- » Custom paint finish



Central welding fume extraction system DUSTMAC F in the chemical industry

ESTA PLUS

Special Features

- » Control cabinet series Basic or Comfort
- » 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 l		50	50	50	50	50
Dimensions (L/W/H)	mm	1.300	1.400	1.400	1.820	1.850
		× 1.039	× 1.350	× 1.350	× 1.450	× 1.900
		× 3.250	× 3.410	× 3.410	× 3.860	× 3.910
Weight	kg	440	540	540	740	880
Order Number		663.042	663.084	663.085	663.126	663.189

Compact device for filtering odors
and slight chemical exposure

VIRBOX® **NEW**

TOWERBOX® **NEW**



Application Range

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

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filter

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Air Purifier

NEW

Air purifier

VirBox®



Ideal for

Viruses

Aerosols

Allergens

Application Range

- » Room air extraction for various applications (i.e. bars, hotels, restaurants, doctors offices, fitness studios, work-shops etc.)
- » Permanent filtration of particle-laden air as well as virus-laden **aerosols** of indoor room air

ESTA PLUS

Special Features

- » **UV-C technology**
- » CO₂ Sensor (only VirBox 1500)
- » Sound insulation package
- » Motif foils for individual design

Your Benefits

- » Stepless adjustment of the air volume (from 200 to 1500 cfm)
- » Noise level in the range between 23 dB(A) up to 48 dB(A)
- » Efficient ambient air capturing
- » Filter cartridge with classification H14 – suitable also for viruses and bacteria (absorption rate: 99,995 %)
- » Application suitable for mobile and continuous operation
- » Compact and practical design
- » Easy filter change
- » Quiet and energy efficient operation due to EC-Technology
- » Timer

Data dependent on equipment type

Technical Data

		VirBox® 750	VirBox® 1500
Max. Fan power	cfm	1500	3500
Control range	cfm	200 – 750	500 – 1.500
Volume within the control range	dB(A)	25 – 48	23 – 48
Air exchange rate		6	6
Room size	m ²	50	100
Nominal frequency	Hz	50/60	50/60
Voltage	V	230	230
Nominal current	A	1,4	3,3
Pre-fuse	A	C16	C16
Motor	W	170	750
Schutzart		IP54	IP54
Filter elements	Piece	3	3
Dimensions (L/W/H)	mm	500 × 550 × 1.120	700 × 575 × 1.570
Weight	kg	ca. 67	ca. 110
Order Number		40000	40001

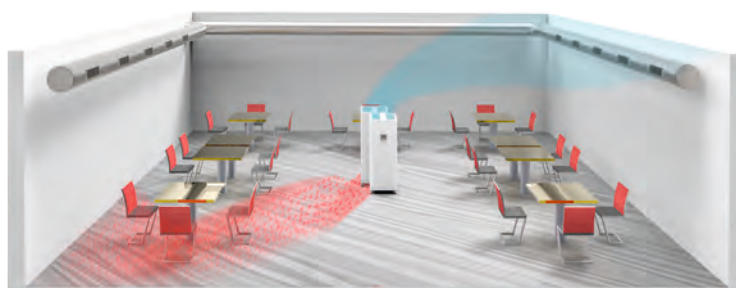
NEW

Air purifier *VirBox®*

According to a study by the University of the Federal Armed Forces in Munich, air purifiers can reduce the aerosol concentration in indoor areas by half within six minutes.

The VirBox® air purifier guarantees an air exchange rate of 6 times per hour.

Even one VirBox® can purify the air in rooms up to 100 m² in size without any problems.



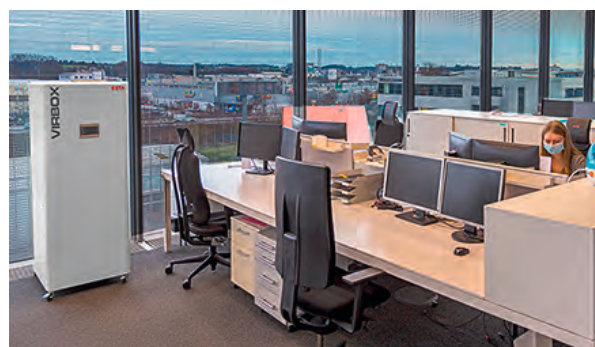
Gyms



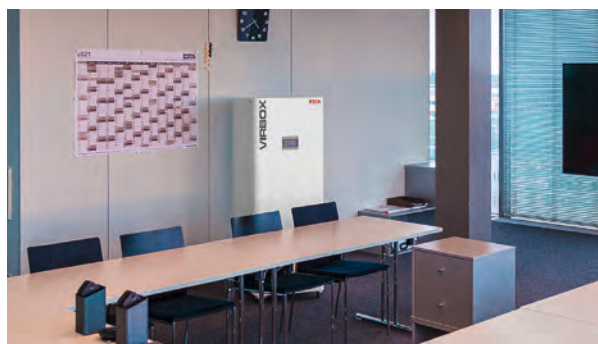
Supermarktes



Waiting areas



Office rooms



Meeting rooms



Class rooms

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filter

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

NEW

Air purifier

TowerBox®



Application range

- » Room air extraction for welding fumes and airborne dusts in industry and trade
- » Supplementary solution to at-source extraction

Ideal for

Welding fume

Particulate matter



ESTA PLUS

Special Features

- » Perforated tube on the top of the device for uncomplicated and optimal collection
- » Operating hours counter

Your Benefits

- » Efficient fumes collection to improve room air quality
- » Mobile use and suitable for continuous operation
- » Compact and handy design, also suitable for use in confined areas
- » Simple and dust-free disposal of the collected material through a drawer
- » Dust class M Filter cartridge
- » Quiet and energy-saving operation thanks to EC technology

Data dependent on equipment type

Technical Data

TowerBox®		
Max. Airflow	cfm	950
Intake diameter	mm	140
Voltage	V	230
Nominal frequency	Hz	50/60
Nominal current	A	2.2
Pre-fuse	A	16
Motor	HP	0.51
Filter surface	m²	13.57
Filter elements	Piece	3
Dimensions (L/W/H)	mm	692 x 660 x 959 ¹⁾ 692 x 660 x 1,973 ²⁾
Weight	kg (ca.)	100
Sound emission	dB(A)	53* (70.5)
Order Number	555.04	

¹⁾ Without pipe / ²⁾ With pipe / *With optional sound insulation package

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

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

**Oil Mist
Separators**

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
information

Oil Mist Separators

Oil Mist Separators *OILMAC*



Oil Mist Separator OILMAC 800

Application Range

- » Extraction of oil and emulsion mist, minimal lubricant 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)



Ideal for

Aerosols

Fumes

Mist particles



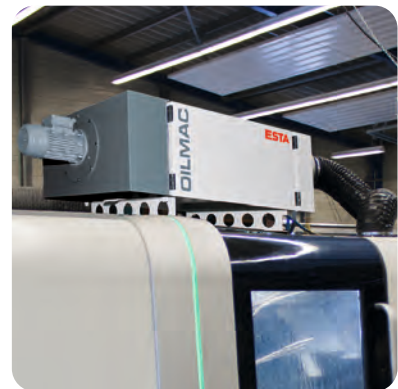
Product-Video



Pivoting fan module



Pivoting inlet module



OILMAC 800 on a universal lathe

ESTAPLUS

Special Features

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

Your Benefits

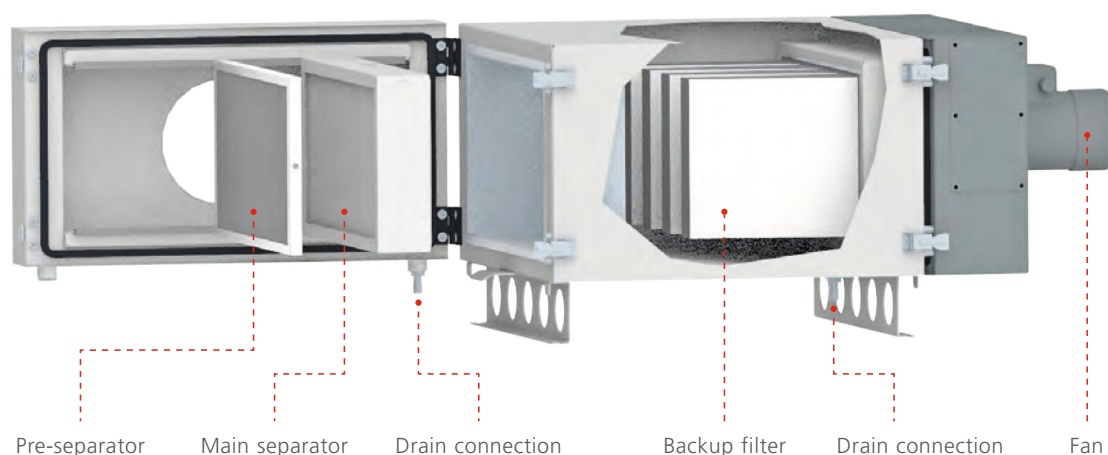
- » Easy attachment to the machine
- » Available in four performance levels
- » Compact shape
- » Multiple filter system for high filtration efficiency
- » Filter replacement and maintenance without tools

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	1.140	1.270	1.790
		× 650	× 685	× 685	× 650
		× 510	× 475	× 805	× 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		–	56.211	56.212	56.213
Filter unit without fan		–	56.221	56.222	56.223

All devices include a 5.0m siphon hose

How the three-stage filter system works



Pre-separator

A wear-free, cleanable metal mesh filter already separates most solid and coarse particles.

Main separator

A filter cassette F9 acts like a depth filter. Separated aerosols can drain while the separated particles remain in the filter material. The draining of aerosols is supported by gravitational force and two siphon connections.

Backup filter

Remaining aerosols are retained by a HEPA H13 filter with a filtration efficiency of 99.95% allowing for recirculation of air. Alternatively, a knitted mesh filter can be used as backup filter.



