The World of Extraction ESTA





Extraction Table

The World of Extraction ESTA



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Your ESTA Absaugtechnik Team





Operating manual

Welding and grinding table

Item No. 44.010 (A 880) Item No. 44.020 (A 1280) Item No. 44.030 (A 1680) Item No. 44.040 (A 2080) Item No. 44.011 (A 880) side panel) Item No. 44.021 (A 1280 side panel) Item No. 44.031 (A 1680 side panel) Item No. 44.041 (A 2080 side panel) Item No. 44.042 (A 880 rear panel extraction) Item No. 44.032 (A 1280 rear panel extraction) Item No. 44.032 (A 1680 rear panel extraction) Item No. 44.042 (A 2080 rear panel extraction)



Translation of the original instructions 44010-08-01

Site owner information

Original operating manual Document No.: 44010-08-01 Publishing date: 17.04.2013

 Type of device:
 Welding and grinding table

 Item No.:
 44.010 // 44.020 // 44.030 // 44.040 // 44.011 // 44.021 // 44.031 // 44.041 //

 44.012 // 44.022 // 44.032 // 44.042 and variations

Publisher

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1. General instructions

Before operation, all persons who are to use the device or perform maintenance on it must be provided with information, instructions and training in using the device and on the substances for which it is to be used, including the procedure for safe disposal of the collected material. Responsibilities must be clearly established for the following:

- Installation
- Start-up
- Operation
- Maintenance and repair



Read the operating manual carefully before working with the device.

The device must be used only by persons who have been instructed in its handling and are explicitly authorized to use it.

Always keep the operating manual at the place where the device is being used, so that it can be seen by personnel at all times.

2. Product identification

2.1 Technical data

2.2.1 "Standard" welding and grinding table

We reserve the right to make technical changes.

Item No.		44.010	44.020	44.030	44.040
Model		A 880	A 1280	A 1680	A 2080
Work surface (L x W)	[mm]	800 x 700	1,200 x 700	1,600 x 700	2,000 x 700
Connection diameter	[mm]	160		200	
Dimensions Length Width Height	[mm]	880 840 800	1,280 840 800	1,680 840 800	2,080 840 800
Weight	[kg]	approx. 85	approx. 165	approx. 150	approx. 300
Production year			See moo	del plate.	

2.2.2 Welding and grinding table with side panel

We reserve the right to make technical changes.

Item No.		44.011	44.021	44.031	44.041
Model		A 880	A 1280	A 1680	A 2080
Work surface (L x W)	[mm]	800 x 700	1,200 x 700	1,600 x 700	2,000 x 700
Connection diameter	[mm]	160		200	
Dimensions Length Width Height	[mm]	880 840 1,600	1,280 840 1,600	1,680 840 1,600	2,080 840 1,600
Weight	[kg]	approx. 90	approx. 170	approx. 160	approx. 310
Production year		See model plate.			

2.2.3 Welding and grinding table with rear panel extraction

Item No.		44.012	44.022	44.032	44.042
Model		A 880	A 1280	A 1680	A 2080
Work surface (L x W)	[mm]	800 x 700	1,200 x 700	1,600 x 700	2,000 x 700
Connection diameter	[mm]	160		200	
Dimensions Length Width Height	[mm]	880 840 1,600	1,280 840 1,600	1,680 840 1,600	2,080 840 1,600
Weight	[kg]	approx. 90	approx. 170	approx. 160	approx. 310
Production year		See model plate.			

We reserve the right to make technical changes.

2.2 Intended use

2.2.1 Environmental conditions

Ambient temperature	[°C]	5≤9≤40
Rel. humidity	[%]	30 - 70

2.2.2 Intended use

The device has been manufactured according to recognized safety regulations and must be used as intended:

- for commercial use, such as in industrial enterprises and workshops.
- for extracting dry, non-combustible grinding and welding fumes.
- only for dry cleaning.
- for connection to a filter or suction device (such as a suction fan, etc.)

Other applications are considered unintended use. ESTA is not liable for damages due to unintended use!

The manufacturer sets up the device according to the operator's information.

2.2.3 Unintended use

The device has been manufactured according to the state of the art and recognized safety regulations. Unintended use may cause hazards.

