

G-Tech Handy



Instruction manual (GB)

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1. Manufacturers recommended use

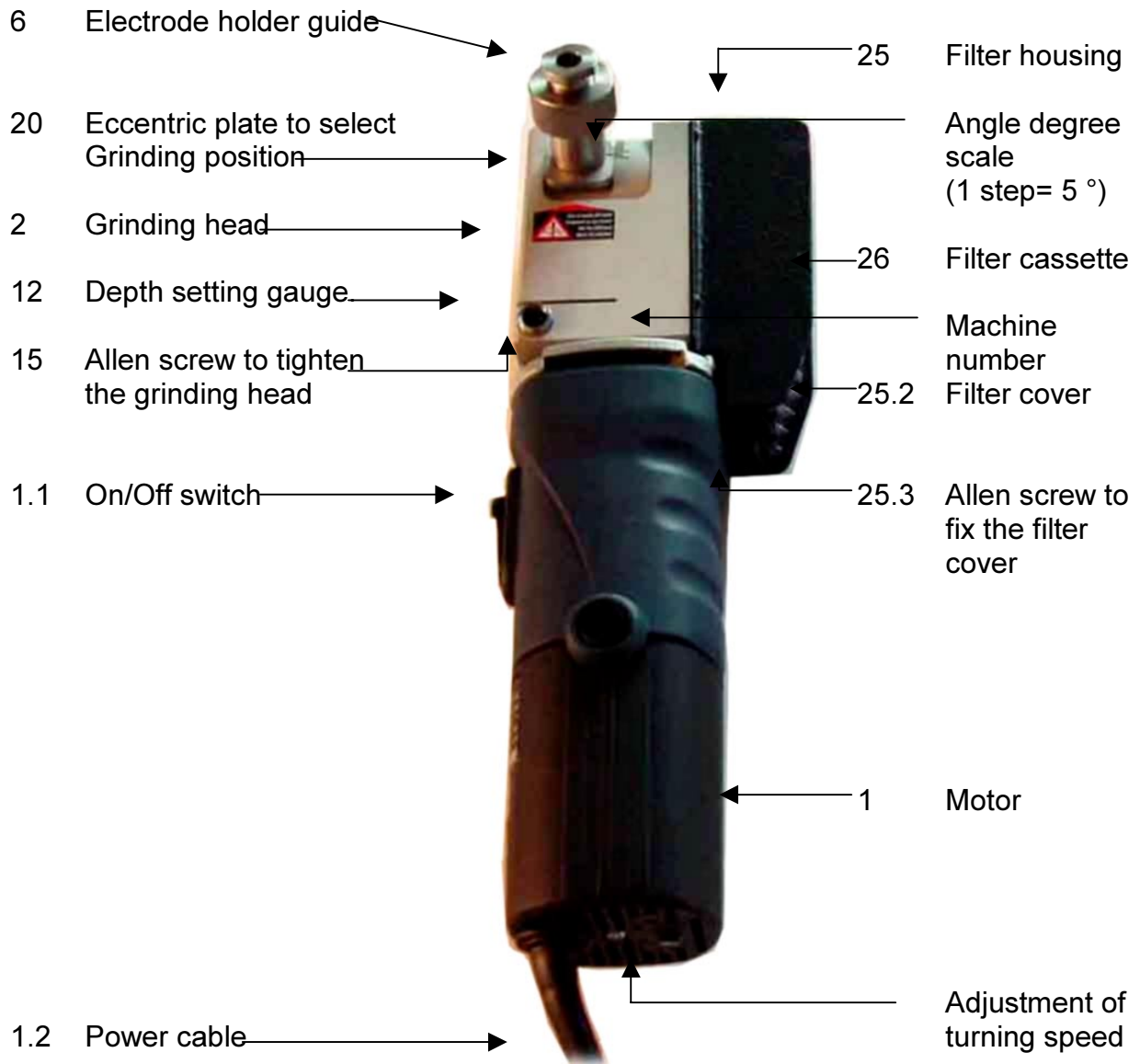
G-Tech Handy has been designed for the sole purpose of grinding tungsten electrodes. Any use, which is not described in this manual, is strictly prohibited.

