

The new „HS Cleaner 2“

Operator`s manual & working instructions

- ⇒ **cleaning**
- ⇒ **marking**
- ⇒ **polishing**



Referral:

To ensure putting into operation, operation and maintenance of the Cleaner a Faultless and sure it is recommended to make to the service staff accessible and to read through before use this operator`s manual well.

Follow the safety instructions!

**HS Cleaner
Werner Krauter GmbH
Siemensstraße 2-5
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HS Cleaner 2

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1. Purpose:

The device may exclusively to the cleaning of very alloyed steels as well as metal surfaces mark electrically more leadingly used be.

2. Sicherheitshinweise:

Wearing protective clothing, acid-resistant protective gloves and safety goggles when work with the device. Working only in rooms ventilated well.

Avoid eye contact absolutely, injury danger!

If Electrolyte liquid should reach the eyes nevertheless, with a lot of water at least 15 min. rinse out for a long time, immediately go to doctor!
Cleaning at skin and cloth contact with a lot of water.

3. Technical data:

Line voltage	230 V, 50 Hz
Protection primary	Feinsicherung 5 x 20 mm, 5 A träge
Protection secondary	Schutzschalter ETA 20 A
Nominal power	260 VA
Output stream	0 – 15 A bei 100 % ED
Highest secondary voltage	AC – 18 V / DC 25 V
Enclosure rating	IP 21
Measures L x W x H	300 x 120 x 270 mm or 260 x 220 x 220 mm
Weight	ca. 5,8 kg

***The device is allowed to carry the „S-sign“:
Working suitably for it in narrow rooms with endangering specially for a
Special safety.***

Producer:

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4. Transport instruction:

All containers have to be locked well!

Umgebungstemperatur -5° bis $+ 40^{\circ}$ C

Max. rel. Air humidity 95 %, Use only in interiors.

The built-in electrical parts have to be protected from an immediate wetness influence.

5. Putting into operation:

Importing connection lines into the equipment sockets by easily pushing at the plug red and black color identically.

Attaching hand stamps to the black cable with graphite electrode.

Current stick red connect with workpiece.

Put stamps down always isolatedly!

Plugging enclosed mains power line in at the back and putting switches on "on".
If the light-emitting diode shines at the front, the device is operational

6. Operating mode:

cleaning:

- * Putting over stamps and fastening with rubber ring yellow, in front of moistened Keflar long time felt on both sides.
Dipping stamps into the wide neck container filled with "Cleanox 2".
- * Putting performance regulators on "norm" and switch on "cleaning".
- * Under an easy pressure the welded seam by slow in front of-and clean forward movements backward.
- * **Put stamps always isolated down (f.e. in the wide neck container)!**
- * Rinsing off cleaned seam with water.
- * Stamp and felt should be washed with water after finishing the work.

Marking dark / bright:

The "marking electrolyte universal" (not contained into accessory suitcases)! is used for marking on metal and high-grade steel surfaces. While doing this choose phase "marking".

The „marking electrolyte **"bright"** (-not contained into accessory suitcase!-) is for marking bright on metal and high grade steel surfaces. While doing this choose phase "polishing".

aluminium- und yellow chromated surfaces can be marked bright only. For this purpose you have to use the "marking electrolyte universal" and choose the phase polishing (*).

Approach:

- * Putting stencil on workpiece cleaned well and fixing perhaps with adhesive tape.
- * Attaching marking felt to the stamp and moistening this well.
- * Put performance regulator on „norm" and switch on „marking" (-marking dark-) or switch on phase polishing for marking bright.
- * Stroking under an easy pressure over stencil slowly with a moistened stamp 2 until 3 times.
- * ***After marking put the stamps down always isolated!***
- * Cleaning stamps and felt after the end of the marking stencil with water thoroughly
With chafed through felt the protective switch could release 20 Amp.
Remedy: Replacing felt and pressing in circuit breakers again:

Area of application „marking electrolyte universal and bright“:

steel	10-18 V alternating current	2-3 sec. or rather. 2-3 x overline
high grade steel (V2A etc.)	9-18 V alternating current	2-3 sec. or rather. 2-3 x overline
high alloy steel (18/10 etc.)	12 V alternating current	time of signing has to be reduced (or else bright)
aluminium *	12 V direct current	ca. 2 sec., depending on alloying, overline

Brass / Copper	12 V alternating current	1-2 sec. or rather 1-2 x times overline Rinsed off, dried and after this wash with an easily moistened cloth.
yellow chromated	18 V direct current	2-3 sec or rather 2-3 x overline.
Surfaces *		
Chrome layers	12 V alternating current	perhaps extend signing time a little
Nickel layers	12 V alternating current	2-3 sec. or rather 2-3 x overline
Zinc	12-18 V alternating current	1-4 sec. or rather 1-4 x overline

Generally applies to iron-bearing steels:

As soon as the signing picture gets sheer (whitish), too much current runs.

→ Shortening current/tension down rules, possible signing time

polishing:

- * **„Put switch on DC „polishing“.**
- * Clean badly soiled welded seems before polishing with "cleanox 2".
- * yellow to middle tempering tarnishes on sharpened and polished metals can be polished and cleaned in one operation with superpolish (*-not contained into accessory suitcase!-*)

Please comply the following points while polishing:

- * Use superpolish (*-not contained into accessory suitcase!-*)
- * Use glass silk tape fiber glass (*- not contained into accessory suitcase!*), if possible, 38mm x 2,8 mm x 7 m long.
- * Turn rotation switch left to the minus sign (-).
- * Pushing the stamp with felt on the material for some sec..
Polishing after that with slow movements.
- * Perhaps change rotation switch to optimize polishing.
- * Rinse off polished seem with water.
- * Stamp and felt should be washed with water after finishing the work.
- * Turn the switch back on cleaning after finishing work.
- * Put stamps always isolated down (f.e. in the wide neck container)!

7. Safety data:

Cleanox 2 is "corrosive" and with that it has no obligation duties. It is suitable for the remove of easy and strong oxide films.

Further information see under 11. Safety data Cleanox 2.

8. Maintenance:

The device is maintenance-free.

An annual check by an electric qualified employee to VDE 0701-1 **is recommended.**

9. General:

The special characteristics for cleaning and marking are reached by an exclusively for these tasks developed automatic control.

If the diode on the front of the device doesn't shine, please check the connection. The equipment fuse can if necessary "fine protection 5 x 20 mm 5 ares sluggish" be exchanged by opening the lid at the on / off button (device rear).

10. accessories / spare parts:

The accessories-/ spare part list is integrated and can be taken from our price list.

11. Safety data sheet Cleanox 2:

Enclose you 'll receive the safety data sheet Elektrolyt Cleanox 2.

12. EC-conformity explanation:

Description of the machine: metal cleaning and polishing

Machine type: HS-Cleaner 2

In the execution brought about to circulation by us the machine meets the requirements of following guidelines in her conception:

*EC-low voltage guideline 73/23/EWG changed by 93/68/EWG
EC- guideline over electromagnetic compatibility 96/336/EWG*

Applied norms:

EN 55011, EN 61000 6 – 2, EN 61000 3 – 2, EN 61000 3 – 3

Im Falle von unbefugten Veränderungen, unsachgemäßen Reparaturen oder Umbauten, die nicht ausdrücklich vom Hersteller autorisiert sind, verliert diese Erklärung ihre Gültigkeit.

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