Therefore:

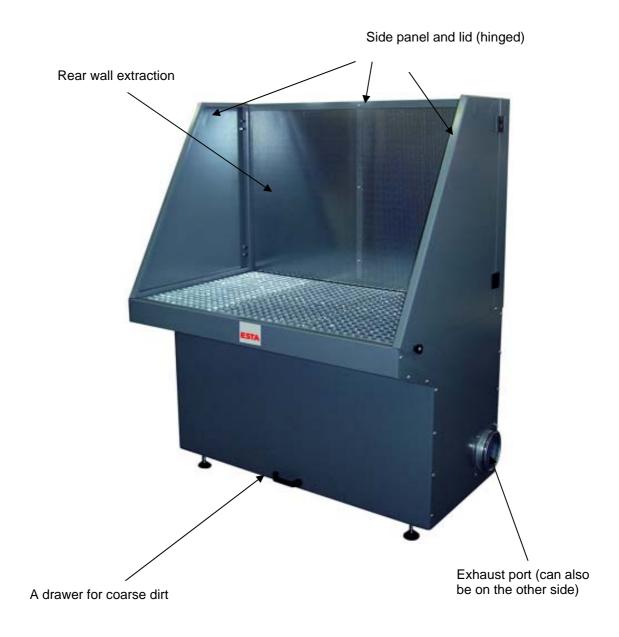
- **<u>Do not</u>** use the device for extracting fumes from welding oil-moistened parts.
- **<u>Do not</u>** use it for extracting combustible welding fumes.
- **<u>Do not</u>** use or store the device outdoors or under wet conditions.
- **<u>Do not</u>** change the location of the device during suction operation.
- **<u>Do not</u>** set up or operate in gas-explosive areas.
- **<u>Do not</u>** use in painting operations.
- <u>Do not</u> connect to processing machines that may produce active ignition sparks or hot embers.
- <u>Do not</u> exhaust mildly combustible or glowing particles.
- **<u>Do not</u>** suck up liquids.
- **<u>Do not</u>** exhaust aggressive gases.

2.2.4 Reasonably foreseeable misuse

- **<u>Do not</u>** suck up hot embers, such as cigarette butts.
- **<u>Do not</u>** cause complete closure of the suction ports.

3. Product description

- 3.1 Device diagram
- 3.1.1 Welding and grinding table with side panel and rear panel extraction



3.2 Functional description

The welding and grinding table is a surface for welding and grinding work, but it can also be used for other materials processing.

When it is connected to a filtration device, the extracted air is filtered and can be routed back into the room. When a suction fan (such as an RG 200) is connected without a filter unit, the exhaust air is guided outdoors.

The coarse dust lands in the collection drawer.

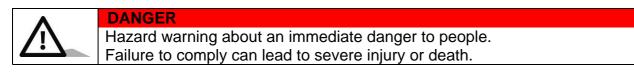
On devices with side panel and rear panel extraction, the side panels can be swivelled for processing larger work pieces.

4. Safety instructions

4.1 Hazard classes

Safety instructions and cross-topic information are indicated in this manual by symbols.

Based on the severity of the hazard, the hazard warnings are categorized as follows:





WARNING

Warning about a recognizable hazard.

Failure to comply can lead to severe injury or death, and can destroy the device or parts thereof.



CAUTION Instruction about a hazard.

Failure to comply can lead to mild injury and to damage to the device.

4.2 Explanation of symbols

	i		Further information
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Reference to ESTA customer service

Reference to legal regulations

4.3 General safety instructions

During exhaust, the volume flow returned from the device into the room should be no more than 50% of incoming air. With free room ventilation, the incoming airflow must equal the room volume every hour. This means that the rate of air replacement must be once per hour.

Incoming airflow $[m^3/h]$ = room volume $[m^3] *$ air replacement rate [1/h]

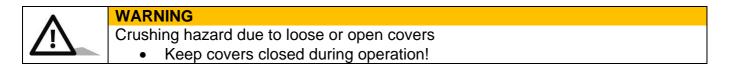
Example:

When the device is operating at the nominal airflow volume of $1,060 \text{ m}^3/\text{h}$, the same volume of fresh air must be fed in. This occurs with natural ventilation if the volume of the work room is $1,060 \text{ m}^3$ (e.g., 353 m^2 surface with a 3 m ceiling height).