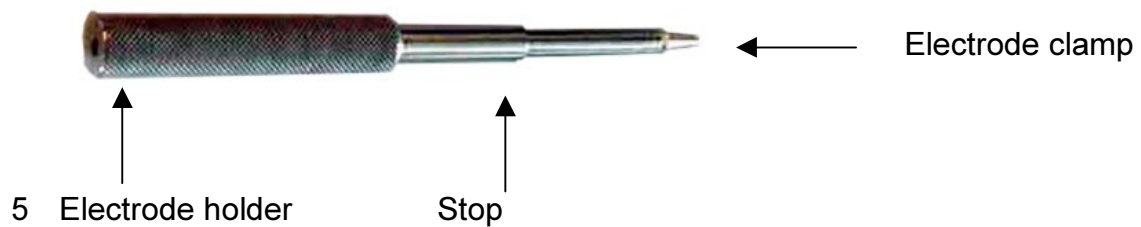
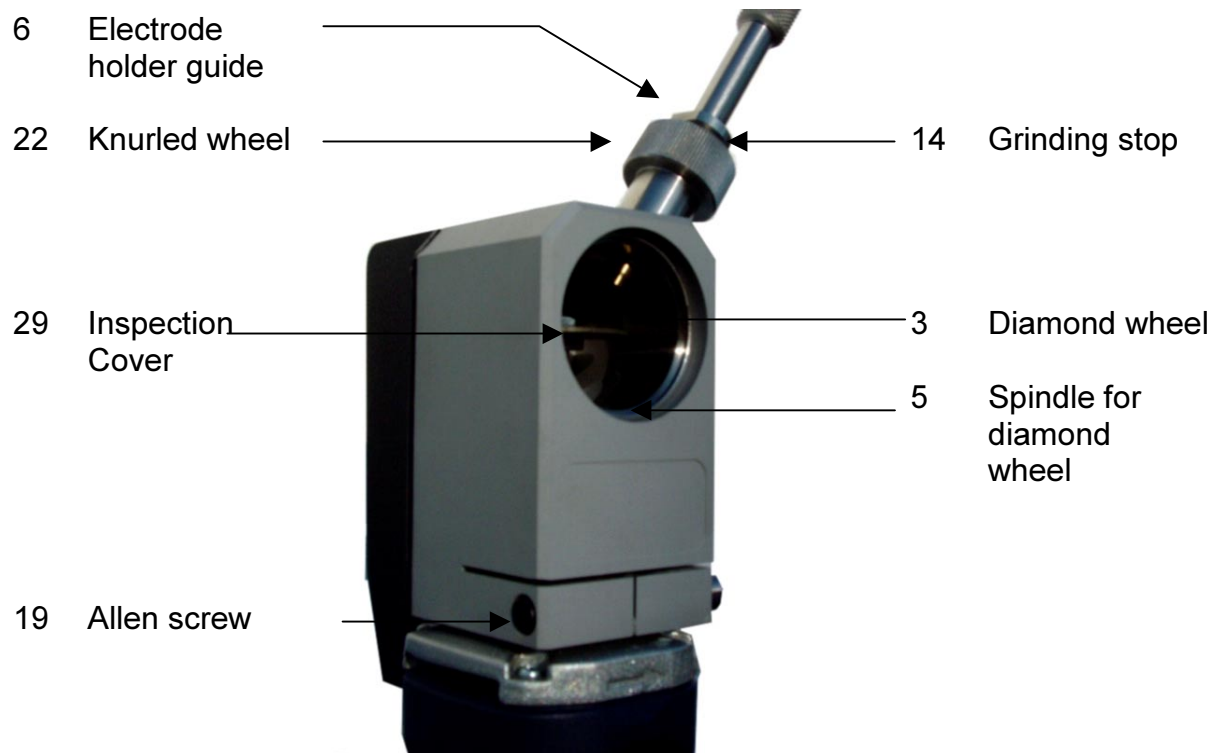
It is very important that the user reads and understands the contents of this instruction manual.

1.1 Safety

- Check that the machine is undamaged.
- Do not use the machine without the filter.
- Change the filter in accordance with the instruction manual.
- Only turn the machine on when the electrode holder is in the grinding chamber.
- Do not remove the electrode holder before the motor has come to a complete stop.
- Repairs and maintenance must only be carried out by authorised personnel.
- Do not use the machine in humid places.
- Only use original replacement parts.
- Unplug the machine from the main supply before any maintenance work is undertaken.

2. Drawing & parts description





Electrode clamps (see table below for ordering numbers)

16.1	for	1.0 mm
16.2	for	1.6 mm
16.3	for	2.0 mm
16.4	for	2.4 mm
16.5	for	3.2 mm
16.6	for	4.0 mm

3. Application

G-Tech Handy is manufactured to offer the following options:

- Grinding of oxidated or pure tungsten electrodes.
- Grinding electrodes with diameters from 1,0 – 4,0 mm.
- Variable angle adjustment from 15° to 180°.
- If it is necessary to grind electrodes shorter in length than 15mm– a special electrode clamp can be supplied.
- Integrated filter to remove the grinding dust.
- To be able to grind tungsten electrodes on site.
- To achieve an exact and longitudinal ground tip.

