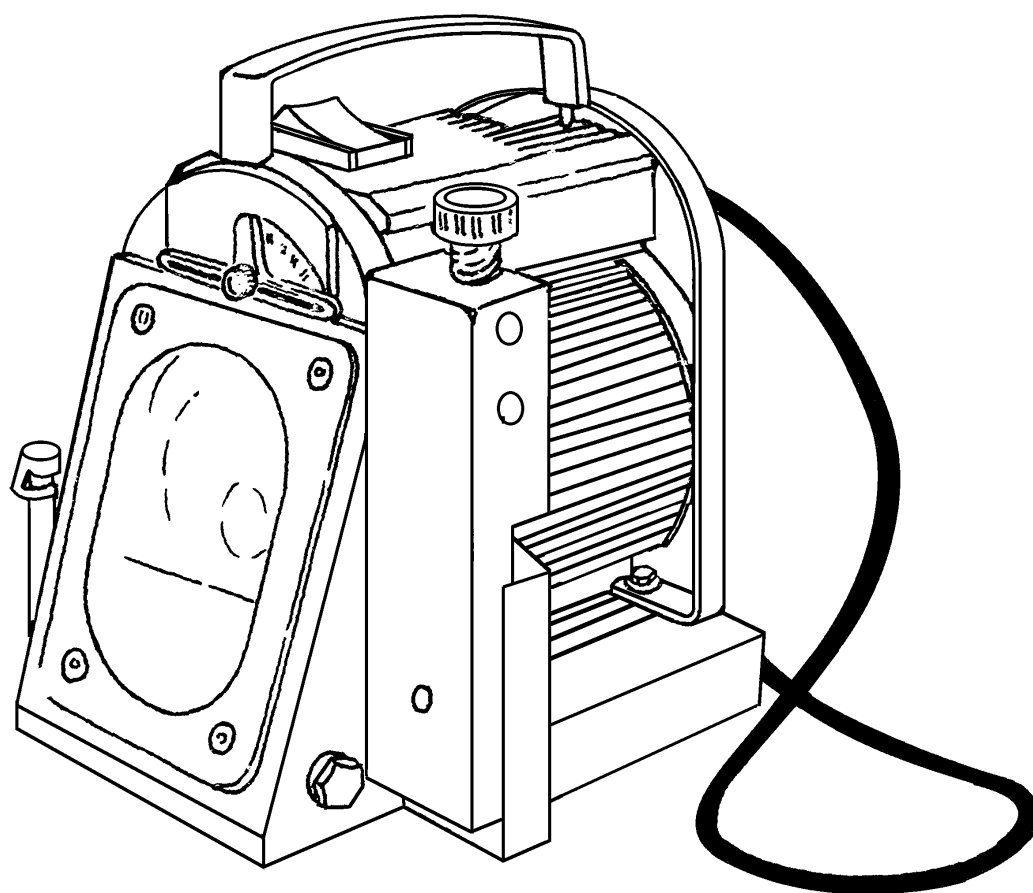


G-Tech



**Bruksanvisning
Brugsanvisning
Bruksanvisning
Käyttöohjeet
Instruction manual
Betriebsanweisung
Manuel d'instructions**

**Gerbruiksaanwijzing
Instrucciones de uso
Istruzioni per l'uso
Manual de instruções
Instrukcja obs³ugi
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1 SAFETY INSTRUCTIONS

The safety instructions contained in the enclosed SUPPLIER'S DIRECTIONS FOR USE should be read and strictly observed when installing and operating the machine. This instruction manual and the accompanying supplier's instructions for use must be accessible at all times to staff engaged in the installation, operation and maintenance of the machine.

2 INITIAL OPERATION AND TRANSPORT

Place the G-TECH on a solid and flat base. The **I/O** switch must be in the **0** position. Connect the G-TECH to the voltage stated on the rating plate, i.e. 1x230 V /50 Hz or 1x110 V /50 Hz.

Do not allow the machine to run without grinding liquid! ! !

G-TECH does not contain grinding liquid on delivery and should therefore be filled up before operation. For this purpose the bottle supplied with the machine has more than sufficient grinding liquid for the first filling. Fill up to the correct liquid level, see the max. and min. marks on the frame of the sight glass.

When transporting the G-TECH the grinding liquid must first be tapped off into a secure, sealable bottle for safety reasons.

G-TECH can be used on premises with an ambient temperature of -10° C to +40° C and a relative air humidity of 50% at 40° C and 90% at 20° C.

The machine has been tested according to protection class IP54.

3 OPERATIONAL ELEMENTS

Main switch	Carrying handle
Regulating screw	Degree scale
Electrode holder	Spacer piece
Bottle 250 ml, empty	Grinding fluid bottle, 250 ml
Waste bottle for dust	

4 FASTENING THE ELECTRODE IN THE ELECTRODE HOLDER

4.1 Grinding angles up to 25°



Set the desired angle using the plastic T-piece, the right side of which marks the grades, see Fig. 1 on page 69.

Fasten the retaining nut. Place the electrode loosely in the electrode holder. Place the electrode holder with electrode in position B of the console and push it as far as it will go, see Fig. 3 on page 70. Tighten the electrode in the holder when the tip of the electrode touches the T-piece, see Fig. 4 on page 70.

Then set the grinding position (see point 4.3 below).

4.2 Grinding angles greater than 25°



Move the plastic T-piece away from the console and fasten the retaining nut. The T-piece is not used in applications with grinding angles greater than 25°.

Place the electrode loosely in the electrode holder. Slide the supplied 25mm-long smoothbore tube along the barrel of the electrode holder until it reaches the shoulder of the electrode holder. The tube acts as a spacer piece.