§ According to work equipment user directives 2009/104/EG and TRGS 560, safety devices for prevention or removal of hazards must be regularly maintained and regularly inspected by an expert for safe, flawless operation.

If there is a fire, alert the fire department immediately, and contain the fire by appropriate means. Therefore keep a suitable extinguishing agent near the device before start-up and during operation.

4.4 Preventing mechanical hazards



4.5 Preventing dust hazards

Damage due to dust release
 Maintenance, cleaning, repair and emptying must be done only by expert personnel. Wear personal protective gear. Respirator mask (particle filter class P3) Protective clothing Safety gloves Set up locally filtered forced-air ventilation when the device is being maintained, inspected or cleaned. During transport, close the intake port dust-free with sealing plugs.
CAUTION Damage due to dust build-up in the pipe system



Damage due to dust build-up in the pipe system

- Regularly check the connected pipe system for dust build-up.
- Observe the minimum air speed for your application and the resulting minimum airflow volume.

When removing the dust collection container, it is possible to inhale dust. Therefore all repair, cleaning and maintenance procedures, including removing and emptying the dust collection container, must be performed by expert personnel using personal protective gear.

The people assigned to cleaning work must be instructed on the aspirated toxic materials. All distractions by uninvolved persons and the environment must be prevented. Clean the maintenance area thoroughly after maintenance is finished.



5. Delivery and start-up

5.1 Delivery and transport

•	DANGER
	Danger from falling device
$\overline{\langle \cdot \rangle}$	Do not walk under heavy loads.
	 The lifting equipment must be designed for the weight of the device.
	WARNING
	Crushing hazard if the device settles during transport
	Secure the device during transport.
	Wear safety shoes.
	CAUTION

The device may be damaged if transported wrong.

- Do not slide the device across the floor if it has no casters.
- Use only suitable lifting equipment (such as a crane) and transport equipment (such as a forklift or lift truck) when transporting the device to its set-up location.

At delivery, the device is fastened to a pallet. Remove the protective cover and floor securing devices. Inspect the delivery for completeness. Use a lift truck or forklift to lift and transport the device to its set-up location. Pay attention to the weight of the device and its centre of gravity during all transport operations.

Upon delivery, please inspect the device for transportation damage. Damage determined must be reported and documented immediately.



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5.2 Connection

During set-up, make sure that the device is level. If the floor is uneven, a SW 19 open-end wrench can be used to even the adjustable feet.

No other assembly work is needed for the welding and grinding table.

If a filter or suction device is used for the table, a conductive pipe joint must be connected air tight to the intake port provided for the purpose. Follow the operating manual for the filter or suction device connected!

6. Operating instructions

6.1 **Processing large work pieces on the device**

To process large work pieces, the side panels must be opened, if necessary. To do this:

- > Lift the lid.
- Remove the knurled nuts on the sides.
- > Fold back the side panels and secure them.

To return the side panels to position, follow the same procedure in reverse.

7. Maintenance & troubleshooting

7.1 Maintenance instructions

CAUTION
 Damage due to dust release Maintenance, cleaning, repair and emptying must be done only by expert personnel and according to applicable occupational safety regulations. Wear personal protective gear. Respirator mask (particle filter class P3) Protective clothing Safety gloves Set up locally filtered forced-air ventilation when the device is being maintained, inspected or cleaned. During transport, close the intake port dust-free with sealing plugs.

For maintenance by qualified personnel, the device must be opened, cleaned and inspected at the given locations. During maintenance or repair work, all soiled objects that can no longer be adequately cleaned must be disposed of. Such objects must be disposed of in a dustproof bag in compliance with locally applicable regulations for disposal of such refuse.

S To ensure the device's safe operation and long life, it is both recommended and necessary to inspect it regularly.

The maintenance work must be recorded in writing in the maintenance book provided. This must make clear the equipment inspected and, if necessary, the deficiencies found, along with the name of the inspector and the date of the inspection.



7.2 Inspection and maintenance intervals

Regular maintenance consists of the following intervals:

Daily inspection includes: By the device's user

Visual inspection

- for damage to the device or its parts,
- for a full dust collection container (regulations require that the container be emptied if it is more than 2/3 full),

2. Monthly inspection includes:

> By expert maintenance personnel

Visual and functional inspection

- for leaks in the lower suction area (insertion of dust collection container, pipe joint to suction assembly)
- for poor suction performance due to dirt in the air routes, if a suction device is connected.