4. Technical data & contents of standard package

Motor: 850 Watt
Power: 230V, 50 Hz. Insulation according to EEC 50144.
Rpm: Adjustable between 7000 and 32000
Weight: 2.5 kg
Filter: Inhalation filter.
Diamond wheel: Ø 40 mm

- **G-TECH HANDY**

- Motor Type 850E
- Grinding head with filter housing and filter
- Diamond wheel Ø 40 mm
- Electrode holder
- Electrode clamps 1.6, 2.4, 3.2 mm

- **Tools**

- Allen key 8 mm
- Allen key 4 mm
- Spanner 13/17 mm
- Spanner 13/14 mm

- **Plastic bag to remove the filter**

5. Before use

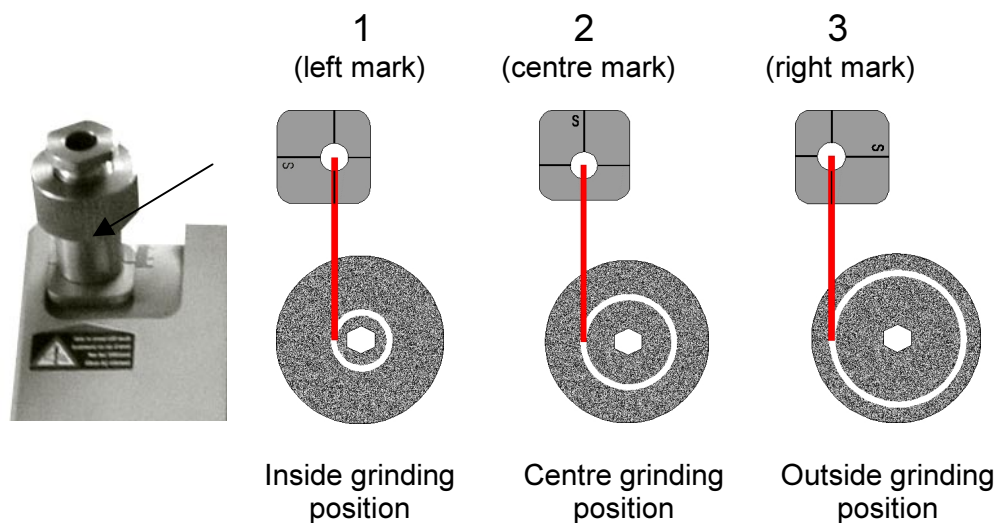
Note: Ensure that the grinding head (2) is centred and tightly fixed with the allen **screw** (15) to the motor.

5.1 How to select grinding position

With the G-Tech Handy it is possible to select 3 different grinding positions

- Unscrew the knurled wheel (22)
- Lift the eccentric plate (20) and turn through 90° to the next position, place the eccentric plate back in the slide of the angle adjustment.
- Tighten the knurled wheel (22)

Eccentric plate to select the grinding position



5.2 Selection of electrode diameter

There are 3 different electrode clamps (1.6, 2.4, 3.2 mm) supplied with the machine.

Unscrew the electrode clamp from the electrode holder and replace with the required size.

5.3 Selection of angle

- Loosen slightly the knurled wheel (22).
- Place the degree sign of the guide (20) at the selected angle.
- Tighten the knurled screw (22).

Note: 15° are the smallest included angle of the electrode that can be ground.
180° position makes a flat on the electrode point.
(1 step = 5°)

6. Using the G-Tech Handy

- Connect the machine to the power supply.
- Adjust the machine speed according to the recommendations on page 8.
- Select the electrode clamp to suit the tungsten to be ground.

6.1 How to operate G-Tech Handy

- Place the tungsten electrode in the electrode holder (5) with approximately 35 mm protruding.
- Push the electrode clamp into the depth setting gauge (12) until the clamp is located into the allen screw (15), turn clockwise to tighten.
- Put the electrode holder through the electrode holder guide (6) until the tungsten is touching the diamond wheel, this operation can be observed through the inspection cover (29).
- Start the motor (11).

6.2 How to grind the electrode

- Turn the electrode holder, whilst pushing the electrode against the diamond wheel. Do not push too hard in order to avoid blueing of the electrode. This can be viewed through the inspection cover
- The grinding is completed when the stop of the electrode holder (14) touches the end face of the electrode holder guide (6).
- Switch off the motor and remove the electrode holder when the motor has come to a complete stop.
- Place the electrode holder in the depth setting gauge. Turn anti clockwise and the electrode can be removed.