Carbon Filters

Compact device for filtering odors
and slight chemical exposure

ActiveBox® **NEW**



Application Range

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

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 exposure



Control panel with operating hour meter

ESTA PLUS

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

Active charcoal filter

VACUMAT for aspiration at a workplace

Technical Data

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

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Downdraft Tables

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

TableBox® Air **NEW**

TableBox® Active **NEW**

A 880 to A 2080

360°-Suction-Table

Plasma-cutting Table



Application Range

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

NEW

Welding/Grinding Downdraft Table

TableBox® Air



Areas of application

- » Single-place extraction in industry and trade
- » Suitable for welding fumes, free-flowing and dry dust



Ideal for

- Metal dust
- Welding fume
- Plastic shavings
- Fumes
- CRP-/GRP-dusts
- Stone dust

Optional

- » Lighting
- » Exhaust silencer



Rear-/side wall with LED lamp



TableBox® Air with support grid

ESTAPLUS

Special Features

- » Stepless adjustment of the air volume flow
- » Operating hours counter

Your Benefits

- » Mobile use and suitable for continuous operation
- » Compact and easy-to-handle design
- » A drawer enables simple and dust-free disposal of the collected material
- » Filter cartridge with dust class M
- » Quiet and energy-saving operation thanks to EC technology

Technical Data

		TableBox® Air
Max. Airflow	cfm	1.300
Intake diameter	mm	140
Voltage	V	230
Nominal frequency	Hz	50/60
Nominal current	A	2,2
Pre-fuse	A	16
Motor	HP	0,51
Filter surface	m²	13,57
Filter elements	Piece	3
Dimensions (L/W/H)	mm	692 × 681 × 1.009
Weight	kg (ca.)	110
Sound emission	dB(A)	60.5* (69,9)
Order Number		555.07

* With optional sound insulation package

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

NEW

Downdraft table with activated carbon

TableBox® Active



Application Range

- » Single-place extraction in industry and trade
- » Suitable for gaseous environmental pollutants and for reducing annoying and/or process-related odours



Ideal for

Gaseous odors and pollutants

Slight chemical exposure

Optional

- » Lighting
- » Exhaust silencer



Rear-/side wall with LED lamp



TableBox® Air with support grid

ESTAPLUS

Special Features

- » Stepless adjustment of the air volume flow
- » A G4 pre-filter for longer service life of the activated carbon cartridges
- » Operating hours counter

Your Benefits

- » Efficient process air collection
- » Mobile use and suitable for continuous operation
- » Compact and easy-to-handle design
- » Activated carbon cartridges (type A) for good flow dynamics and handling of the activated carbon
- » Quiet and energy-saving operation thanks to EC technology

Technical Data

		TableBox® Active
Max. Airflow	cfm	950
Intake diameter	mm	140
Voltage	V	230
Nominal frequency	Hz	50/60
Nominal current	A	2,2
Pre-fuse	A	16
Motor	HP	0,51
Filter surface	m²	1,2
Filter elements	Piece	1 (G4 Prefilter)
Dimensions (L/W/H)	mm	692 × 660 × 1.010
Weight	kg (ca.)	105
Sound emission	dB(A)	60.5* (68,5)
Order Number	555.08	

* With optional sound insulation package

Welding/Grinding Downdraft Tables *Series A*



Worktable
for welding and grinding

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



Welding table
with side panels and back wall



Integrated coarse dirt collecting drawer



Side panel swung back
for larger work pieces

ESTA PLUS

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



Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Downdraft Tables

Welding/Grinding Downdraft Tables

Series A



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



Technical Data

Welding and Grinding Table without extraction fan		A 880	A 1280	A 1680	A 2080
Working surface (L/W)	mm	800 x 700	1.200 x 700	1.600 x 700	2.000 x 700
Intake diameter	mm	160	160	200	200
Dimensions (L/W/H) (Standard-Model)	mm	880 x 840 x 800	1.280 x 840 x 800	1.680 x 840 x 800	2.080 x 840 x 800
Dimensions (L/W/H) (with side panels/ back wall extraction)	mm	880 x 840 x 1.600	1.280 x 840 x 1.600	1.680 x 840 x 1.600	2.080 x 840 x 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 back wall extraction		44.012	44.022	44.032	44.042

NEW

Welding and grinding tables *360°-suction table*



Areas of application

- » For connection to a fan or extraction system
- » For grinding, welding and deburring of metal parts
- » Can be used for further applications

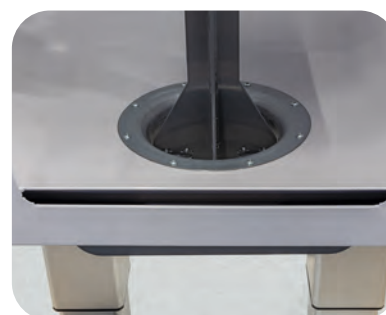


Ideal for

- Metal dust
- Welding fume
- Chipped plastics
- Fumes
- CFK-/GFK dust
- Mineral dust
- Concrete dust

Special version / accessories

- » Lighting
- » Individual pedestal
- » Optimum, infinitely variable electrical height adjustment
- » ATEX compliant
- » Hood
- » Unit support



Suction nozzle in front area

Special features

- » Workpiece accessible from all sides (360°)
- » Maximum workpiece width: 900 mm (with closed walls)
- » Height adjustment: 980 to 1,180 mm
- » Requires approx. 2,500 m³/h air volume
- » Suction nozzle in front area
- » Adjustable end stop
- » Vice
- » Foldable side panelling

Benefits for you

- » More efficiency when machining workpieces
- » Time saving due to fewer transformer steps and process shortening due to shorter cycle times
- » Highest levels of ergonomics for employees
- » Less contamination of the workplace
- » Optimised occupational health and safety

Data depending on model version

Standard-Extraction table



1st clamping



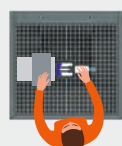
2nd clamping



3rd clamping



4th clamping



360°-Extraction table



Only clamp once!



Technical data

360°-suction table		
Connection diameter	mm	250
Dimensions (W/H/D) without hood	mm	1,000 × 1,140 × 970
Dimensions (W/H/D) with hood	mm	1,000 × 1,400 × 970
Weight	kg	160
Order No.		44050

ESTAPLUS

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Downdraft Tables

Welding and grinding tables *Plasma-cutting Table*



Area of use

- » Cutting table with water tanks for cutting and plasma cutting processes



Ideal for

All mechanical and thermal separation and cutting processes

Special design

- » Special enamel



Flat iron support and water trays

ESTAPLUS

Special features

- » Water tanks as material and spark pre-separators
- » Multiple deflection of the airflow to reduce the risk of flying sparks
- » Flat iron support and water trays easy to remove
- » Inspection opening for cleaning the inner housing

Benefits for you

- » Extraction directly at the workplace
- » Compact solution
- » Protection against harmful particles and smoke that occur during thermal separation
- » Easy disposal of coarse dirt and sludge slag via the water troughs

Data depending on model version

Technical data

Plasma-cutting table		
Work surface (L/D)	mm	1,100 × 1,100
Working height min./max.	mm	Flat iron support and water trays 880/950
Connection diameter	mm	200
Dimensions (L/W/H)	mm	1,104 × 1,100 × 900
Weight	kg	135
Allowed loading weight of consolidated cargo	kg	200
Order No.		30013805

For Easy and High Volume Extraction of Dust and Fumes

RG-100 – RG-800

RG with
extraction arm

RG mobile



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

Dust Extractors

High Vacuum
Extraction UnitsWelding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables**Extraction Fans**

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
information

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.

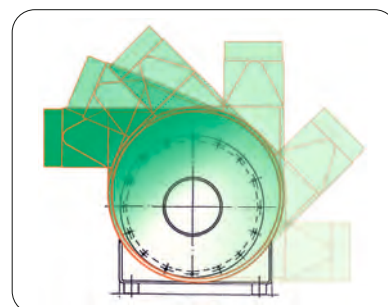
Product overview

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.



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

Extraction Fans

RG-100 to RG-800



Extraction fan RG-300



Extraction fan RG-400

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



Ideal for

- Dusts
- Gases
- Odors
- Fumes



RG-300 in separate room

Technical Data

RG		100	200	300
Max. Airflow	m ³ /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)	80	82	84
Order Number		01.011	01.021	01.031

Technical Data

RG		400	500	600	700	800
Max. Airflow	m ³ /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

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.

Extraction Fans

Extraction Unit

RG with Extraction Arm



Extraction unit RG-300/extraction arms

Application Range

- » Extraction of individual and multiple workstations in industrial and skilled trade applications
- » Direct extraction of smoke, gases and fumes
- » Extracting air without filtration



Ideal for

- Welding fume
- Soldering fume
- Dusts
- Vapors



Extraction unit RG-200 with 3.0 m extraction arm

ESTAPLUS

Special Feature

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

Your Benefits

- » Complete solution made up of an RG extraction fan 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 extraction arm)		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)	80	82	84
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	–

Extraction Unit

RG with Ball-Joint Extraction Arm



Extraction unit RG-200/ball joint extraction arm

Application Range

- » Extraction of individual and multiple workstations in industrial and skilled trade applications
- » Direct extraction of smoke, gases and fumes with ball-joint extraction arm
- » Extracting air without filtration



Ideal for

- Welding fume
- Fumes
- Odorants



RG-200 with ball joint extraction arm

ESTAPLUS

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 extraction arm)		RG-200
Max. Airflow	m ³ /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)	82
Order Number		
with extraction arm, 3.0 m		01.121D
with extraction arm, 4.0 m		01.122D

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Extraction Fans

Mobile Extraction Unit *RG with Dust Filter Bag*



Mobile extraction unit RG-300 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



Ideal for

Plastic dust

Metal dust

Special features

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



Wall-mount bracket with cyclone

ESTAPLUS

Special Feature

- » Available with dust filter bag or long life cartridge

Your Benefits

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

Technical 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)	80	82	84

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

Effective and Targeted Source Capture of Dust and Fumes

With flanged hood **NEW**

With efficiency hood **NEW**

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:



Extraction Arms

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 *Flanged Hood*



Extraction arm with flanged hood

Application Range

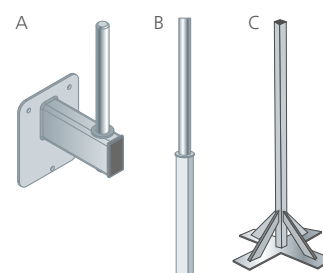
- » Extraction of individual and multiple workstations in industrial and skilled trade applications
- » For connection to extraction unit or pipework



Ideal for

- Fumes
- Vapors
- Dusts
- Shavings

Mounting Possibilities



- 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



Extraction arm at a welding 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: installation of lighting
- » Optional: ATEX version

Your Benefits

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

Technical Data

Extraction arms with flanged 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 ¹⁾	–	–	–	10.402	12.402	14.402	15.402	16.402	18.402	20.402
5.000 mm ¹⁾	–	–	–	10.502	12.502	14.502	15.502	16.502	18.502	20.502
6.000 mm ²⁾	–	–	–	10.602	12.602	14.602	15.602	16.602	18.602	20.602
8.000 mm ³⁾	–	–	–	10.8024	12.8024	14.8024	15.8024	16.8024	–	–

¹⁾inkl. 2.0m extension boom / ²⁾inkl. 3.0m extension boom / ³⁾inkl. 4.0m extension boom

Extraction Arms

Suction arms

Efficiency hood



Suction arm with efficiency hood

Areas of application

- » For precise detection of smoke and dust
- » Single and multiple extraction points in industry and crafts
- » For connection to suction unit or pipeline