A maintenance contract ensures a long life and top-notch operation for your device.

We'll make you a great offer — just call us up:



C.

ESTA maintenance service: +49 (0) 7307 804 - 0 ESTA replacement part service: +49 (0) 7307 804 - 0

7.3	Cleaning the device
-----	---------------------

	CAUTION
•	Fire hazard from deposited residue and caking inside the device
	 Regularly remove combustible adhered residue.
	 Prevent sparks from entering.
	 During transport, close the intake port dust-free with sealing plugs.

During welding and grinding work, dust caking and deposits cannot be prevented. It is therefore necessary to clean the welding and grinding table regularly with a suitable cleaner to ensure the table's functionality.

Depending on the application, weekly inspection of the device is necessary. If adhered residue is found, wipe it downward with a damp cloth into the dust collection drawer or remove it with a suitable industrial vacuum cleaner.

7.4 Troubleshooting

Only if the welding an	grinding table is connected to	an extraction device.
	J J J J J J J J J J	

Problem	Possible cause	Possible solution
Not enough suction	Connection to the suction assembly clogged	In a vacuumed area, hold the hose (pipe) vertically and bang it out with a rubber mallet.
	Suction too weak	See the suction assembly's operating manual.
	Dust collection drawer too full	
		Empty

8. Disposal

CAUTION
Damage due to dust release
 Emptying and disposal must be performed only by expert personnel. Wear personal protective gear. Respirator mask (particle filter class P3) Protective clothing Safety gloves Set up locally filtered forced-air ventilation when the device is being maintained, inspected or cleaned.

8.1 Disposing of collected dust

To dispose of coarse dirt, the collection drawer must be pulled out. Dispose of the dust contained in the drawer according to local regulations. Empty early after regular inspection.

8.3 Disposing of the device

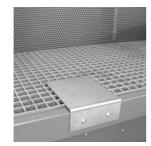
Before disposing of the device

- Remove the dust collection containers from the device as described, and close them firmly.
- > Take the removable parts (e.g. grate, lid, etc.) out of the device.
- > Package the device and the removed parts according to local regulations.
- > Dispose of everything according to local regulations.

i Due to contamination of the device with toxic dust, ESTA cannot take the device or its parts back.

9. Optional equipment

9.1 Fastening a vice



The table can be delivered with a reinforcement plate for installing a vice.

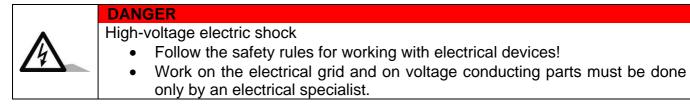
9.2 Turntable



An optional turntable can be supplied for flexible work.

9.3 Lighting

Before setting up the cable connection between the device and the power grid, check to make sure the operating voltage shown on the model plate is the same as that of the grid.



Optionally, the extraction table can be equipped with lighting in the lid.

Connect the extraction table to a suitable power source.

9.4 Electrical sockets



Before setting up the cable connection between the device and the power grid, check to make sure the operating voltage shown on the model plate is the same as that of the grid.

D	A	N	G	E	R	

High-voltage electric shock

- Follow the safety rules for working with electrical devices!
- Work on the electrical grid and on voltage conducting parts must be done only by an electrical specialist.

The extraction table can optionally be built with electrical sockets for supplying power tools (such as manual grinders, etc.).

Connect the extraction table to a suitable power source.

9.5 Compressed air connection

Optionally, the extraction table can be equipped with a compressed air connection. For this, a maintenance unit is attached to the extraction table. This is used to connect the extraction table to the local compressed air network.

9.6 Fibreglass-reinforced work surface grate

Optionally, the work surface can be designed as a fibreglass-reinforced grate.

9.7 Wood slatted frame work surface

٨	CAUTION
The slatted frame may be damaged by wet parts.	
	 Only work with dry parts on the slatted frame.
	CAUTION
	Hot parts may cause sparks or fire.

-	-	•	
•	Do not place	hot or glowing parts on the sla	tted frame.

- Only work with dry parts on the slatted frame.
- Prevent sparks.

Optionally, the work surface can be designed as a wood slatted frame.