Recommended turning speed

Diam. of the electrode	1.0 mm	1.6 mm	2.0 mm	2.4 mm	3.2 mm	4.0 mm
Speed adjustment	6	6	5	5	4	4

Note: Do not press too hard at the electrode holder before the stop (14) has been reached.
Remember to put the electrode holder into the grinding chamber before you start the machine and to keep it there until the motor has stopped. (Otherwise grinding dust may come out of the chamber).

7. Maintenance

Remove the plug from the power supply before carrying out any maintenance or repairs.

7.1 Replacing the filter

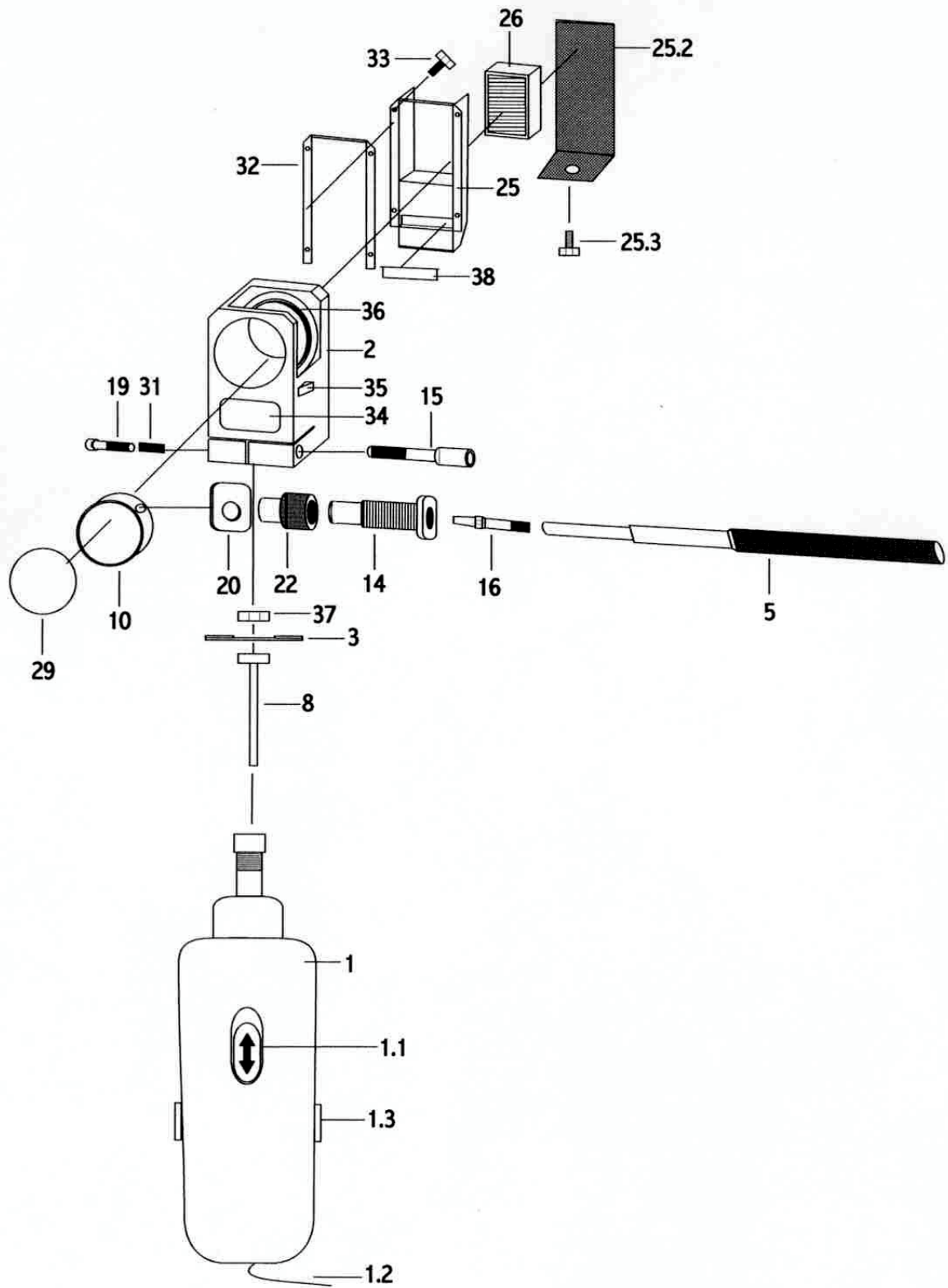
The filter has to be changed when the amount of dust makes it difficult to watch the grinding process through the inspection cover (29).