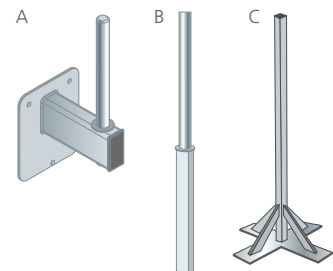


Ideal for

- Fumes
- Vapors
- Dusts
- Shavings

Enlargement of the
detection area
up to 30%

Mounting Possibilities



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

ESTAPLUS

Special features

- » External carrierconstruction
- » Air flow inside is not hindered
- » Gas springs for easy mobility
- » Optional: throttle and shut-off valvesfor control of suction air available
- » Optional: installation of lighting possible

Benefits for you

- » High flexibility
- » Easy handling
- » Exact detection

Data depending on model version

Technical Data

Extraction arms with efficiency hood

Ø 140

Length / Order Number

1.500 mm	14.154
2.000 mm	14.204
3.000 mm	14.304
4.000 mm ¹⁾	14.404
5.000 mm ¹⁾	14.504
6.000 mm ²⁾	14.604

¹⁾incl. 2,0m extension boom / ²⁾incl. 3,0m extension boom

Extraction Arms *Square Hood*



Extraction arm with square hood

Absaugarm mit quadratischer Haube

Application Range

- » For large-area sensing of dust and fume
- » Extraction of individual and multiple workstations in industrial and skilled trade applications
- » Connection to extraction unit or pipework



Ideal for

- Fumes
- Vapors
- Dusts



Square hood with baffle plate at a weighing station

ESTAPLUS

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

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	–	–	✓	✓	✓	✓
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 ¹⁾	10.403	12.403	14.403	15.403	16.403	18.403
5.000 mm ¹⁾	10.503	12.503	14.503	15.503	16.503	18.503
6.000 mm ²⁾	10.603	12.603	14.603	15.603	16.603	18.603
8.000 mm ³⁾	10.8034	12.8034	14.8034	15.8034	16.8034	–

¹⁾ incl. 2.0m extension boom / ²⁾ incl. 3.0m extension boom / ³⁾ incl. 4.0m extension boom

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

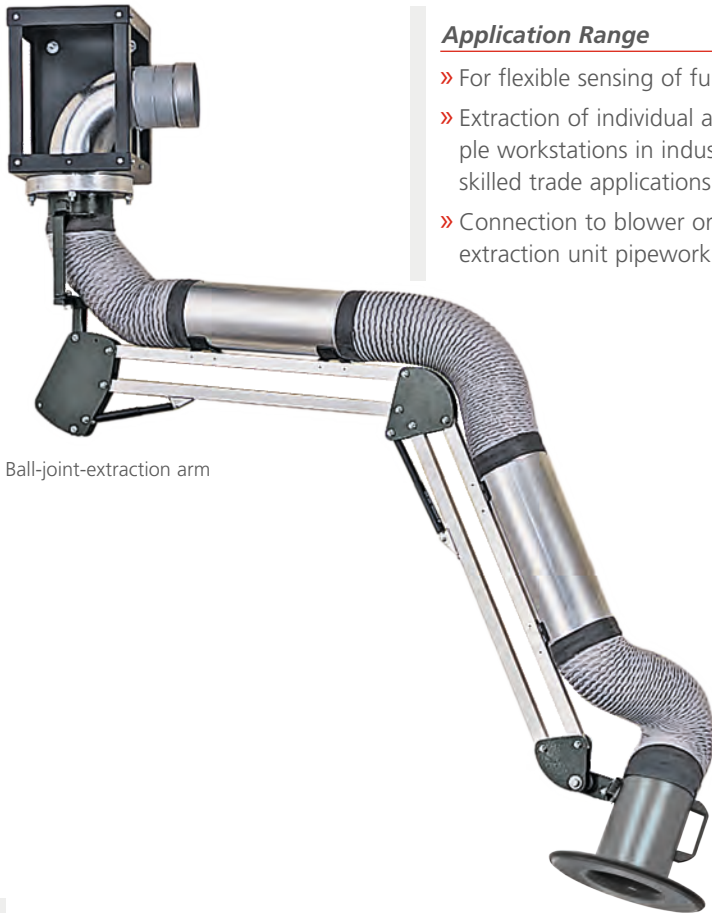
Central/Extraction
Systems

Pipe Systems

About us

Interesting
Information

Ball-Joint Extraction Arms



Ball-joint-extraction arm

Application Range

- » For flexible sensing of fume
- » Extraction of individual and multiple workstations in industrial and skilled trade applications
- » Connection to blower or extraction unit pipework



Ideal for

- Welding fume
- Vapors



Ball-joint-extraction arm in use

ESTAPLUS

Special Features

- » 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 with square hood

Length / Order Number							
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

Laboratory Extraction Arm 50 D



Laboratory extraction arm 50 D

Application Range

- » Extraction of individual and multiple workstations in laboratories, industrial and skilled trade applications
- » For the precise sensing of fine dusts and fumes
- » Dental laboratories

Ideal for

- Soldering fumes
- Dusts
- Odorants
- Vapors



Multiple extraction units for the extraction of solder fumes

ESTA PLUS

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 lighting



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

Filter Towers

FILTOWER F – for fumes

FILTOWER D – for dusts

FILTOWER L – for oil- and emulsion mist

FILTOWER *eco*⁺ / **4.0** / *ecotemp*



Application Range

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



CLEAN THE AIR
PLANT A TREE

FILTOWER-F



3 Different Applications

FILTOWER-F – Welding Fume
FILTOWER-D – Dust
FILTOWER-L – Oil- & Emulsion Mist

4 Different Sizes

FILTOWER- 50 – 5.600 m³/h
FILTOWER- 100 – 12.000 m³/h
FILTOWER- 160 – 17.000 m³/h
FILTOWER- 200 – 22.000 m³/h

*Up to 70%
Heating cost savings!*

ESTAPLUS

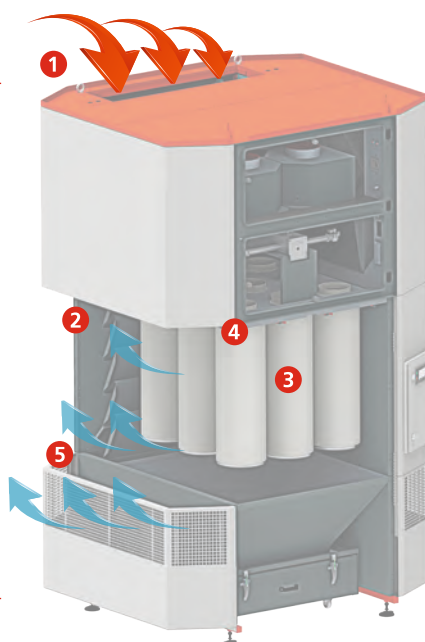
Special Features

- » 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 $\geq 50 \mu\text{m}$) serves as a spark pre-separation system and filters coarse particles.
- 3 Filtration of residual dust particles through long life cartridge filters with nanofibers of dust class M (99.9% separation efficiency)
- 4 Easy filter change of highly-effective long life cartridge filters thanks to the newly-developed, **ESTA QuickChange filter change system**
- 5 Low-draft recirculation via outlets on side



Movable dust collection drawer



Intuitive device control

FILTOWER-F



FILTOWER-F 50

For welding fume



Ideal for

Welding fume

Soldering fume



Product Video

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-F 160



FILTOWER-D und FILTOWER-L



FILTOWER-D 160

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



FILTOWER-L 160

For Oil- and emulsion mist

Ideal for

- Aerosols
- Oilmist
- Emulsion mist
- Fumes

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

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
information

NEW

FILTOWER eco⁺ and FILTOWER 4.0



FILTOWER eco⁺

The FILTOWER 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.

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



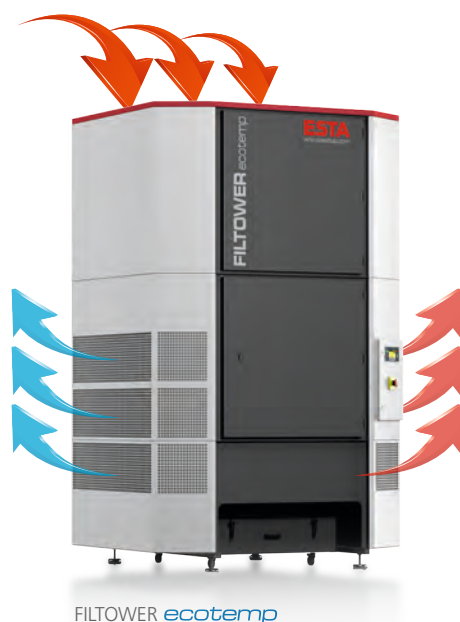
FILTOWER 4.0

Intelligently connected and energy-saving: the FILTOWER 4.0 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 4.0-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

NEW FILTOWER ecotemp



FILTOWER ecotemp

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

FILTOWER ecotemp design:

- » Energy-efficient cooling or heating possible by two slatted heat exchangers
- » Stepless regulation of temperature
- » Environmentally friendly and safe: water circulation system and no need for coolant, connection: 2 x 1 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



Fully equipped industrial coolers ready for connection, suitable for indoor and outdoor installation



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.

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
information

FILTOWER-Series at a glance

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

● = included ○ = optional × = not included

OPTIONS AND SPECIAL VERSIONS – ACCOMODATING INDIVIDUALITY

» 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**

W3



* Only available as a new purchase

** FILTOWER F

FILTOWER

Technical Data

FILTOWER		50	100	160	200
Max. Airflow	m³/h	5.600	12.000	17.000	22.000
Max. negative pressure	Pa	3.300	2.000	2.000	2.000
Voltage	V	400	400	400	400
Motor	kW	4,0	2×3.7	4×3.7	4×3.7
Filter surface	m²	56	90	157,5	225
Filter elements	Piece	4	9	9	9
Dust collection container	l	100 – 150	160	160	160
Dimensions (L/W/H)	mm	2.180×3.000×2.400	1.790×2.090×3.020	1.790×2.090×3.420	1.790×2.090×3.820
Weight	kg	445	1.200	1.350	1.440
Sound emission	dB(A)	78	63	66	72

Order Number	50	100	100 ecotemp	160	160 ecotemp	200	200 ecotemp
FILTOWER F Standard	680050	790100	790100001	790160	790160001	790200	790200001
With test certificate W3	–	799100	799100001	799160	799160001	799200	799200001
eco+	–	791100	791100001	791160	791160001	791200	791200001
4.0	–	792100	792100001	792160	792160001	792200	792200001
FILTOWER D Standard	676050	796100	796100001	796160	796160001	796200	796200001
eco+	–	797100	797100001	797160	797160001	797200	797200001
4.0	–	798100	798100001	798160	798160001	798200	798200001
FILTOWER L Standard	–	793100	793100001	793160	793160001	793200	793200001
eco+	–	794100	794100001	794160	794160001	794200	794200001
4.0	–	795100	795100001	795160	795160001	795200	795200001