Place the electrode holder with electrode in position B of the console and push it as far as it will go. Tighten the electrode in the holder when the tip of the electrode reaches the line of the desired angle.

Then set the grinding position (see point 4.3 below).

4.3 Setting the grinding position

The degree scale on the front of the G-TECH is part of a circle and represents the grinding wheel in the grinding chamber.

The tip of the electrode must now be aligned to a position about 1 mm below the edge of the degree scale.

This is achieved by changing the height of the console with the regulating screw - turning clockwise to lower and anti-clockwise to raise the console (see Fig. 6 on page 71).

4.4 Grinding the electrode

Start the G-TECH by means of the switch. Move the complete electrode holder from position B to position A. Push in the electrode holder with a light pressure while simultaneously turning it. The electrode is brought into contact with the rotating grinding wheel, and actual grinding of the electrode takes place, see Fig. 7 on page 71.

Too high pressure on the electrode holder will reduce the motor speed.

When the electrode holder has been pushed as far as it will go, the grinding process has been completed and the electrode holder can be removed. When removing the electrode holder, be sure to turn it around its own axis to ensure that excess grinding liquid on the electrode holder, if any, is removed.

5 MAINTENANCE

G-TECH should always be filled with sufficient grinding liquid to ensure the optimum collection of grinding dust as well as adequate cooling of the diamond grinding disc. The correct liquid level is between the min. and max. marks on the frame of the sight glass. Check the liquid level frequently and top up the level of liquid as necessary. Only the original grinding liquid ensures the optimum life of the diamond disc.

Tap off the grinding liquid through the hose (pos. 100, see figure on page 73) and retain it in the deposit bottle for recycling.

Dismount the sight glass (3) and wash out the grinding chamber thoroughly.

Put back the sight glass. Fill up grinding liquid in the grinding chamber to the correct liquid level, see the min. and max. marks on the frame of the sight glass.

Check the power supply cables regularly.

6 REPLACING THE SEAL

By removing the vertical console on the right hand side of the machine (viewed from the front) access to the seal recess in the wall of the grinding chamber is gained.

The seal must be completely removed. This operation can usually be performed with a pair of pliers. Afterwards it is necessary to ensure that the walls of the recess are free from any adhesive or residue.

When the original seal is made of rubber it may need to be removed with a sharp thin blade and, if necessary, other light mechanical means or chemicals may be used to remove all residue.

Before a new seal is fitted the barrel of the replacement seal must be smeared with the liquid-repellent sealant provided.

The replacement seal has a small plastic clip on the inner face and opposite the lower lug on the outer face. By way of the clip at the bottom, i.e. 6 o'clock position, the seal is pushed firmly into the recess until the clip engages on the inner wall of the grinding chamber. The vertical console is then replaced and the lugs on the seal will then be in firm contact with the console.

7 TECHNICAL SPECIFICATIONS

G-TECH grinder patent application No. 9500123.

Current class: (single-phase alternating current) 1x110V/50Hz or 1x220-240V/50Hz.

Protection insulated without protection cable 10-16A UMEC 97/66/68-CEE (7) VII.

8 TRAINING

The staff engaged in the operation of G-TECH are referred to this instruction manual. Furthermore, they must receive the necessary instruction and training on how to use the machine.

9 FIELD OF APPLICATION

Grinder for tungsten electrodes.

10 GRINDING LIQUID

G-TECH grinding liquid corresponding to EP 770.

Composition: Alcanolamin compounds, glycol derivatives, preservatives and water.

10.1 Application

G-TECH is a synthetic, water-miscible lubricant designed for grinding, but is also suitable in the processing and treatment of steel, cast iron and non-ferrous metals.

Limits

The product is for use in the above mentioned industrial processes only and must not be used for any other purpose, and certainly not for any domestic purposes or applications. The grinding liquid is on delivery mixed with water (relation 1:2).

10.2 Treatment of waste

Contaminated product and residues should be placed in the return bottles provided. All waste and residues must be returned to the closest reception station for chemical waste.

11 PHYSICAL AND CHEMICAL PROPERTIES

Looks: Green/red liquid	Viscosity: 15 cSt at 20° C
Density: 1,09 g/ml	Miscible with water: fully soluble in water
Smell: Mild smell	Mixing agent: water
Boiling point: ca 100° C	Flame-nourishing properties: None
Melting point: < 0° C	pH-value: 9,2 at 1:30 (DIN 51369)

11.1 Stability and reactivity

Conditions to be avoided:

None in particular. The product is stable under normal conditions.

Materials to avoid:

Strong acid and bases as well as strong oxidising compounds.

Dangerous products on breakdown or decomposition:

Small quantities of oxides of carbon, sulphur and nitrogen.

11.2 Toxicological information

Short-term effects:

Contact with the eyes will cause irritation and discomfort. When in contact with the skin, the concentration has a degreasing effect.

Consumption of the concentrate will produce nausea. Consumption of the mixture may also result in nausea.

Long-term effects:

Contact with the eyes will cause great discomfort and medical attention must be obtained. Long-term or repeated skin contact with the concentrate may result in inflammation of the skin. Mixtures of too high concentration, or polluted with other oils may increase the risk of skin problems.

11.3 Environmental information

Mobility: Concentrate - low viscosity fluid.
Able to seep into the ground and to be dissolved in water.

11.4 Transport

Un nr
IMDG: non-dangerous goods
ICAO: non-dangerous goods
ADR/RID: non-dangerous goods

11.5 Labelling

Classification: Labelling is not compulsory
R-sentences: None
S-sentences: None