1. Loosen the allen screw (25.3) at the filter housing (25).
2. Remove the filter cover (25.2).
3. Remove the filter cassette (26) and put it into the plastic bag for disposal.
4. Insert a new filter cassette so that the rubber seal is sitting tight to the grinding head (2).
5. Mount the filter cover and tighten the screw.

7.2 Replacing the diamond wheel

1. Remove the electrode holder (5).
2. Loosen the knurled screw (22)
3. Unscrew the electrode holder guide (14) using the spanner (SW 17)
4. Remove the grinding chamber (10) including the inspection cover (29).
5. Unscrew the nut retaining the diamond wheel, using the spanners (SW14 & SW13), two flats are located on the motor spindle behind the diamond wheel for this purpose.
6. Remove the diamond wheel.
7. Insert a new diamond wheel and replace the retaining nut.
8. Replace the grinding chamber and inspection cover
Replace the electrode holder guide
9. If the grinding head chamber is too dirty it can be cleaned with an alkalised solution and rinsed with water. **If doing so remember to remove the filter first**

8. Parts diagram



9. Parts list

Pos:	Description:	Quantity	Item no:
	G-Tech handy 230V 50HZ		0700009883
	G-Tech handy 230V 50HZ UK		0700009884
	G-Tech handy 110V 60HZ (CSA)		0700009885
1	Motor	1 piece	
1.1	On/Off switch	1 piece	
1.2	Power cable	1 piece	
1.3	Brush for motor	2 pieces	
2	Grinding head	1 piece	
3	Diamond wheel Ø 40 mm	1 piece	0700009028
5	Electrode holder	1 piece	0700009030
8	Spindle for diamond wheel (SW 13)	1 piece	
10	Grinding chamber	1 piece	
14	Guide for electrode holder (SW 17)	1 piece	
15	Allen key to tighten the grinding head	1 piece	
16	<i>See below</i>		
16.2	Electrode clamp Ø 1,6 mm	1 piece	0700009031
16.4	Electrode clamp Ø 2,4 mm	1 piece	0700009032
16.5	Electrode clamp Ø 3,2 mm	1 piece	0700009033
19	Allen screw (M5 x 30)	1 piece	
20	Eccentric plate to select grinding position	1 piece	
22	Screw	1 piece	
25	Filter housing	1 piece	
25.2	Filter cover	1 piece	
25.3	Allen key to fix the filter cover (M 5 x 6)	1 piece	
26	Filter kit	1 piece	0700009029
29	Inspection cover	1 piece	
31	Spring	1 piece	
32	Rubber seal big	1 piece	
33	Screw to fix filter cassette	4 pieces	
34	Sticker „G-Tech Handy“	1 piece	
35	Safety sticker	1 piece	
36	Degree scale	1 piece	
37	Screw to fix diamond wheel (M 8, SW 13)	1 piece	
38	Rubber seal small	1 piece	

Accessories:

39	Case for machine with foam	1 piece	
40	Spanner (SW 13, SW 17)	1 piece	
41	Spanner (SW 13, SW 14)	1 piece	
42	Allen key 8 mm	1 piece	
43	Allen key 4 mm	1 piece	
44	Plastic bag for disposal of filter	1 piece	
16.1	Electrode clamp Ø 1,0	1 piece	0700009034
16.3	Electrode clamp Ø 2,0	1 piece	0700009035
16.6	Electrode clamp Ø 4,0	1 piece	0700009036

10. Declaration of conformity

In accordance with the directive of machinery 98/37/EG, IIA

The machine: Type: G-TECH HANDY

Machine No. _____

Year: _____

is developed, designed and manufactured according to the above mentioned EEC directive.

Responsible:

Manufacturer: **Esab AB**
Esabvägen

S-69581 Laxå

Tel.: + 46 584 81000

Following harmonized norms have been used:

- DIN EN 292 - 1
- DIN EN 292 – 2
- DIN EN 294

Person responsible:

Title: _____

Name: _____

Date: _____

Signature: _____

11. Warranty certificate

	User:	
	Street:	
	Zip, City:	
Company	Country:	

Article – No.:	
Description:	
Machine No.:	
Date of purchase:	

Error:

City, date**Signature:****In case of warranty claims please forwards this certificate to:**

**Esab AB
Esabvägen
S-69581 Laxå
Fax + 46 584 81448**