Central Extraction Systems

Central Extraction Systems Tailored to Your Application

Side Channel Blowers	Filter Cyclones	Extraction Hoods
High and Medium Pressure Fans	Modular Filter Systems	Soundproofed Cabins
Rotary Piston Blowers	Ventilation of Production Facilities	



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

Introduction and Product Overview



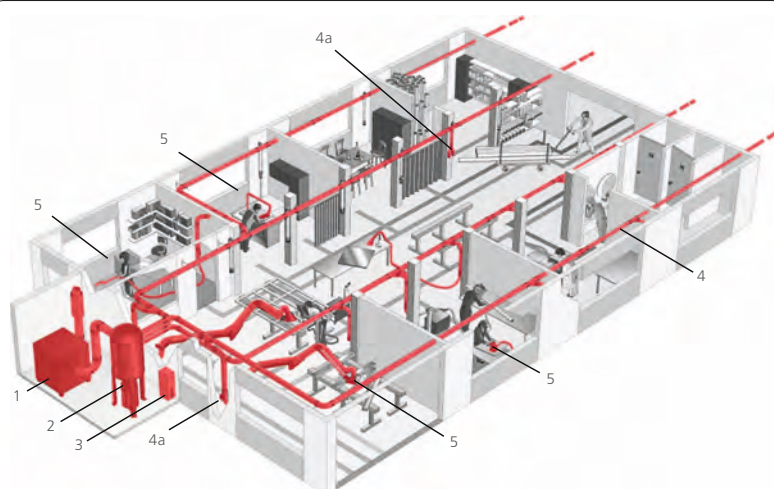
Introduction

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
- Complete service – from design through installation to start-up operation and maintenance

Benefit from our over 45 years of experience with extraction technology.



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

Switch cabinets for every requirement

The complete switch cabinet construction is part of our core disciplines along the valuecreation chain. The construction of the emergency circuit diagrams are created with EPlan.

We manufacture exclusively in our factory in Germany. We attach the utmost importance to excellent quality, national, international and customer-specific standards.



Variations

Control cabinet BASIC up to 22 kW

- Central control of the plant
- Optical indication of the operating status
- Separate optical display in the event of a fault at the cleaning control
- Optical indication of malfunctions

Control cabinet KOMFORT up to 22 kW

- Central control of the plant
- Optical display Operation ON
- Information output and operation via panel
- Maintenance indicator
- Faults and warnings with text
- Operating hours display
- Free floating contact for Start/Stop
- Free floating contact signal for operation/fault

Operating panels

In addition to the classic, mechanical operating elements, we install also components such as touch panels. This ensures maximum user-friendliness and visualisation of the necessary operating data.

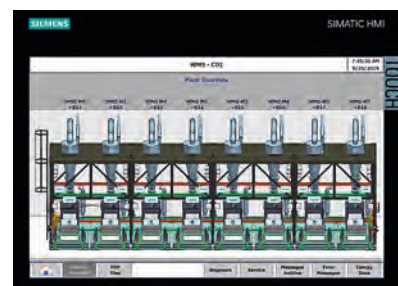
Further features

- Supply voltage 324 - 572 V AC
- No N conductor necessary
- Cable entry system
- Integrated system protection



Individual production

Many of our customers require special solutions in unique designs. Thanks to our experience, we are able to manufacture control cabinets individually and efficiently from a single piece. Whether individual lacquering, production of customer-specific housings or design and large-area attachment of labelling foils, we tailor all elements exactly to your requirements.



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	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

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

ESTA PLUS

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

High and Medium pressure fans		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×H×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
* = Depending on the type of application

Rotary Piston Blowers



Rotary piston blower

ESTA rotary blowers are intended for use where there is high negative pressure while air flow remains constant.

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	m ³ /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	V	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×H×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

Cyclonic Filtration Units



Cyclonic filtration unit

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

ESTAPLUS

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 unit		FZ-1003	FZ-1503	FZ-3003	FZ-5003	FZ-7003	FZ-11003
Cartridge filter (dia./L)		150/660	150/1.000	325/600	325/1.000	325/600	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	l	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

* Depending on the type of application

Modular Extractors DUSTMAC



Filter unit DUSTMAC P

Application Range

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

Ideal for

- Metal dust
- Welding fume
- Concrete dust
- Plastic dust
- Fibrous materials



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 to 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
DUSTMAC P with cartridge filters – Complete system	24
DUSTMAC S with tubular bag filters – Complete system	25
DUSTMAC F for welding fume – Complete system	48
DUSTMAC X for custom configurations	94

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



Removal through rotary valve

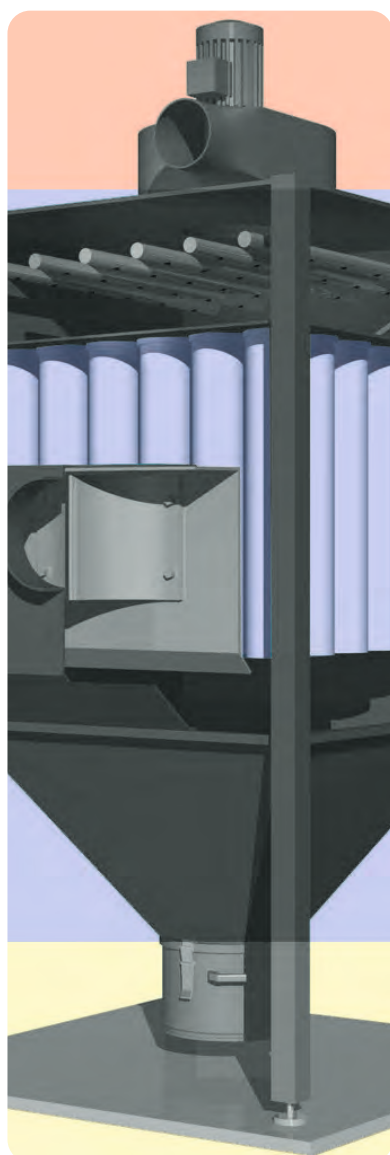


Directly into a container

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.

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 89).

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 welding smoke filter unit

WELDEX



Areas of application

- » Spatial ventilation for welding-work, push-pull processes and layer ventilation
- » Welding fume extraction on hoods and extraction arms
- » Cabin extraction
- » Extraction with robotwelding and on automated production lines
- » Extraction on flame, plasma and laser cutting tables

Central filter unit with extinguishing system in a welding fume extraction system

ESTA PLUS

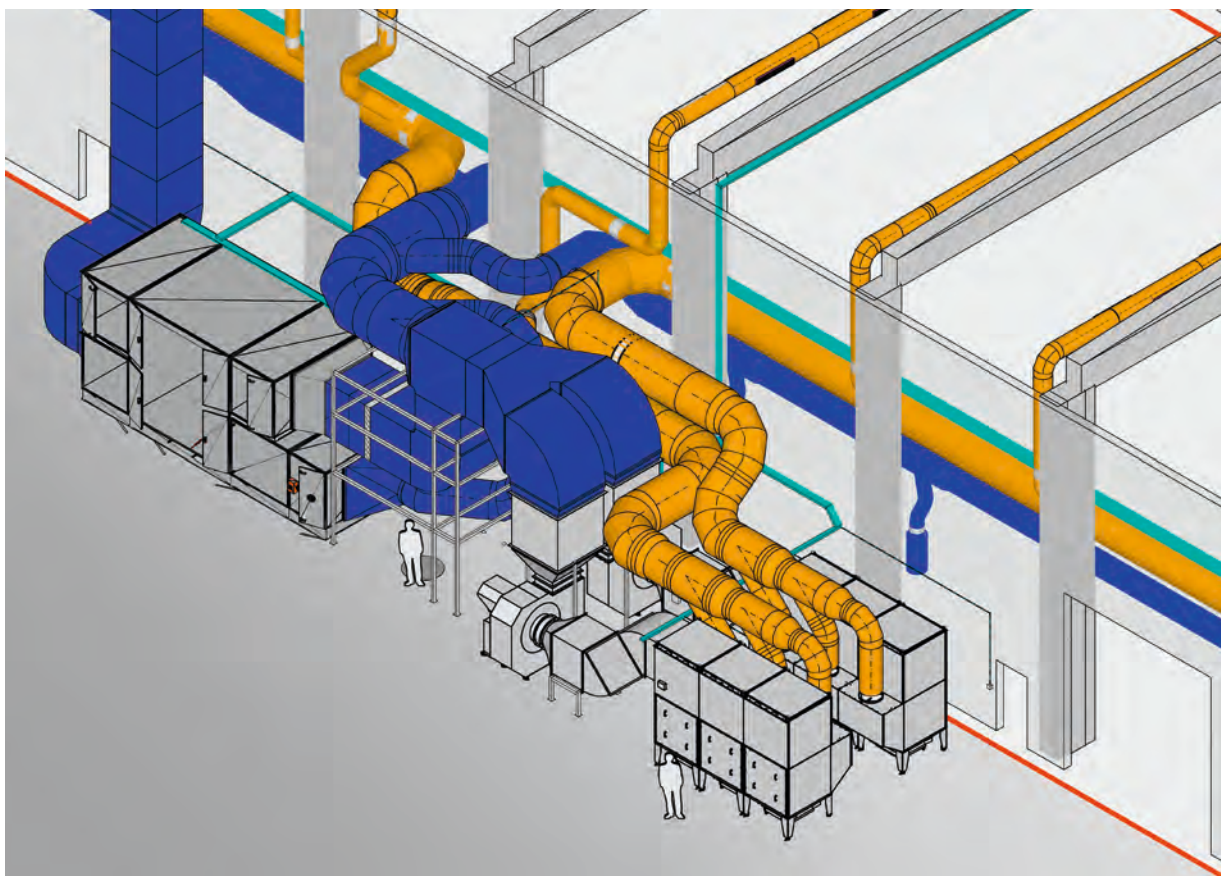
Special features

- » For welding fume extraction for air volumes up to 150,000 m³/h
- » Modular design and expandable
- » Filter materials suitable for the application
- » Pre-separator and extinguishing system to minimise fire risks
- » Can be combined with heat recovery systems

Benefits for you

- » Compact design
- » All components are integrated in weatherproof housing
- » **ESTA Quick-Change filter-changing system** for fast and low dust filter change
- » Optimum accessibility of all system components
- » Wide range of control variants including ESTA *eco*⁺ control for minimum energy consumption

Data depending on model version



Two extraction systems for welding fumes with one WELDEX F450 filter unit each

Details

Modular design of WELDEX filter units



WELDEX F225 with one module



WELDEX F450 with two modules

Technical data

WELDEX filter unit		F225	F450	F675
Filter area	m ²	225	450	675
Filter elements	Unit	9	18	27
Dimensions (D/W/H)	approx. mm	2,130 × 1,510 × 2,970	2,130 × 4,150 × 2,970	2,130 × 5,600 × 2,970
Weight	approx. kg	800	1,550	2,300

Technical data per filter unit
Other model sizes on request!