9.8 Work surface with ball casters

٨	CAUTION
	Heavy parts may damage the ball casters.
	 Observe the ball casters' maximum weight capacity.

CAUTION				
	Poor maintenance may damage ball casters.			
Ŵ	 Make sure that the ball casters are maintained regularly. It is recommended that ball casters be lubricated regularly with oil or grease, depending on temperature or dirt exposure, in keeping with general regulations on roller bearings. 			

Optionally, the work surface can be designed with ball casters. This makes it easier to slide or turn the processed piece on the work surface.

9.9 Mobile version

Make sure the floor has adequate and weight capacity and dissipation and can be properly driven on when transporting the device to the set-up location.

	CAUTION
$\mathbf{\Lambda}$	Danger of spontaneous movement due to unsuitable floor
	• Make sure that the floor is even, suitable for traffic and has adequate load
	capacity!
	CAUTION

	CAUTION			
	Danger of running over feet due to unintentional movement			
Λ	Do not park on a sloping floor!			
	 Always engage the brake rollers' brakes when parking the device! 			
	 Always wear safety shoes when moving the device! 			
	Before moving, dismantle all connections.			

The device can come in an optional mobile design. For this, the device comes with appropriate casters or brake rollers. This allows the device to be moved easily to a different location. This is an advantage when no suitable lifting device (such as a forklift or indoor crane) is available.

In proper use, the caster's locking device is engaged when stopped, in order to fix the position.

9.10 Electrically conductive throughout

The device can optionally be built electrically conductive throughout. This creates potential equalization between the processing machine and the workstation.

10. Declaration of incorporation

for incomplete machines pursuant to EC guideline 2006/42/EG, Appendix II, Part 1 B

Name of manufacturer: Address of manufacturer:	ESTA Apparatebau GmbH & Co. KG Gotenstraße 2 - 6 89250 Senden
Person in charge of documentation:	Ramona Pflum Gotenstraße 2 - 6 89250 Senden

We hereby declare that the design of the incomplete machine

Machine:Extraction table for capturing and separating dry, free-flowing
dusts of dust class M and welding fumes.

Model:	A 800
	A 1280
	A 1680
	A 2080
	A 880 with side panel
	A 1280 with side panel
	A 1680 with side panel
	A 2080 with side panel
	A 880 with rear panel extraction
	A 1280 with rear panel extraction
	A 1680 with rear panel extraction
	A 2080 with rear panel extraction
	•

conforms to the following regulations:

2006/42/EG EC Machine Directive,

Reconciled norms used:

DIN EN ISO 12100	Safety of machinery - basic concepts, general principles for design	
DIN EN ISO 13857	Safety of machinery, devices and systems; safety distances to prevent	
	hazard zones from being reached	
DIN EN 349	Safety of machinery; minimum distances for preventing body parts from being crushed	

National norms and technical specifications used:

DIN EN ISO 15012-1 Health and safety in welding and allied processes

Safety and health protection requirements according to 2006/42/EC Appendix I that are applied and observed:

1.1.1; 1.1.2; 1.1.3; 1.1.5; 1.1.6; 1.3; 1.3.1; 1.3.2; 1.3.3; 1.3.4; 1.3.6; 1.3.7; 1.3.8; 1.3.9; 1.4; 1.4.1; 1.4.2; 1.4.2.1; 1.4.2.2; 1.5; 1.5.2; 1.5.4; 1.5.5; 1.5.6; 1.5.7; 1.5.9; 1.5.10; 1.5.13; 1.6; 1.6.1; 1.6.2; 1.6.4; 1.6.5; 1.7; 1.7.1; 1.7.1.1; 1.7.2; 1.7.3; 1.7.4; 1.7.4.1; 1.7.4.2; 1.7.4.3

Note: The incomplete machine can be operated only once it has been determined that the building's capacities meet the specifications in the directives mentioned above.

Technical documentation was created according to Appendix VII Part B of this guideline. We agree to provide the responsible authorities with this documentation in electronic form upon justified request.

Dr. Peter Kulitz CEO

Senden, 17 April 2013



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Amount	Order-No.	Item description

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Signature:

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ESTA Extraction Technology

- Mobile Extractors
- Stationary Dust Extractors
- Industrial Vacuum Cleaners
- Welding Fume Filters
- Oil Mist Separators
- Extraction Fans
- Extraction Arms
- Central Extraction Systems
- Pipe Systems

We reserve the right to make technical changes

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