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 free-standing system to clean the air in the hall without a pipe-line 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.



WELDEX FE



FILTOWER Series



ESTA Upstream Stratification Ventilation

ESTA PLUS

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

- » 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
- » Temperature control in connection with heat recovery possible
- » 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
- » Special long-range air jets
- » Temperature control in connection with heat recovery possible
- » Two pipe systems located opposite of each other
- » Suitable for heating and cooling

Ventilation of Production Facilities

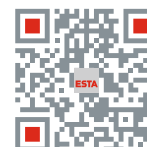
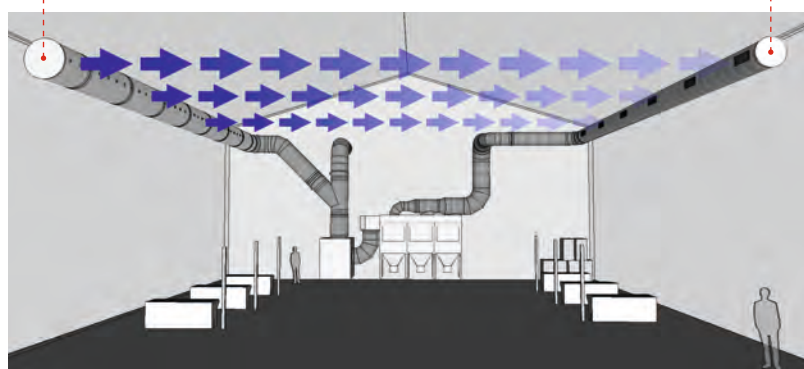
ESTA Push Pull Mixing Ventilation

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

Incoming air pipe system with long-range nozzles

Extraction pipe system with intake vents



Product-Video

ESTA Upstream Stratification Ventilation

Operating Principle:

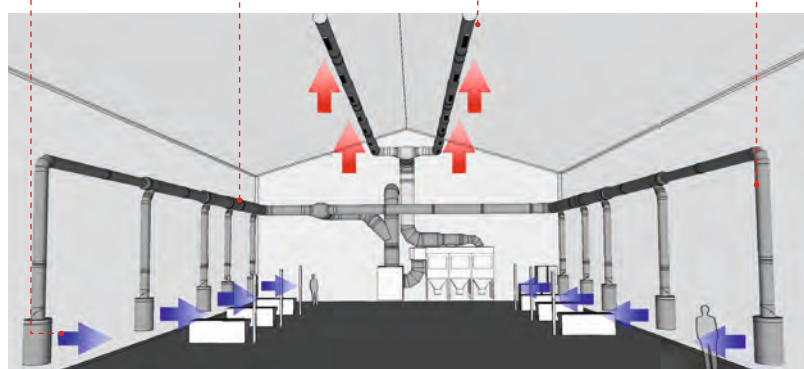
- The plume generated at the welding location transports heat and contaminants to the upper area of the manufacturing facility
- At the floor level of the plant the flow volume generated by the updraft is replaced by a cooler low flow air supply
- Consequently two separate layers of air are forming in 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

Fresh air intake (Optional: Cooling)

Low flow air supply into the plant with room temperature <4° C at air inleat

Extraction pipe system

Air supply pipe system



ESTA PLUS

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

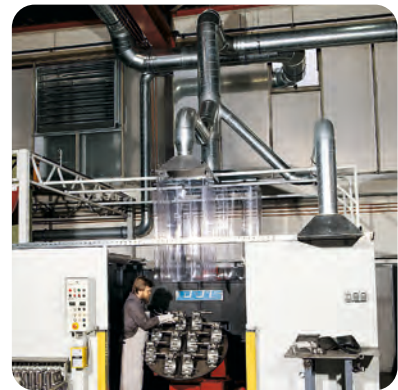
Extraction Hoods



Extraction hood with compressed air injection

Ideal for

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

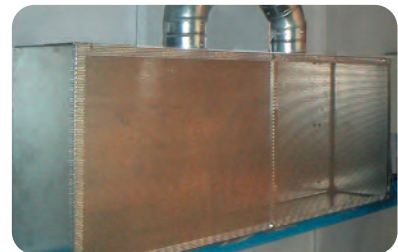


Extraction at a robotic workstation

Application Examples



Slotted extraction hoods in the automotive industry



Extraction wall with perforated metal insert



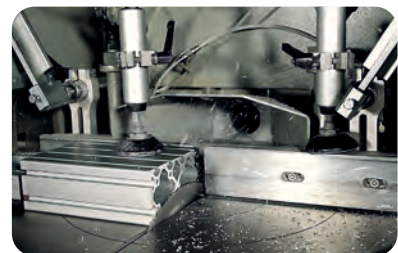
Large surface extraction hood in the concrete industry



Extraction wall on a DUSTOMAT-S



Specialized hood 120 x 30 cm



Extraction of aluminium shavings

ESTA PLUS

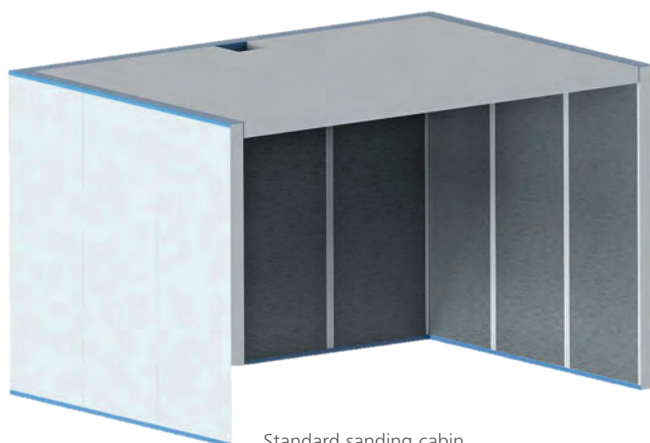
Special Features

- » Wide range of standard hoods
- » Individual calculation of the extraction hoods according to ventilation technologically optimised principles
- » 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

Soundproofed extraction cabins



Standard sanding cabin

ESTA extraction cabins offer extraction and sound insulation in one. They enclose dust and smoke generating workplaces or machines and prevent the release of pollutants into adjacent work areas. Furthermore, with the appropriate extraction technology, the exposure of employees to dust or smoke can be reduced and statutory regulations can be complied with.

The cabins are suitable, among other things, for extraction during welding, grinding, cutting, polishing and for almost all materials (metal, stone, plastic, etc.) which produce particles during processing.

Ideal for

- Machine or robot housings
- Work cabins
- Grinding workstations
- Welding smoke/dust



Mobile suction cabin
for rotor blade production



4-fold grinding cabin with rolling doors

Accessories/special equipment

- » Lamella curtain, fixed
- » Lamella curtain, slidable
- » Industrial curtain
Industrial curtain, DIN 1598 (welder)
- Sight window made of safety glass
- » LED lighting (IP65, ATEX)

Application

- » Extraction of dust and smoke particles as well as sound-reduction at workplaces or machines

Special features

- » Modular design
- » Integral construction
- » Flexible setup
- » Optionally with powder-coated exterior in RAL colour
- » Optionally with viewing windows

Benefit

- » Wide range of applications
- » Noise protection and suction in one
- » No contamination of adjacent areas
- » Easy assembly

Data depending on model version

Technical data

Width mm*	Height mm*	Depth mm*	Item no.
2,000	2,500	2,000	30008500
2,500	2,500	2,000	30008501
2,500	2,800	2,500	30008502
3,000	2,500	2,000	30008503
3,000	2,800	3,000	30008505
4,000	2,500	3,000	30008506
5,000	2,800	3,000	30008512
6,000	2,800	3,500	30008516

* = Internal dimensions (wall thickness = 60 mm)

Other sizes on request

Central Extraction Systems

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.

References

Dr.-Ing. Ulrich Esterer GmbH & Co. Fahrzeugaufbauten und Anlagen KG – Helsa

Vehicle and mechanical engineering

3 × FILTOWER ecotemp

5 × mobile Welding fume filters
SRF K-15



Extraction at the workplace



FILTOWER in the production hall

Hoffmann GmbH Qualitätswerkzeuge – Munich

Toolmaking

2 × DUSTOMAT 24 ATEX

Four extraction arms with hoods

Pipe system



DUSTOMAT 24 –
Extraction in robot cabin



DUSTOMAT 24
with suction arms in showroom

Giesselmann – Bad Oeynhausen

Metalworking industry



Extraction at the workplace



MOBEX F-60 in the production hall

MOBEX F-60
with spark pre-separator
(4,500 m³/h at 3,400 Pa)

DUSTOMAT 4-10
with cyclone water pre-separator
(2,000 m³/h at 2,600 Pa)

Three extraction arms with
hoods for welding fumes

Piping system

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



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

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

Laser technology Kilgenstein

Metalworking

Hall ventilation systems for resulting particulate
Welding fume wet separator for extracting aluminum dust

2 × Filter tower FILTOWER

4 × Wet separators NA K-7000



Two filter towers ensure clean air
in the welding shop



Wet separators are installed on the four
grinding booths to safely separate the
partially explosive dust

References

BBS – Schiltach

Automobilzulieferindustrie

Direktabsaugung an Schleif- und Bürstmaschinen sowie Handarbeitsplätzen



Absaugsystem in separatem Raum



Produktionshalle

Filtereinheit DUSTMAC F-567
mit drei Filtermodulen

Mitteldruckventilator MDV 75 kW
(46.000 m³/h bei 3.900 Pa)

Schaltschrank Komfort
Frequenzumrichter

3 Staubsammelbehälter
mit je 50 Litern

Verzinkte Längsnahtglattrohre

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

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

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 A2080
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

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

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

References

SAF-Holland GmbH

Vehicle construction

Welding fume extraction at manual workstations and robotic systems



DUSTMAC filter units



Acoustic-protection booth

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

Medium-pressure fan MDV-75 kW
2 x 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 GmbH

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

Infraserv GmbH & Co. Höchst KG

Operations und Facilities Services



Production island with downdraft tables



Refilling work on a suction table

2 x MOBEX

Two soundproof booths

Two extraction arms with hoods

Four height adjustable
downdraft tables

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

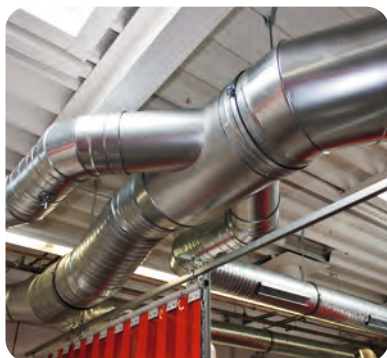
Daimler – Bremen
Automotive Industry

Lamilux – Rehau
Plastics Industry

Spiral Seam Pipes

Steel pipes

Longitudinally welded 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

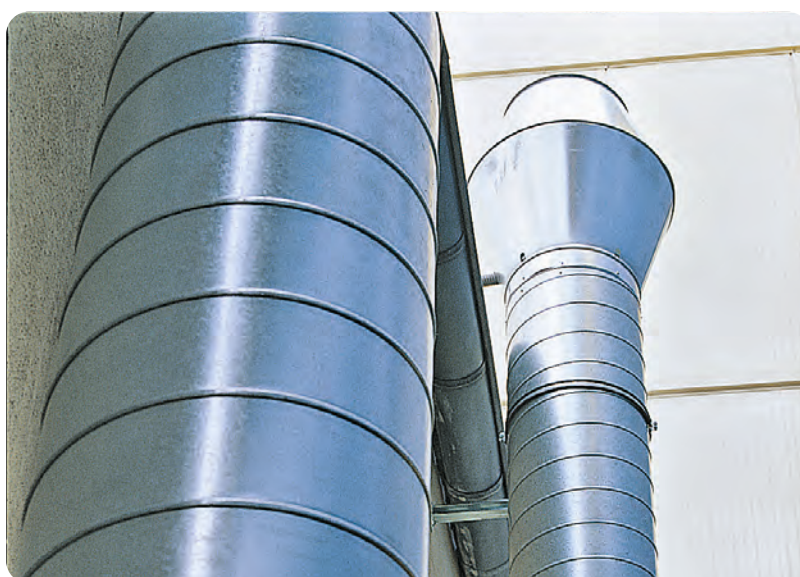
Introduction and Product Overview

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.



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.



Application Range

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

Features

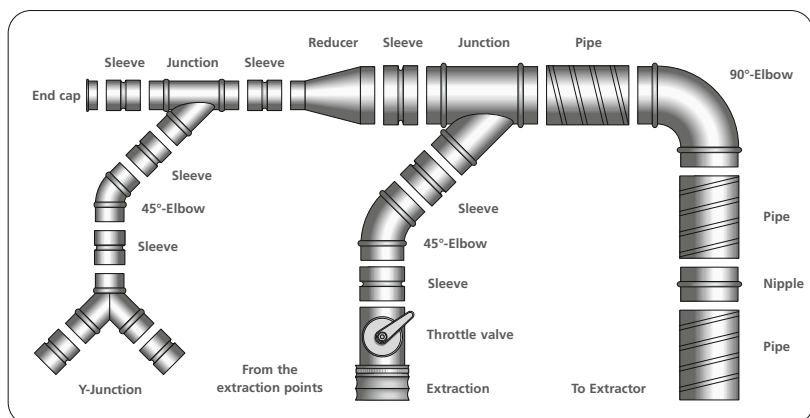
- » Galvanised sheet metal according to DIN *) standard 24145
- » Standard length up to 3.0m
- » Ø 71 mm – 450 mm in stock **)
- » Sheet metal thickness from 0.4 mm to 1.2 mm depending on pipe diameters

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



Longitudinally welded pipes

As an alternative to the classic spiral seam tube, there is the longitudinally welded tube.

The main difference is the processing and joining of the individual shaped and pipe parts.

The spiral seam tube consists of a sheet metal strip coiled at an angle using a seam connection. Thus it forms a straight or bent pipe over the edges.

The longitudinally welded tube, on the other hand, is already produced as a welded tube. First, a hollow body is produced by bending or rolling sheet metal, which is then welded at the joints. Tubes up to 1,400 mm in diameter can be longitudinally welded, larger tubes are welded as winding tubes spirally welded, and large tubes are bent from heavy plates and welded in pieces.

By a simple connection with a clamp or clamping ring, the assembly (and disassembly for maintenance purposes) of the individual elements is very simple.



ESTAPLUS

Area of use

- » Oil vapour
- » Abrasive media

Features

- » From DN 80 to DN 1400 mm diameter
- » Material thickness from 0.6 - 3 mm
- » Galvanised, coated sheet metal or stainless steel possible
- » No sources of interference within the pipes
- » Increased resistance at same material thickness

Benefits for you

- » High quality
- » Longevity due to low wear
- » Quick and easy installation

Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

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



ESTAPLUS

Application Range

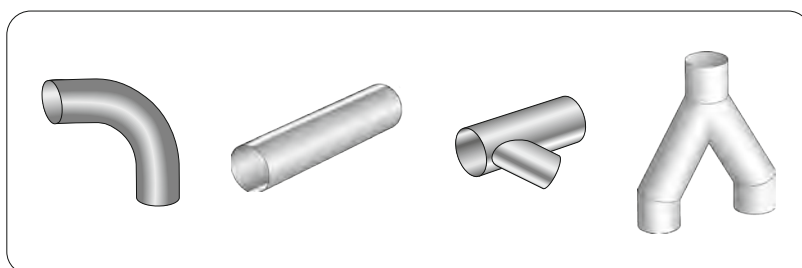
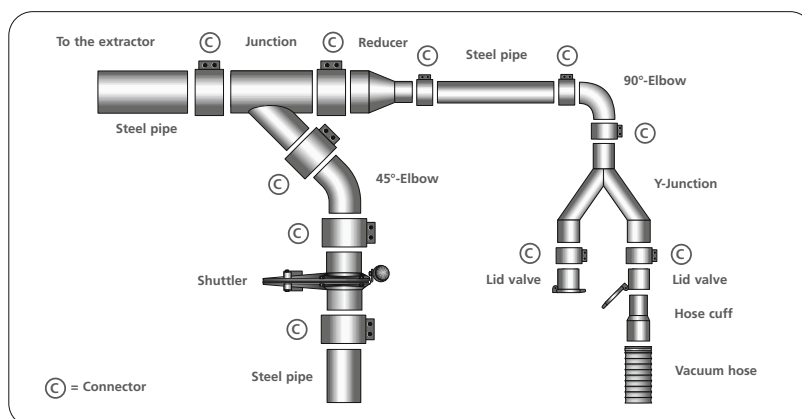
- » Pipe system in the high pressure range
- » Suction or pressure side

Features

- » Standard length up to 6.0m
- » 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

What sets us apart



HIGHEST QUALITY

We manufacture and test our extraction devices and filter systems subject to the strictest quality criteria at our headquarters in Senden (Bavaria).

All our products are certified according to ISO 9001, so we can continuously guarantee you the highest quality.



TECHNOLOGY PIONEER

Our passion is smart extraction technology that meets all your needs.

Through permanent monitoring of the system parameters, the ESTA EasyControl control system developed by us allows optimal operation and, for example, predictive maintenance.



45 YEARS OF EXPERTISE

With 45 years of experience and over 125,000 installations and extraction systems worldwide, ESTA is your competent partner for clean air at the workplace. We are one of the leading manufacturers of extraction technology thanks to our wide range of standard equipment, but also our tailor-made solutions.



RESPONSIBILITY (CSR)

We have made sustainable business, namely, the right balance of economy, ecology and social issues, our primary task.

That's why, for example, we invest continuously in the development of resource-efficient products and are involved in numerous environmental initiatives.



COMPETENT CONSULTING & PLANNING

In addition to comprehensive professional advice, a design that is tailored precisely to your individual requirements is important. Our engineers use state-of-the-art software to produce detailed 3D drawings that are exactly tailored to your application.



AFTER-SALES-SERVICE

The ESTA service team reliably ensures that your extraction system delivers consistently optimal results.

We guarantee this through our comprehensive after-sale service, such as long term support, a competent maintenance service and an extensive stock of spare parts.

The benefit to you

Our high quality standards are realized through clearly structured work processes and the continuous development of process orientations. This enables us to meet the requirements and needs of our customers at all times. ESTA stands for innovative spirit, striving for 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

- » Certified quality management system according to DIN EN ISO 9001:2015
- » Certificate Production Site Inspection 2020 – Industrial Vacuum Cleaners and Dust Collectors

Membership

- » Blue Competence – German Engineering Federation (VDMA)
- » Purchasing Office Deutscher Eisenhändler GmbH (E/D/E)
- » Platform Environmental Technology e.V.
- » Energy Efficiency Network Initiative
- » DVS – German Association for Welding and Allied Processes e.V.
- » Cluster ClustAir Bw – Competence Atlas



Human Resources / Personnel

- » Certificate Social Commitment 2019 – Caritas and the Ministry of Finance and Economy Baden-Württemberg
- » CSR Award of the Federal Government 2017
- » Member of the Initiative Fair Company 2016
- » Winner of the Ace of Training 2012 – Young German Business Promotion Award
- » Winner of the MAX-Award – "Ausbildungsbetrieb 2010" (Training company 2010) in the district of Neu-Ulm
- » Honorary prize for prevention services in health and safety at work 2010
- » Education partnership with WiSS (Wirtschaftsschule Senden)

Cooperation partners

- » Partner in the "Donau-Iller" sheltered workshop
- » IPRI – International Performance Research Institute
- » Karlsruher Institute for Technologie (KIT)
- » The Fraunhofer Institute for Manufacturing Engineering and Automation IPA
- » Chamber of Industry and Commerce (IHK)
- » German Chamber of Commerce Abroad (AHK)
- » Mosbach Cooperative State University / Heidenheim / Ravensburg
- » University of Ulm
- » University of Neu-Ulm (HNU)
- » University of Stuttgart
- » Steinbeis Institute
- » Wirtschaftsschule Senden



Energy-efficient extraction technology

More powerful, more energy efficient & quieter than ever before

All new ESTA filter towers are equipped with EC fans and are therefore among the most powerful, energy-saving and quietest towers on the market.



Highly efficient & economical

Users can adjust the extraction performance as required. This significantly reduces the power consumption of the towers. FILTEROWER achieves power savings of up to 50 % compared to conventional filter towers with radial fans.

Low operating noise

ESTA also sets new standards when it comes to noise levels, thanks to optimised air flow and particularly smooth running fans: with a maximum of 70 dB(A), the FILTEROWERS are extremely low-noise during operation and ensure pleasant working conditions.

Top performance

The new generation is available in three performance levels up to a maximum air volume flow of 22,000 cubic metres per hour.

ESTA EasyControl system control

The in-house EasyControl system from ESTA enables the efficient and controllable operation of all filter tower designs. On the display the sensor signals are processed as seen on the right.



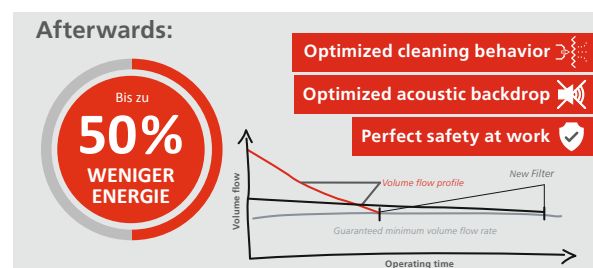
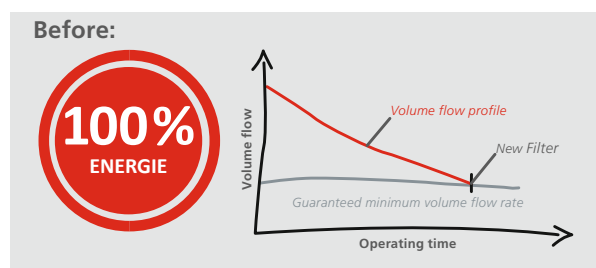
More efficiency with intelligent controls

Until now, most extraction units were operated with full drive power. However, not every application permanently requires the full power of the fan.

Depending on the application, the ESTA eco+ units can be controlled as required. The eco+ extraction units

offer full performance, yet save energy due to their adjustability.

The adaptable air volume flow also extends the filter service life, as the dust particles do not permanently impinge on the filter material at the maximum speed, therefor protecting the fabric.



Smart extraction technology

Intelligently networked into the future

ESTA extraction systems in the industrial 4.0 version have integrated network and protocol functions, which can be seamlessly integrated into a 4.0 environment. This implementation is done via any data connection such as LAN, WLAN or LTE. Users can retrieve and monitor the most important operating data such as air volume flow, operating hours or filter status at any location – even via tablet and smartphone.

This way, companies proactively avoid machine failures that could lead to a standstill of the entire

production chain. The measurement data obtained also shortens the troubleshooting time for service technicians. The procurement of spare parts can also be planned more efficiently.

The result: operating costs are considerably reduced. In addition, all measurement and operating data is permanently logged.

We offer predictive maintenance with our partner Advanced Industry Analytics. Please contact us for more information: esta@industry-analytics.com.

Your benefit

- » Simple coupling of the extraction system to company-specific network infrastructure via LAN/WLAN
- » Remote access and monitoring of all operating data is possible worldwide, even by the user himself
- » Reduction of failure risk through permanent logging and monitoring of operating parameters
- » Reduction of maintenance and service costs through remote monitoring and maintenance



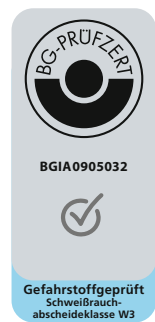
Quality from our own production

Our core competences lie in the application-specific design, construction and manufacture of extraction systems with the associated filter technology. We have been producing in Germany since our foundation in 1972 and will continue to do so in the future. This enables us to continuously optimize our quality production, because an excellent performance of our products at market-driven prices is our top priority.

Our certified quality management system guarantees compliance with all safety, quality, and environmental aspects within our value chain. In addition, we have also improved the Lean Production thoughts, which is deeply anchored in the company.

Our quality guarantors:

- » Quality Management System DIN EN ISO 9001:2015
- » Supplier audits
- » Goods receipt and goods issue inspection
- » Quality gates
- » Subassembly production
- » 100 % Final inspection
- » Own assembly teams
- » On-site device acceptance incl. ventilation measurements
- » External tests by IFA and TÜV (GS)
- » CE certification
- » Use of Lean, Kaizen and KVP
- » High degree of standardization, e.g. through sales configurator
- » In-house switch cabinet construction



Innovation & Know-how

In our innovation department we deal with the digital technologies of tomorrow and the networking of different systems. In addition to developing new products, we are constantly working on optimizing existing devices to make them even more efficient and fit for the digital world.

We benefit from our over 45 years of experience and competence in extraction and filter technology, in conjunction with our close proximity to our customers. ESTA works also closely together with numerous associations, initiatives and networks, such as the KIT Fraunhofer – because together we achieve more.

In our pilot plant we carry out a large number of tests in order to validate ideas in practice. In the last 5 years, there has been a 15-fold increase in the number of patent applications to date and an increase of 80 % in the number of inventor applications. This is due in part to the use of state-of-the-art 3D printing technology.



Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
Information

Clean the air – plant a tree

Trees as climate savers

Trees are real climate protectors: they absorb CO₂ from the air and incorporate the carbon of the greenhouse gas into their biomass. In the course of its lifetime, a tree can compensate for approx. 1,000 kg* of CO₂.

But trees can do more than just clean the air and produce oxygen. Forests improve soil properties and create important habitats for many different animal and plant species. They also serve as places of retreat and recreation for us humans.



Filter towers that plant trees

With the campaign “Clean the air – plant a tree” we have the foundation stone for the ESTA corporate forest. We gave our customers a tree sponsorship when they bought a filter tower and gave them that way the chance to make a personal contribution to climate protection.

The trees that have been planted are now deeply rooted in the ground and will ensure clean air to breathe in the future.

Corporate forest as a model for the future

The ESTA Forest covers an area of just under one hectare and is located only 20 kilometres from the company headquarters in Senden, near Erbach, a small town in the Alb-Donau district of Baden-Württemberg.

The reforestation project, in which ESTA trainees are also involved, is accompanied by the owner of the large forest, Freiherr Constantin von Ulm-Erbach, as forest godfather and has a model character for him.

Coniferous and deciduous trees, such as Douglas fir and black walnut, are planted, which are considered to be particularly climate-resistant.

If they are able to withstand the increasing extremes of the weather such as droughts, heat waves, heavy rain, long cold phases and hurricanes, conclusions can be drawn for further afforestation.



* per year, values vary according to tree species and size | Source: www.plant-for-the-planet.org

Original Equipment Manufacturer/OEM

For more than 45 years ESTA has been one of the leading companies in the field of extraction and filter technology. Based out of Senden and Ulm, we manufacture a wide range of innovative products and customized solutions for industry and trade – for a wide variety of industries and applications.

We use our decades of experience and expertise to offer our partners, as original equipment manufacturers, the best products and services in the industry, so that they can benefit from satisfied customers.

Our services

- » Devices in customer-specific paintwork and lettering
- » Personal support and technical advice from trained specialists
- » Sales support throughout the entire OEM product launch process in the target market
- » Country-specific solutions
- » Joint product developments
- » Product training in the ESTA Academy
- » Marketing support for online and offline media
- » Country-specific solutions
- » Various special solutions (e.g. mounting options)
- » Reliable and fast spare parts supply
- » Online shop for accessories



Guidelines and regulations

What are the important guidelines for extraction systems?

A declaration of conformity must be drawn up in order to place extraction systems on the European market: By affixing the CE mark to the product, the manufacturer confirms that his extraction systems comply with European standards.

An assessment is carried out in advance to identify the relevant guidelines and standards under which the extraction system falls. Normally, the Machinery Directive, the Low Voltage Directive and the Electromagnetic Compatibility Directive apply. Depending on the customer's application, the ATEX product directive can also be applied.

Current directives, standards and regulations

The current status of the guidelines in the field of extraction technology is:

- » Machinery Directive: 2006/42/EC
- » Low Voltage Directive: 2014/35/EU
- » Electromagnetic Compatibility Directive: 2014/30/EU
- » ATEX Product Directive: 2014/34/EU Hazardous Substances Ordinance

In addition, the manufacturer refers in the declaration of conformity to the harmonized standards and technical rules or DGUV regulations that were consulted by the designers during the project planning of the extraction system.

Some examples of current regulations for extraction systems:

- » DGUV Regulation 109-001: Grinding, brushing and polishing of aluminium – Prevention of dust fires and dust explosions (formerly BGR 109)
- » DGUV Regel 109-002: Workplace ventilation – Ventilation measures (formerly BGR 121)
- » DGUV Rule 209-044: Wood dust (formerly BGR 739-1)
- » DGUV Rule 209-077: Welding smoke – suitable ventilation measures
- » DGUV Information 209-073: Workplace ventilation – Decision-making aids for operational practice
- » DGUV Information 209-078: Buying extraction systems – the right way!
- » TRGS 528: Technical welding work
- » TRGS 560: Air recirculation when handling carcinogenic hazardous substances

Guidelines at ESTA Absaugtechnik

ESTA extraction systems are tested according to the CE guidelines. They comply with the European specifications, standards and directives for extraction systems and are therefore provided with a CE mark.

We will be happy to advise and support you on the subject of CE and conformity declarations with regard to extraction systems.

Please contact us!

+49 7307 3 40 96 80 - 0
export@esta.com

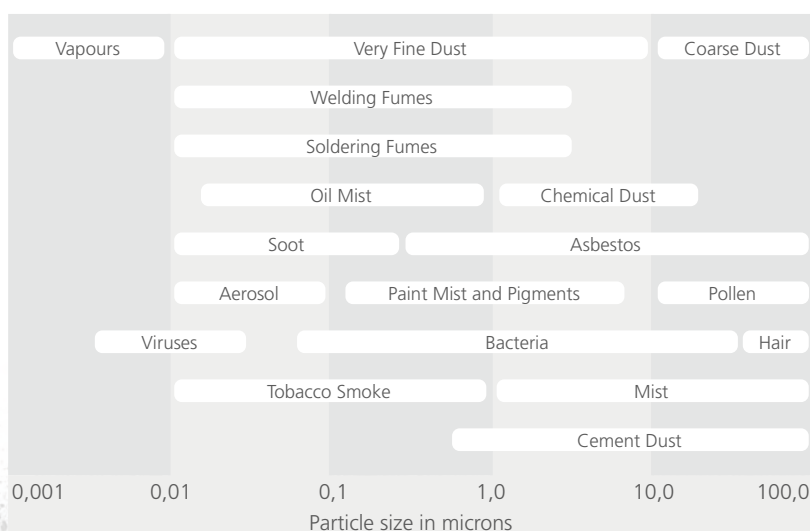
What You Should Know About Dust

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). 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 128, 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 EN 60335-2-69 Anh. AA	
Since 01.01.2005	Dust Classification	Max. Transmittance
With occupational limit value > 1 mg/m ³	At least L (M, H)	< 1 %
With occupational limit value ≥ 0,1 mg/m ³	At least M (H)	< 0,1 %
With occupational limit value < 0,1 mg/m ³	H	< 0,005 %
Carcinogenic substances (GefStoffV § 11, TRGS 905 bzw. TRGS 906 – Regulation for Hazardous Substances)	H	< 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/prg/staubklassen/staubkl.pdf>

General dust limit value*

Breathable dust fraction	10 mg/m ³
Alveolar dust fraction	1,25 mg/m ³

* for materials with no special toxic characteristics

Excerpt from the Table of Dust Types

Dust Types	MEL-Values (mg/m ³)	DC*
Aluminium (as metall)	1,25 Date: 02/14	L
Aluminum oxide	1,5 Date: 02/14	L
Aluminum oxide smoke	1,25 Date: 02/14	L
Barium (Ba) Working with brass (copper and zinc) and diverse alloys (with silver, cadmium, chrome, beryllium, nickel), electrical industry	0,5, E Date: **	M
Lead (Pb) Casting of lead and its alloys, production of ammunition and lead storage batteries, welding and cutting of metals containing lead and colours with a torch or arc welding, steel cable production, wire drawing, diamond grinding, shooting range	0,15, E Date: 02/07	M
Cadmium (Cd) Cadmium plating of metals, steel alloys, production of welding rods, colour pigments, welding and etching of cadmium alloys, production of solar cells, plastics industry (Cd as stabilizer) carcinogenic	0,16 µg/m³, A 1,0 µg/m³, E	H
Chrome (Cr) Corrosion resistant alloys (Ferrochrome), electrolytic chrome plating, production of chromate and bichromate for the textile industry, printing companies, tanneries, dyeing plants, photography, paint, chrome alloys, (arc welding) carcinogenic	from 0,1 to 0,03, G depending on the type of chrome and the processing method Date: 02/09	H
Iron Oxide (FeO₂) Welding, Metalworking, in iron and ochre mines	from 3 to 10, depending on the task Date: 06/10	L
Gypsum Gypsum production	6, F Date: 06/10	L
Graphite (crystalline carbon) Fabrication of electrodes and heat resistant moulds	1,25 Date: 02/14	L
Wood Woodworking industry, joineries, carpenter shops, parquet installers	2 + 5, E Date: **	M H
Diatomite, calcined and diatomite smoke	0,3, A Date: 06/10	M
Diatomite, non-calcined	4, E Date: 06/10	L
Dust containing silicic acid (SiO₂) Quartz quarries, sandstone, fire stone, quartzite, slate, foundries with sand moulds, porcelain, sanitary and heat resistant ceramics, high temperature ovens, glass industry, sanding of sand stone, construction industry, production of silicon carbide	0,15 4, F if SiO ₂ content is > 4% Date: 06/10	M L

Dust Types	MEL-Values (mg/m ³)	DC*
Cobalt (Co) Special alloys, hardened metal industry, glass and ceramics industry (enamel), cobalt plating of metals, grinding of surgical prostheses, diamond grinding, carcinogenic	0,5, E Date: 05/08 Minimization requirements	H
Copper (smoke) Working with brass (copper and zinc) and diverse alloys (with silver, cadmium, chrome, beryllium, nickel), electrical industry	In progress	
Manganese (Mn; smoke) Iron-manganese-electrodes, metallurgy, dry batteries, colours for ceramic and glass (in the form of salt)	0,02, A 0,2, E	H
Flour	4 Date: **	L
Nickel (Ni; Oxide) Electrolytic nickel plating, batteries, coins and kitchen utensils, heat and corrosion resistant steel	0,03, E 0,006, A Date: 02/09	H
Quartz	0,05, A Date: **	H
Quicksilver compounds carcinogenic	0,02, E Date: 06/10	H
Grain dust Agriculture, bakeries, mills, work in silos	4, E Date: **	L
Silver	0,1, E Date: 06/10	M
Silver compounds, soluble	0,01, E Date: 05/08	H
Tobacco	0,5, G Date: **	L
Titan (Ti) Titan(IV)oxide	0,5, F Date: 06/10	L
Cement dust Cement plants	In Progress	
Zinc (Zn; Oxide) Galvanizing, use of brass (copper and zinc), colours and colour pigments with zinc or zinc oxides	2, E 0,1, G Date: **	L
Pewter (Sn) Organic and inorganic compounds pewter plating of metals, working with pewter alloys. Organic derivatives are used for the production of plastics and pesticides	2, G 0,1, G Date: **	L H

* = Dust Classification

** no limit currently specified

F/G = Values referring to the breathable fraction

Further information and occupational exposure limit values can be found in the IFA Report 01/2018, List of Hazardous Substances 2018 and in the regulations TRGS 900 as well as under:

www.esta.com/wissen

Fire protection and ATEX

For a safe workplace

Fire and explosion hazards exist in all industrial plants in which flammable and explosive dusts occur.

The terms „fire hazard“ and „explosion hazard“ are often used synonymously. Of course there are certain influences among each other, but during project planning both must be separated, because fire protection measures do not prevent an explosion – and vice versa.

Therefore, we would like to explain the terms „fire“ and „explosion“ separately at this point.

Fire protection

A decisive indicator for the possible ignitability of a dust and the spread of a fire is the number of flames.

This is classified as follows:

Type of reaction		BZ	Eexamples
No spread of a fire	No burning	1	Table salt
	Short burn-on and rapid extinction	2	Tartaric acid
	Local burning or smouldering with a minimum of spread	3	Lactose
Fire spread	Annealing without sparking (smouldering fire) or slow, flameless decomposition	4	Tobacco
	Propagation of open fire or burning under spark spraying	5	Sulphur
	Deflagration-like combustion or rapid flameless decomposition	6	Black powder

A determination of the burning number can be made via the EX-Gestis (<http://staubex.ifa.dguv.de>) or via a substance analysis, which we can carry out for you.

We can offer the following deletion variants:

- » ABC powder extinguishing (D for metals, if applicable)
- » CO₂ quenching
- » Argon deletion
- » Water extinguishing

ESTA has developed a three-stage security concept, which we coordinate individually with the customer. If the customer wishes to deviate from the concepts, we advise and project these wishes and point out the corresponding advantages and disadvantages in advance. You will find decision-making aids for a safety concept in the standards VDI 2263 Part 6 and VdS 3445, among others.



Dust Extractors

High Vacuum
Extraction Units

Welding Fume
Filters

Air Purifier

Oil Mist
Separators

Carbon Filters

Downdraft
Tables

Extraction Fans

Extraction Arms

Filter Towers

Central Extraction
Systems

Pipe Systems

About us

Interesting
information

Explosion protection

If one speaks of explosion protection, one meets the term ATEX with high probability.

ATEX stands for ATmosphères Explosibles.

Explosion protection is regulated by the ATEX directive, which is divided into the following categories

ATEX-Product directive 2014/34/EU

and the

ATEX-Operational policy 1992/92/EG

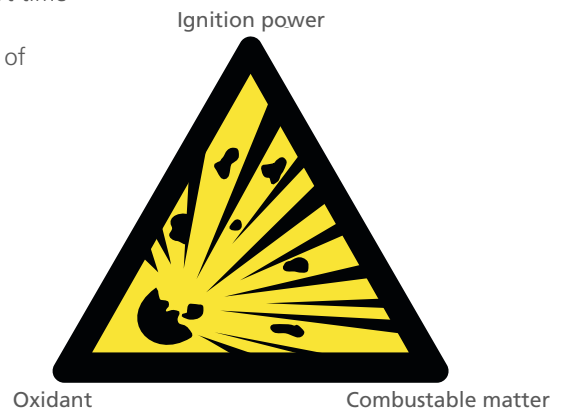
The term „explosion“ refers to a chemical reaction or physical process in which the temperature and pressure rise considerably in a very short time (a few milliseconds).

This results in a sudden volume expansion of gases and the release of large amounts of energy in a small space.

The sudden release of energy causes a pressure wave that expands in all directions with attenuation.

After a certain time, the pressure wave is overtaken by the flame front (deflagration).

The prerequisite for an explosion is the so-called “explosion triangle”:



ATEX extraction systems

There is always a risk of explosion in all extraction systems in which combustible dust occurs. Under certain conditions, an explosive mixture forms in these „Ex areas“ in conjunction with air. A small spark (e.g. due to static charging) is sufficient to cause a dust explosion.

In order for our extraction systems to be designed for explosion protection and ATEX extraction, certain parameters must be known.

These include, for example:

- » The minimum ignition energy (MIE)
- » Explosion limits (UEG/OEG)
- » Dust explosion class Kst value
- » Grain size





ATEX zones

In addition, the extraction system is divided into zones. A distinction must be made between gases and dusts.

For gases:

Zone 0	a place in which a dangerous explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapour or mist is present continuously, for long periods of time or frequently
Zone 1	is a place in which an explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapour or mist may occasionally occur in normal operation
Zone 2	is a place in which, during normal operation, a dangerous explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapour or mist is not likely to occur in normal operation but is unlikely to occur in normal operation and is likely to persist for a short period only

For dusts:

Zone 20	a place in which a dangerous explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, for long periods of time or frequently
Zone 21	is a place in which, during normal operation, an explosive atmosphere in the form of a cloud of combustible dust in air may occasionally occur
Zone 22	is a place in which, during normal operation, a dangerous explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur or is likely to occur only infrequently and for a short period only

Explosion protection measures

- » Plant components electrically conductive throughout
- » Ignition hazard assessment
- » Explosion pressure or explosion pressure shock resistant construction of apparatuses
- » Non-return valves
- » Flameless pressure relief
- » Explosion suppression systems
- » Preparation of an explosion protection document



We provide our services in accordance with the following legal principles:

- » Ordinance on Industrial Safety and Health (BetrSichV)
- » Ordinance on Hazardous Substances (GefStoffV)
- » Directive 1999/92/EC
- » Directive 2014/34/EU
- » Technical Rules for Operational Safety (TRBS), e. g. TRBS 1201 Part 1
- » Technical Rules for Hazardous Substances (TRGS), e. g. TRGS 510 and TRGS 509

*Do not expose yourself and your environment unnecessarily to danger!
Gain a head start through Safety – with ATEX compliant products from ESTA.*

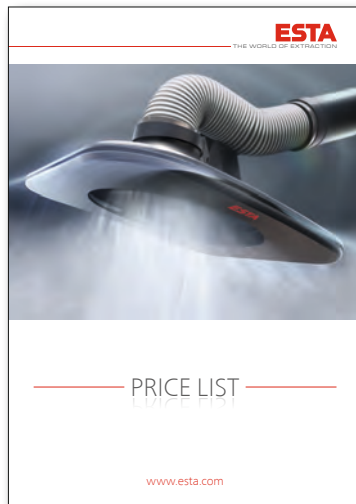
Our sales consultants will work with you to find the right solution.

Please contact us!

+49 7307 3 40 96 80 - 0 · export@esta.com

This image shows a full page of blank graph paper. The grid consists of thin, light gray horizontal and vertical lines that intersect to form small squares across the entire surface. There are no margins, text, or other markings on the paper.

Information and communication are very important to us.
Please request our information materials.



ESTA Price list



Image Brochure



ESTA eco+-Series



ESTA Maintenance Service

Request it now

Phone +49 7307 3 40 96 80-0

Fax +49 7307 804-500

E-Mail export@esta.com

www.esta.com



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

ESTA Sales Companies

- » Poland
- » Slovakia
- » USA

ESTA Agents

- » Austria
- » Bulgaria
- » Canada
- » Croatia
- » Czech Republic
- » Denmark
- » Estonia
- » France
- » Hungary
- » Ireland
- » Israel
- » Lithuania
- » Mexico
- » Netherlands
- » Romania
- » Russia
- » Saudi Arabia
- » Singapore
- » Slovenia
- » Spain
- » Switzerland
- » Turkey
- » United Kingdom
- » United Arab Emirates

ESTA Apparatebau GmbH & Co. KG

Gotenstraße 2–6
89250 Senden / GERMANY
Phone +49 7307 3409680-0
Fax +49 7307 804-500
E-Mail export@esta.com